

**FAUNA OF INDIA
AND ADJACENT COUNTRIES**

**COLEOPTERA
CURCULIONIDAE
SUBFAMILY EREMNINAE
TRIBE CYPHICERINI**

By

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EDITOR'S PREFACE

The Coleoptera of the subfamily Eremninae, family Curculionidae, commonly known as 'Short Snouted Weevils', are largely phytophagous. They eat plant leaves including those of economically important crops and fruit trees. Of the three Tribes of the subfamily Eremninae, Cyphicerini is well-known from India, Acanthotrachelini only meagrely known, and Eremnini has not yet been recorded.

Not a single treatise provides an account of the Indian Ciphicerini. The '*Coleopterorum Catalogus*' is the only notable work on the world Eremninae which was prepared by Sir G. A. K. Marshall and S. Schenklink as early as in 1931. This is the first compendium on Indian Cyphicerini which is complete in all respects till date. When this fauna was assigned to Prof. H. R. Pajni only 91 species of the tribe belonging to 34 genera were known. To this he has contributed richly by adding 120 new species, five new genera, and some new records. His contributions are thus second only to Sir Marshall.

Dr. Pajni has produced this volume after careful examination of the types of Indian species kept in the European Museums, material in the collection of Forest Research Institute of India, Dehra Dun and of course his own collections from various parts of India, Bangladesh and Burma. The diagnoses of the family, subfamily, tribe, genera and the descriptions of species have been done very carefully and adequately. The keys to various taxa are easy to work with and very useful. This work is comprehensive, authentic, up-to-date and complete in all respects and will serve as a useful reference source for posterity. I consider it a valuable addition to the *Fauna of India* series of the Zoological Survey of India.

Prof. MOHAMMAD SHAMIM JAIRAJPURI

19th October, 1990
Calcutta.

Director
Zoological Survey of India

AUTHOR'S PREFACE

The publication of a volume on Indian Eremninae was first suggested by Mr. R. T. Thompson during my visit to British Museum (Natural History), London in the summer of 1979. I had already procured more than 100 species of this subfamily after intensive and extensive collection trips in different parts of India under a 5-year project on Curculionidae of India, financed by U. S. Department of Agriculture from U. S. -held Rupee Fund (PL-480). I was told that Sir G. A. K. Marshall had been working on a volume dealing with Indo-Malayan Eremninae for quite sometime and the British Museum (Natural History) had committed in their commemorative note to fulfil his desire by getting the volume published. Mr. Thompson offered to give me on loan holotypes/paratypes of the published Indian material and representatives of a large number of species collected by Sir Marshall alongwith his hand-written brief notes and keys to the genera and species of Oriental Eremninae. The proposal materialized in the 1981 when the Zoological Survey of India, Calcutta entrusted to me the writing of a Fauna of India volume on this group. The work was completed in four and a half years.

A total of 201 species has been included in this work. Out of these, 120 species are being reported for the first time. Some of the new species come from adjoining lands of Burma and Bangladesh. All these species fall under the tribe Cyphicerini. The only other tribe Acanthotrachelini of this subfamily available from the covered area is not only rare but is also poorly studied and hence not included in this work.

I take this opportunity to thank Indian Council of Agricultural Research and U. S. Department of Agriculture for financing a 5-year project during which the work on the Indian Curculionidae was first initiated and for providing funds for the Author's visit to European Museums for the study of types of Indian species. I am greatly indebted to Mr. R. T. Thompson of the British Museum (Natural History), London for his liberal loan of material and for making available notes and some diagrams prepared by Sir Marshall. My thanks are also due to Dr. P. K. Sen Sarma, formerly Entomologist and the Director of Biological

Research, F. R. I., Dehra Dun, for sending examples of identified and unidentified Eremninae of India. The loan of material by Prof. V K. Gupta, University of Delhi and College of Agriculture, Bangalore is also gratefully acknowledged.

The completion of present volume has been possible with the active assistance of Dr. C. S. Sidhu, who made valuable contribution in different aspects of the work. Miss Rachna Markandey, Miss Karoona Mittal and Mr. Dalip Kumar helped me in recording the description of some species. My other students have also rendered useful help in the completion of this volume. Mr. Rajesh Sharma has borne the burden of typing the manuscript.

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INTRODUCTION

The suborder Rhynchophora of the order Coleoptera is characterized by the lengthening of head in front of the eyes to form the rostrum and includes the superfamilies Curculionoidea and Brentoidea. The superfamily Curculionoidea possesses usually geniculate antennae and includes several families, the Curculionidae forming the largest and most important-one (Crowson, 1954 , Morimoto, 1962 ; O'Brien and Wibmer, 1978 ; Mani, 1974).

The Family Curculionidae is characterized by the possession of geniculate antennae, with each antenna differentiated into a scape, a funicle composed of several segments and a club constituted by the merger of 3-4 segments. The scape of the antenna is accommodated at rest into a furrow on either side of the rostrum, called scrobe. The tip of the tibia is expanded around the tarsal attachment in a smooth area called corbel, the structure of which is of taxonomic significance. The tarsi are pseudotetramerous with the third segment distinctly bilobed and the fourth rounded segment lying at the base of the third segment. The fifth tarsomere is usually narrow, elongated and bears at its tip a pair of claws. The family Curculionidae is generally divided into two groups, one characterized by a short snout is "Curculionidae Adelongnathi" and the other marked by a long snout is "Curculionidae Phanerognathi" This division of the family given by Lacordaire (1863) is quite satisfactory.

The subfamily Eremninae belongs to the section "Curculionidae Adelongnathi" and includes short snouted weevils. This section also includes the subfamilies Otiorrhynchinae, Brachyderinae and Tanyrrhynchinae that are known from India (Marshall, 1916). Subfamily Eremninae differs from Brachyderinae in general appearance and in having dorsal or subdorsal scrobes which are often dilated and shallow behind. The scrobes in the subfamily Brachyderinae are lateral in position and each forms a sublinear furrow curving downwards in front of the eye. There is close resemblance in the body form of Eremninae and Otiorrhynchinae but the former has ocular lobes or vibrissae or both on the lateral sides of the anterior margin of prothorax, providing important distinction marks. The subfamily Tanyrrhynchinae is exclusive in not having a deciduous cusp or its scar on the mandible.

Key to the Indian Adelognathus subfamilies of family
CURCULIONIDAE

1. Mandible without deciduous cusp or its scar	TANYRRHYNCHINAE
Mandible with deciduous cusp or its scar	2
2. Scrobes dorsal or sub-dorsal, much dilated and shallow behind	3
Scrobes lateral, each forming sublinear furrow curving downwards in front of eye	. BRACHYDERINAE
3. Prothorax with postocular lobes or vibrissae or both	EREMNINAE
Prothorax without postocular lobes or vibrissae	. OTIORRHYNCHINAE

SYSTEMATIC ACCOUNT

Subfamily EREMNINAE

1870. Pascoe, *Journ. Linn. Soc. Lond.*, X : 436.
 1931. Schenkling S. and Marshall G.A.K., *Coleopterorum Catalogus*, Pars 114.
 1863. Eremnides : Lacordaire, *Gen. Col.*, VI : 220.
 1872-75. Eremnini : Seidlitz, *Fn. Balt.*, : 111.
 1892. Eremniidae : Aurivillius, *Nouv. Arch. Mus.*, Paris (3) III : 211.
 1925. Eremniini : Heller, *Zool. Mededeel*, VIII : 221.

The members of subfamily Eremninae have short snout, marked by dorsal or subdorsal scrobes. They can be easily made out from the presence of vibrissae or post-ocular lobes on the antero-lateral margins of prothorax. The shoulders of elytra may be prominent or poorly developed. The corbels may be closed or open and the claws similarly differ in having free or connate condition.

The members of the subfamily Eremninae are the well known defoliators of a number of forest trees and cultivated plants. They consume the leaves of the timber plants like *Tectona*, *Dalbergia*, *Eucalyptus*, etc. and also feed on a few crops such as *Sorghum*, *Oryzae*, *Panisetum*, *Ipomoea*, etc. and fruit plants like *Mangifera*, *Litchi*, *Anacardium*, *Eugenia*, *Citrus*, *Vitis*, *Zizyphus*. Some of the members of the wingless tribe Acanthotrachelini also occur under the stones and logs of wood. Some of the serious pests from this sub-family include, *Phytoscapus triangularis* (Ol.), *Platymycterus*

sjostedti Mshl., *Peltotrachelus pubes* (Fst.), *Amblyrrhinus poricollis* schonh. and *Hilaus bidentulus* (Mshl.) as recorded by Nair (1975), and *Peltotrachelus cognatus* Mshl. by Siddappagi and Lingapa (1977).

The subfamily Eremninae, so recognized by Pascoe (1868), was first of all assembled in a group called 'Eremnides' by Lacordaire. Although most of the workers (Blackburn, 1893 ; Reitter, 1905 Aurivillius, 1908 ; Pierce, 1913 ; Blatchley and Leng, 1916 , Marshall, 1916, 1944 ; Aslam 1961) have recognized the subfamilial status of this group of weevils yet others (Seidlitz, 1872 ; Faust, 1885 ; Blackburn, 1892 ; Wagner, 1915 ; Hustache, 1924 ; Handlirch, 1925 ; Voss, 1958) have preferred the status of the tribe for the same. During the past twenty years or so the subfamilial status has been established and followed by workers from different parts of the globe. Morimoto (1962) has advanced good reasons for merging the subfamilies Eremninae, Otiorrhynchinae and Brachyderinae into one subfamily comprising several tribes. His proposal however has not been accepted by the recent workers such as Kissinger (1964), Bajtenov (1970), Van Den Berg (1972), Nasreddinov (1974, 1975), Terminassian and Nasreddinov (1978) and O'Brien and Wibmer (1978) who still consider the group as a subfamily.

The subfamily Eremninae is restricted to Asia and Africa with a few forms in Australia which are intrusion from the nearby Malaya Archipelago (Marshall, 1944).

The tribes, viz., Cyphicerini, Acanthotrachelini and Eremnini are recognised under subfamily Eremninae (Marshall, 1944).

Key to the tribes of subfamily EREMNINAE

1. Mentum without setae ; intercoxal process of abdomen broadly truncate	Eremnini
Mentum with 2-8 setae ; inter coxal process of abdomen narrow	2
2. Elytra with shoulders ; wings functional (except in <i>Meionops</i> Mshl. and <i>Marshalla</i> Gen. nov.)	Cyphicerini
Elytra without shoulders ; wings not functional	Acanthotrachelini

Out of the three tribes of Eremninae, Cyphicerini and Acanthotrachelini are available in Asia whereas Eremnini is confined to Africa and Madagascar. 34 genera and 91 species are so far known from India under Cyphicerini and 5 genera and 15 species under Acanthotrachelini.

MORPHOLOGY AND TAXONOMIC CHARACTERS OF IMPORTANCE

Morphology (with text figures I-VIII)—The weevils of the sub-family Eremninae have a rostrum that is short, thick and usually as long as broad. It is porrect and projects forward in a line with the long axis of the body. The surface of the rostrum is flanked by two dorsolateral carinae each of which arises from the inner margin of the scrobe and continues backwards upto the base of the rostrum. The area enclosed by the lateral carinae is called the dorsal area (Marshall, 1944) and is thus delimited from the lateral areas. The dorsal area generally bears a longitudinal central carina starting from the hind margin of epistome. The frons has a central fovea of different shapes. The eyes are black, variable in shape and lie in sub-dorsal or lateral position. The mentum bears two to eight setae, the number being of taxonomic significance. The mandible bears a scar surrounded by three symmetrically placed setae. The epistome is bounded by a pair of carinae meeting in an acute or obtuse angle. The antenna has a long scape, 7-segmented funicle and 4-segmented club. The two basal joints of the funicle differ in their length in different genera and species. The scrobes are usually dorsolateral but may be dorsal or lateral in a few cases. The pronotum is mostly transverse. The vibrissae are generally prominent but sometimes represented by three or four very fine bristles. The surface of the pronotum usually has a fovea on either side behind middle. The elytra are variable and declivous posteriorly, with their shoulders generally prominent. There are 10 striae on each elytron alternated by 11 intervals. The wings are usually functional in Cyphicerini but not functional in Acanthotrachelini and Eremnini. The pro-coxae are contiguous. The femora are toothed. The corbels of hind tibiae are open or enclosed in different genera. The claws may be free or connate. The intercoxal process of the abdomen is angulate, rounded or broadly truncate. In the male, the eighth sternite is reduced and membraneous. In the

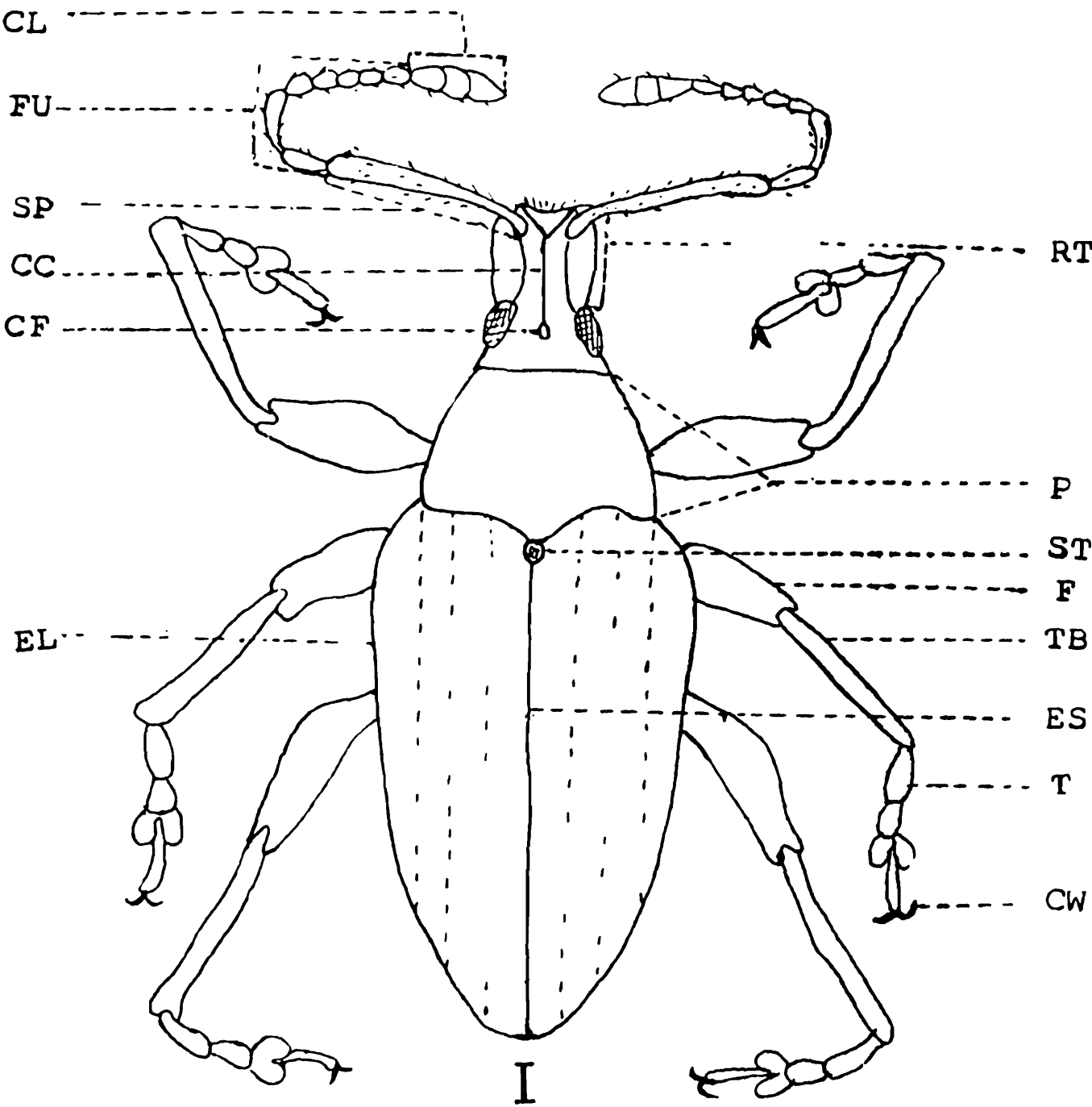


Fig. I. Dorsal view of *Platymycterus himalayanus* Mshl.

ABBREVIATIONS

CC, Central carina ; CF, Central fovea ; CL, Club ; CW, Claws ; EL, Elytron ;
ES, Elytral suture ; F, Femur ; FU, Funicle ; P, Prothorax ; RT, Rostrum ;
SP, Scape ; ST, Scutellum ; T, Tarsus ; TB, Tibia.

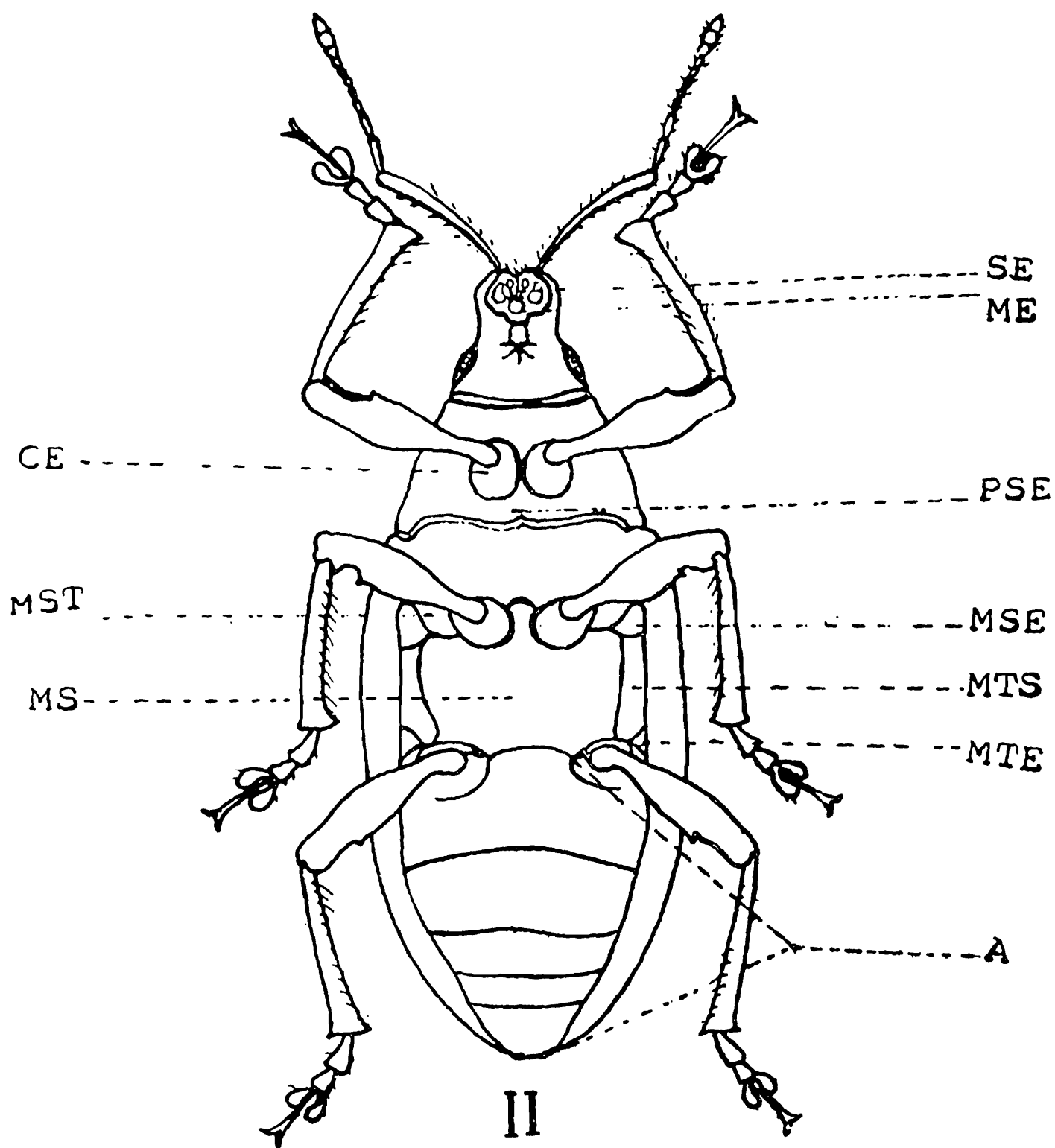


Fig. II. Ventral view of *Platymycterus sjostedti* Mshl.

ABBREVIATIONS

A. Abdomen ; CE, Coxae ; ME, Mentum ; MS, Metasternum ; MSE, Mesosternal , epimeron ; MST, Mesosternum ; MTE, Metasternal epimeron ; MTS, Metasternal episternum ; PSE, Prosternal epimeron ; SE, Setae.

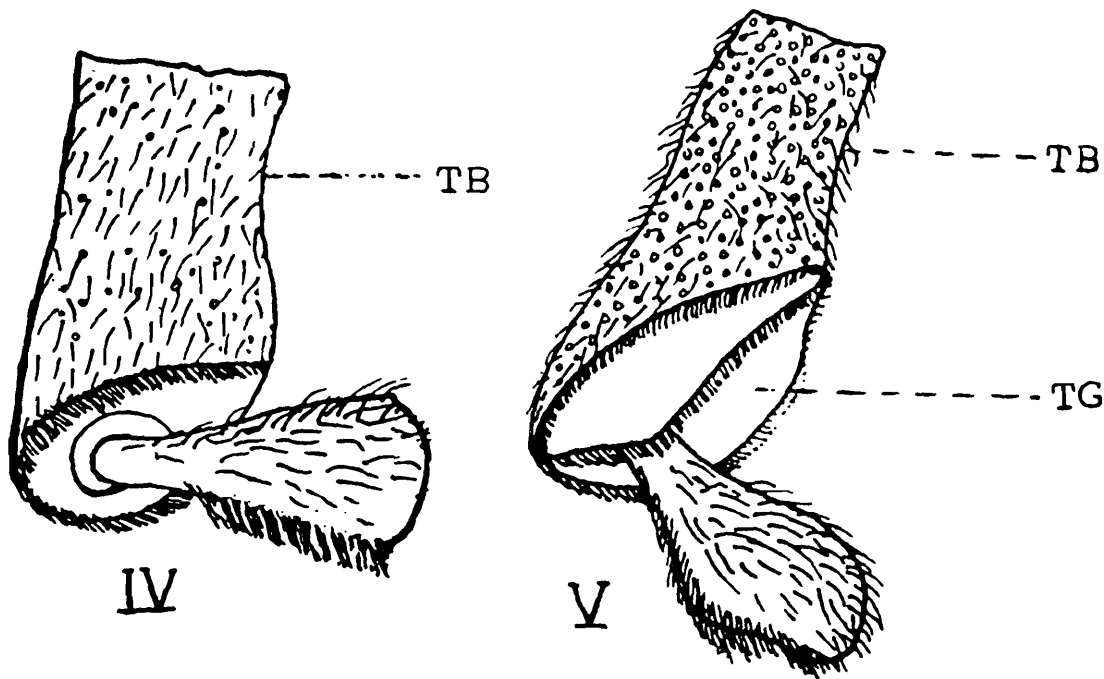
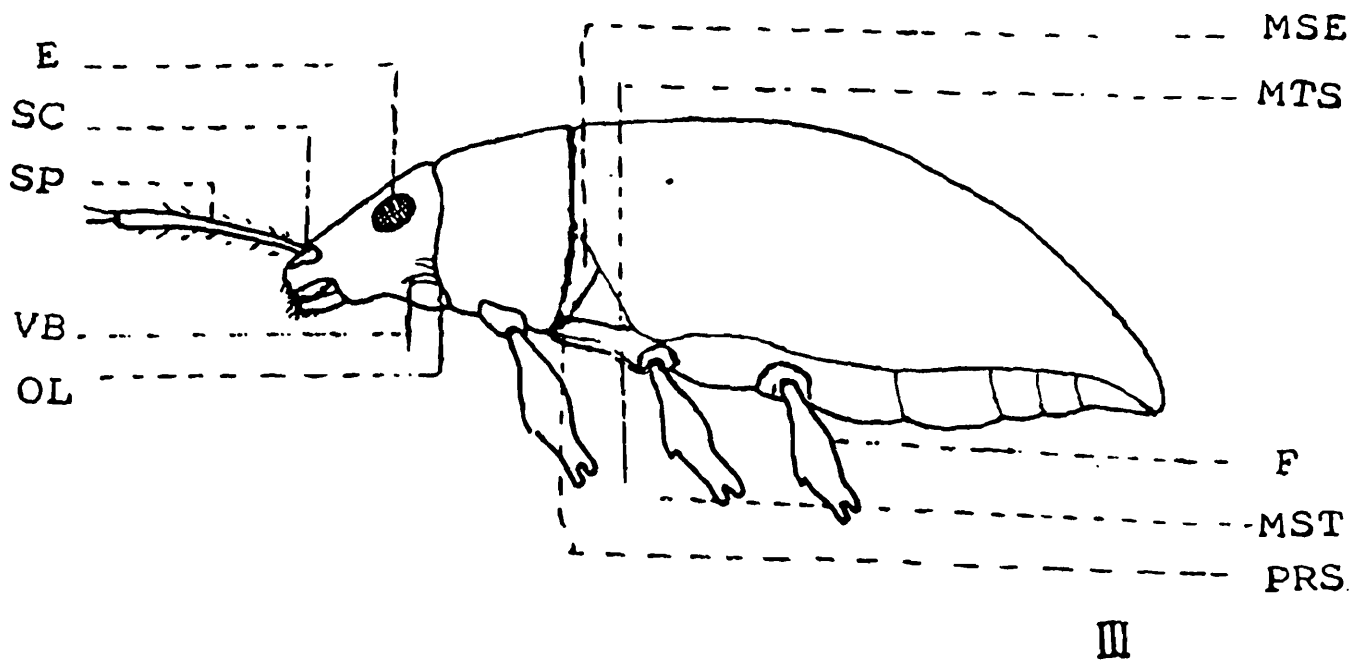


Fig. III. Lateral view of *Platymycterus sjostedti* Mshl.

ABBREVIATIONS

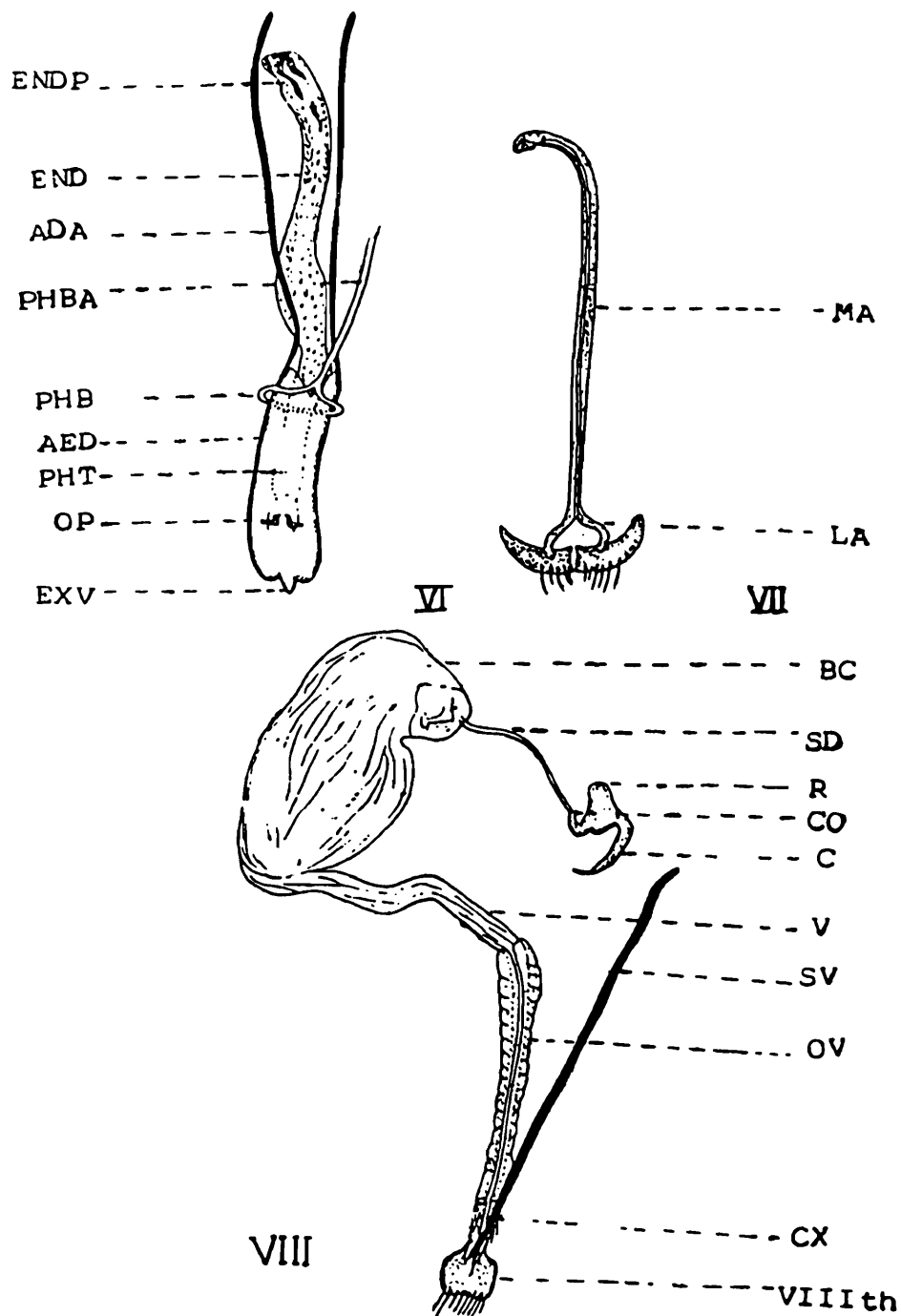
E, Eye ; F, Femur ; MSE, Mesosternal epimeron ; MST, Mesosternum ; MTS, Metasternal episternum ; OL, Ocular lobe ; PRS, Prosternum ; SC, Scrobe ; SP, Scape ; VB, Vibrissae.

Fig. IV. Corbal open.

Fig. V. Corbal enclosed.

ABBREVIATIONS

TB, Tibia ; TG, Tarsal groove



Male genitalia : Fig. VI. Aedeagus

Male genitalia : Fig. VII. Gastral spiculum

ABBREVIATIONS

ADA, Aedeagal apodeme ; AED, Aedeagus ; END, Endophallus ; ENDP, Endophallic plate ; EXV, Exophallic valve ; LA, Lateral arm ; MA, Median arm ; OP, Orificial plate ; PHB, Phallobase ; PHBA, Phallobasic apodeme ; PHT, Phallotreme.

Fig. VIII. Female genitalia

ABBREVIATIONS

BC, Bursa copulatrix ; C, Cornu ; CO, Collum ; CX, coxite ; OV, Ovipositer ; R, Ramus ; SD, Spermathecal duct ; SV, Spiculum, ventrale ; V, Vagina ; VIIIth, 8th Sternum

ninth segment, the tergite is reduced and the sternite carries a long rod-like 'gastral spiculum'. In the female, the pygidium is formed by the seventh tergite. The eighth segment is telescoped and its sternite bears a rod shaped ventral spiculum. The ninth segment forms a tubular ovipositor with a pair of coxites in the sternal portion. The valvifers and styles are not developed.

The aedeagus is straight or somewhat curved with a ring-shaped phallobase enclosing its base. It carries a pair of long apodemes. The phallobase also carries an apodeme. The parameters are totally lacking. The endophallus is variously developed and its armature is characteristic of species. The ovipositor is long and is constituted by the paired coxites which are developed on the ninth sternite. The bursa copulatrix is differently developed in different species. The spermatheca is usually comma-shaped with cornu, collum and ramus well developed.

Characters of taxonomic importance.—Several characters are important for the separation of different taxa. A large section of the tribe Cyphicerini has 2 setae on the mentum while the other section carries 4-8 setae on the same place. In the head region, width of the frons and relative length of the funicular segments vary a good deal. The postocular lobes on the prothorax may be well developed or poorly so and the vibrissae may be short or long. The base of prothorax also shows variations and may be sinuate, bisinuate or truncate. In the legs, the claws may be free or connate and the corbels of hind tibiae are open, semiclosed or closed. In the male genitalia, the tip of the aedeagus, the position of phallotreme and the length of phallobasic and aedeagal apodemes show appreciable differences. In the female genitalia, the bursa copulatrix shows variation in the extent of sclerotization whereas the structure of spermatheca is variable in genera and higher taxa.

PROCEDURE OF STUDY

It will be worthwhile to clarify the procedure adopted for the interpretation of a few structures which are otherwise likely to be misinterpreted and can lead to wrong decisions.

The epistome, a naked area near the apex of rostrum is posteriorly bounded by a carina which is differently curved in various species and genera, making in the middle an acute angle and appearing V-shaped or forming an obtuse angle to assume the shape of a smooth curve or almost a straight line. The apex of the V-shaped carina clearly surpasses a line joining the points of insertion of the antennae. In other cases, the limit of the carina stops short before the line joining the antennal insertions. The shape and the limit of the epistome is of extreme importance for the distinction of several genera. There have been observed a few marginal cases in which the posterior limit of the epistome does not correspond with its angulation. Accordingly, such controversial cases have been decided by giving preference to the angulation of the carina rather than its posterior limit.

The term interscrobal area, wherever used, refers to the apical width of the rostrum between the scrobes.

The naming of the scales covering different parts of the body also needs elucidation. The surface of the body, particularly elytra and pronotum, is usually covered (with few exceptions) with a coating of broad scales which are closely appressed to the surface. In addition, there are present 'non appressed scales' which are projecting from the surface and assume such positions as 'recumbent', 'sub-recumbent', 'sub-erect', depending on their angle of projection from the surface. Such scales are some times quite thin and have been referred to as setae.

Another important feature which is used in the taxonomy of this sub-family is the condition of corbel, an open area at the tip of hind tibia surrounding the tarsal cavity. The corbel is said to be 'open' when it is bounded by a single outer row of bristles but the same is considered as 'closed' when the outer row of bristles is accompanied by a similar inner row of bristles or only a carina (van Emden, 1944).

The term 'ground colour', wherever used, refers to the colour of the cuticle which may or may not be seen through the covering of the scales. The expression 'body colour' on the other hand, denotes the colouration of the body on account of the dispersal of variously coloured scales.

The nomenclature for the male genitalia has been largely taken from Snodgrass (1935), by ignoring the terminology used by other workers (Sharp and Muir, 1912 ; Wood, 1952 ; Morimoto, 1962 ; Kissinger, 1964). The lateral margins of the phallotreme are often strengthened by a pair of sclerotized plate which have been designated as 'orificial plates' following Barber (1935). The terminology of the female genitalia has been taken from Scudder (1961) although the elongated part of the 9th sternum has also been termed as ovipositor, following the general practice. The names of component parts of the spermatheca have been adopted from Spett and Lewitt (1926).

The length of the specimens has been taken from the tip of the snout upto the tip of the abdomen while the breadth represents the most broad part of the body. The rostrum has been considered to start from the anterior margins of the compound eyes.

TAXONOMY OF INDIAN EREMNINAE

Tribe CYPHICERINI

1863. *Cyphicerides* : Lacordaire, Gen. Col., VI : 220
1885. *Corigetini* : Faust, *Deutsche Ent. Zeitschr.*, XXIX : 167
1904. *Cyphicerini* : Aurivillius, *Mission Pavie* (2) III : 7

The tribe *Cyphicerini* is characterized by well-developed shoulders and functional wings.

The first ever account of Eremninae from this country was published by Olivier (1807), who described two species, *Cyphicerus novemlineatus* and *C. passerinus*, from Bengal under the then known genus *Curculio*. The real foundations of our knowledge of Curculionidae were, however, laid by the contribution of the eminent Swedish entomologist Schonherr (and his collaborators—Boheman, Gyllenhal and Fahraeus) in his work entitled "Curculionidum Dispositio Methodica" (Schonherr, 1826) and his serial publications "Genera at Species Curculionidum" (Schonherr, 1833-1845). These workers erected four genera i.e. *Acanthotrachelus*, *Amblyrrhinus*, *Cyphicerus* and *Phytoscaphus*, describing a number of species under each and including a total of only 9 species from Eastern India.

Soon afterwards, Redtenbacher (1844) reported one species and Motschulsky (1856) added five new species from the same region. Lacordaire (1863) revised, elaborated and updated the characters of the genera described by Schonherr and placed them, for the first time, under the group termed 'Eremnides' by him. The broad pattern of classification of Curculionidae proposed by him was followed and upheld by subsequent workers including Marshall (1916). Most of the remaining contributions to the Indian Curculionidae in general and Eremninae in particular are largely due to Faust and Marshall although a number of other workers have also made notable additions. The works of Pascoe (1871) and Chevrolat (1882) include a single Eremnid species each from Malabar Hills and Andaman Islands respectively. The outstanding works of Faust (1885, 1886, 1890, 1891, 1892 and 1900) deal with the Curculionidae of Asia and include many Indian Species. Desbrochers (1873) described the genus *Corigetus* and a new species in addition to his more extensive studies on other Curculionid and Brenthid fauna of Bengal (Desbrochers, 1891). A list of South Indian weevils of economic importance mentioning thirteen Eremnid species was published by Ramakrishnan (1922). Marshall not only made collections from different parts of this country but also gave them a cumulative practical shape. He made the first attempt to prepare a key to the tribes of Eremninae and genera of the tribe Cyphicerini (Marshall, 1944), which provides a useful framework for future studies on this group. His selection of taxonomic characters, characterization of various taxa and the description of new species have all been accomplished with great precision. Marshall's continuous studies on Indian Curculionidae including Eremninae over a long period of about 40 years mainly deal with descriptions of new species and genera and to a lesser degree with the nomenclature and synonymy of different taxa (Marshall, 1913, 1914-15, 1917, 1923, 1924, 1925, 1928, 1935, 1943, 1946, 1948, 1952, 1955). He also revised four genera viz., *Plyatymycterus* (Marshall, 1918), *Cyphicerinus* (Marshall, 1942), *Crinorrhinus* (Marshall 1942a) and *Phrixopogon* (Marshall, 1948a) which mainly contain Indian species. In all, he recorded forty-nine new species and twenty-eight new genera from this country besides rearranging the position of a number of other species. Marshall in collaboration with Schenkling (1931) also compiled the World Eremninae in a volume of "Coleopterorum Catalogus" which is a monumental

reference work. The contributions of other workers are in the form of descriptive notes (Hustache, 1928 ; Voss, 1958, 1960, 1971 ; Pajni et.al., 1973 ; Pajni and Singal, 1975 ; Pajni & Sidhu, 1981, 1982, 1983) mainly concerned with the description of a few new species. Accordingly, 91 species from 34 genera have so far been recorded under Cyphicerini. This volume pertains to 201 species from 42 genera including 120 new species, five new genera and seven first records of genera.

Key to the genera of Tribe Cyphicerini

1. Mentum with 4-8 setae	2	
Mentum with 2 setae	20	
2. Rostrum with dorso-lateral carinae ascending frons		Aspidomycter Marshall
Rostrum with dorso-lateral carinae not ascending frons	3	
3. Scrobes steeply and completely enclosed behind, their outer margins as high as inner ones ; prothorax sub-conical, widest at deeply bisinuate base ; mentum with six setae		Platymycter Marshall
Scrobes more or less ill-defined posteriorly, never completely enclosed transversely, their outer margins always lower than inner ones	4	
4. Epistome short, with posterior margin broadly rounded or forming wide obtuse angle usually not extending behind level of insertion of antennae	5	
Epistome elongate with carinate posterior margin forming a narrow angle (never broader than a right angle) usually extending behind point of insertion of antennae	13	
5. Middle femora flattened and widened at base, other pairs also so to a less extent	6	
Middle femora normal, pedunculate	8	
6. Rostrum with dorso-lateral carinae quite straight and parallel from base to apex ; scrobes parallel, with greatest distance between them narrower than frons		Paramycter Marshall
Rostrum with dorso-lateral carinae curving strongly outwards at apex ; scrobes curving inwards posteriorly, with greatest distance between them as broad as or broader than frons	7	

7. Rostrum with a pair of fovea behind epistome ; prothorax with basal angles not projecting or toothed **Thlipsomerus Marshall**
 Rostrum without fovea behind epistome ; prothorax with basal angles projecting or toothed **Amrikus Pajni and Sidhu**
8. Dorsal outline of rostrum strongly curved, with dorso-lateral carinae sharp and overhanging lateral areas ; body devoid of scaling. **Epixynus Marshall**
 Dorsal outline of rostrum flat, with dorso-lateral carinae not overhanging lateral areas ; body squamose 9
9. Ocular lobes of prothorax well developed 10
 Ocular lobes of prothorax feeble or obsolete, replaced by vibrissae 12
10. Greatest distance between scrobes twice as wide as frons or more ; base of prothorax deeply bisinuate **Piezophrys Marshall**
 Greatest distance between scrobes not or only slightly wider than frons 11
11. Rostrum not longer than broad **Cyphicerinus Marshall**
 Rostrum longer than broad **Indophytoscaphus Pajni & Sidhu**
12. Frons tumid, as wide as greatest distance between scrobes ; rostrum with a broad bare space behind epistome ; scape with stiff and erect setae **Oedophrys Marshall**
 Frons not tumid, narrower than greatest distance between scrobes ; rostrum without any bare space behind epistome ; scape without erect setae **Cyrtepistomus Marshall**
13. Scrobe partly enclosed behind by bare carina running obliquely in a curve from its inner edge towards middle of eye 14
 Scrobe not enclosed by such a carina 15
14. Corbel of hind tibia enclosed, with a bare inner carina ; large beetles length (7.0-9.5 mm) **Platymycteropsis Voss**
 Corbel of hind tibia open, without any carina ; smaller beetles (Length 3.5-4.5 mm) **Epius Marshall**
15. Rostrum dorsally continuous with frons ; femora with small spine-like tooth each 16

Rostrum separated from frons by shallow transverse impression ; femora each with rather large triangular tooth carinate on its distal edge

18

16. Antennae moderately long, each with joint 7 of funicle shorter than basal joint of club ; corbels of hind tibiae enclosed

Hilaus Marshall

Antennae very long, each with joint 7 of funicle longer than basal joint of club ; corbels of hind tibiae open

17

17. Prothorax truncate or sub-truncate at base, with ocular lobes feeble or obsolete ; rostrum almost parallel sided from base to apex

Doliophron Marshall

Prothorax bisinuate at base, with ocular lobes distinct ; rostrum parallel sided from base to level of scrobes and dilated near apex

Eryngus Marshall

18. Width of frons not or only slightly greater than length of eye ; funicle with joint 1 not longer than 2 ; wings functional

Crinorrhinus Marshall

Width of frons much greater than length of eye ; funicle with joint 1 distinctly longer than 2

19

19. Epistome with carina of left side obsolescent ; mandible without any tooth

Himachala Gen. nov.

Epistome symmetrical ; mandible with sharp spine-like tooth ; wings not functional

Meionops Marshall

20. Interscrobial area of rostrum raised to form a large plate carrying a high epistome ; wings not functional

Marshalla Gen. nov.

Interscrobial area of rostrum not raised in form of plate ; wings functional

21

21. Dorso-lateral carinae of rostrum straight, parallel from base to apex or slightly converging apically

22

Dorso-lateral carinae of rostrum diverging towards apex

25

22. Rostrum narrowing from base to apex ; scrobes extending upto eyes or at least behind middle of rostrum ; antennae inserted at or slightly behind middle of rostrum

Amblyrrhinus Schonherr

- Rostrum parallel sided or widening at apex ;
scrobes remote from eyes ; antennae inserted
close to apex of rostrum 23
23. Rostrum longer than broad, dilated at apex ;
hind tibiae mucronate, with corbels enclosed,
each with bare inner carina **Thyraulus Marshall**
Rostrum transverse, almost parallel sided ;
hind tibiae not mucronate 24
24. Corbels of hind tibiae enclosed, each with
inner bare carina ; epistome not surpassing
level of insertion of antennae, its outer margins
forming inner edges of scrobes at apex ;
prothorax widest at base **.Hamartus Marshall**
Corbels of hind tibiae open ; epistome sur-
passing level of insertion of antennae, its
outer margins not forming inner edges of
scrobes ; prothorax rounded laterally,
widest at middle **Scaeorrhinus Marshall**
25. Epistome with hind margin transverse or
curved or forming an obtuse angle, short,
its apex not exceeding a line between bases of
antennae 26
Epistome with hind margin forming
narrow angle (never greater than a right
angle), its apex nearly always extending
behind level of insertion of antennae 31
26. Prothorax about as long as broad, of equal
width at apex and base 27
Prothorax transverse 28
27. Dorso-lateral carinae of rostrum gradually
diverging distally but curving inwards at
apex ; epistome surpassing front margins of
scrobes **.Parascaphus Marshall**
Dorso-lateral carinae of rostrum curving
outward at apex ; epistome small, indistinct,
not surpassing front margins of scrobes **.Rhicnostomus Marshall**
28. Prothorax deeply bisinuate at base ; corbels
of hind tibiae enclosed, each with a bare inner
carina ; funicle with joint 1 shorter than 2 **.Agrostes Marshall**
Prothorax truncate or only shallowly bisi-
nuate at base 29

29. Rostrum not longer than broad . *Phylladobius* Marshall
 Rostrum longer than broad ; prothorax
 much narrower at apex than at base 30
30. Funicle with joint 1 longer than 2 ; corbels
 of hind tibiae open *Pseudphytoscapus* Gen. nov.
 Funicle with joint 1 and 2 sub-equal or 2
 slightly longer than 1 ; corbels of hind
 tibiae variable . *Phytoscapus* Schonherr
31. Lateral areas of rostrum each with a strong
 oblique curved carina running from inner
 edge of scrobe towards middle of eye (less
 developed in *Tanyscapus*) .. 32
 Lateral areas of rostrum without such oblique
 curved carinae behind scrobes 36
32. Prothorax sub-truncate at base, without post
 ocular lobes ; scape nearly reaching base of
 prothorax ; rostrum not dilated at genae *Tanyscapus* Marshall
 Prothorax bisinuate at base ; scape at most
 only shortly surpassing apex of prothorax 33
33. Scape with stout erect or sub-erect setae ;
 funicle densely squamose *Cnaphoscapus* Marshall
 Scape with fine setae ; funicle not squamose 34
34. Femora in male furnished with long and curly
 hairs ventrally . *Hirsutopes* Gen. nov.
 Femora in male without such hairs ventrally 35
35. Rostrum with a transverse carina behind
 epistome ; corbels of hind tibiae open ; scape
 stout, strongly bent . *Deiradolcus* Marshall
 Rostrum without any transverse carina
 behind epistome ; corbels of hind tibiae en-
 closed ; prothorax shallowly constricted at
 apex, much narrower at base than elytra . *Drymophoetus* Marshall
36. Corbels of hind tibiae enclosed, each having
 either two rows of setae externally or a single
 external row of setae and a bare internal
 carina 37
 Corbels of hind tibiae open 39
37. Prothorax truncate or slightly bisinuate at
 base ; eyes large . *Cyphicerus* Schonherr
 Prothorax deeply bisinuate at base 38

38. Eyes large ; width of frons less than length of eye ; sides of head invisible from above ; epistomal setae fine and sparse **Thalponomus Marshall**
 Eyes small ; width of frons more than two lengths of eye ; sides of head visible from above ; epistomal setae broad and dense **.Hypenephorus Marshall**
39. Prothorax with ocular lobes 40
 Prothorax without ocular lobes 41
40. Dorso-lateral carinae of rostrum more or less overhanging lateral areas and ascending frons ; lateral area with a deep sulcus running from scrobe to eye ; frons quite high above level of eyes **Peltotrachelus Marshall**
 Dorso-lateral carinae of rostrum not overhanging laterally, not ascending frons ; lateral area without sulcus ; frons almost on level with upper margins of eyes ; metasternum with a sharp tubercle in front of each hind coxa **Taractor Gen. nov.**
41. Funicle stout, squamose, with distal joints not or only slightly longer than broad; eyes flat **.Pholicerus Marshall**
 Funicle slender, setose, with distal joints much longer than broad, eyes convex **.Hemerus Marshall**

Genus 1. **Aspidomycter Marshall**

1943. *Aspidomycter* Marshall, *Ann. Mag. nat. Hist.*, (11) 10 : 108

1944. *Aspidomycter* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 77,81

Dorsal area of rostrum broadly ascending frons and terminated posteriorly by a deeply impressed transverse line ; eyes rounded. Rostrum very broad ; dorsal area elevated and without any median sulcus or carina ; epistome elongate, its margins carinate and forming an acute angle behind ; scrobes short, curving inwards ; mentum with four setae. Scape curved, gradually clavate ; funicle with joint 2 longer than 1. Prothorax deeply bisinuate at base, with ocular lobes feeble or moderate, with distinct vibrissae. Elytra separately arcuate at base, with shoulders obliquely prominent. Corbels of hind tibiae fully enclosed, each having two rows of setae on external edge. Aedeagus sinuate at apex, there produced into a process in middle ; orificial plates prominent ; aedeagal apodemes

more than twice as long as aedeagus. Bursa copulatrix sclerotized towards apex.

Type species.—*Aspidomycter lunatus* Marshall.

Distribution.—INDIA, PAKISTAN, BURMA.

Key to the species of Genus *Aspidomycter* Marshall

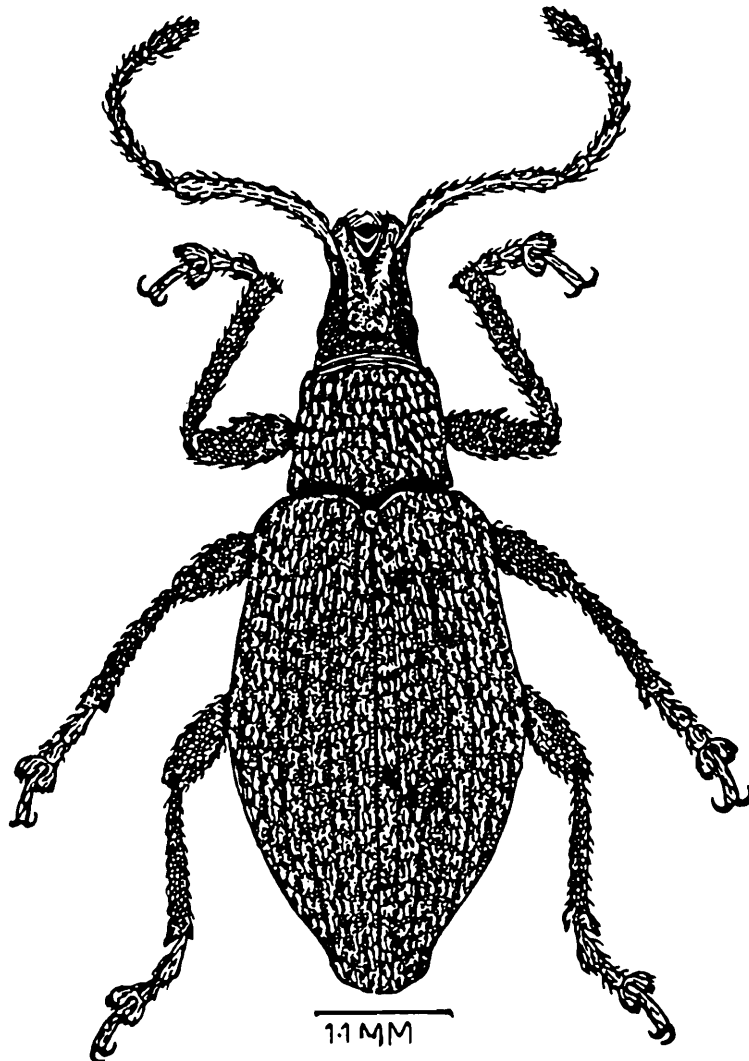
1. Elytra covered with green scales and some scattered spots of dark brown scales ; prothorax with bands of greenish and light brownish scales laesicollis Pajni & Sidhu
Elytra with well defined pale stripes on intervals 1,3 and 5 2
2. Elytron with pale transverse band before middle between intervals 3 & 7 ; rostral plate rounded at base .lefroyi Marshall
Elytron without such band ; rostral plate truncate at base .lunatus Marshall

1. *Aspidomycter laesicollis* Pajni & Sidhu (Figs. 1a, 1b, 141)

1983. *Aspidomycter laesicollis* Pajni & Sidhu, *J. Bombay nat. Hist. Soc.*, (1) 80 : 188.

Frons ferrugineous, covered with shining blue-green and brownish scales and some greenish sub-erect setae, only slightly wider than base of rostrum and separated from it by an incision ; eyes black, somewhat convex, moderately large. Rostrum ferrugineous, almost as long as broad, running parallel from base to scrobes, slightly dilated at apex, posteriorly ascending frons to form raised plate broadly truncate at base, almost flat and shallowly depressed behind epistome and there provided with fine central carina, surface covered with shining blue-green and brownish scales and spathulate, pale setae, with area close to epistome bare ; epistome long, with delimiting carinae high, forming an acute angle behind ; scrobes small, broad, open behind, almost visible from above ; mentum with 4 setae. Antennae ferrugineous, long ; scape stout, curved, gradually clavate, reaching three-fourth of prothorax, its surface densely covered with brownish-green scales and sub-recumbent

pale setae ; funicle with joint two 1.3 times as long as one, joints 3 and 4 subequal but shorter than 1, 5 to 7 subequal and shortest, all joints covered with brownish-green scales and long pale setae ; club dark brown, fusiform, finely and uniformly pubescent.



Aspidomycter laesicollis Pajni & Sidhu

Prothorax ferrugineous, as long as broad, its anterior margin arcuate dorsally, with feeble ocular lobes and fine vibrissae laterally, dorsal surface of pronotum marked with small dense punctures and each having a pale sub-recumbent seta ; vestiture of general blue-green scales, with central and two dorso-lateral indistinct longitudinal stripes of brown scales ; lateral sides almost straight ; disc almost as broad at apex as at deeply bisinuate base, narrowly

constricted near base. Scutellum small, rectangular, with anterior margin rounded, completely covered with blue-green scales.

Elytra ferrugineous, oblong, convex, running parallel from base to behind middle in male but widening in female, with shoulders prominent and roundly rectangular; striae narrow, formed by small deep punctures and each puncture containing a minute recumbent seta; intervals broad, flat; vestiture of general shining blue-green scales, some scattered spots of dark-brown scales, numerous seta-like pale scales on intervals, long pale setae on and near top of declivity. Legs ferrugineous, covered densely with blue-green and brownish scales and short recumbent setae; fore-coxae contiguous, placed little towards anterior margin of prosternum; femora clavate, each with a sharp tooth; tibiae slender, anterior and middle tibiae with a row of spines on inner apical halves, apical end of each tibia with a fringe of brownish bristles and a mucro, corbels of hind tibiae enclosed; tarsi densely setose; hind tarsus with first joint nearly twice as long as second, third bilobed joint spongy beneath; claws free. Thoracic sterna ferrugineous, covered with blue-green and pale scales, punctate and each puncture with a pale seta. Abdominal sternites ferrugineous covered with blue-green scales laterally and narrow pale scales in middle, punctate and each puncture with a pale seta.

Aedeagus straight, bilobed at apex, produced in middle in long and narrow process, with apex and sides strongly sclerotized; phallotreme subapical, with an orificial plate on each side; aedeagal apodemes very long and slender, nearly thrice as long as aedeagus; phallobase ring-shaped, with ventral apodeme longer than aedeagus and thicker than aedeagal apodemes; endophallus surpassing aedeagal apodemes anteriorly, with dense rows of spine-like setae laterally and strongly denticulate centrally, papillate towards apex, with a small curved plate at apex. Bursa copulatrix well-developed, sclerotized towards apex; ventral spiculum long and slender, spathulate at apex. Spermatheca with cornu pointed, collum somewhat bent towards ramus.

Measurements.—

Length

Male body : 6.1 to 6.6 mm ; rostrum: 0.9 to 1.0 mm.

Female body : 7.3 to 7.7 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.0 to 2.2 mm ; rostrum : 0.9 to 1.0 mm

Female body : 3.0 to 3.2 mm ; rostrum : 1.0 to 1.1 mm.

Distribution.—INDIA : Assam ; Tripura.

Source.—*Euphorbia indica*.

Holotype in F.R.I., Dehradun.

2. *Aspidomycter lefroyi* Marshall
(Figs. 2a, 2b)

1943. *Aspidomycter lunatus lefroy* Marshall, *Ann. Mag. nat. Hist.*, (11) 10 : 110

Frons piceous, slightly wider than base of rostrum and separated from it by narrow and deep incision, covered with brownish appressed scales and sub-recumbent seta-like scales ; eyes fuscus, large, slightly convex. Rostrum fuscus, as long as broad, running parallel from base to scrobes and dilated at genae, posteriorly ascending frons to form raised plate with rounded base ; dorsal area almost flat and shallowly depressed and bare behind epistome, provided with an angulated transverse carina, covered with brownish scales and sub-recumbent yellowish setae ; epistome long, with its carinae high and forming acute angle behind ; scrobes small, open, visible from above ; mentum with 4 setae. Antennae piceous, long ; scape stout and slightly curved, gradually clavate, reaching near middle of prothorax, its surface covered with brownish scales and sub-recumbent brownish setae ; funicle with joint 2 about 1.5 times as long as 1, joints 3 and 4 subequal but shorter than 1, 5-7 subequal and shortest, all joints covered with brownish scales and sub-recumbent brownish setae ; club fuscus, fusiform and uniformly pubescent.

Prothorax piceous, about as long as broad, with obsolete ocular lobes and fine vibrissae, its dorsal surface marked with small punctures and each puncture with brownish sub-recumbent seta ; vestiture consisting of alternating stripes of yellowish and brownish scales, with central yellowish stripe broadest and sub lateral brownish stripes narrower. Scutellum piceous, small, almost rectangular, completely covered with appressed yellowish scales.

Elytra piceous, oblong, convex, with prominent shoulders, running parallel from base to behind middle ; striae formed by large and separated punctures ; vestiture consisting of alternating stripes of yellowish and brownish scales, whitish scales on lateral intervals, transverse band on whitish scales between intervals 3 and 7 before middle, similar band of whitish scales at declivity. Legs piceous ; fore coxae contiguous, covered densely with yellowish and brownish scales and yellowish sub-recumbent setae ; femora clavate, each with short tooth ; tibiae slender, apical end of each tibia with fringe of brownish bristles and mucro ; hind corbels enclosed, each with outer row and inner row of short bristles ; tarsi setose ; hind tarsus with first joint twice as long as second, third bilobed joint spongy beneath ; claws free. Thoracic sterna black, covered with brownish and yellowish scales, punctate and each puncture with brownish seta. Abdominal sternites fuscus, covered with brownish scales, punctate and each puncture with a brownish sub-recumbent seta.

Aedeagus sinuate at apex, with process in middle, with aedeagal apodeme long and thin ; phallobase ring-shaped, with phallobasic apodeme slightly shorter than aedeagal apodeme ; endophallus lying between aedeagal apodemes, not surpassing them anteriorly, uniformly beset with rows of pointed tubercles. Female genitalia not studied.

Measurements—

Length

Male body : 6.0 mm ; rostrum 0.8 mm.

Breadth

Male body : 2.5 mm ; rostrum 0.5 mm.

Distribution.—INDIA : West Bengal, Cooch Behar ; BANGLA DESH.

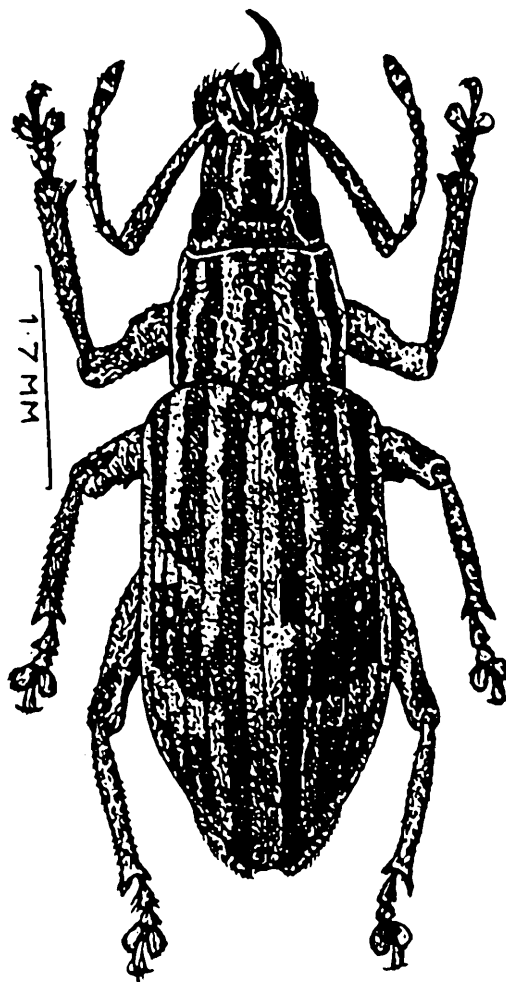
Holotype in British Museum (N.H.), London.

Remarks.—This species closely resembles *lunatus*. It can be separated from latter as it has two transverse whitish bands at the declivity of elytra as compared to one such band in *lunatus*.

3. **Aspidomycter lunatus** Marshall
(Figs. 3, 142)

1943. *Aspidomycter lunatus* Marshall, *Ann. Mag. nat. Hist.*, (11) 10 : 109

Frons black, covered with brownish and greenish scales and recumbent pale scales, only slightly wider than base of rostrum and separated from it by deep and narrow incision ; eyes black, large, circular, slightly convex. Rostrum black, as long as broad, running parallel from base to scrobes and moderately dilated towards apex, posteriorly ascending frons to form a raised plate, truncate at base, almost flat and shallowly depressed behind epistome, with an angulated transverse carina, with a weak bare central carina in its apical half ; dorsal area covered with brownish and greenish scales and recumbent scales, epistome with areas around clothed with shining green scales and part close to epistome bare ; epistome long, with delimiting carinae high and forming obtuse



Aspidomycter lunatus Marshall

angle behind ; scrobes short, open, dorso-lateral, somewhat visible from above ; mentum with 4 setae. Antennae black, moderately long ; scape stout and strongly curved, gradually clavate, reaching near middle of prothorax, its surface covered with greenish scales and brownish recumbent setae ; funicle with joint 2 about 1.3 times as long as 1, joints 3 and 4 subequal but shorter than 1, 5-7 subequal and shortest, all joints covered with flattened greenish scales and yellowish-green sub-erect setae ; club fuscus, fusiform, finely and uniformly pubescent.

Prothorax black, transversely convex, about as long as broad, its anterior margin projecting over head, with feeble ocular lobes and fine vibrissae laterally, its surface marked with small punctures and each puncture having recumbent seta ; vestiture of 4 greenish and 5 fuscus alternate stripes of scales with central fuscus stripe broader. Scutellum piceous, rectangular, with anterior margin rounded, completely covered with greenish scales.

Elytra black, oblong, convex, with prominent shoulders, running parallel from base to behind middle in male and widening in female ; striae formed by large and separated punctures and each puncture containing a minute recumbent seta ; intervals broad, dorsal intervals somewhat convex ; vestiture consisting of fuscus scales on first six intervals, green scales on sutural interval and basal halves of intervals 3 and 5, short apical greenish stripe on interval 3, green scales on lateral intervals beyond sixth with apical part of interval 8 usually fuscus, broad transverse greenish band at top of declivity between striae 2 and 6, numerous seta-like scales on intervals. Legs fusco-piceous, covered densely with green, pale and brownish scales and greenish and brownish suberect setae ; forecoxae contiguous and placed almost in middle of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior two pairs with a row of spines on inner side, apical end of each tibia with a fringe of brownish bristles and a mucro ; hind corbels enclosed, each with an outer row of short bristles and an inner row of long bristles ; tarsi densely setose, hind tarsus with first joint nearly twice as long as second, third bilobed joint spongy beneath ; claws free. Thoracic sterna black, covered with greenish and brownish scales, punctate and each puncture with a brownish seta. Abdominal sternites black, covered with a mixture of brownish and greenish scales, punctate and each puncture with short recumbent seta.

Aedeagus straight, bilobed at apex, produced into a process in middle, apical half strongly sclerotized ; phallotreme subapical, with an orificial plate on each side ; aedeagal apodemes more than twice the length of aedeagus ; phallobase ring-shaped ; phallobasic apodeme about as long as aedeagus, thicker than aedeagal apodemes ; endophallus surpassing aedeagal apodemes anteriorly, with much dense rows of spine-like setae in basal half and strongly denticulate thereafter, papillate towards apex, having a small curved plate at apex. Female genitalia with ovipositer long and weakly sclerotized ; coxites comparatively more sclerotized and sparsely setose ; bursa copulatrix well-developed, with apical half sclerotized, provided with a membranous lobe at apex ; spiculum ventrale long and slender. Spermatheca with cornu broadly pointed and curved, collum displaced and lying over ramus.

Measurements.—

Length

Male body : 7.2 to 7.5 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 9.3 to 10.2 mm ; rostrum : 1.3 to 1.4 mm.

Breadth

Male body : 2.5 to 2.7 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 3.2 to 3.5 mm ; rostrum : 1.3 to 1.4 mm.

Holotype in British Museum (N.H.), London.

Distribution.—West Bengal, Kalimpong, Kurseong.

Genus 2. *Platymycterus* Marshall

1918. *Platymycterus* Marshall, *Ann. Mag. nat. Hist.*, (9) 1 : 245-252.

1931. *Platymycterus* : Schenkling & Marshall, *Coleopterorum Catalogues*, pars 114 : 11,33.

1944. *Platymycterus* : Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 78,85.

Rostrum broad, almost flat above, lying in same plane as frons, with sides straight or slightly dilated at apex ; scrobes short, apical, dorsal, broadly and abruptly delimited behind ; epistome short, deeply and angularly emarginate in front, its hind margin forming a low rounded ridge forming a right angle or less ; mentum with two long and three or four shorter setae. Prothorax strongly narrowed from base to apex, with sides almost straight or slightly rounded and base deeply bisinuate ; ocular lobes feeble or obsolete,

each with a fringe of short vibrissae. Fore-coxae slightly nearer to anterior margin of prosternum ; corbels of hind tibiae open. Male genitalia with aedeagus bilobed at apex, with exophallic valve projecting out ; phallotreme without orificial plates. Female genitalia with ovipositor long ; bursa copulatrix well-developed ; spermatheca with collum bent towards ramus.

Type species.—*Corigetus feae* Faust.

Distribution.—INDIA, BURMA, AFGHANISTAN, CHINA, LAOS, TURKEY.

Key to the species of Genus **Platymycterus** Marshall

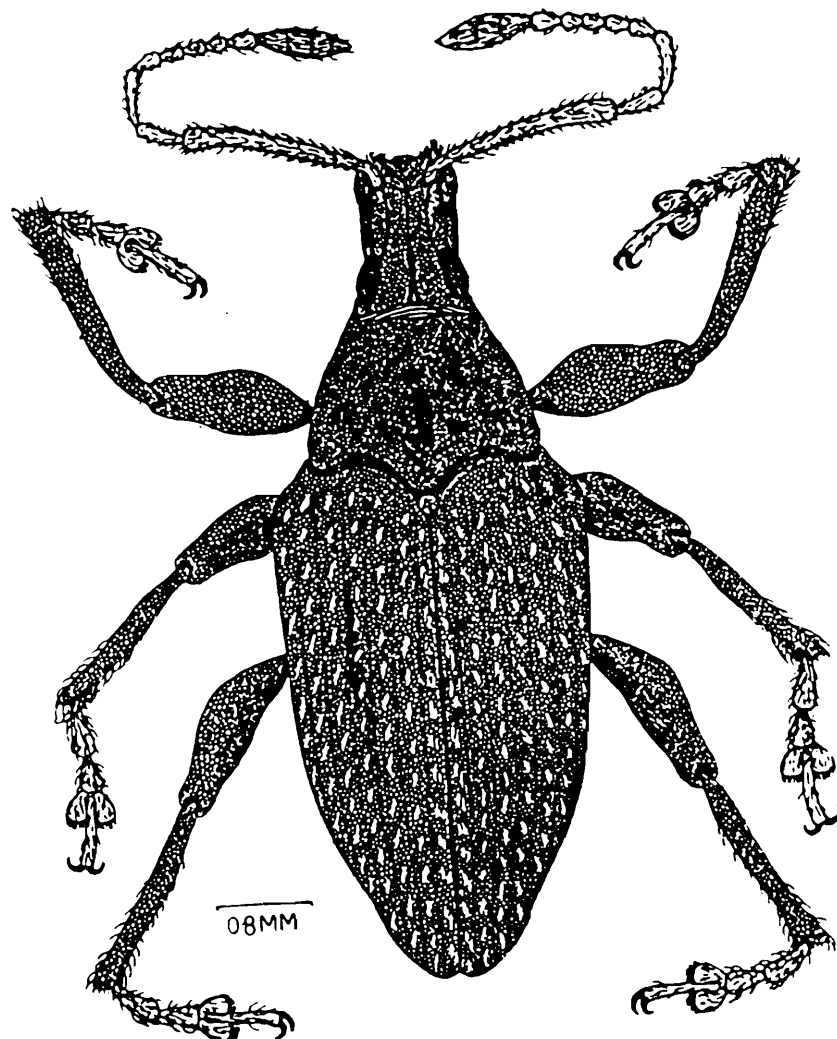
1. Joint 2 of funicle longer than 1	2
Joint 2 of funicle equal to or a little shorter than 1	4
2. Rostrum with transverse carina prominent, strongly angulated	himalayanus Marshall
Rostrum with transverse carina faint, straight or only slightly angulated	3
3. Rostrum with carinae and furrows well-developed ; shoulders of elytra obtusely angulated, prominent	.. feae (Feust)
Rostrum with carinae and furrow indistinct ; shoulders of elytra oblique, less prominent	.. deceptor Marshall
4. Shoulders of elytra prominent, each humeral slope forming well-marked angle with lateral margin of prothorax	.. moestus Marshall
Shoulders of elytra reduced, each humeral slope forming almost continuous line with lateral margin of prothorax	.. sjostedti Marshall

4. **Platymycterus himalayanus** Marshall (Figs. 4, 143)

1918. *Platymycterus himalayanus* Marshall, *Ann. Mag. nat. Hist.*, (9) 1 : 247.
 1931. *Platymycterus himalayanus* : Schenkling & Marshall, *Coloeptorum catalogus*, pars 114 : 11,36.

Frons shining black, somewhat impressed, densely covered with shining green scales, and pale sub-recumbent and sub-erect setae,

with fovea deep and elongate, eyes black, convex, large. Rostrum shining black, a little longer than broad, gradually diverging from base to apex; dorsal area depressed, covered by scales and setae, as on frons, with a weak angulated carina behind epistome with central carina strong and running from epistome to central fovea of frons; dorso-lateral carinae strong, gradually diverging behind and covered with scales; epistome long, with margins not carinate; lateral areas longitudinally and obliquely wrinkled, each with a broad sulcus adjoining dorso-lateral carina; scrobes dorsal, much shorter than space between them and eye, enclosed behind; mentum with 5-6 setae. Antennae black, moderately long; scape stout, gradually clavate, curved, exceeding front margin of prothorax, covered with green scales giving coppery reflexion and green recumbent setae; funicle with joint 2 evidently longer than 1, 3-6 subequal but shorter than 1, 7 a little longer, all joints covered with



Platymycterus himalayanus Marshall

shining green scales and recumbent brownish setae, each joint with a distinct whorl of sub-erect setae ; club fusiform, as long as three apical funicular joints, finely and uniformly pubescent.

Prothorax shining black, as long as its width at middle, broadest at base, its anterior margin sub-truncate and narrow, with well-developed ocular lobes and fine vibrissae ; dorsal area flat, punctate and each puncture with a brownish recumbent seta, covered with shining green scales leaving some bare areas, with basal margin deeply bisinuate. Scutellum small, rectangular, with anterior margin rounded, completely covered with shining green scales.

Elytra shining black, oblong, convex, running parallel from base to behind middle and narrowing to apex, with apices jointly sinuate and shoulders rectangularly rounded ; striae narrow, formed by deep punctures and each puncture with a minute recumbent seta, with interspaces squamose ; intervals broad, flat, densely covered with shining green scales and recumbent brownish setae. Legs piceous, covered with green and coppery scales and sub-erect setae ; forecoxae contiguous, placed almost in middle of prosternum ; femora clavate, each with a short tooth ; tibiae slender, bisinuate internally, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibiae with a fringe of fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose, first joint of hind tarsus 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna shining black, covered with ochraceous scales in middle and with shining green laterally, punctate and each puncture with a broad recumbent seta. Abdominal sternites shining black, covered with ochraceous scales, punctate and each puncture with a short recumbent seta.

Aedeagus straight, bilobed at apex, with exophallic valve bearing orifice at its apex, with sides and apex highly sclerotized ; phallosome sub-apical, without any orificial plate ; aedeagal apodemes longer than aedeagus, each curved and thicker at apex ; phallobase ring-shaped with phallobasic apodeme almost as long as aedeagus, endophallus lying between aedeagal apodemes, not surpassing them anteriorly ; endophallic armature of short spines near base, single row of setae on each side, some spines and papillae sub-

apically, a curved plate at apex. Bursa copulatrix well-developed and weakly sclerotized ; ventral spiculum long and curved. Spermatheca with cornu curved and pointed, collum bent towards ramus.

Measurements.—

Length

Male body : 7.7 to 8.2 mm ; rostrum : 1.0 to 1.1 mm.

Female body : 7.9 to 8.6 mm ; rostrum : 1.1 to 1.2 mm.

Breadth

Male body : 2.6 to 2.8 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.8 to 3.0 mm ; rostrum : 0.9 to 1.0 mm.

Distribution.—INDIA : Jammu & Kashmir ; Himachal Pradesh ; Punjab.

Sources.—*Glycine max* ; *Vicia faba*.

Holotype in British Museum (N.H.), London.

5. *Platymycterus feae* (Faust)
(Figs. 5,144)

1895. *Corigetus feae* Faust, *Ann. Mus. Genova* (2) 14 (34) : 201.

1918. *Platymycterus feae* : Marshall, *Ann. Mag. nat. Hist.*, (9) 1 : 246-248.

1931. *Platymycterus feae* : Schenkling & Marshall, *Coleopterorum catalogus*, pars 114 : 11, 35.

Frons black, flattened, densely covered with brown scales with a patch of shining green scales near interior margin of eye, punctate and each puncture with short recumbent seta, with a conspicuous deep central fovea ; eyes black, large convex. Rostrum red-brown, as long as broad, running parallel from base to apex ; dorsal area shallowly impressed, covered by scales and setae as on frons with some shining green scales in interscrobial area ; central carina broad, running from epistome to central fovea of frons ; dorso-lateral carinae fine, concealed by scales, diverging behind ; epistome long, not carinate ; lateral areas each with a broad carina running straight from scrobe to eye and a squamose sulcus above and below it ; scrobes dorsal, short, each half as long as space between it and

eye ; mentum with 5-6 setae. Antennae dark-brown, moderately long ; scape sub-cylindrical, curved, gradually clavate, covered with elongated brownish-green scales and some recumbent setae ; funicle with joint 2 longer than 1, 3-6 sub-equal and much shorter than 1, all joints covered with elongated greenish scales and recumbent setae ; club fusiform, as long as four apical funicular joints, finely and uniformly pubescent.

Prothorax red-brown, as long as its width at apex, broadest at base ; anterior margin sub-truncate, with feeble ocular lobes and fine vibrissae laterally ; dorsal surface somewhat convex, punctate and each puncture with brown recumbent seta, covered with dark-brown scales ; lateral sides narrowing from base to apex, with basal $1/3$ parallel, with basal margin deeply bisinuate. Scutellum small, covered with shining blue-green scales, rectangular with anterior margin rounded.

Elytra reddish-brown, oblong, convex, running parallel from base to behind middle and narrowing towards apex, with apices jointly sinuate and shoulders rectangularly rounded ; striae narrow, formed by deep and separated punctures and each puncture containing a minute seta, with interspaces bare ; intervals broad, gently convex ; vestiture of dark brown scales in centre upto stria 6, a few green scales around scutellum, shining blue-green scales on other parts, a row of short recumbent setae on each interval. Legs red-brown, densely covered with a mixture of shining blue-green and dark-brown scales alongwith sub-recumbent short setae ; fore-coxae contiguous, placed almost in middle of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibia with a fringe of fuscus bristles and a mucro ; corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.7 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna red-brown, covered with dark brown scales in middle and shining blue-green scales laterally, punctate and each puncture with a short recumbent seta. Abdominal sternites red-brown, covered with dark-brown scales in middle and shining blue-green scales laterally, punctate and each puncture with a short recumbent seta.

Aedeagus straight, bilobed at apex, with exophallic valve long and bearing an orifice at its apex, with sides and apex more sclerotized ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes thin, long and slender, curved at apex, distinctly longer than aedeagus ; phallobase ring-shaped, its ventral apodeme as long as aedeagus ; endophallus surpassing aedeagal apodemes, covered with rows of spine-like setae, papillate sub-apically, with a pair of plates at apex. Bursa copulatrix well-developed and weakly sclerotized ; ventral spiculam thin, long and bent. Spermatheca with cornu pointed at apex, collum bent towards ramus.

Measurements.—

Length

Male body : 5.9 to 6.5 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 8.5 to 9.1 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.1 to 2.2 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.3 to 3.0 mm ; rostrum : 1.0 to 1.1 mm.

Distribution.—INDIA : Uttar Pradesh ; Assam ; Sikkim. NEPAL, BURMA.

Sources.—Grassy sandy soil ; wild vegetation.

Holotype in Geneva Museum, (Switzerland).

6. *Platymycterus deceptor* Marshall
(Fig. 145)

1918. *Platymycterus deceptor* Marshall, *Ann. Mag. nat. Hist.*, (9) 1 : 247, 248.

1931. *Platymycterus deceptor* : Schenkling & Marshall, *Coleopterorum catalogus*, pars 114 : 11, 35.

Frons black, covered with brownish scales with few green scales at interior margins of eyes, punctate and each puncture with a short recumbent seta, shallowly and broadly impressed in middle, with an elongated central fovea ; eyes black, convex, large. Rostrum black, almost as long as broad, running parallel from base

to apex ; dorsal area very shallowly impressed, with sulci shallow, covered with brownish scales with few shining scales on inter-antennal area ; central carina not sharp, broadened, bare, extending from epistome to central fovea of frons ; dorso-lateral carinae feeble, diverging behind and concealed by scales, epistome and carinate ; lateral areas longitudinally wrinkled in front of eye and covered with brown and shining green scales ; scrobes entirely dorsal, each much shorter than space between it and eye, completely enclosed behind ; mentum with 5-6 setae. Antennae piceous, moderately long ; scape stout, somewhat curved, exceeding front margin of prothorax, covered with elongated green scales and green recumbent setae ; funicle with joint 1 evidently longer than 2, 3-7 subequal, all joints covered with shining green scales and recumbent setae, each with a distinct whorl of green sub-erect setae ; club elongated, as long as four apical funicular segments, fusiform, finely and uniformly pubescent.

Prothorax black, gently convex, as long as its width at apex, its anterior margin shallowly sinuate in middle and with fine vibrissae laterally, punctate and each puncture with a short recumbent seta, with a narrow bare central line in basal half ; vestiture of brownish and greenish scales, a broad thinly scaled stripe on each side slightly rounded laterally ; with posterior margin deeply bisinuate. Scutellum small, transverse, covered with green scales.

Elytra black, oblong, running parallel from base to behind middle and narrowing towards apex, with apices shortly acuminate, convex ; striae narrow, formed by deep and closely set punctures and each puncture containing a minute recumbent seta, with interspaces squamose ; intervals broad, almost flat ; vestiture consisting of dense brown scales upto stria six, metallic green scales on intervals, a row of recumbent setiform scales on each interval. Legs piceous, covered densely with a mixture of shining green, blue and brownish scales and sub-erect setae ; forecoxae contiguous, placed almost in middle of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior and middle pairs with a row of spines on their inner apical halves, apical end of each tibia with a fringe of fuscus bristles and mucro ; corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint twice as long as second, third bilobed joint shorter than second

and spongy beneath ; claws free. Thoracic sterna piceous, covered with green, blue and brownish scales alongwith short recumbent seta-like scales. Abdominal sternites piceous, punctate and each puncture with a short recumbent seta ; vestiture of a mixture of green, blue and brownish scales.

Male genitalia not studied. Bursa copulatrix well-developed, having a sclerotized plate in its apical half and a similar smaller plate in vagina ; ventral spiculum long and bent. Spermatheca with cornu pointed at apex, collum bent towards ramus.

Measurements.—

Length

Female body : 6.9 to 7.5 mm ; rostrum : 1.4 to 1.5 mm.

Breadth

Female body : 3.9 to 4.2 mm ; rostrum : 1.4 to 1.5 mm.

Locality.—Uttar Pradesh , Almora.

Sources.—Found feeding on Indigofera.

Holotype in British Museum (N.H.), London.

7. *Platymycterus moestus* Marshall
(Figs. 6, 146)

1918. *Platymycterus moestus* Marshall, *Ann. Mag. nat. Hist.*, (9) 1 : 247-250.

1931. *Platymycterus moestus* : Schenkling & Marshall, *Coleopterorum catalogus*, pars 114 : 11, 37.

Frons fuscus, flat, covered with brownish scales, punctate and each puncture with broad recumbent scale, with central fovea deep and elongated ; eyes black, large, somewhat convex. Rostrum fuscus, as long as broad, almost parallel from base to apex ; dorsal area broadly impressed, densely covered with brownish scales and some green scales around epistome ; central carina fine, running from epistome to central fovea of frons ; dorso-lateral carinae strong, covered by scales, gradually diverging behind ; epistome

long, with margins not carinate ; lateral areas longitudinally wrinkled, covered with brownish scales ; scrobes dorsal, each evidently shorter than space between it and eye, steeply and completely enclosed behind ; mentum with 5-6 setae. Antennae black, moderately long, densely squamose and setose ; scape stout, almost straight, exceeding front margin of prothorax, its surface covered with brownish scales and broad recumbent scales ; funicle with joints 1 and 2 equal, 3-6 sub-equal but shorter than first two, all joints with a whorl of sub-recumbent setae ; club fusiform, as long as four apical funicular joints, densely and uniformly pubescent.

Prothorax black, as long as its width at apex, broadest in middle; anterior margin sinuate in middle, with well-developed ocular lobes and vibrissae laterally ; surface densely marked with deep punctures and each puncture with a recumbent pale seta, covered with dense brownish scales with a central and two lateral stripes of blackish scales ; lateral sides almost straight from base for 4/5th length and narrowing at apex ; posterior margin bisinuate. Scutellum small, rectangular with anterior margin-rounded, concealed by scales.

Elytra black, oblong, flat, running parallel in male and a little widened behind middle and narrowing at apex in female, with apices jointly sinuate and shoulders roundly rectangular ; striae narrow, formed by small elongate punctures and each puncture with a minute recumbent seta, with interspaces squamose ; interval, broad, somewhat convex, completely covered with brownish scales each with short recumbent scales. Legs fuscus, covered densely with ochraceous scales and sub-erect setae ; forecoxae contiguous, placed almost in middle of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibia with a fringe of brownish bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint nearly twice as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sternum fuscus, closely beset with ochraceous scales and some short recumbent scales. Abdominal sternites covered with a mixture of ochraceous and brownish scales and sub-erect scales.

Aedeagus straight, broadly pointed and triangular at apex, uniformly sclerotized throughout ; phallotreme subapical, without orificial plates; aedeagal apodemes distinctly longer than aedeagus, each slightly curved at apex ; phallobase ring-shaped, its ventral apodeme as long as aedeagus and spoon-shaped at apex ; endophallus lying between aedeagal apodemes, not surpassing them, beset with small denticles and spines near base, densely setose and papillate elsewhere, much densely papillate subapically, with a plate at apex. Bursa copulatrix less developed and more or less membranous ; ventral spiculum long, thick and curved. Spermatheca with cornu curved and pointed at apex, collum bent towards ramus.

Measurements.—

Length

Male body : 5.6 to 6.2 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 8.4 to 9.0 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.2 to 2.5 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 3.2 to 3.5 mm ; rostrum : 0.9 to 1.0 mm.

Distribution.—Chandigarh ; Himachal Pradesh, Bilaspur ; Jammu & Kashmir, Sonamarg.

Sources.—Light ; *Zizyphus* ; *Dalbergia sissoo*.

Holotype in British Museum (N.H.) London.

8. *Platymycterus sjostedti* Marshall

(Figs. 7,147)

1918. *Platymycterus sjostedti* Marshall, *Ann. Mag. nat. Hist.*, (9) 1 : 247, 251.

1931. *Platymycterus sjostedti* : Schenkling, & Marshall, *Coleopterorum catalogus*, pars 114 : 11, 38.

Frons shining black, flat, densely covered with greenish and some coppery scales with few recumbent setae, with central fovea deep and elongated ; eyes black, large, convex. Rostrum shining black, as long as broad, running parallel from base to scrobes and

slightly dilated at apex ; dorsal area impressed, densely covered with coppery scales and a few shining green scales behind epistome, with an angulate carina behind epistome ; central carina strong, running throughout the length of rostrum ; dorso-lateral carinae parallel behind and covered with scales ; epistome long, with margins not carinate ; lateral areas each with a broad carina from scrobe to eye with a sulcus running above and below it ; scrobes dorsal, each shorter than space between it and eye, enclosed behind ; mentum with 5-6 setae. Antennae black, moderately long ; scape stout, somewhat curved, almost reaching middle of prothorax, its surface covered with coppery and greenish scales and some recumbent scales ; funicle with joints 1 and 2 equal, 3-6 equal but shorter than first two, all joints covered with elongated greenish scales and recumbent setae, each joint with distinct whorl of suberect setae ; club fusiform, as long as three apical funicular joints, finely and uniformly pubescent.

Prothorax black, as long as its width at middle, broadest at base ; anterior margin sinuate in middle, with weak ocular lobes and fine vibrissae laterally ; dorsal area punctate and each puncture with a very short whitish seta, covered with shining green scales ; lateral sides narrowing from base to apex ; basal margin deeply bisinuate. Scutellum black, small, rectangular with anterior margin rounded, completely covered with shining green scales.

Elytra black, oblong, somewhat convex, running parallel from base to behind middle, narrowing at apex, jointly sinuate at apex, with shoulders weak and rectangularly rounded ; striae narrow, formed by deep elongated punctures and each puncture containing a minute recumbent seta with interspaces squamose ; intervals broad, gently convex, densely covered with green scales, each interval with short recumbent scales. Legs piceous, covered densely with green and coppery scales and suberect setae ; fore-coxae contiguous, placed near posterior margin of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibiae with a fringe of black bristles and a mucro, hind tibiae with corbels open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna

black, covered with pale scales in middle and green scales laterally, punctate and each puncture with a short seta. Abdominal sternites black, covered with a mixture of pale and greenish scales, punctate and each puncture with a short seta.

Aedeagus straight, bilobed at apex, with exophallic valve long and bearing an orifice at apex, with sides and apex comparatively more sclerotized ; phallotreme subapical, without orificial plates ; aedeagal apodemes longer than aedeagus, gradually thickening towards apex, curved ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus surpassing aedeagal apodemes, beset with small papillae near base, thickly setose and papillate in other parts, with two pairs of plates at apex. Bursa copulatrix well-developed, with highly sclerotized lunate plate at its base ; ventral spiculum thick, long and curved. Spermatheca with cornu pointed and curved at apex, collum bent towards ramus.

Measurements.—

Length

Male body : 7.8 to 8.1 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 8.9 to 9.5 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 3.2 to 3.5 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 4.0 to 4.2 mm ; rostrum : 0.9 to 1.0 mm.

Distribution.—INDIA : Punjab, Zirakpur ; Chandigarh ; Uttar Pradesh, Dehradun ; Bihar, Chhota Nagpur.

Sources.—*Dalbergia sissoo*

Holotype in British Museum (N.H.), London.

Genus 3. *Paramycter* Marshall

1944. *Paramycter* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 79, 88

Frons wider than distance between scrobes ; eyes large, circular. Rostrum parallel from base to scrobes, slightly dilated at apex ;

dorsal area narrower at base than frons, dorso-lateral carinae straight ; lateral areas not vertical, without any oblique carinae ; scrobes small, broad, dorsal ; epistome short, its carinate hind margins forming obtuse angle not extending behind antennae ; mentum with 4 setae. Antennae short, squamose ; scape compressed and dorsally flattened ; funicle with joint 2 not or slightly longer than 1 ; club ovate, with joints truncate. Prothorax much wider at deeply bisinuate base than at apex, with ocular lobes feeble and vibrissae short. Elytra with shoulders obliquely prominent. Femora compressed at base, each with a short tooth ; tibiae more or less distinctly mucronate ; claws free.

Type species.—*Paramycter trivitticollis* Marshall.

Distribution.—INDIA.

Key to the species of Genus *Paramycter* Marshall

1. Rostrum broad, not widened at apex, parallel sided, with median depression deep and extending upto its base ; dorsal carinae higher than frons	<i>.setiepistomus</i> sp. nov.	
Rostrum narrower, widened at genae, with median depression shallow and not reaching its base ; dorsal carinae not higher than frons		2
2. Scaling green, with three brown stripes on pronotum ; elytra mottled with brown scales	<i>.trivitticollis</i> Marshall	
Scaling uniformly brown with coppery reflection	<i>.cuprescens</i> sp. nov.	

9. *Paramycter setiepistomus* sp. nov.

(Figs. 8a, 8b)

Frons piceous, narrower than length of eye, slightly higher than upper margins of eyes, covered with ovate brownish scales and some spathulate whitish scales, with central fovea circular and deep ; eyes piceous, broadly-ovate, slightly convex. Rostrum piceous, much longer than broad, sub-parallel ; dorsal area deeply depressed upto antennae, covered densely with brownish scales and spathulate whitish scales, with area behind epistome moderately depressed, with central carina lower than dorso-laterals ; dorso-lateral carinae parallel upto antennal insertion and divergent

thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and almost obtuse ; lateral areas shining, dorsally covered with brownish and whitish scales, each with a narrow curved sulcus almost filled with scales and running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long, densely squamose ; scape stout, moderately curved, gradually clavate, covered with brownish and whitish scales ; funicle with joint 1 as long as 2, 3-7 much longer than broad, all joints profusely covered with brownish and whitish scales ; club fusiform, elongated, finely pubescent.

Prothorax wider than long, with well-developed ocular lobes and long vibrissae, piceous, transversely and longitudinally convex, with base and apex deeply bisinuate, rounded laterally ; vestiture of general whitish and brownish scales and some spathulate whitish scales, a brownish stripe in middle dilating towards apex, two lateral white stripes dilating at base and narrowing towards apex. Scutellum small, circular, covered with whitish scales.

Elytra piceous, oblong, almost parallel upto little before middle, much wider at shoulders than base of prothorax, with shoulders sub-rounded, gradually declivous posteriorly, with lateral sides slightly impressed near acuminate apices ; striae narrow, with shallow and distinctly set punctures ; intervals broad, convex, each with a shallow depression on intervals 5 and 6 near shoulder. Vestiture consisting of brownish and whitish ovate scales, spathulate whitish scales in regular rows, snow-white scales on lateral intervals, short white scales in strial punctures. Legs ferrugineous, densely covered with white and brownish scales ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with dense brunneus bristles, fore-tibiae with their apical $\frac{1}{3}$ beset with spines internally ; tarsi squamose ; hind tarsus with first joint almost as long as 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a white scale, with punctures almost concealed by scales. Abdominal sternites piceous, punctate, densely covered with broadly-ovate and spathulate white scales.

Aedeagus notched at apex, with exophallic valve conical and not projecting out ; phallotreme sub-apical, without orificial plates ;

aedeagal apodemes twice as long as aedeagus, thin, long ; phallobase with phallobasic apodeme long and narrow, about $\frac{3}{4}$ length of aedeagal apodemes ; endophallus lying between aedeagal apodemes not surpassing them anteriorly, its surface beset with tubercles and papillae ; gastral spiculum with basal arms short and pointed at apices, with median arm long and curved never apex. Female genitalia not studied.

Measurements.—

Length

Male body : 7.4 mm ; rostrum : 1.0 mm.

Female body : 8.1 mm ; rostrum : 1.2 mm.

Breadth

Male body : 2.8 mm ; rostrum : .6 mm.

Female body : 3.2 mm ; rostrum : 7 mm.

Holotype.—Male ; India ; Uttar Pradesh, W. Almora, Kumaon , Aug. 1917, G. C. Champion. *Paratypes* : Males 3, female 1, July 1918, G. C. Champion. Holotype in British Museum (N.H.), London.

10. ***Paramycter trivitticollis* Marshall**

(Fig. 148)

1944. *Paramycter trivitticollis* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 88.

Frons piceous, shining, narrower than length of eye, slightly higher than upper margins of eyes, covered with appressed brownish scales and sparse yellowish seta-like scales ; central fovea deep, elongated, concealed by scales ; Eyes fuscus, rounded. Rostrum piceous, much longer than broad ; dorsal area depressed upto antennae and behind epistome, covered densely with shining greenish scales, with central carina lower than dorso-laterals ; dorso-lateral carinae parallel from base to scrobes and slightly dilated at genae ; epistome small, declivous anteriorly, with hind margin carinate and obtuse ; lateral areas densely covered with shining greenish scales, each with narrow curved sulcus. Antennae piceous, long, densely squamose ; scape stout, slightly curved, clavate, covered with brownish scales and whitish sub-recumbent seta-like scales ; funicle with joint 2 longer than 1, 3-7 subequal,

all joints covered with recumbent whitish scales and sub-erect setae ; club fusiform and uniformly pubescent.

Prothorax piceous, transverse, with well-developed ocular lobes and fine vibrissae, with apex sinuate and base deeply bisinuate ; vestiture of alternating stripes of brownish and greenish scales, scattered sparse seta-like scales, shining white sub-recumbent setae on central stripe. Scutellum small, rectangular, covered with green appressed scales.

Elytra ferrugineous, oblong, almost parallel upto little before middle, much wider at shoulders than base of prothorax, with shoulders sub-rounded, declivous gradually with lateral sides impressed near apex ; striae narrow, with closely set punctures ; intervals broad and convex, with dorsal intervals elevated near base ; vestiture of appressed brownish and greenish scales mixed with sparse brownish seta-like scales. Legs fuscus, densely covered with brownish and whitish scales ; procoxae contiguous ; femora clavate, each with short femoral tooth ; tibiae slender, apical end of each tibia with fringe of brownish bristles and a mucro ; tarsi setose ; hind tarsus with first joint nearly twice as long as second, third bilobed joint spongy beneath ; claws free. Thoracic sterna black, covered with appressed greenish scales, punctate and each puncture with a whitish seta-like scale. Abdominal sternites black, covered with greenish and brownish scales, punctate and each puncture with whitish seta-like scale.

Male genitalia not studied. Bursa copulatrix well-developed. Spermatheca with cornu pointed and curved ; collum almost lying parallel to ramus.

Measurements.—

Length

Female body : 8.1 mm ; rostrum : 0.8 mm.

Breadth

Female body : 3.5 mm ; rostrum : 0.6 mm.

Distribution.—INDIA : Sikkim, Gopaldhara, Rungbong Valley.

Holotype in British Museum (N.H.), London.

11. *Paramycter cuprescens* sp. nov.

(Fig. 149)

Frons piceous, narrower than length of eye, slightly higher than upper margins of eyes, covered with dense broadly ovate cupreous and whitish scales and few spathulate whitish scales, with central fovea small and shallow ; eyes piceous, broadly-ovate, moderately convex. Rostrum piceous, a little longer than broad, with sides divergent anteriorly ; dorsal area depressed moderately behind antennae, covered densely with scales as on frons, with area behind epistome deeply compressed, with central carina lower than dorso-laterals ; dorso-lateral carinae almost parallel upto antennal insertion and divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and acuminate ; lateral areas shining, densely covered with scales as on frons, each with a narrow curved sulcus almost filled with scales and running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, densely squamose ; scape stout, moderately curved, gradually clavate, covered with recumbent cupreous and whitish scales and few spathulate white scales ; funicle with joint 1 longer than 2, 3-7 much longer than broad, all joints covered with dense whitish scales and few cupreus scales ; club fusiform, finely pubescent.

Prothorax transverse, with well developed ocular lobes and long vibrissae ; pronotum piceous, transversely and longitudinally convex, widest at base, with base deeply bisinuate and apex slightly bisinuate, sub-rounded laterally, with a pair of shallow sub-lateral depressions in basal half ; vestiture consisting of dense ovate cupreous scales and few spathulate white scales spread uniformly all over. Scutellum small, circular, covered with recumbent white scales.

Elytra piceous, oblong, parallel upto little beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides behind apices not impressed, each slightly acuminate at apex ; striae narrow with shallow distinctly set punctures, intervals broad and convex, with a shallow depression near each shoulder, dorsal intervals moderately elevated near base ; vestiture consisting of dense cover-

ing of ovate cupreus and spathulate white scales, short white scales filling striae punctures. Legs piceous, densely covered with cupreus and white scales ; pro-coxae contiguous, placed a little before middle of prosternum ; femora clavate, each with short spiny tooth ; tibiae with their apices beset with dense brunneus and white bristles, fore tibiae with their apical 1/3 beset with spines internally ; tarsi squamose ; hind tarsus with joint 1 slightly longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with cupreus and white scales, with punctures almost concealed by scales. Abdominal sternites piceous, punctate, densely covered with broadly-ovate cupreus and whitish scales and some spathulate white scales.

Male genitalia not studied. Bursa copulatrix moderately developed ; without any strengthening plates ; spermatheca with collum short and lying parallel to ramus, cornu weakly curved and blunt at apex.

Measurements.—

Length

Female body : 8.5 mm ; rostrum : 0.8 mm.

Breadth

Female body : 3.5 mm ; rostrum : 0.6 mm.

Holotype.—Female ; India : Uttar Pradesh, Allahabad, Bowring.

Holotype in British Museum (N.H.), London.

Genus 4. *Thlipsomerus* Marshall

1944. *Paramycter* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 79, 89.

Head with frons wider than base of rostrum ; eyes circular and somewhat convex. Rostrum somewhat longer than its basal width ; epistome very short, with immediately behind it two large bare fovea ; mentum with 4 setae. Antennae squamose and setose ; gradually clavate ; funicle with two basal joints variable in length. Prothorax transversely flattened, its posterior margin bisinuate, with ocular lobes well-developed. Elytra with shoulders roundly rectangular ; striae partly covered with scales but punctures visible ; alternate intervals usually more or less raised. Legs with middle

femora flattened and widened at base and also in other legs to a less extent ; corbels of hind tibiae open ; claws free. Aedeagus bilobed at apex ; exophallic valve projecting out ; phallotreme with small orificial plates. Female genitalia with bursa copulatrix well-developed ; spermatheca with collum lying parallel to ramus.

Type species.—*Cyrtepistomus subcosticollis* Mshl.

Distribution.—INDIA.

Key to species of Genus *Thlipsomerus* Marshall

1. Elytral intervals with long suberect to erect setae, each seta about as long as width of intervals 2
 Elytral intervals with short spathulate setae, each less long than width of intervals 3
2. Pronotum with a prominent median ridge in basal half *darjeelingensis* Pajni & Sidhu
 Pronotum without or with weak median ridge in basal half *quadrimaculatus* sp. nov.
3. Elytra with two black transverse bands one before middle and one near declivity *nigromaculatus* Pajni & Sidhu
 Elytra without black bands 4
4. Pronotum with appressed but not fimbriate scales ; scales on pronotum and elytra dull whitish *albosquamosus* sp. nov.
 Pronotum with appressed scales fimbriate ; scales on pronotum and elytra dominantly brownish with mixture of white scales 5
5. Frons narrower than length of eye *foveicollis* sp. nov.
 Frons broader than length of eye *subcosticollis* (Marshall)

12. *Thlipsomerus darjeelingensis* Pajni & Sidhu (Fig. 150)

1982. *Thlipsomerus darjeelingensis* Pajni & Sidhu, *Entomon* (3) 7 : 372.

Frons shining black, flat, covered densely with brownish scales and a row of few sub-erect setae near the eyes, its width more than base of rostrum, with central fovea deep and concealed by scales;

eyes black, large, moderately convex, circular. Rostrum shining black, somewhat longer than its basal width, gradually narrowed from base to scrobes and then moderately dilated at apex ; dorsal area narrow, sulcate, densely covered with brownish scales and some recumbent spathulate setae, with the interscrobal area bare and bifoveate ; central carina fine, terminal ; dorsolateral carinae fine, covered with scales, diverging and gradually so behind epistome, epistome short, with posterior margin not reaching the level of insertion of antennae ; lateral areas densely squamose and longitudinally wrinkled ; scrobes small, broad, each delimited behind by an almost transverse carina ; mentum with 4 setae. Antennae fuscus, moderately long ; scape curved, gradually clavate, reaching near middle of prothorax, its surface covered with dense broad scales and stiff sub-erect fuscus setae ; funicle with joint 2 longer than 1, 3 and 7 subequal but evidently shorter than 1, 4-6 subequal and shortest, all joints covered with elongated scales, and long sub-erect setae ; club oval, acuminate at apex, as long as three apical funicular segments, finely and uniformly pubescent.

Prothorax shining black, transversely flattened, about as long as broad, its anterior margin subtruncate and with well-developed ocular lobes, bearing fine short vibrissae laterally, posterior margin bisinuate with median lobe acute ; pronotum uneven, marked with coarse punctures almost concealed by scales, punctate with each puncture bearing a sub-erect spathulate seta, with an obtuse median costa in basal half which is narrower and somewhat squamose in male but broader and almost bare in female, with a deep rounded fovea behind middle on each side ; lateral sides rounded, broadest at middle, narrowing towards apex but not constricted, sinuate in basal half with basal angles slightly projecting. Scutellum small.

Elytra black, oblong, strongly declivous posteriorly, much wider at roundly rectangular shoulders than base of prothorax, running parallel from base to behind middle, slightly widened in female ; striae narrow, formed by small distant punctures almost concealed by scales ; intervals broad and flat but 1, 3 and 5 slightly raised, with a shallow transverse impression at one-fourth from base, covered with brownish and dull whitish very compactly placed scales, each interval with an irregular row of erect and moderately long setae. Legs fuscus, covered with greyish and brownish scales

and sub-erect setae ; fore-coxae contiguous and placed in middle of prosternum ; femora clavate, each with a small femoral tooth ; anterior tibiae feebly bisinuate internally, anterior two pairs with a row of spines on their inner apical halves, apical end of each tibia with a fringe of brown spines and a mucro, corbels of hind tibiae open ; tarsi densely setose, first joint of hind tarsus 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna black, covered with grey scales along with scattered sub-erect short setae. Abdominal sternites black, covered with brownish scales and short subrecumbent setae.

Male genitalia not studied. Ovipositor long and weakly sclerotized ; coxites more sclerotized and setose ; bursa copulatrix very well-developed, beset with setae and papillae, provided with a highly sclerotized bifid plate and a pair of curved plates near apex ; spiculum ventrale long and slender. Spermatheca with cornu blunt and curved at apex, collum lying parallel to ramus.

Measurements.—

Length

Female body : 6.5 to 7.1 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Female body : 2.3 to 2.5 mm ; rostrum : 0.8 to 0.9 mm.

Distribution.—INDIA : West Bengal, Darjeeling.

Holotype in F.R.I., Dehradun.

13. *Thlipsomerus quadrimaculatus* sp. nov.
(Figs. 9a, 9b)

Frons fuscus, narrower than length of eye, lying higher than upper margins of eyes, covered with appressed brownish scales ; central fovea small, circular, almost concealed by scales ; eyes black, weakly convex. Rostrum piceous, much longer than broad, divergent at apex ; dorsal area deeply depressed behind antennae, moderately so towards posterior end, covered with brownish scales and few brownish seta-like scales, with area behind epistome deeply bifoveate, central carina lower than dorso-laterals ; dorso-lateral

carinae parallel from base to scrobes and divergent at apex ; epistome small, gradually declivous anteriorly, with hind margin carinate and almost obtuse, with lateral margins shining and covered with brownish scales ; mentum with four setae. Antennae piceous, long, densely squamose ; scape cylindrical, moderately curved, gradually, clavate covered with recumbent brownish scales and sub-erect brownish setae ; funicle with joint 2 slightly longer than 1, 3 and 7 equal but shorter than 1, 4-6 equal and shortest, all joints covered with recumbent whitish scales and brownish sub-erect setae ; club piceous, fusiform and uniformly pubescent.

Prothorax much longer than broad, with well-developed ocular lobes and long vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at before middle, with base deeply bisinuate and apex shallowly constricted, rounded laterally, with shallow rounded depressions sub-laterally near base one on each side ; vestiture consisting of appressed whitish and brownish scales and sub-erect setae, 3 distinct longitudinal brownish stripes alternating with whitish stripes. Scutellum small, oblong, covered with brownish scales.

Elytra ferrugineous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, separately acuminate at apices ; striae narrow with shallow distant punctures ; intervals broad, convex ; vestiture consisting of dense whitish and brownish appressed scales and whitish sub-erect setae, 3 distinct dark patches two in basal half and one beyond middle of each elytron, similar but smaller patches in apical half. Legs piceous, densely covered with white and brownish scales ; fore-coxae contiguous ; femora clavate, each with sharp tooth ; tibiae slender, covered with brownish scales and whitish sub-erect setae ; corbels of hind tibiae open ; tarsi squamose ; hind tarsus with first joint longer than 2, third bilobed joint spongy beneath. Thoracic sterna piceous, punctate and each puncture with whitish seta. Abdominal sternites piceous, punctate, densely covered with appressed brownish scales and sub-erect whitish setae.

Aedeagus straight, bilobed at apex, with exophallic valve partly coming out of it ; phallotreme sub-apical, with small orificial

plates ; aedeagal apodemes two times as long as aedeagus, thin and slender ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of dense spine like setae, tubercles and papillae, with pair of plates at apex. Gastral spiculum long, with lateral arms short and well-developed median arm, curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.5 mm ; rostrum : 0.7 mm.

Breadth

Male body : 2.4 mm ; rostrum 0.4 mm.

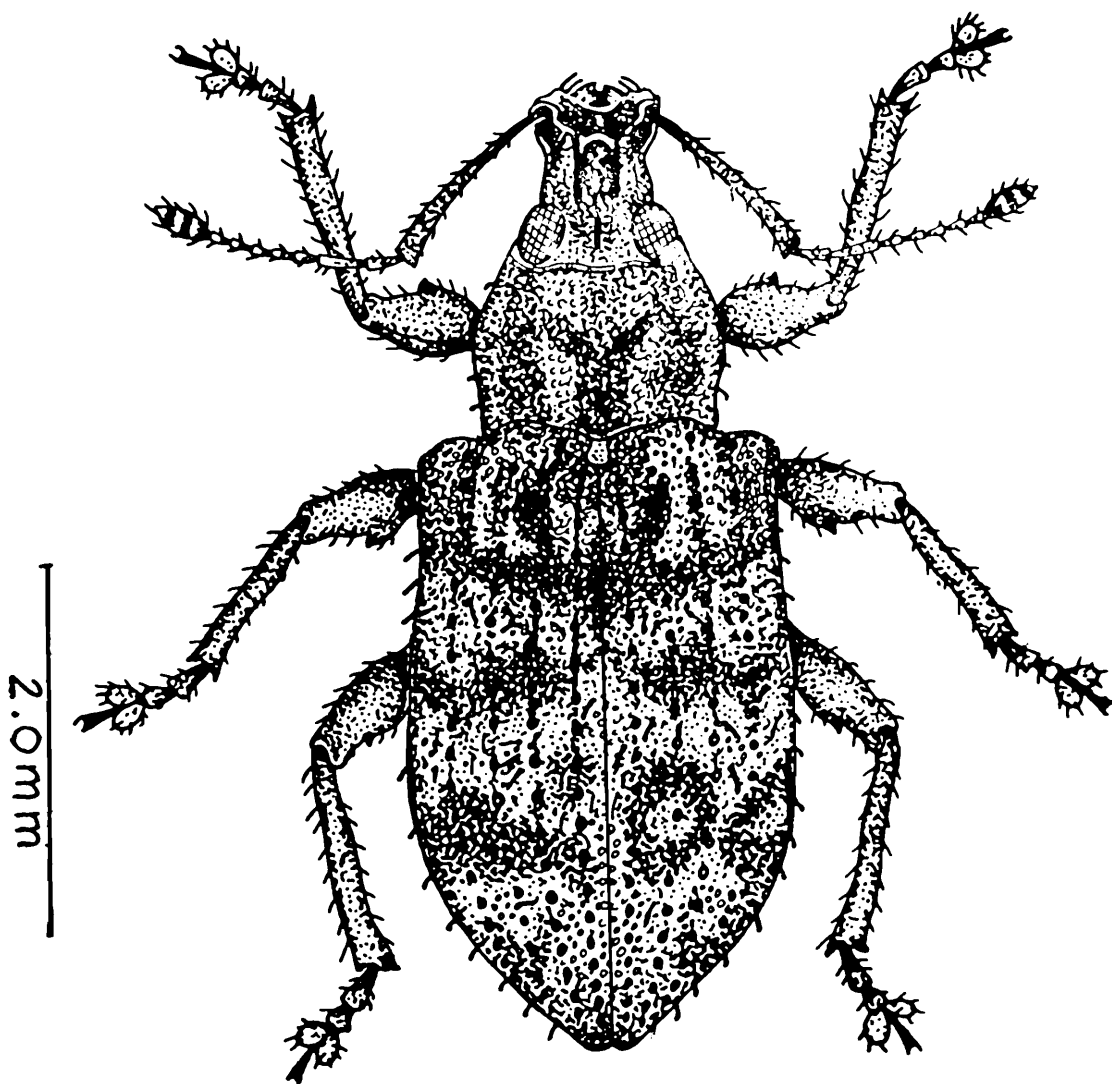
Holotype.—Male : India ; Sikkim, Gangtok ; 26. VII. 1924. Major R. W. G. Hingston. *Paratypes* : Males 2, data same as for holotype. Material in British Museum (N.H.), London.

14. ***Thlipsomerus nigromaculatus*** Pajni & Sidhu
(Figs. 10, 151)

1982. *Thlipsomerus nigromaculatus* Pajni & Sidhu, *Entomon* (3) 7 : 368.

Frons piceous, depressed, covered densely with brownish scales, wider than base of rostrum, its central fovea concealed by scales, with a row of few sub-recumbent spathulate setae by each eye ; eyes black, large, circular and moderately convex. Rostrum fuscus, longer than its basal width, running parallel from base to scrobes and dilated towards apex ; dorsal area narrow, sulcate, covered densely with brownish scales and some sub-erect spathulate setae ; interscrobial area bare, having two large foveae separated by a weak carina ; dorso-lateral carinae covered with scales and almost obsolete in male, bare and distinct in female, strongly divergent towards apex ; epistome short, its posterior margin forming wide obtuse angle, sloping steeply in front ; scrobes broad, each delimited behind by an oblique carina, completely visible from above ; mentum with 4 setae. Antennae fuscofumate, moderately long ; scape curved, stout, gradually clavate for three-fourth of its

length from base and abruptly clavate thereafter, exceeding front margin of prothorax, its surface covered with dense broad scales and stiff sub-erect fusco-fumate setae, setae more numerous towards apex ; funicle with joint 2 longer than 1, and 3 and 7 subequal but shorter than 1, 4-6 subequal and shortest, all joints covered with elongated scales (except 6 and 7) mixed with long erect fusco-fumate setae ; club oval and acuminate at apex, as long as three apical funicular segments, finely and uniformly pubescent.



Thlipsomerus nigromaculatus Pajni & Sidhu

Prothorax fuscus, transversely flattened, about as long as broad, its anterior margin subtruncate with well-developed ocular lobes, bearing short vibrissae laterally, posterior margin deeply bisinuate with median lobe acute ; surface of pronotum uneven, marked with coarse punctures and each puncture with a sub-erect spatulate

seta, scales brownish with a narrow central dark stripe and two broad light stripes of fumate scales in male only, an obtuse median costa in the basal half which is narrower and squamose in male and broader and bare in female, a deep sub-basal depression on each side limited laterally by a low ridge ; lateral sides rounded, broadest in middle, gradually narrowing to apex but not constricted, sinuate in basal half with the basal angles slightly projecting. Scutellum small, fuscous, oval, completely covered with brownish scales.

Elytra fuscus, oblong, strongly declivous posteriorly ; much wider at somewhat roundly rectangular shoulders than the prothorax, parallel sided but slightly wider behind middle in female, their surface covered with brownish and longitudinal bands and patches of white and piceous scales ; striae formed by deep separated punctures almost concealed by scales, each puncture with a minute seta ; intervals broad, with interval one elevated on apical half declivity, intervals three and five each with three long elevations (two before and one on top of declivity), each interval with sub-erect and spathulate setae more on and near the elevations. Legs fuscus, covered with ochraceous scales and suberect setae, fore-coxae contiguous and placed in middle of prosternum ; femora clavate, each with a small femoral tooth, their bases compressed and widened ; tibiae slender, pro-tibiae feebly bisinuate internally, anterior two pairs with a row of spines on the inner apical half, apical end of each tibia with a fringe of fusco-piceous bristles and a mucro, corbels of hind tibiae open ; tarsi setose, first joint of hind tarsus about 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna closely beset with ochraceous scales along with some scattered sub-recumbent small and spathulate setae. Abdominal sterna densely covered with ochraceous scales and sub-recumbent setae.

Aedeagus straight, bilobed at apex, with exophallic valve coming partly out of it ; phallosome sub-apical, with very small orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, thin and slender ; phallobase ring-shaped, its ventral apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae throughout, densely papillate sub-apically, with two pairs of curved plates at apex. Bursa

copulatrix more or less membranous with a nipple-like process at apex ; spiculum ventrale long and thin. Spermatheca with cornu pointed and curved at apex, collum lying parallel to ramus.

Measurements.—

Length

Male body : 5.1 to 6.2 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 7.3 to 8.4 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.0 to 2.3 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 3.0 to 3.5 mm ; rostrum : 0.6 to 0.7 mm.

Distribution.—INDIA : Meghalaya, Cherrapunji.

Holotype in Zoology Department, Panjab University, Chandigarh.

15. ***Thlipsomerus albosquamosus*** sp. nov.

(Figs. 11a, 11b)

Frons fuscus, slightly narrower than length of eye, much higher than upper margins of eyes, covered with dense ovate and some spathulate brownish scales, with central fovea circular and almost concealed by scales ; eyes piceous, broadly ovate, slightly convex. Rostrum black, much longer than broad, parallel ; dorsal area covered with dense white and some cupreous scales, with area behind epistome deeply bifoveate, with central carina almost in level with dorso-laterals anteriorly but lower posteriorly ; dorso-lateral carinae parallel upto antennal insertion and divergent at apex ; epistome small, gradually declivous anteriorly, with hind margin carinate and almost obtuse ; lateral areas shining, with dense brownish scales. Antennae ferrugineous, long, densely squamose ; scape stout, moderately curved, gradually clavate, covered with recumbent and sub-erect whitish scales ; funcile with joint 1 shorter than 2, 3 and 7 equal but shorter than 1, 4-6 equal and shortest, all joints covered with recumbent whitish scales and whitish sub-recumbent setae ; club piceous, fusiform and uniformly pubescent.

Prothorax longer than broad, with well-developed ocular lobes and long vibrissae. Pronotum fuscus, transversely and longitudinally convex, widest at little before middle, with base deeply bisinuate and apex shallowly bisinuate, rounded laterally, with a pair of shallow sub-lateral depressions near base, with middle and sub-lateral areas carinulate in basal half ; vestiture consisting of uniform covering of dense ovate scales and some spathulate white scales. Scutellum small, circular, densely covered with recumbent whitish scales.

Elytra black, oblong, sub parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with apices separately acuminate ; striae narrow, with rounded closely set punctures ; intervals broad, convex ; vestiture consisting of dense white scales and some cupreus scales, few sub-erect whitish setae, with dark brown patch in middle of apical half. Legs piceous, densely covered with whitish scales ; pro-coxae contiguous ; femora clavate, each with short tooth ; tibiae slender, slightly clavate, covered with cupreus scales and whitish sub-erect setae, corbels of hind tibiae open ; tarsi squamose ; hind tarsus with first joint longer than 2, third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, punctate and each puncture with whitish scales. Abdominal sternites piceous, punctate, densely covered with ovate scales and some spathulate whitish scales.

Aedeagus straight, bilobed at apex, with exophallic valve coming partly out of it ; phallotreme subapical, with small orificial plates ; aedeagal apodemes 2 times as long as aedeagus, thin and slender ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with papillae and tubercles. Gastral spiculum long, with lateral arms short and well developed, median arm curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.2 mm ; rostrum : 0.5 mm.

Breadth

Male body : 2.3 mm ; rostrum : 0.3 mm.

Holotype.—Male : India ; Meghalaya, Shillong, Khasi Hills ; Anam, 29.VIII.1915 ; S. W. Kemp. Holotype in the British Museum (N.H.), London.

16. *Thlipsomerus foveicollis* sp. nov.

(Figs. 12a, 12b)

Frons ferrugineous, narrower than length of eye, slightly higher than upper margins of eye, covered with dense white scales, with central fovea circular and concealed by dense scales ; eyes black, broadly-ovate, weakly convex. Rostrum ferrugineous, much longer than broad, with sides parallel upto antennal insertion ; dorsal area depressed behind antennae, covered with dense white scales, with area behind epistome bifoveate, with central carina lower than dorso-laterals ; dorso-lateral carinae divergent ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with dense white scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneous, long, with dense white scales and few sub-erect brown scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 almost as long as 2, 3-7 longer than broad and beaded ; club fusiform, finely pubescent.

Prothorax wider than long, with well developed ocular lobes and long vibrissae. Pronotum ferrugineous, transversely and longitudinally convex, widest at base, rounded laterally, with apex truncate and base bisinuate, with a pair of shallow sub-lateral depressions near base ; vestiture consisting of general broadly ovate and few spathulate whitish scales, a distinct sub-circular patch of broadly-ovate fuscous scales in middle. Scutellum small, longer than broad, covered with small whitish scales.

Elytra ferrugineous, oblong, parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6

and 7 impressed at shoulders ; elytral vestiture consisting of general broadly-ovate fuscus and whitish scales, brownish scales arranged in broad transverse bands alternated with narrower white stripes, a row of spathulate whitish or fuscus scales on each interval, with narrow white seta-like scales in each strial puncture. Legs ferrugineous, densely covered with whitish scales ; fore coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense brunneous bristles ; tarsi squamose ; hind tarsus with first joint longer than 2 and 3 together. Thoracic sterna ferrugineous, punctate and each puncture with a whitish scale. Abdominal sternites ferrugineous, punctate, covered with dense broadly ovate and few spathulate whitish scales.

Aedeagus almost parallel sided, straight, with sub-apical phallosome not enclosed by orificial plates ; exophallic valve slightly projecting out of aedeagus and somewhat rounded at apex ; aedeagal apodemes long, curved outwards, each about 2 times as long as aedeagus ; phallobase ring-shaped, with its apodemes slightly longer than aedeagus ; endophallus lying between aedeagal apodemes, not surpassing them anteriorly, its surface covered with numerous setae in basal half and blunt tubercles in distal half, with rows of papillae sub-apically ; gastral spiculum long, narrow, curved at right angle near apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.8 mm ; rostrum : 0.5 mm.

Breadth

Male body : 2.5 mm ; rostrum : 0.3 mm.

Holotype.—Male : Assam ; 1905 ; Fry.

Holotype in British Museum (N.H.), London.

17. *Thlipsomerus subcosticollis* (Marshall)
(Figs 13, 152)

1943. *Cyrtepidomus subcosticollis*: Marshall, *Ann. Mag. nat. Hist.*, (11) 10 : 107.

1944. *Thlipsomerus subcosticollis* : Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 90.

Frons fusco-piceous, impressed, covered densely with brownish scales, with a row of setae near interior margin of eye, wider than base of rostrum, with central fovea deep ; eyes black, moderately large, convex. Rostrum fusco-rufous, about as long as broad at base, running parallel from base to scrobes and moderately dilated at apex ; dorsal area narrow, sulcate, covered with similar scales and setae as on frons, with interscrobal area bare and having two large foveae separated by a weak carina ; dorso-lateral carinae running parallel from base to scrobes and strongly divergent apically, concealed by scales ; epistome short, not reaching level of insertion of antennae ; lateral areas squamose ; scrobes small, broad, each delimited behind by almost transverse carina, visible from above ; mentum with 4 setae. Antennae fuscus, moderately long ; scape curved, gradually clavate, exceeding front margin of prothorax, covered with dense broad scales and stiff sub-erect setae ; funicle with joint 2 little longer than 1, 3 and 7 subequal but shorter than 1, 4-6 subequal and shortest, all joints covered with elongated scales and long sub-erect setae ; club oval, acuminate at apex, as long as three apical funicular segments, finely and uniformly pubescent.

Prothorax red-brown, transversely flattened, about as long as broad, its anterior margin sub-truncate with well-developed ocular lobes and short vibrissae laterally ; posterior margin bisinuate with median lobe acute ; surface uneven marked with coarse punctures almost concealed by scales and each containing a recumbent spathulate seta, with an obtuse costa in basal half being narrower and squamose in male and broader and bare in female, with a deep rounded fovea behind middle on each side ; lateral sides parallel and shallowly sinuate in basal half, with basal angles slightly projecting and gradually narrowing to apex but not constricted. Scutellum red-brown, small, oblong, densely covered by brownish scales.

Elytra fusco-rufous, oblong, widest at roundly rectangular shoulders, parallel sided in male but slightly widened behind middle in female, angulate at apex ; striae narrow, formed by conspicuous and close punctures and each puncture with a minute recumbent seta, with interspaces squamose ; intervals one, three and five slightly more raised ; overlapping brownish scales with a few

patches of whitish scales, and sub-recumbent brown setae on intervals. Legs brownish, covered with ochraceous scales and sub-erect setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate ; with bases compressed and widened ; tibiae slender, pro-tibiae feebly bisinuate internally, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibia with a fringe of fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose hind, tarsus with joint one 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna brown, covered with ochraceous scales and pale scattered setae. Abdominal sternites covered with ochraceous scales, punctate and each puncture with a pale sub-erect seta.

Aedeagus straight, bilobed at apex, with exophallic valve lying partly out of it ; phallotreme subapical, with small orificial plates ; aedeagal apodemes 1.7 times as long as aedeagus, thin and slender, gently curved at apex ; phallobase ring-shaped, its apodeme somewhat longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae throughout and much densely so subapically, with two pairs of curved plates at apex. Bursa copulatrix well-developed, with a nipple-like process at apex ; ventral spiculum thin and long. Spermatheca with cornu pointed at apex, collum lying parallel to ramus.

Measurements.—

Length

Male body : 6.7 to 7.0 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 8.0 to 8.3 mm ; rostrum : 1.2 to 1.3 mm.

Breadth

Male body : 2.3 to 2.4 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 2.8 to 3.0 mm ; rostrum : 1.1 to 1.2 mm.

Distribution.—INDIA : Meghalaya, Shillong ; Sikkim, Mungphu ; W. Bengal, Darjeeling ; Assam.

Holotype in British Museum, (N.H.), London.

Genus 5. **Amrikus** Pajni and Sidhu

1982. *Amrikus* Pajni & Sidhu, *Entomon* (3) 7 : 373.

Head with frons wider than base of rostrum ; eyes somewhat convex. Rostrum somewhat longer than broad ; epistome short, its margin carinate and forming an obtuse angle ; mentum with 4 setae. Antenna with scape gradually clavate ; funicle with two basal joints variable in length. Prothorax with posterior margin shallowly bisinuate, its basal angles at least with a small tooth or projection. Elytra with shoulders obliquely rounded ; intervals 3 and 5 raised to form elevations. Legs with femora flattened and widened at bases ; corbels of hind tibiae open ; claws free. Male genitalia with aedeagus bilobed at apex, phallotreme subapical. Female genitalia with bursa copulatrix well-developed and sclerotized ; spermatheca with collum completely directed towards ramus.

Type species.—*Cyphicerus deplanatus* Fst.

Remarks.—The genus *Amrikus* differs from *Thlipsomerus* in the structure of rostrum, prothorax and female genitalia. Marshall (1944) had also indicated the heterogenous nature of the species then assigned to *Thlipsomerus* which have been considered here to belong to a new genus.

Distribution.—INDIA.

Key to the species of genus **Amrikus** Pajni & Sidhu

1. Basal angles of prothorax produced obliquely backwards into long curved processes that reach shoulders of elytra ; funicle with joint 2 longer than 1 ; phallotreme sub-median	<i>.deplanatus</i> (Faust)
Basal angles of prothorax terminated each into a short sharp spine-like process ; funicle with joints 1 and 2 equal ; phallotreme subapical	<i>.glebossus</i> (Marshall)

18. **Amrikus deplanatus** (Faust)
(Figs. 14, 153)

1890. *Cyphicerus deplanatus* Faust, *Stett. Ent. Zeit.* 51 : 69.

1924. *Cyrtepestomus deplanatus* : Marshall, *Ann. Mag. nat. Hist.*, (9) 13 : 288.

1943. *Cyrtepistomus deplanatus* : Marshall, *Ann. Mag. nat. Hist.*, (11) 10 : 108.
1944. *Thlipsomerus deplanatus* : Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 90.
1982. *Amrikus deplanatus* : Pajni & Sidhu, *Entomon* (3) 7 : 374.

Frons black, covered with brownish scales, a little wider than base of rostrum, lying a little above upper margins of eyes ; central fovea deep and elongated, concealed by scales ; eyes black, moderate, somewhat convex. Rostrum black, somewhat longer than broad, running parallel from base to scrobes and moderately dilated towards apex ; dorsal area broadly impressed, with central carina obsolete, covered densely by brown scales, with area around epistome bare and more depressed ; dorso-lateral carinae distinct, parallel behind and diverging apically ; epistome short, with carinate margins forming an obtuse angle behind ; lateral areas steeply declivous, squamose, each with two deep sulci enclosing a broad low costa ; scrobes broad, small, open, curving inwards, almost visible from above ; mentum with 4 setae. Antennae fuscus, moderately long ; scape sub-cylindrical, gradually clavate, almost straight, reaching middle of prothorax, its surface furnished with brownish scales and stiff brown setae ; funicle with joint 2 longer than 1, joints 3 and 7 equal but shorter than 1, 4-6 equal and shortest, all joints covered with a few brownish scales and numerous recumbent and sub-erect setae ; club fuscus, fusiform, as long as two apical funicular joints, finely and uniformly pubescent.

Prothorax black, as long as its apical width, broadest at base ; anterior margin sinuate with distinct ocular lobes and fine vibrissae laterally ; surface uneven, flattened, distantly punctate and each puncture with a short recumbent seta ; covered with dense brownish scales ; posterior margin shallowly bisinuate and basal angles produced obliquely backwards into long curved processes reaching shoulders of elytra, with a large conspicuous depression at each angle, about twice as broad as apex. Scutellum fusco-piceous, rectangular, small, covered with scales.

Elytra fusco-piceous, oblong, strongly declivous posteriorly, with weak shoulders ; striae narrow, formed by large and separated punctures and each puncture with a minute recumbent seta, with interspaces densely squamose ; intervals broad, intervals 3 and 5

elevated in basal halves, covered with brown scales except two large patches of white scales one before middle and one on declivity of each elytron. Legs fusco-piceous, very densely covered with pale and brown scales and sub-erect fine setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short tooth, with bases compressed and widened ; tibiae slender, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibia with a fringe of fuscus bristles and a mucro ; corbels of hind tibiae open ; tarsi densely setose, hind tarsus nearly twice as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna covered with pale scales in middle and brown scales laterally, punctate and each puncture with fine brown setae. Abdominal sternites covered with pale scales in middle and brown scales laterally, punctate and each puncture with a sub-erect seta.

Aedeagus straight, tubular, bilobed at apex, with exophallic valve lying submedially, with sides and apex strongly sclerotized ; phallotreme sub-median, with small orificial plates ; aedeagal apodemes a little longer than aedeagus, gradually thickening towards apex and there gently curved ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, not surpassing them, beset with rows of dense spine-like setae and very small papillae, with a pair of plates at apex. Bursa copulatrix well-developed and sclerotized, with a pair of highly sclerotized plates at apex and a pair of small curved plates near base ; ventral spiculum thick, long and gently curved. Spermatheca with cornu pointed at apex, collum completely directed towards ramus.

Measurements.—

Length

Male body : 7.7 to 8.2 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 8.0 to 8.6 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.7 to 3.0 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 3.0 to 3.2 mm ; rostrum : 0.8 to 0.9 mm.

Distribution.—INDIA : West Bengal, Darjeeling ; Sikkim.

Holotype in Dresden Museum (Germany).

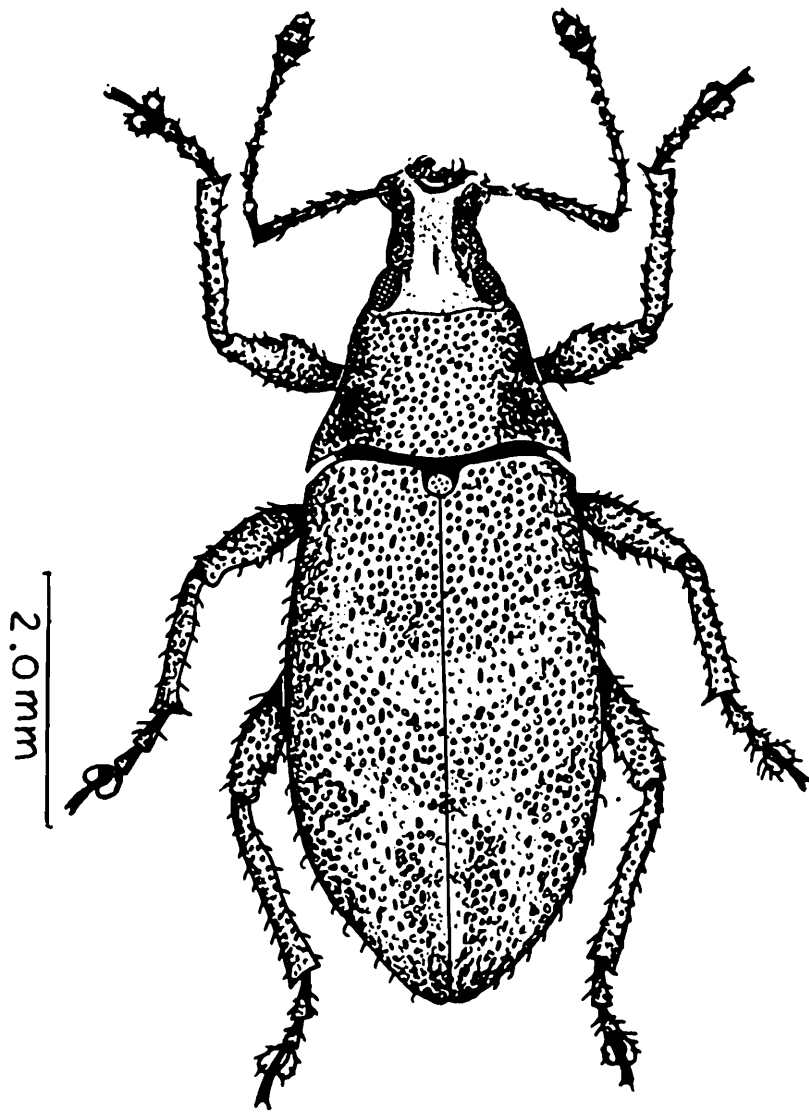
19. **Amrikus glebossus** (Marshall)
(Figs. 15, 154)

1924. *Cyrtepistomus glebossus* Marshall, *Ann. Mag. nat. Hist.*, (9) 13 : 287.
1944. *Thlipsomerus glebossus* : Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 90.
1982. *Amrikus glebossus* : Pajni & Sidhu, *Entomon*, (3) 7 : 377.

Frons brown, striolate and striae hidden by dense brownish scales and sub-erect seta-like scales wider than base of rostrum, shallowly impressed in middle, with a small central fovea ; eyes black, moderate, somewhat convex, lying a little below frons. Rostrum brown, slightly longer than broad, gradually narrowing from base to scrobes, dilated at genae ; dorsal area flat, covered with similar scales and setae as on frons, with a fine median carina running from epistome to central fovea of frons ; dorso-lateral carinae almost obsolete, concealed by scales ; epistome short, with hind margin carinate and almost straight ; lateral areas striolate, each with two deep sulci enclosing a broad costa ; scrobes broad, curving inwards, almost visible from above ; mentum with 4 setae. Antennae brown, moderately long ; scape gently curved, slender and gradually clavate, exceeding front margin of prothorax, its surface furnished with narrow scales and subrecumbent fumate setae ; funicle with joints 1 and 2 equal, 3 and 4 subequal but shorter than first two, 5-7 subequal and shortest, all joints covered with narrow scales and fine recumbent setae, each joint with a distinct whorl of long sub-recumbent setae ; club fusiform, as long as two apical funicular joints, densely and uniformly pubescent.

Prothorax brown, transverse, widest at middle, with sides gently curved, its dorso-lateral margin compressed into an obtuse ridge terminating at basal angle in a sharp but short point, fitting closely to elytron ; anterior margin distinctly sinuate in middle with well-developed ocular lobes and short vibrissae laterally ; dorsal surface coarse, flattened with a broad shallow depression on each side behind middle, marked with distant punctures and each puncture

with a sub-recumbent spathulate seta, covered with brownish and fawn scales ; basal margin shallowly bisinuate. Scutellum brown, rounded, covered with brownish scales.



Amrikus glebossus Marshall

Elytra brown, oblong, running parallel from base to behind middle in male and slightly widening in female, with shoulders obliquely rounded, their surface uneven ; striae narrow, irregular, sinuous, formed by small deep punctures visible through scales and each containing a minute recumbent seta ; intervals broad, covered by brownish and whitish scales alongwith greyish scales, with intervals three and five having three elongated tubercles (two before middle and one on top of declivity), with 2-3 small tubercles

on declivity. Legs brown, covered densely with light greenish scales and sub-erect setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short tooth, with base compressed and widened ; tibiae slender, pro-tibiae feebly bisinuate internally, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibia with a fringe of fusco-piceous bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint about twice as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna brown, covered with light greenish scales, punctate and each puncture with a small sub-erect seta. Abdominal sternites brown, with first and second visible sternites broadly impressed in middle in male and less so in female, covered with greenish scales and sub-erect setae, with setae dense and erect in apical sternites.

Aedeagus straight, bilobed at apex, with exophallic valve lying partly out of it ; phallotreme subapical, with small orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, thin and slender, gently curved at apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae throughout, densely papillate sub-apically, with a pair of plates at apex. Bursa copulatrix well-developed, sclerotized towards apex ; ventral spiculum long and slender. Spermatheca with cornu curved and pointed at apex, collum completely directed towards ramus.

Measurements.—

Length

Male body : 7.1 to 7.5 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 7.5 to 8.1 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.2 to 2.5 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.5 to 2.8 mm ; rostrum : 0.9 to 1.0 mm.

Distribution.—INDIA : Uttar Pradesh, Mussourie, Kumaon Hills ; Sikkim.

Holotype in British Museum, (N.H.), London.

Genus 6. *Epixynus* Marshall

1944. *Epixynus* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 91.

Frons comparatively narrow, its width not greater than length of an eye, with very large frontal fovea ; eyes large and flat. Rostrum narrower at base than head, dorsal outline distinctly curved and continuous with frons, dorsal area at its base as wide as frons ; epistome short, its hind margin forming broad curved obtuse angle. Antennae setose ; scape curved, gradually clavate ; funicle with distal joints longer than broad. Prothorax transverse, rounded laterally. Elytra with rounded shoulders. Legs with small triangular femoral tooth ; corbels of hind tibiae open ; claws free.

Type species.—*Epixynus clavus* Marshall.

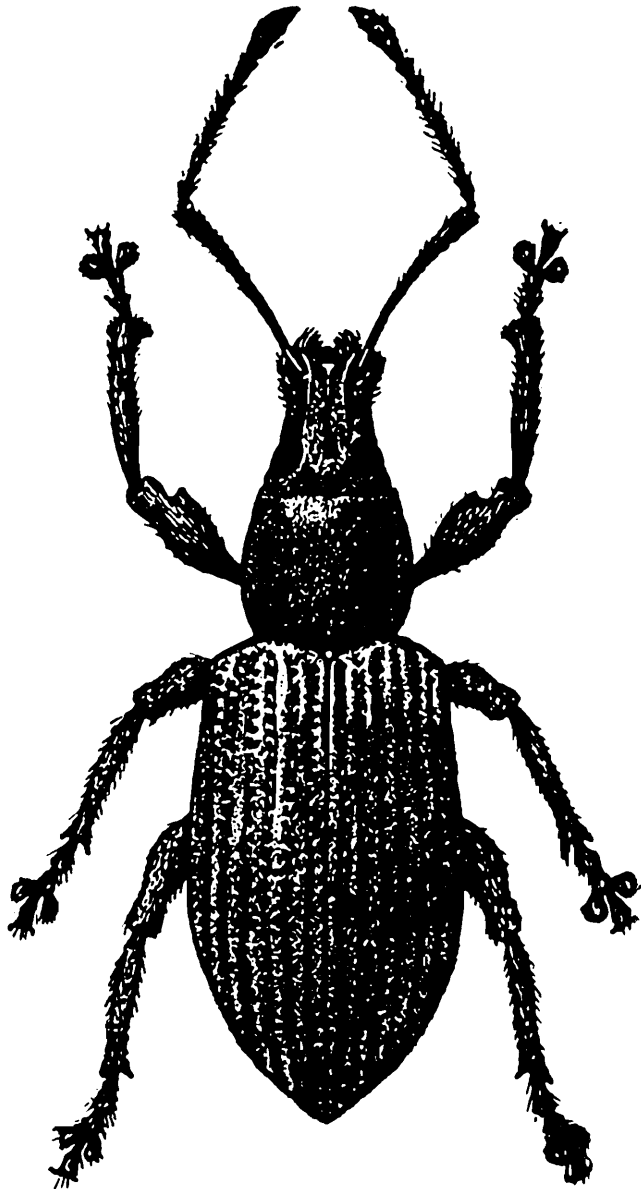
Distribution.—INDIA.

20. *Epixynus clavus* Marshall
(Figs. 16a, 16b, 155)

1944. *Epixynus clavus* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 91.

Frons piceous, much narrower than length of eye, much higher than upper margins of eyes, sparsely covered with narrow whitish scales, with central fovea small and elongated ; eyes piceous, large, circular, almost flat. Rostrum piceous, much longer than broad, with sides convergent ; dorsal area elevated behind antennae, covered with few narrow whitish scales, with area behind epistome slightly depressed, with central carina a little lower than dorso-laterals ; dorso-lateral carinae gradually decurved anteriorly, with hind margin carinate and sharply acuminate ; lateral areas shining, sparsely covered with narrow whitish scales, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, moderately squamose ; scape elongated, cylindrical, moderately curved, gradually clavate, covered with recumbent whitish scales ; funicle with joint 1 a little shorter than 2, 3-7 elongated, all joints profusely covered with narrow sub-erect scales ; club fusiform, finely pubescent.

Prothorax transverse, with ocular lobes poorly developed and vibrissae short; pronotum piceous, transversely and longitudinally convex, widest at middle, with base moderately bisinuate and apex shallowly constricted, laterally rounded, with lateral



Epixynus clavus Marshall

angles sub-cuniform, with a pair of shallow circular depressions one near base of each sub-lateral side, with surface strongly rugulose; vestiture consisting of sparsely scattered narrow whitish scales without forming a distinct pattern. Scutellum small, circular, almost denuded.

Elytra piceous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides behind apices strongly depressed and each apex shortly acuminate ; striae slightly wider than intervals, with shallowly rounded closely set punctures; intervals narrower than striae, convex ; surface moderately rugulose, with ridges between striae and intervals at places ; vestiture consisting of minute seta-like white scales sparsely dispersed throughout. Legs piceous, moderately covered with narrow whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with short spiny tooth ; tibiae with dense brunneous bristles at apices ; tarsi squamose ; hind tarsus with first joint a little longer than 2, third bilobed joint spongy beneath ; corbels of hind tibiae open. Thoracic sterna piceous, punctate and each puncture beset with a narrow whitish scale. Abdominal sternites piceous, punctate, sparsely covered with narrow whitish scales.

Aedeagus straight, somewhat sinuate at apex, with exophallic valve small ; phallotreme sub-apical ; aedeagal apodemes more than two times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme equal to aedeagus ; endophallus pointed at apex, beset with tubercles and papillae ; gastral spiculum with lateral arms short, median arm thick, pointed and swollen at apex. Bursa copulatrix well-developed, sclerotized, marked with wrinkles ; spermatheca with cornu pointed at apex ; collum short and swollen ; ramus indistinct.

Measurements.—

Length

Male body : 6.1 mm ; rostrum : 0.8 mm.

Female body : 6.4 mm , rostrum : 0.5 mm.

Breadth

Male body : 2.3 mm ; rostrum : 0.5 mm.

Female body : 2.5 mm ; rostrum : 0.4 mm.

Distribution.—INDIA : Bihar, Chota Nagpur, Barway.

Holotype in British Museum, (N.H.), London.

Genus 7. **Piezophrys** Marshall

1944. *Piezophrys* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 80, 95.

Frons very narrow, much narrower than greatest distance between scrobes, separated from rostrum at most by a very slight impression. Rostrum about as long as or longer than broad, strongly dilated at apex ; dorsal area normally narrower than frons, rarely equally broad ; epistome short, with carinate hind margin almost transverse ; mentum with 4 setae. Scape slender, curved, gradually clavate ; funicle with joint 2 longer than 1. Prothorax with ocular lobes well-developed. Elytra with roundly rectangular shoulders. Legs with corbels of hind tibiae enclosed, each with a bare inner carina ; claws free. Aedeagus truncate or sub-truncate at apex, with exophallic valve not projecting out ; phallotreme with internal orificial plates. Female genitalia with bursa copulatrix well-developed, having sclerotized plates near apex.

Type species.—*Piezophrys hebes* Marshall.

Distribution.—INDIA.

Key to the species of genus **Piezophrys** Mshl.

1. Base of prothorax deeply bisinuate	2
Base of prothorax slightly bisinuate	5
2. Elytra covered with-dull brownish scales, with two transverse bands of whitish scales at top of declivity	<i>hebes</i> Mshl.
Elytra with green scales, sometimes suffused with brownish or blackish scales	3
3. Elytra with a prominent intervening cross of blackish and greenish scales at top of declivity	<i>.cruciatus</i> sp. nov.
Elytra without any cross at top of declivity	4
4. Body covered with shining bluish-green scales, with some denuded areas ; denuded areas forming three regular longitudinal stripes on prothorax ; size smaller (3.5 to 3.8 mm)	<i>.superciliatus</i> sp. nov.
Body covered with uniform shining blue-green scales, without any denuded areas ; size comparatively larger (4.9 to 5.3 mm)	<i>patuloepistomus</i> sp. nov.

5. Body uniformly covered with blue-green scales, ground colour black ; elytra without any tubercles *.subchloris* sp. nov.
 Body covered with dull-brownish, whitish and blackish scales ; ground colour brown ; elytra more or less tuberculate 6
6. Elytral intervals with prominent tubercles, each tubercle clothed with dense scale-like blackish setae *alboscuteUellatus* sp. nov.
 Elytral intervals with low and short tubercles, each bearing an erect black seta *punctostriatus* sp. nov.

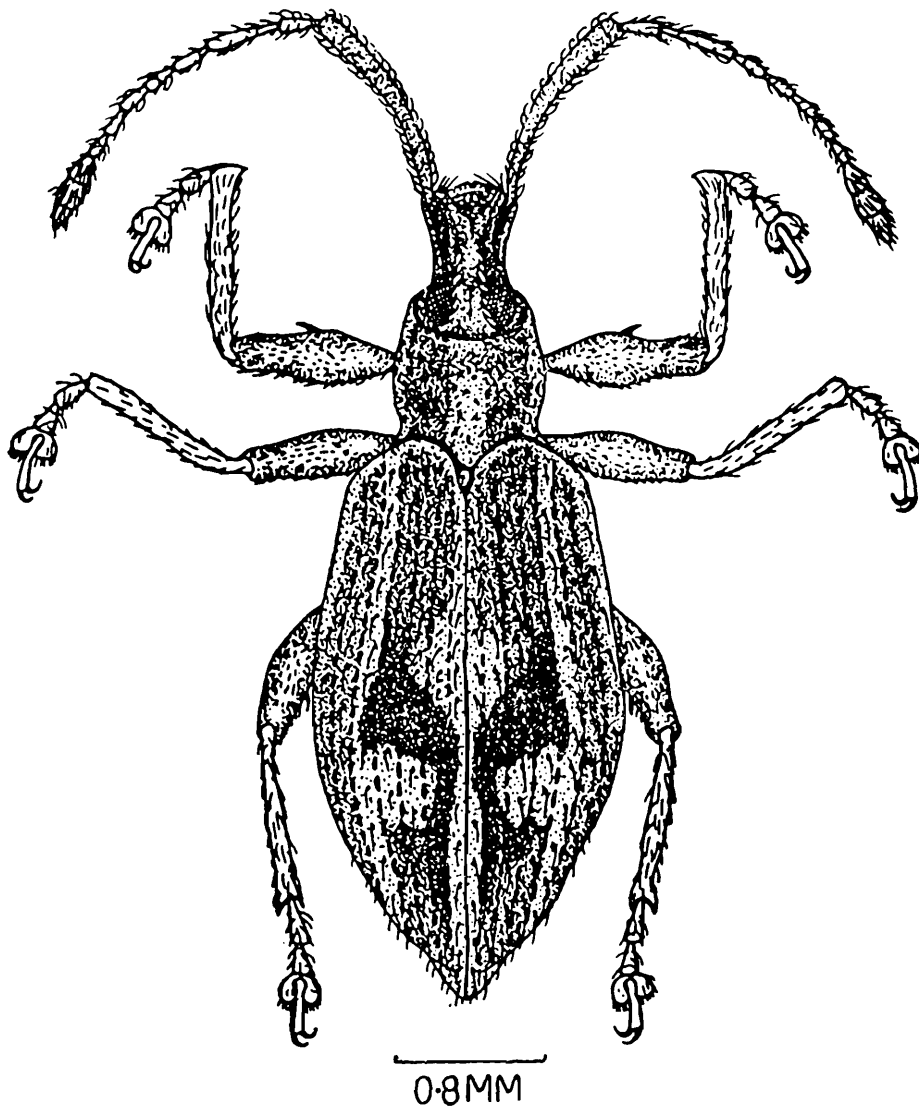
21. *Piezophrys hebes* Marshall (Figs. 17, 156)

1944. *Piezophrys hebes* Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 95.

Frons piceous, punctate, covered with brownish scales and spathulate setae, gradually declivous anteriorly, distinctly demarcated from rostrum, a little wider than base of rostrum ; eyes piceous, sub-dorsal, large, sub-circular, almost flat. Rostrum piceous, longer than its apical width, running almost parallel from base to scrobes and dilated at apex ; dorsal area uneven, covered with few brownish scales and some spathulate setae, with area behind epistome flat and gradually raised to base, without a central carina ; dorso-lateral carinae diverging strongly towards apex and slightly converging behind ; epistome moderate, its carinate hind margin almost transverse, sloping gradually in front ; scrobes broad, curving inwards, open behind, almost visible from above ; mentum with 4 setae. Antennae ferrugineous, long ; scape curved, sub-cylindrical, clavate, reaching middle of prothorax, its surface covered with greenish-yellow sub-recumbent setae ; funicle with joint 2 distinctly longer than 1, 3 and 7 equal but shorter than 1, 4-6 equal and shortest, covered with brownish recumbent setae, each with a single whorl of erect setae ; club elongated, fusiform, as long as four apical funicular joints, finely and uniformly pubescent.

Prothorax piceous, a little broader than long, its anterior margin truncate, with well-developed ocular lobes and fine vibrissae laterally ; surface of pronotum concealed by brownish scales and few

sub-recumbent setae, with very shallow transverse impression before middle and a shallow rounded fovea behind middle on each side ; lateral sides feebly rounded, slightly narrower at apex than at deeply bisinuate base. Scutellum small, piceous, rectangular with anterior margin rounded, covered with a few pale scales.



Piezophrys hebes Marshall

Elytra piceous, oblong, with shoulders roundly rectangular, gradually widening from base to behind middle and narrowing towards apex, with apices shortly acuminate ; striae narrow, formed by moderate punctures almost concealed by scales ; intervals broad, even, covered with brownish scales with a band of whitish scales at top of declivity, each interval with a row of pale truncate setae.

Legs ferrugineous, covered with brownish scales and pale sub-recumbent to sub-erect setae ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, each with a short tooth, as long as tibiae ; tibiae slender, anterior tibiae feebly bisinuate internally, apical end of each tibia with a fringe of brownish spines and a mucro, corbels of hind tibiae enclosed ; tarsi sparsely setose ; hind tarsus with first joint about 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna covered with brownish scales and some recumbent setae. Abdominal sternites sparsely squamose and setose.

Aedeagus straight, truncate at apex, with a small exophallic valve ; phallotreme sub-apical, with large orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, thin and slender, gradually thickening towards apex and there somewhat curved ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of papillae and small denticles, with a pair of plates at apex. Bursa copulatrix well-developed, with three sclerotized plates near apex ; ventral spiculum long and slender. Spermatheca with cornu blunt at apex, collum and ramus at right angle to each other.

Measurements.—

Length

Male body : 5.2 to 5.6 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 5.5 to 5.9 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 1.8 to 1.9 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 1.9 to 2.1 mm ; rostrum : 0.5 to 0.6 mm.

Distribution.—INDIA : West Bengal, Darjeeling ; Sikkim,

Source.—*Alnus nepalensis*

Holotype in British Museum, (N.H.), London.

22. *Piezophrys cruciatus* sp. nov.

(Figs. 18, 157)

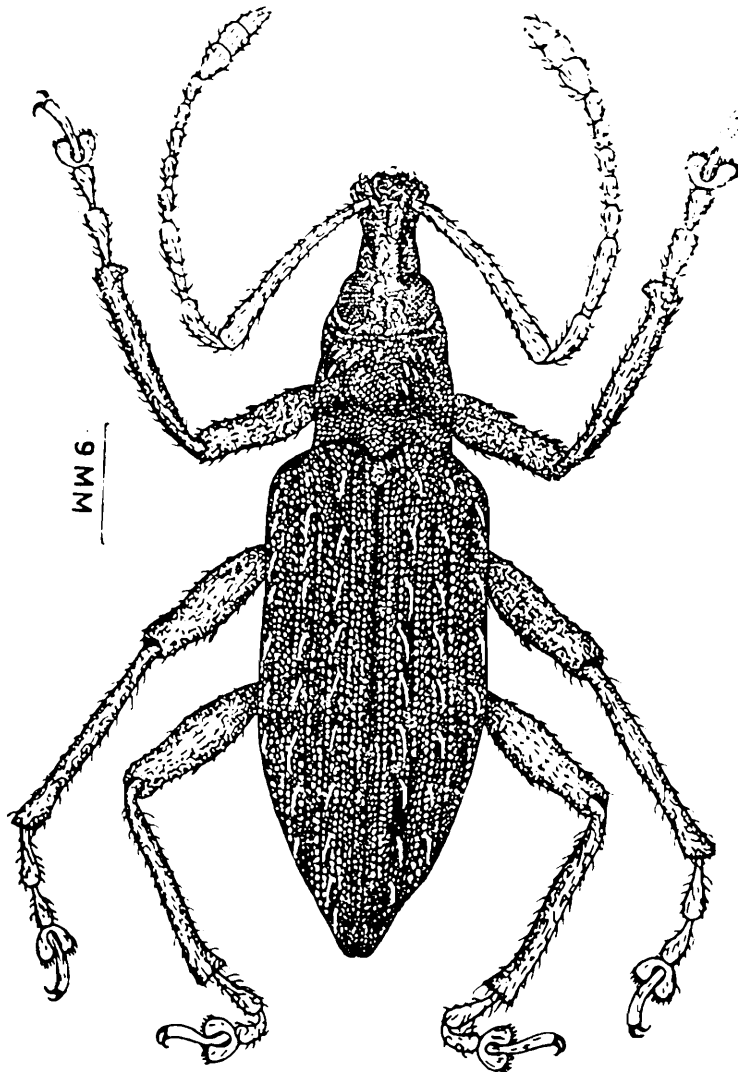
Frons ferrugineous, covered with green scales and some spathulate pale setae, gradually declivous anteriorly and distinctly

demarcated from rostrum, as wide as dorsal area of rostrum ; eyes piceous, sub-dorsal, large, sub-circular, almost flat. Rostrum ferrugineous, longer than its apical width, with lateral sides almost parallel from base to scrobes and then dilated at apex ; dorsal area covered with green scales in basal half and a few pale scales in apical half along with some spathulate pale setae, with two shallow foveae behind epistome, with median carina low from fovea to middle and thereafter gradually raised to base ; dorso-lateral carinae diverging strongly towards apex and slightly converging behind ; epistome small, its carinate posterior margin almost transverse, steeply sloping in front ; scrobes broad, curving inwards, open behind, almost visible from above ; mentum with 4 setae. Antennae fuscus, moderately long ; scape curved, sub-cylindrical, clavate, reaching middle of prothorax, its surface covered with greenish and blackish recumbent setae ; funicle with joint 2 distinctly longer than 1, 3-7 subequal but shorter than 1, all joints covered with greenish recumbent setae, each with single whorl of erect setae ; club fusiform, almost as long as three apical funicular joints, uniformly pubescent.

Prothorax ferrugineous, as long as broad, its anterior margin truncate, with well-developed ocular lobes and long vibrissae laterally ; surface of pronotum marked with conspicuous punctures and each puncture with a sub-erect spathulate seta, with central stripe of green scales narrower than adjoining stripes of brownish scales, with a shallow sub-lateral fovea on each side, lateral sides feebly rounded, slightly narrower at apex than at deeply bisinuate base. Scutellum small, ferrugineous, rectangular with anterior margin rounded, covered with green scales.

Elytra ferrugineous, oblong, strongly declivous posteriorly, with shoulders roundly rectangular, slightly broadened behind middle ; vestiture consisting of green and brownish scales, a characteristic broad sutural band of greenish scales joined by a broad transverse band of similar scales on top of declivity and forming a broken cross ; striae narrow, formed by deep separated punctures and each puncture with a minute seta ; intervals broad, somewhat convex, of equal height, each with a row of brownish truncate setae. Legs brown, densely covered with green scales and green sub-recumbent to sub-erect setae ; fore-coxae contiguous and placed at middle of

prosternum , femora clavate, as long as tibiae, each with a short tooth ; tibiae slender, anterior two pairs with a row of small spines on their inner apical halves, apical end of each tibia with a fringe of small fuscus bristles and mucro, corbels of hind tibiae enclosed ; tarsi setose ; hind tarsus with first joint about 1.5 times as long as



Piezophrys cruciatus sp. nov.

second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna covered with green scales and some greenish sub-erect setae. Abdominal sternites densely covered with green scales and short greenish setae.

Aedeagus straight, sub-truncate at apex, with a short exophallic valve ; phallotreme sub-apical, with comparatively smaller orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, thin and

slender ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus ; endophallus surpassing aedeagal apodemes anteriorly, beset with clusters of setae and papillae, densely papillate sub-apically, with a pair of plates at apex. Bursa copulatrix with two plates at apex ; ventral spiculum long and thin. Spermatheca with cornu pointed and curved at apex, collum and ramus at right angle to each other.

Measurements.—

Length

Male body : 5.8 to 6.3 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 6.1 to 6.5 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.1 to 2.2 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 2.2 to 2.4 mm ; rostrum : 0.7 to 0.8 mm.

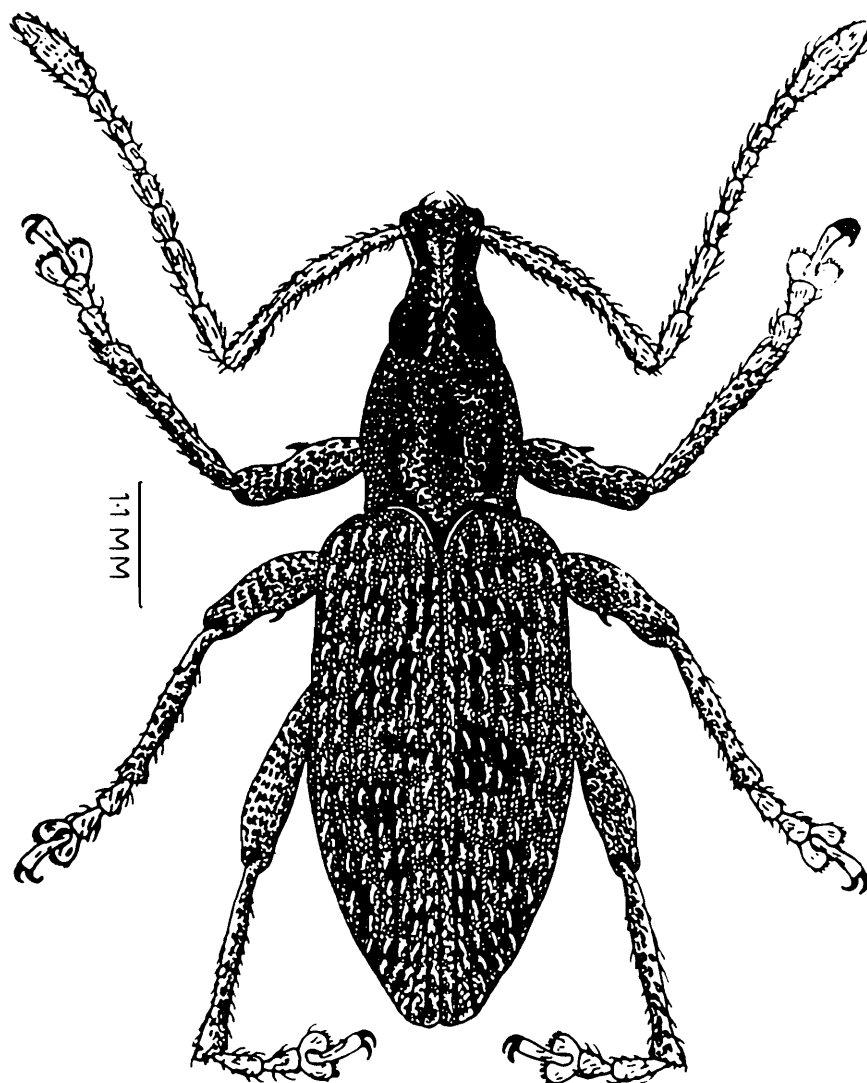
Holotype.—Male : India ; Assam, Borajan Forest ; 29.IV.1979 ; H. R. Pajni. *Paratypes* : Males 2, Female 1 ; same data as for holotype. Material in Zoology Deptt., Panjab University, Chandigarh.

23. *Piezophrys superciliatus* sp. nov.

(Fig. 19)

Frons fuscus, completely covered with green scales and some spathulate pale setae, shallowly demarcated from rostrum, almost as wide as base of rostrum ; eyes piceous, sub-dorsal, large, sub-circular, almost flat. Rostrum fuscus, longer than its apical width, somewhat narrowing from base to middle and then dilating at apex ; dorsal area very gradually raised from apex to base, covered with green scales in basal three-fourth, remaining one-fourth behind epistome uneven and having sparse pale scales, without a central carina ; dorso-lateral carinae indistinct, diverging strongly towards apex and converging slightly behind ; lateral areas each with a shallow sulcus running from upper angle of scrobe to eye and a carina from lower angle of scrobe to eye ; epistome small, its carinate posterior margin more or less transverse, very steeply sloping in front ; scrobes broad, curving inwards and open behind, almost visible from above ; mentum with 4 setae. Antennae ferrugineous, moderately long ; scape curved, sub-cylindrical, gradually clavate,

reaching middle of prothorax, its surface covered with greenish recumbent setae ; funicle with joint 2 longer than 1, 3 to 5 and 7 subequal but shorter than 1, 6 shortest ; club fusiform, as long as three apical funicular joints, finely and uniformly pubescent.



Piezophrys superciliatus sp. nov.

Prothorax fuscus, as long as broad, its anterior margin truncate with moderate ocular lobes and a few vibrissae laterally ; surface of pronotum covered with green scales, having a central narrow and two dorso-lateral stripes of denuded areas, marked with small punctures and each puncture with a short spathulate seta ; lateral sides feebly rounded, of equal width at apex and at deeply bisinuate base. Scutellum small, fuscus, bare, rectangular with anterior margin rounded.

Elytra fuscus, oblong, strongly declivous posteriorly, with shoulders roundly rectangular, running parallel from base to behind middle, surface covered with green scales having patches of denuded areas ; striae formed by deep separated punctures and each puncture with a minute seta ; intervals broad, flat, of equal height, each with a row of pale sub-erect setae. Legs brown, covered with green scales and green sub-recumbent setae ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, as long as tibiae, each with a short tooth ; tibiae slender, anterior two pairs with a row of short spines on their inner apical halves, apical end of each tibia with a fringe of fuscus bristles and a mucro, corbels of hind tibiae enclosed ; tarsi setose , hind tarsus with first joint about 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna covered with green scales and some greenish sub-erect setae, with scales in middle of each sternum narrow. Abdominal sternites densely covered with green scales and spathulate greenish setae.

Aedeagus straight, sub-truncate at apex, with exophallic valve short, better sclerotized towards apex ; phallotreme sub-apical, with large orificial plates ; aedeagal apodemes 1.8 times as long as aedeagus, thin and slender, gradually thickening towards apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae, densely papillate sub-apically, having a pair of plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 3.5 to 3.8 mm ; rostrum : 0.6 to 0.7 mm.

Breadth

Male body : 1.3 to 1.4 mm ; rostrum : 0.4 to 0.5 mm.

Holotype.—Male ; India ; West Bengal, Kurseong ; 27.VIII.1934 ; N. C. Chatterjee. *Paratypes* : Males 5, same data as for holotype. Material in Zoology Deptt., Panjab University, Chandigarh.

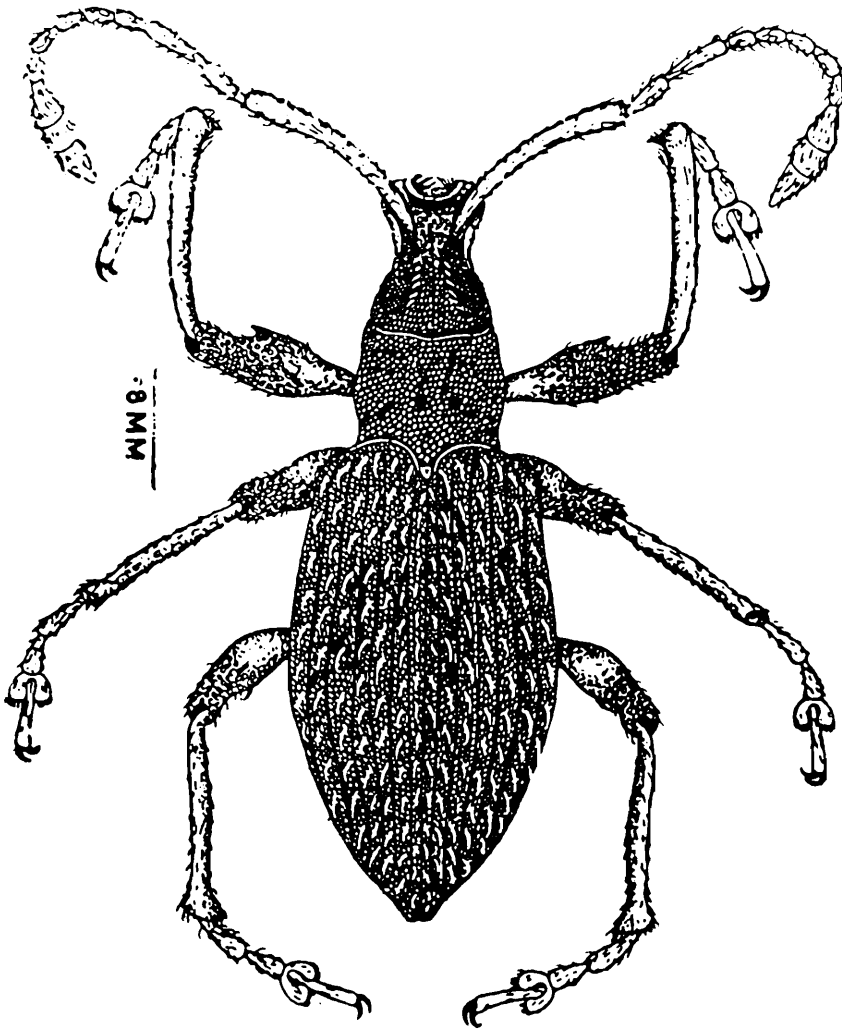
24. *Piezophrys patuloepistomus* sp. nov.
(Fig. 158)

Frons shining black, punctate, flat, densely covered with shining blue-green scales and a few spathulate pale setae, declivous anteriorly, distinctly demarcated from rostrum by a longitudinal impression, almost as wide as base of rostrum but much narrower than length of eye, with an elongated central furrow concealed by scales ; eyes piceous, dorso-lateral, large, sub-circular, almost flat. Rostrum shining black, longer than its apical width, very gradually narrowing from base to scrobes and dilated at apex ; dorsal area minutely granulated, furnished with shining blue-green scales and some pale spathulate setae, with a fine central carinae running throughout its length ; dorso-lateral carinae diverging strongly towards apex and gradually converging behind ; epistome short, with posterior margin very strongly carinate and quite transverse, steeply sloping anteriorly ; lateral areas almost flat, each with a sulcus running from upper margin of scrobe to eye ; scrobes broad, curving inwards, almost visible from above ; mentum with 4 setae. Antennae fuscus, long, furnished with narrow green scales and pale recumbent setae ; scape curved, cylindrical, gradually clavate ; funicle with joint 2 distinctly longer than 1, 3-7 subequal, each joint with a distinct whorl of pale setae ; club elongate, as long as four terminal funicular segments, fusiform, densely and finely pubescent.

Prothorax black, somewhat broader than long, its anterior margin truncate with well-developed ocular lobes and short fine vibrissae laterally ; surface of pronotum largely punctate and each puncture with a short pale sub-recumbent seta, also with a deep rounded fovea behind middle on each side, furnished with shining blue-green scales ; lateral sides feebly rounded, slightly narrower at apex than at deeply bisinuate base. Scutellum black, small, rectangular with anterior margin rounded, covered with shining blue-green scales.

Elytra black, oblong, with shoulders rectangularly rounded, gradually widening from base to behind middle and then narrowing towards apex, with apices shortly acuminate ; striae very narrow, formed by small deep punctures almost concealed by scales ;

intervals broad, somewhat convex, densely covered with blue-green scales, each interval with a row of pale sub-erect setae. Legs piceous, furnished with blue-green scales and pale recumbent setae ; fore-coxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, slender, each with a sharp tooth ; tibiae slender, anterior tibiae feebly bisinuate internally,



Piezophrys patuloepistomus sp. nov.

apical end of each tibia with a fringe of brown bristles and a mucro, corbels of hind tibiae enclosed ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint slightly shorter than second and spongy beneath ; claws free. Thoracic sterna piceous, covered with blue green scales and pale recumbent setae. Abdominal sternites piceous, covered with blue-green scales and short sub-erect setae.

Male genitalia not studied. Bursa copulatrix well-developed, with a pair of plates at apex ; ventral spiculum long and slender. Spermatheca with cornu pointed and curved at apex, collum bent towards ramus.

Measurements.—

Length

Female body : 4.9 to 5.3 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Female body : 2.0 to 2.1 mm ; rostrum : 0.7 to 0.8 mm.

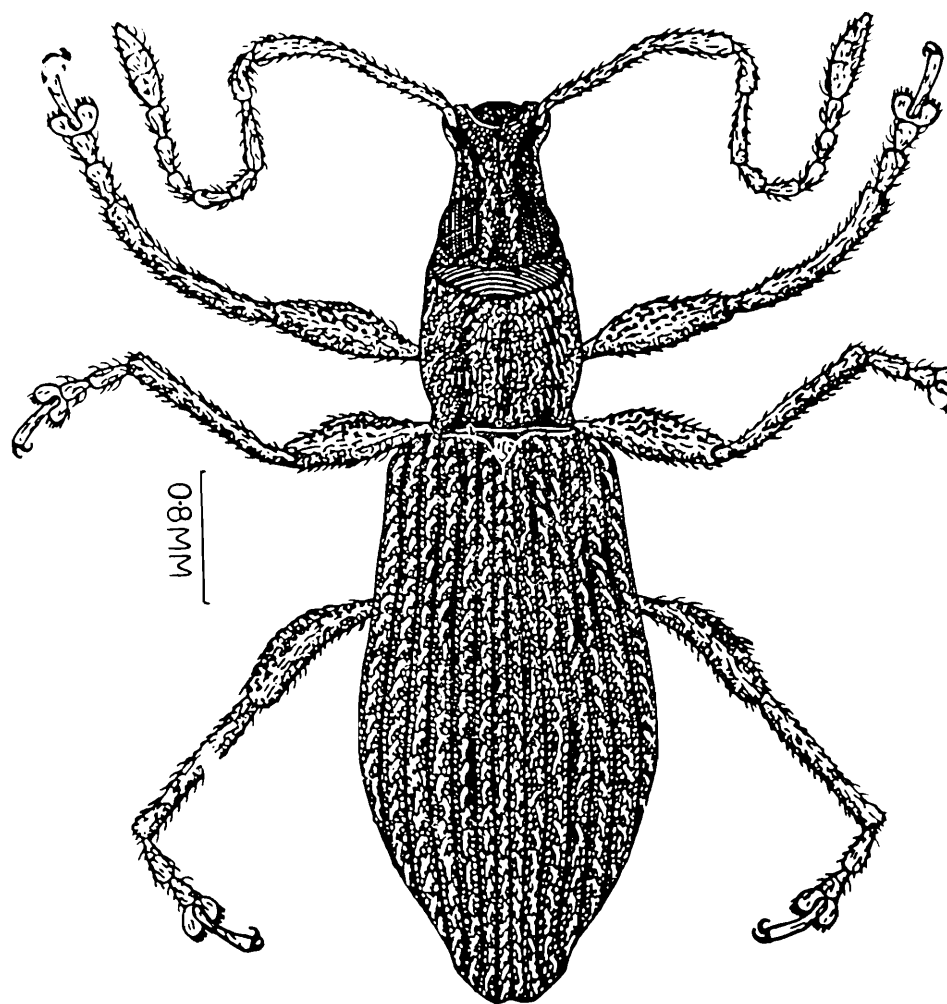
Holotype.—Female ; India ; West Bengal, Darjeeling ; 23.IX. 1929 ; J.C.M. Gardner. *Paratypes* : Females 2, same data as for holotype.

Holotype in F.R.I., Daradun.

25. *Piezophrys subchloris* sp. nov.
(Fig. 20)

Frons piceous, punctate and each puncture with a greenish sub-erect seta, covered with shining green scales, somewhat declivous anteriorly and impressed in middle, clearly demarcated from rostrum, a little wider than base of rostrum but narrower than length of an eye, with an elongated central fovea ; eyes piceous, dorso-lateral, large, somewhat convex. Rostrum piceous, a little longer than its apical width, gradually narrowing from base to scrobes and dilated at apex, densely covered with shining blue-green scales and some pale sub-erect setae ; dorsal area depressed in middle and raised in front and behind, with a fine central carina ; dorsolateral carinae diverging strongly towards apex, gradually converging behind ; epistome moderately long, its carinate posterior margin forming an obtuse angle and placed high above rostrum, sloping in front ; lateral areas obliquely and longitudinally striolate, each with a broad shallow sulcus running from upper angle of scrobe to eye and a curved deep squamose sulcus below it ; scrobes broad, curving inwards, open behind, almost visible from above ; mentum with 4 setae. Antennae darkbrown, moderately long ;

scape curved, subcylindrical, clavate, reaching middle of prothorax, its surface densely covered with pale sub-recumbent setae, funicle with joint 2 distinctly longer than 1, 3 and 4 equal but shorter than 1, 5-7 sub-equal and shortest, all joints covered with pale-green sub-recumbent setae alongwith a distinct whorl of sub-erect longer setae on each joint; club fusiform, with two apical segments brown and demarcated from two basal segments, finely and uniformly pubescent.



Piezophrys subchloris sp. nov.

Prothorax piceous, transverse, densely and largely punctate but more so in middle, with punctures not concealed by shining blue-green scales and each puncture with a sub-erect seta, its anterior margin shallowly sinuate in middle and with well-developed ocular lobes and vibrissae laterally; surface of pronotum with a shallow transverse impression before middle and a pair of post-median small fovea on each side with lateral sides feebly rounded, a little

broader at apex, than at base, broadest at middle, with basal margin weakly bisinuate. Scutellum small, piceous, oblong with anterior margin rounded, beset with few elongated pale scales.

Elytra piceous, oblong, declivous posteriorly, gradually widening from base to behind middle and thence narrowing to apex, with apices jointly sinuate, with shoulders roundly rectangular, much wider at shoulders than base of prothorax ; surface flat, broadly impressed in middle at one-fourth from base ; striae narrow, formed by close punctures and each puncture with a minute seta ; intervals broad, somewhat convex, covered with shining blue-green scales, with a row of pale-orange erect setae on each interval. Legs dark-brown ; coxae covered by elongated pale scales and some shining green scales, procoxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, unidentate, covered with shining green scales and sub-recumbent to sub erect pale setae, as long as tibiae ; tibiae with slender, anterior tibiae sinuate internally, apical ends of all tibiae a fringe of pale bristles and a small mucro, corbels of hind tibiae enclosed ; tarsi densely setose ; hind tarsus with first joint about twice as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna densely and largely punctate and each puncture with a pale seta, covered with shining green scales. Abdominal sternites punctate and each puncture with pale seta, covered with shining green scales, apical segment with large punctures and comparatively long setae, with scales in middle of first and second visible sternites pale and narrow.

Aedeagus straight, slightly sinuate at apex, with exophallic valve lying partly out of it ; phallotreme subapical, with large orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, gradually thickening towards apex ; phallobase ringshaped, with phallobasic apodeme somewhat longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae, densely papillate sub-apically, with two pairs of plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.6 to 5.9 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.1 to 2.3 mm ; rostrum : 0.6 to 0.7 mm.

Holotype.— Male ; India ; Manipur, Korang (Ex. *Cynodons* p.) ; 2.v.1978. H. R. Pajni ; *Paratypes* : Male 3. same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

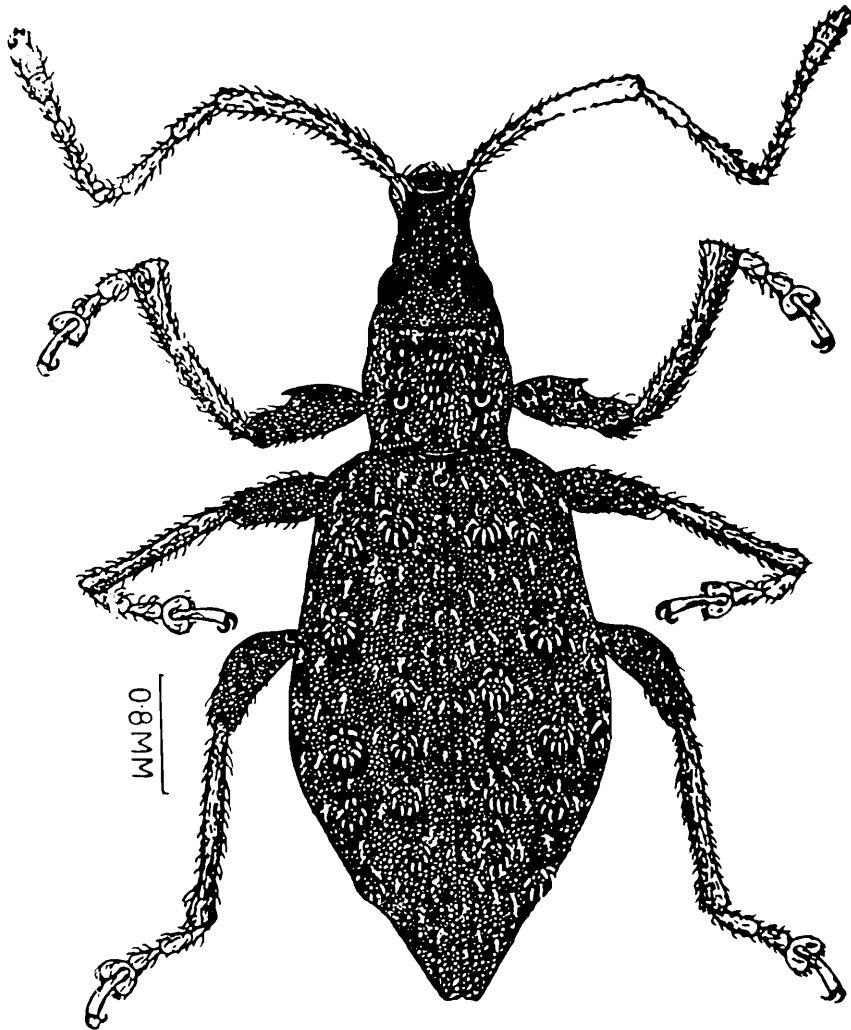
26. *Piezophrys alboscuteallatus* sp. nov.

(Figs. 21, 159)

Frons ferrugineous, punctate, convex behind and declivous anteriorly, covered with dense greyish-brown scales and a few recumbent setae, with a row of sub-recumbent setae near each eye, its width greater than length of eye, with a deep central fovea ; eyes shining black, moderate and slightly convex. Rostrum fuscus, about as long as its apical width, very gradually narrowing from base to scrobes, dilated at apex ; dorsal area impressed, densely covered with greyish-brown scales, largely punctate and each puncture with a short recumbent seta ; central carina strong, almost concealed by scales, running from epistome to central fovea of frons ; dorso-lateral carinae distinct, concealed by scales, strongly diverging apically and parallel behind ; lateral areas each with a broad squamose costa running from scrobe straight to eye, having a squamose stria above and below it ; epistome transverse, placed high above rostrum, with posterior margin almost straight ; scrobes moderately broad, curving inwards, open, almost visible from above ; mentum with 4 setae. Antennae fuscus, moderately long ; scape curved, gradually clavate, reaching middle of prothorax, its surface densely covered with yellowish-brown scales and brownish recumbent setae ; funicle with joint 2 longer than 1, joints 3, 4, 6 and 7 subequal but much shorter than first two, 5 a little shorter but longer than broad, all joints covered with yellowish-brown scales and recumbent setae, with a distinct whorl of dark-brown setae on each joint ; club fusiform, as long as four apical funicular joints, finely and uniformly pubescent.

Prothorax ferrugineous, transverse, widest at middle ; anterior margin shallowly sinuate in middle with well-developed ocular

lobes and short vibrissae ; surface of pronotum rugosely granulato-punctate and each granule bearing a short sub-erect seta, with a pair of shallow transverse impressions before middle and a pair of deep foveae behind middle ; lateral sides feebly rounded, a little broader at apex than at shallowly bisinuate base. Scutellum small, conspicuous, rectangular with anterior margin rounded, covered with fairly dense pale scales.



Piezophrys alboscutellatus sp. nov.

Elytra ferrugineous, oblong, widened behind middle in both sexes, with shoulders roundly rectangular and with apices of elytra jointly sinuate in female ; striae narrow, formed by deep rounded punctures containing setae, stria nine with a fovea at level of hind coxa, with interspaces squamose ; intervals broad, covered with dense brown scales, with a transverse band of pale scales at top of declivity and an indistinct patch near base, with following tubercles ;

interval three with a small one near base, an elongate and largest in middle, three behind this of almost equal size, two very small after them ; interval five with a very small near base, the largest before middle, three more behind this diminishing posteriorly, one conspicuous at apex ; intervals six and seven indistinctly tuberculate throughout ; all tubercles clothed with dense, seta-like blackish scales and recumbent setae. Legs ferrugineous, densely covered with brownish and pale-greenish scales and recumbent setae ; fore-coxae contiguous, placed almost in middle of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior two pairs with a row of small spines on their inner apical halves, apical end of each tibia with a fringe of small blackish bristles and a mucro, corbels of hind tibiae enclosed ; tarsi densely setose ; hind tarsus with first joint about 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna covered with brownish and pale-greenish scales and short recumbent setae. Abdominal sternites covered with a mixture of brownish and pale-greenish scales and short sub-recumbent setae.

Aedeagus straight, sub-truncate at apex, with exophallic valve small ; phallotreme sub-apical, with small orificial plates ; aedeagal apodemes 1.8 times as long as aedeagus, thin and slender ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus lying between aedeagal apodemes, not surpassing them, beset with dense rows of setae and papillae, with a pair of plates at apex. Bursa copulatrix well-developed, with a plate near apex ; ventral spiculum long and thin. Spermatheca with cornu pointed and curved at apex, collum bent towards ramus.

Measurements.—

Length

Male body : 5.4 to 6.0 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 6.3 to 6.7 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.3 to 2.5 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 3.3 to 3.6 mm ; rostrum : 0.9 to 1.0 mm.

Holotype.— Male , India ; Assam, Borajan forest ; H.R. Pajni ; 29.IV.1979. *Paratypes* : Males 4, females 5, same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

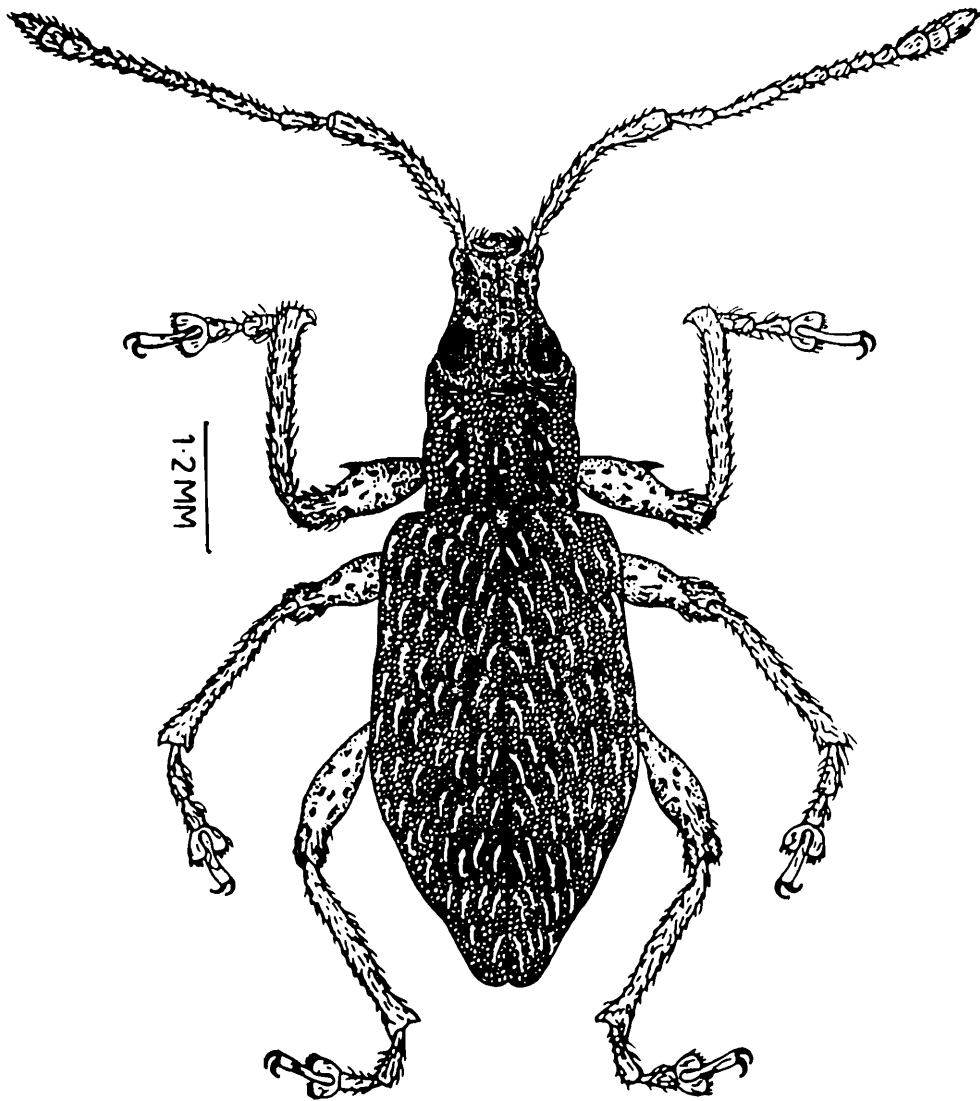
27. ***Piezophrys punctostriatus* sp. nov.**
(Fig. 22)

Frons red-brown, densely covered with brownish scales interspersed with brownish-green scales, with a row of 4-5 long erect fuscus setae near each eye, as broad as dorsal area of rostrum, somewhat declivous anteriorly, with an elongated central fovea, shallowly demarcated from rostrum ; eyes black, dorso-lateral, large, circular, moderately convex. Rostrum red-brown, almost as long as its apical width, narrowing from base to scrobes and strongly dilated at apex ; dorsal area shallowly impressed, covered with brownish-green scales and some fine setae ; central carina sharp, running from epistome to central fovea of frons ; dorso-lateral carinae distinct, strongly diverging apically and parallel behind ; epistome transverse, its carinate posterior margin almost straight and placed high above rostrum, sloping in front ; lateral areas obliquely striolate, each with two sulci running from upper and lower margin of scrobe to eye ; mentum with 4 setae. Antennae red-brown, long ; scape curved, sub-cylindrical, clavate, reaching near middle of prothorax, densely covered with seta-like greenish scales and brown sub-recumbent setae ; funicle with joint 2 distinctly longer than 1, 3-7 sub-equal and shorter than 1, all joints covered by seta-like green scales and brown setae, with a distinct whorl of setae on each joint ; club fusiform, elongated, as long as four apical funicular joints, finely and uniformly pubescent.

Prothorax red-brown, as long as broad, punctate with punctures not concealed by scales and each puncture with a pale sub-recumbent seta ; anterior margin sinuate in middle with broadly rounded ocular lobes and fine vibrissae ; surface of pronotum with two broad dorso-lateral stripes and a narrow central stripe of brownish scales, two stripes of pale scales dorsally, a shallow transverse impression before middle and a longitudinal post-median impression bounded laterally by a carina on each side ; lateral sides almost straight, constricted near base as well as in

apical half, as broad at apex as at shallowly bisinuate base. Scutellum small, red-brown, somewhat bell-shaped, sparsely setose.

Elytra red-brown, oblong, gradually widening from base to behind middle and then narrowing to apex, with apices jointly sinuate, with shoulders roundly rectangular, much wider at shoulders than base of prothorax ; striae narrow, formed by deep distant punctures and each puncture with a minute seta, with



Piezophrys punctostriatus sp. nov.

interspaces densely squamose ; intervals broad, dorsal intervals upto 7th stria with a number of protuberances and each protuberance with a long spine-like seta, lateral intervals flat, with short recumbent setae, dorsal intervals covered with dark-brown scales

and irregular patches of pale-greenish scales, lateral intervals entirely with pale-green scales. Legs testaceous, covered with pale-green scales and fine setae ; fore-coxae contiguous, placed in middle of prosternum , femora clavate, slender, each with a sharp tooth ; tibiae slender, anterior and middle tibiae with a row of fuscus spines on their inner apical halves, apical end of each tibia with a fringe of blackish bristles and a small mucro, corbels of hind tibiae enclosed ; tarsi densely setose ; hind tarsus with first joint about twice as long as second and spongy beneath ; claws free. Thoracic sterna densely and largely punctate and each puncture with short seta, covered with pale-green scales, with scales pale and narrow in middle of each sternite. Abdominal sternites punctate and each puncture with a pale seta, covered with pale-green scales.

Aedeagus straight, sub-truncate at apex, with exophallic valve short ; phallotreme subapical, with small orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, thin and slender, phallobase ring-shaped, with phallobasic apodeme as long as aedeagus and curved near apex ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae, minutely papillate subapically, with two pairs of plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.7 to 7.0 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.5 to 2.6 mm ; rostrum : 0.7 to 0.8 mm.

Holotype.— Male ; India ; Meghalaya, Cherrapunji ; H. R. Pajni ; 6.v.1979. *Paratypes* : Males 4, same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

Genus 8. *Cyphicerinus* Marshall

1928. *Cyphicerinus* Marshall, *Ann. Mag. nat. Hist.*, (10) 2 : 538.

1931. *Cyphicerinus* : Schenkling & Marshall, *Coleopterorum Catalogus*, pars 114 : 5, 33.

Frons broader than length of an eye and almost as broad as greatest distance between scrobes ; eyes somewhat convex. Rostrum

as long as broad ; epistome with carinate margin not lower than adjoining inner margin of scrobe ; scrobes open, curving inwards behind ; mentum with 4 setae. Antennae clothed with setae only, with scape curved. Prothorax transverse, rounded laterally, with well-developed ocular lobes, weakly bisinuate at base ; intercoxal process of mesosternum narrower than apex of scape. Elytra with shoulders roundly rectangular. Femora minutely toothed ; corbels of hind tibiae open. Aedeagus bilobed at apex, with exophallic valve projecting out ; phallotreme without orificial plates. Female genitalia with bursa well-developed and sclerotized, spermatheca with collum and ramus at right angle to each other.

Type species.—*Mylocerus hirsutus* Desbrochers

Distribution.—INDIA, NEPAL, BURMA, BANGLADESH, PHILIPPINES.

Key to the species of genus *Cyphicerinus* Marshall

1. Dorsal area of rostrum with a median stria	2
Dorsal area of rostrum without median stria	3
2. Ground colour shining black ; rostrum shorter than its basal width, narrowed from base to antennae and strongly dilated at apex ; funicle with joint 2 longer than 1	<i>.tectonae</i> Marshall
Ground colour varying from pale brown to piceous ; rostrum as long as its basal width, strongly narrowed from base to beyond middle and then dilated at apex ; funicle with joints 1 and 2 subequal	<i>.pannosus</i> (Marshall)
3. Dorsal area of rostrum flat throughout	<i>.hirsutus</i> Marshall
Dorsal area of rostrum depressed anteriorly	4
4. Elytra covered with fuscus and pale elongate scales ; setae on intervals long and sub-erect	<i>.nepalensis</i> (Faust)
Elytra covered with greyish broadly ovate scales, with a white band at top of declivity ; setae on intervals short and recumbent	<i>.andamanicus</i> sp. nov.

28. *Cyphicerinus tectonae* Marshall

(Figs. 23, 160)

1928. *Cyphicerinus tectonae* Marshall, *Ann. Mag. nat. Hist.*, (10) 2 : 539.

1931. *Cyphicerinus tectonae* : Schenkling & Marshall, *Coleopterorum catalogus*, pars 114 : 5, 39.

Frons shining black, flat, punctate and each puncture with a fine sub-erect seta, covered with a few pale scales, its width greater

than length of eye, with central fovea deep and elongated ; eyes black, moderate, circular and somewhat convex. Rostrum shining black, shorter than its basal width, gradually narrowing from base to scrobes and strongly dilated at apex ; dorsal area flat, covered only with a few scattered pale scales and some sub-erect setae ; central carina not always straight, having besides it posteriorly a shallow stria that runs into central fovea ; dorso-lateral carinae parallel behind and diverging apically ; epistome small, its posterior margin forming a wide angle ; lateral areas obliquely striolate, each with two sulci running from upper and lower margins of scrobe to eye ; scrobes small, broad, curving inwards, visible from above. Antennae castaneous, moderately long ; scape gently curved, sub-cylindrical, gradually clavate, reaching middle of prothorax, its surface covered with stout sub-erect setae ; funicle with joint 2 longer than 1, 3-7 subequal, all joints covered with recumbent setae, with a whorl of long sub-erect setae on each joint ; club fusiform, as long as three apical funicular joints, finely and uniformly pubescent.

Prothorax black, transverse, its anterior margin shallowly sinuate with well-developed ocular lobes and fine vibrissae, with posterior margin feebly bisinuate ; surface of pronotum covered with coarse deep punctures partly concealed by scales and sub-erect setae, with a pair each of shallow anterior impressions and post-median foveae ; lateral sides moderately rounded, broadest at middle, of equal width at base and apex. Scutellum small, black, oblong, furnished with a few recumbent setae.

Elytra black, oblong, with shoulders roundly rectangular, almost parallel, with surface covered with a few irregular patches of brownish scales and one on top of declivity ; striae broad, formed by large punctures, striae 5 and 6 diverging at base ; intervals about as broad as striae in basal half, slightly convex, each with a row of broad sub-erect setae. Legs black, with sparse elongate scales and pale sub-recumbent setae ; forecoxae contiguous, placed in middle of prosternum ; femora clavate, each with a small femoral tooth ; tibiae slender, anterior tibiae with a row of spines on their inner apical half, apical end of each tibia with a fringe of fuscus bristles and mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second,

third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna black, furnished with a few brown scales, punctate and each puncture with a sub-erect pale seta. Abdominal sternites black, covered with sparse scales and fine sub-recumbent setae.

Aedeagus straight, bilobed at apex, with exophallic valve partly lying out of it ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes twice as long as aedeagus, gradually thickening anteriorly ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae, having a pair of plates at apex. Bursa copulatrix well-developed and sclerotized ; ventral spiculum long and slender. Spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Male body : 4.9 to 5.5 mm ; rostrum : 0.6 to 0.7 mm.
Female body : 6.8 to 7.4 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.0 to 2.2 mm ; rostrum : 0.8 to 0.9 mm.
Female body : 2.4 to 2.6 mm ; rostrum : 0.9 to 1.0 mm.

Distribution.—INDIA : Madhya Pradesh, Hoshangabad, Rahatgaon.

Source.—*Tectona grandis*

Holotype in British Museum, (N.H.), London.

29. *Cyphicerinus pannosus* (Marshall)
(Figs. 24, 161)

1913. *Cyrtepestomus pannosus* Marshall, *Ann. Mag. nat. Hist.*, (8) 12 : 187.
1944. *Cyphicerinus pannosus* : Marshall, *Ann. Mag. nat. Hist.*, (11) 11 : 93.

Frons fuscus, flat, covered with a few ochraceous scales and some spathulate sub-erect setae, with a row of few sub-erect setae

near each eye, its width greater than length of an eye, with central fovea deep and elongate, fuscus, as long as its basal width, strongly narrowed from base to beyond middle and dilated at apex ; dorsal area impressed, covered only with a few ochraceous scales and some sub-erect to erect spathulate setae, with central carina lying in a furrow ; dorso-lateral carinae gradually diverging behind, with a longitudinal furrow adjoining each externally ; epistome small, with posterior margin forming a wide angle, sloping steeply in front ; scrobes narrow, curving inwards, open behind and almost visible from above ; lateral areas longitudinally striolate, each with a sulcus running from upper angle of scrobe to eye ; mentum with 4 setae. Antennae castaneous, moderately long ; scape curved, clavate, exceeding front margin of prothorax, its surface covered with sub-erect setae, with external apical angle projecting ; funicle with joints 1 and 2 subequal, 3-7 subequal but much shorter than first two, covered with some setae along with a distinct whorl of long erect setae on each joint ; club fusiform, as long as three apical funicular joints, uniformly pubescent.

Prothorax fuscus, transverse, with anterior margin almost straight, with well-developed ocular lobes and sparse fine vibrissae internally, its posterior margin almost truncate ; surface of pronotum with coarse and distinct punctures containing sub-erect setae, with a pair each of shallow transverse impressions before middle and rounded fovea behind middle ; lateral sides gently rounded, broadest at middle, somewhat broader at apex than at base. Scutellum small, fuscus, rectangular with anterior margin rounded, bare with a few fine recumbent setae.

Elytra fuscus, oblong, posteriorly declivous, with shoulders roundly rectangular, slightly broadened behind middle, with surface covered with a few patches of ochraceous scales and a band on top of declivity ; striae formed by large sub-quadrate punctures diminishing towards apex ; intervals about as wide as striae in the basal half, slightly convex, each with a row of erect setae. Legs fuscus, with sparse elongated scales and pale sub-recumbent setae, forecoxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior two pairs having a row of spines on inner apical halves, apical end of each tibia with a fringe of brownish bristles

and a mucro, corbels of hind tibiae open ; tarsi sparsely setose ; hind tarsus with first joint about 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna with a few pale scales and sub-recumbent setae. Abdominal sternites with sparse scales and sub-erect setae.

Aedeagus straight, bisinuate at apex, with exophallic valve long ; phallotreme subapical, without orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, gradually thickening from base to apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus ; endophallus lying between aedeagal apodemes, not surpassing them, beset with small clusters of setae, having a pair of plates at apex. Bursa copulatrix well-developed, having sclerotized folded areas, with a long nipple like structure near apex ; ventral spiculum thin, long, strongly curved at apex. Spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Male body : 6.1 to 6.4 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 6.6 to 6.9 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.0 to 2.1 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.2 to 2.4 mm ; rostrum : 0.8 to 0.9 mm.

Distribution.—INDIA : Madhya Pradesh, Hoshangabad, Damoh, Jabalpur.

Source.—*Tectona grandis*

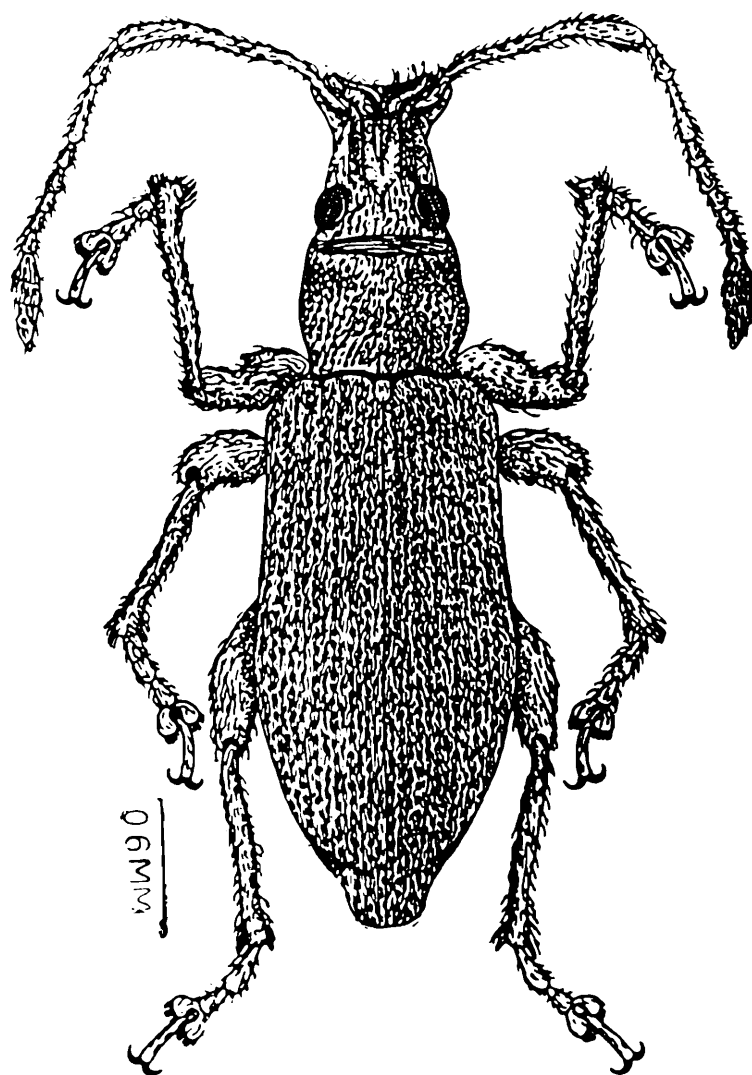
Holotype in British Museum, (N.H.), London.

30. **Cyphicerinus hirsutus** Marshall
(Figs. 25a, 25b)

1928. *Cyphicerinus hirsutus* Marshall, *Ann. Mag. nat. Hist.*, (10) 11 : 539.

Frons fuscus, flat, wider than length of eye, covered with recumbent brown scales and erect brownish setae ; central fovea deep, elongated ; eyes fuscus, small, slightly bulging. Rostrum fuscus, longer than broad, gradually narrowing from base to scrobes and

dilated at apex, with area behind epistome deeply bifoveate ; central carina lower than dorso-laterals ; dorso-lateral carinae parallel from base to scrobe and divergent at apex ; dorsal area impressed, covered with brownish scales ; epistome small, gradually declivous anteriorly, with hind margin carinate ; lateral areas each with a broad curved sulcus running from upper angle of scrobe to upper margin of eye ; scrobes open, broad, slightly curved ; mentum with four setae. Antennae long ; scape stout, gradually clavate, covered with sub-erect brown setae ; funicle with joint 1 shorter than 2, 3-7 sub-equal, with all joints covered with yellowish setae ; club fusiform and finely pubescent.



Cyphicerinus hirsutus Marshall

Prothorax transverse, with well developed ocular lobes and long vibrissae ; pronotum fuscus, widest at middle, with base shallowly

sinuate and apex shallowly constricted, with a pair of small rounded depressions sub-laterally near base one on each side ; vestiture consisting of yellowish recumbent scales and few pale sub-erect seta-like scales. Scutellum small, ovate, covered with sub-recumbent brown scales.

Elytra piceous, much wider at shoulders than base of prothorax, sub-parallel upto middle, declivous posteriorly ; striae broad, almost as broad as intervals, with shallow closely set large punctures ; intervals broad, convex ; vestiture consisting of brownish recumbent scales and brown seta-like scales, with brownish setae filling strial punctures. Legs fuscus, covered with brown scales ; fore-coxae contiguous ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with brownish bristles, corbels of hind tibiae open ; tarsi squamose ; hind tarsus with joint 1 equal to 2, third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, covered with brown sub-recumbent scales and shining pale seta-like scales. Abdominal sternites piceous, covered with brown setae.

Aedeagus straight, with exophallic valve partly coming out of it ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of tubercles and papillae, with a pair of plates at apex. Gastral spiculum long and thick, with lateral arms somewhat short, with and median arm well-developed, curved and pointed at apex. Bursa copulatrix well developed and strongly sclerotized ; ventral spiculum thick and long ; spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Male body : 7.5 mm ; rostrum : 0.8 mm.

Female body : 7.0 mm ; rostrum : 0.6 mm.

Breadth

Male body : 2.9 mm ; rostrum : 0.6 mm.

Female body : 2.6 mm ; rostrum : 0.4 mm.

Distribution.—INDIA ; West Bengal ; Tamilnadu, Nilgiri Hills.

Holotype in British Museum, (N.H.), London.

31. **Cyphicerinus nepalensis** (Faust)
(Figs. 26a, 26b, 162)

1890. *Cyphicerus nepalensis* Faust, *Stett. Ent. Zeit.*, **51** : 65.

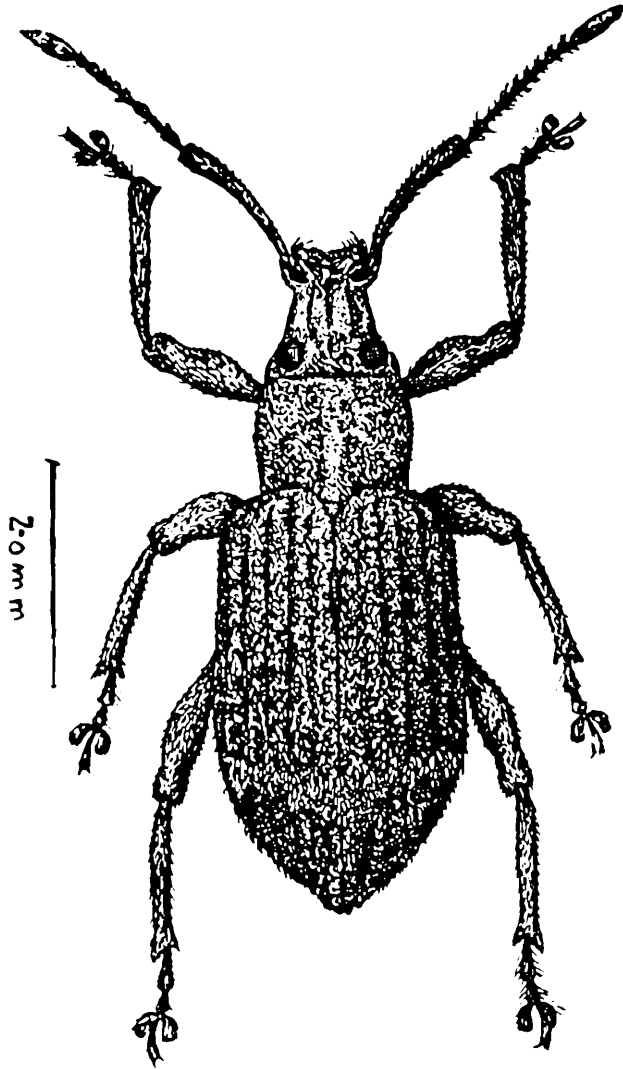
1928. *Cyphicerinus nepalensis* : Marshall, *Ann. Mag. nat. Hist.*, (10) **11** : 539

Frons fuscus, wider than length of an eye, covered with recumbent brownish scales and sub-erect brown seta-like scales ; central fovea deep and elongated ; eyes small, sub-circular, slightly bulging. Rostrum fuscus, as long as its basal width, strongly narrowed from base to beyond middle and dilated at apex ; dorsal area impressed, covered with brownish scales and few sub-erect pale seta-like scales, with central carinae lower than dorso-laterals ; dorso-lateral carinae sub-parallel upto antennal insertion and moderately divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and acuminate ; lateral areas each with a broad curved sulcus running from upper angle of scrobe to upper margin of eye ; scrobes open, broad. Antennae long, densely squamose ; scape cylindrical gradually clavate, covered with sub-erect brownish setae ; funicle with joint 2 longer than 1, 3-7 broader than long, with brownish setae ; club fusiform and finely pubescent.

Prothorax transverse, with well-developed ocular lobe and long vibrissae ; pronotum piceous, transeversely and longitudinally convex, widest at middle, with base shallowly sinuate and apex shallowly constricted, with a pair of small rounded depressions sub-laterally near base one on each side ; vestiture consisting of brownish sub-recumbent scales and few sub-erect pale seta-like scales. Scutellum small, ovate, covered with recumbent brown scales.

Elytra fuscus, oblong, much wider at shoulders than base of prothorax, sub-parallel upto middle, gradually declivous posteriorly ; striae broad, almost as broad as intervals, with shallowly rounded and closely set large punctures ; intervals broad, convex, with lateral intervals slightly impressed, intervals 3 and 5 highly elevated in comparison to others ; vestiture consisting of brownish recumbent scales and ovate brown seta-like scales, short whitish recumbent setae filling strial punctures. Legs fuscus, covered with brownish scales ; fore-coxae contiguous ; femora clavate, each with short spiny tooth, covered with brown setae ; tibiae with

their apices beset with brown bristles ; corbels of hind tibiae open ; tarsi squamose ; hind tarsus with first joint longer than second,



Cyphicerinus nepalensis Faust

third bilobed joint spongy beneath ; claws free. Thoracic sterna fuscus, punctate and each puncture with brown seta. Abdominal sternites fuscus, punctate and each puncture with brown seta-like scale.

Aedeagus straight, bilobed at apex, with exophallic valve partly coming out of it ; phallotreme subapical, without orificial plates ; aedeagal apodemes twice as long as aedeagus gradually thickening anteriorly ; phallobase ring-shaped, with phallobasic apodeme

longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae and tubercles, with a pair of plates at apex. Gastral spiculum long and thick with lateral arms short and externally dented, median arm curved and pointed at apex. Bursa copulatrix well-developed and sclerotized ; ventral spiculum long, thick, blunt at apex ; spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Male body : 8.3 mm ; rostrum : 0.9 mm.

Female body : 8.1 mm ; rostrum : 0.8 mm.

Breadth

Male body : 3.0 mm ; rostrum : 0.6 mm.

Female body : 2.8 mm ; rostrum : 0.4 mm.

Distribution.— INDIA : Sikkim ; Gopaldhara, Rungbong valley ; NEPAL.

Holotype in Dresden Museum (Germany).

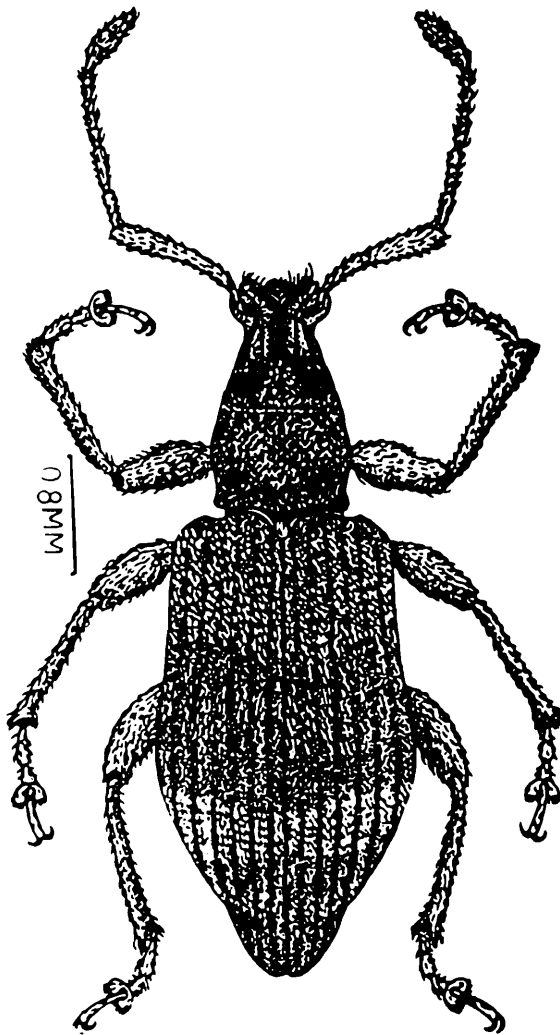
32. *Cyphicerinus andamanicus* sp. nov.

(Figs. 27a, 27b, 163)

Frons fuscus, wider than length of an eye, a little lower than upper margins of eyes, covered with broadly-ovate and some spathulate yellowish scales ; central fovea deep, elongated ; eyes fuscus, subcircular, slightly bulging. Rostrum fuscus, much longer than broad, gradually narrowing from base to scrobes and dilated at apex, with area behind epistome deeply bifoveate ; central carina lower than dorso-laterals ; dorso-lateral carinae parallel from base to scrobes and divergent at apex ; epistome small, its posterior margin forming wide angle ; lateral areas obliquely striolate, each with two sulci running from upper and lower margins of scrobes to eye ; scrobes open, broad, curving inwards ; mentum with 4 setae. Antennae piceous, long, densely squamose ; scape stout, cylindrical, gradually clavate, covered with sub-erect brownish scales ; funicle with joint 2 slightly longer than 1, 3-7

broader than long, all joints covered with brownish seta-like scales ; club fusiform, finely pubescent.

Prothorax broader than long, with well developed ocular lobes and long vibrissae ; pronotum fuscus, transversely and longitudinally convex, widest at middle, with base shallowly sinuate and apex shallowly constricted, laterally rounded, with a pair of small rounded depressions sub-laterally near base one on each side ; vestiture consisting of brownish and cupreus scales and sub-recumbent brownish seta-like scales. Scutellum small, ovate, covered with brownish recumbent seta-like scales.



Cyphicerinus andamanicus sp. nov.

Elytra fuscus, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders sub-rounded, gradually declivous posteriorly, with lateral sides near apice

slightly impressed ; striae broad, almost as broad as intervals, with closely set large punctures ; intervals broad, convex, with setae on intervals shorter and recumbent. Vestiture consisting of whitish and brownish scales, a whitish band interspersed with recumbent scales at top of declivity. Legs fuscus, covered with brownish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with short spiny tooth ; tibiae with apices beset with brownish bristles, covered with brownish setae ; corbels of hind tibiae open ; tarsi squamose ; hind tarsus with joint 1 longer than 2, third bilobed joint spongy beneath ; claws free. Thoracic sterna fuscus, punctate and each puncture with brownish seta-like scales. Abdominal sternites fuscus, punctate, covered with ovate scales and some whitish scales.

Aedeagus bilobed at apex, straight, with exophallic valve partly coming out of it ; phallotreme subapical, without orificial plates ; aedeagal apodemes twice as long as aedeagus, gradually thickening anteriorly ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae and tubercles, with a pair of plates at apex. Gastral spiculum long and thick, with lateral arms short, median arm well developed and pointed at apex. Bursa copulatrix well-developed and sclerotized ; ventral spiculum long, thick, spathulate at apex ; spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Male body : 6.5 mm ; rostrum : 0.6 mm.

Female body : 8.1 mm ; rostrum : 0.8 mm.

Breadth

Male body : 2.6 mm ; rostrum : 0.4 mm.

Female body : 3.4 mm ; rostrum : 0.5 mm.

Holotype.—Male ; India ; Andaman Islands ; Fry ; 1905. *Paratypes* : Female 1, Male 1, same data as for as holotype. Material in British Museum (N.H.), London.

Genus 9. **Indophytoscaphus** Pajni & Sidhu

1981. *Indophytoscaphus* Pajni & Sidhu, *J. Bombay nat. Hist. Soc.*, 79 : 632

Frons broader than dorsal area of rostrum ; eyes flat, subovate, large. Rostrum distinctly longer than broad, with interantennal area bifoveate ; epistome small, forming an obtuse angle behind, with two lateral processes in male ; lateral areas each with a squamose costa running straight from scrobe to eye ; scrobes small, narrow, curving inwards ; mentum with 4 setae. Antennae densely squamose and setose ; funicle with first and second joints subequal ; club oval. Prothorax rounded laterally, with well-developed ocular lobes, sub-truncate at base. Elytra convex, intervals with seta-like scales. Legs with tibiae not much slender ; corbels of hind tibiae open. Male genitalia with aedeagus pointed and triangular at apex, without exophallic valve ; phallotreme with small orificial plates. Female genitalia with bursa copulatrix moderately developed ; spermatheca with collum and ramus lying parallel to each other.

Type species.—*Corigetus chandigarhensis* Pajni & Singal

Distribution.—INDIA.

Key to the species of genus **Indophytoscaphus** Pajni & Sidhu

1. Prothorax transverse ; scutellum squarish,
elytra with shoulders not prominent . *chandigarhensis* (Pajni & Singal)
Prothorax as long as broad ; scutellum
rectangular ; elytra with shoulders quite
prominent 2
2. Elytra covered with brownish scales, each
with a white band behind declivity, with
intervals 3 and 5 elevated at declivity . *carinipennis* sp. nov.
Elytra covered with grey scales, with all
intervals of equal height *sensarmai* Pajni & Sidhu

33. **Indophytoscaphus chandigarhensis** (Pajni & Singal)
(Fig. 28)

1974. *Corigetus chandigarhensis* Pajni & Singal, *Zool. Journ. Linn. Soc.*, (1)
55 : 61.

1981. *Indophytoscaphus chandigarhensis* : Pajni & Sidhu, *J. Bombay nat. Hist. Soc.*, 79 : 633.

Frons black, somewhat broader than dorsal area of rostrum, flat in front and a little convex behind, separated from rostrum

by a shallow transverse impression, densely covered with greenish-pale scales and pale sub-erect setae, with central fovea deep and elongated and almost concealed by scales ; eyes shining black, large, sub-ovate, flat. Rostrum black, distinctly longer than its apical width, gradually diverging from base to scrobes and strongly dilated at apex ; dorsal area deeply impressed throughout, densely covered with greenish-pale scales and pale setae, with interantennal area bifoveate ; central carina fine, complete, concealed by scales ; dorso-lateral carinae distinct, diverging apically and slightly converging behind ; epistome small, forming an obtuse angle behind, with a strong process on each side in male ; lateral areas each with a squamose costa running from scrobe straight to eye, with a deep longitudinal stria running above and below it ; scrobes small, narrow, curving inwards, almost visible from above. Antennae moderately long, fusco-piceous, densely clothed with whitish scales and pale recumbent setae ; scape cylindrical, gradually clavate, almost straight, reaching one-third of prothorax ; funicle with joints 1 and 2 subequal, 3-6 subequal but half as long as 2, 7 a little longer, each joint with a distinct whorl of sub-recumbent pale setae ; club fuscus, small, oval with apex acuminate, longer than 2 apical funicular joints, finely and uniformly pubescent.

Prothorax black, transverse, its anterior margin straight and having well-developed ocular lobes and fine vibrissae ; surface convex, coarsely and somewhat closely punctate and each puncture with a short recumbent seta, covered with interspersed pale and brownish scales, with a deep fovea behind middle on each side ; lateral sides narrowly rounded, narrower at apex than at shallowly bisinuate base. Scutellum small, squarish, completely covered with whitish pale scales.

Elytra black, oblong, convex, gradually narrowing from shoulders to beyond middle in male and parallel in female, narrowing at apex, with apices jointly sinuate, wider at shoulders than base of prothorax, with shoulders very prominent and roundly rectangular ; striae narrow, formed by deep and separated punctures and each puncture with a minute seta, with interspaces squamose ; intervals broad and flat, dorsal intervals densely covered with brownish scales and a few patches of white scales, lateral intervals with brownish scales, each interval with a row of short seta-like

recumbent scales. Legs black, densely covered with brownish-pale scales and fine recumbent setae, with fore-coxae contiguous and placed in middle of prosternum ; femora clavate, each with a short tooth ; tibiae not much slender, anterior tibiae bisinuate internally and with a row of spines on their inner apical halves, apical end of each tibia with a fringe of fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna black, densely covered with pale scales, punctate and each puncture with a short spathulate seta. Abdominal sternites black, covered with pale scales, punctate and each puncture with a very short pale seta.

Aedeagus straight, pointed and triangular at apex ; phallotreme subapical, with small orificial plates ; aedeagal apodemes somewhat longer than aedeagus, gradually thickening towards apex, and there gently curved ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and papillae, having a distinct cluster of setae and papillae near apex, provided with a pair of plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 8.2 to 9.6 mm ; rostrum : 1.2 to 1.3 mm.

Breadth

Male body : 2.9 to 3.2 mm ; rostrum : 0.8 to 0.9 mm.

Distribution.—INDIA : Chandigarh.

Holotype in Zoology Department, Panjab University, Chandigarh.

34. *Indophytoscaphus carinipennis* sp. nov.
(Figs. 29a, 29b)

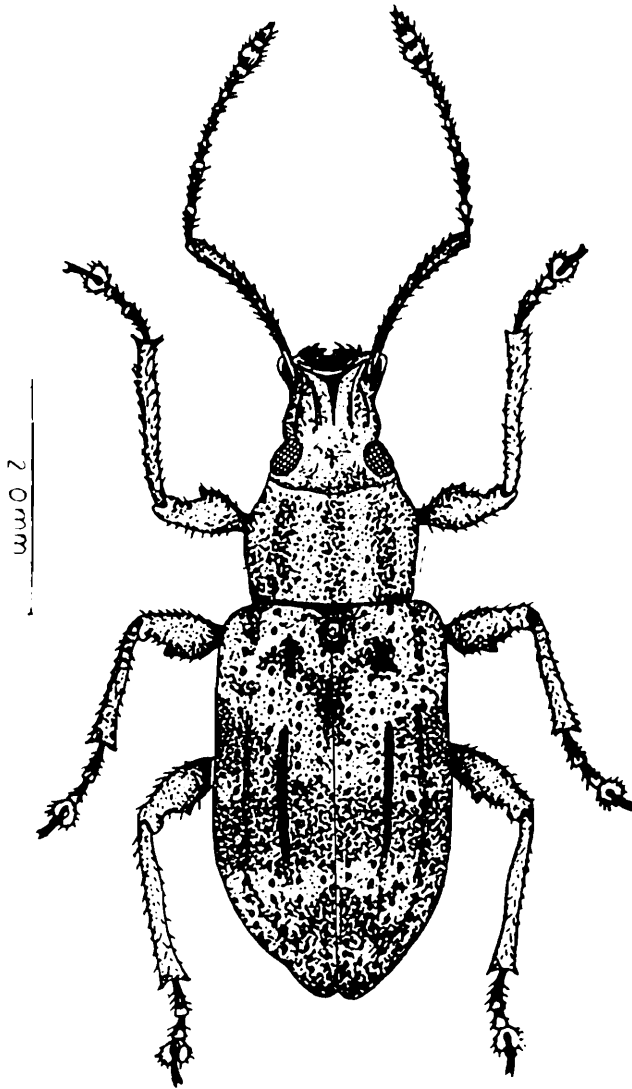
Frons piceous, narrower than length of eye, slightly elevated than upper margin of eye, covered with broadly-ovate fulvus and

whitish scales ; central fovea small and circular ; eyes black, ovate, strongly bulging. Rostrum piceous, a little longer than broad, with sides convergent upto antennal insertion ; dorsal area depressed behind antennae, covered with few broadly ovate fulvous and whitish scales, with area behind epistome impressed, with central carina almost level with dorso-laterals ; dorso-lateral carinae gradually divergent ; epistome large, steeply declivous anteriorly ; lateral areas shining, sparsely covered with whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, with dense whitish scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 much shorter than 2, 3-7 much longer than broad, club fusiform, finely pubescent.

Prothorax longer than broad, with ocular lobes moderately developed and vibrissae short and few. Pronotum piceous, transversely and longitudinally convex, with apex constricted, with base bisinuate, with a shallow rounded depression at each sub-lateral side near base ; vestiture consisting of uniform dense scaling of broadly-ovate whitish scales and three distinct longitudinal stripes of fuscus scales one in middle of dorsum and one each on sub-lateral side. Scutellum small, longer than broad, sparsely covered with narrow whitish scales.

Elytra piceous, oblong, parallel upto two-third basal length, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders, with knob like protuberance in between intervals 3 and 4 near base ; with intervals 3 and 5 highly elevated from middle upto apical half ; elytral vestiture consisting of dense scaling of broadly-ovate whitish and fuscus scales, dense whitish scales at basal half, fuscus scales forming irregular transverse patches at middle and apical half interrupted by transverse streaks of white scales, dense fuscus scales on lateral intervals, with 1 or 2 rows of whitish spathulate scales on intervals, with narrow whitish seta-like scales filling strial punctures. Legs ferrugineous, moderately covered with whitish scales ; pro-coxae contiguous, placed in middle of prosternum ; femora

clavate, each with a short spiny tooth ; tibiae with their apices beset with dense brunneus bristles, fore-tibiae with apical one-third beset with long spines ; tarsi squamose ; hind tarsus with



Indophytoscaphus carinipennis sp. nov.

first joint longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture with a white scale. Abdominal sternites piceous, punctate, covered moderately with broadly ovate and spatulate white scales.

Aedeagus straight, pointed and triangular at apex, without exophallic valve ; phallotreme subapical, with small orificial plates ; aedeagal apodemes 1.5 times longer than aedeagus ; phallobase ring-shaped, with phallobasic apodeme equal to aedeagus ; endophallus not surpassing aedeagal apodemes, beset with cluster

of papillae and setae, provided with a pair of plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.6 mm ; rostrum : 2.0 mm.

Breadth

Male body : 0.6 mm ; rostrum : 0.3 mm.

Holotype.—Male ; Burma, Maymyo ; 1922 ; H. L. Andrewas.
Paratype : Male, same data as for holotype. Material in British Museum (N.H.), London.

35. *Indophytoscaphus sensarmai* Pajni & Sidhu
(Fig. 164)

1981. *Indophytoscaphus sensarmai* Pajni & Sidhu, *J. Bombay nat. Hist. Soc.*,
79 : 632.

Frons black, somewhat broader than dorsal area of rostrum, flat in front and a little convex behind, separated from rostrum by a shallow transverse impression, densely covered with pale scales and sub-erect broad setae ; central fovea deep and elongated, almost concealed by scales ; eyes shining black, large, sub-ovate, flat. Rostrum black, distinctly longer than its apical width, running parallel from base to scrobes, strongly dilated at apex ; dorsal area deeply impressed throughout, densely covered with pale scales and broad pale setae, with interantennal area bifoveate ; central carina fine, running throughout its length, concealed by scales ; dorso-lateral carinae distinct, diverging apically and parallel behind ; epistome very small, forming an obtuse angle behind ; lateral areas each with a squamose costa running from scrobe straight to eye and a deep longitudinal stria running above and below it ; scrobes small, narrow, curving inwards, almost visible from above. Antennae moderately long, fuscus, densely clothed with whitish scales and pale recumbent setae ; scape cylindrical, gradually clavate, almost straight, reaching one-third of prothorax ; funicle with joints 1 and 2 subequal, 3-6 subequal but half

as long as 2, 7 a little longer, each joint with a distinct whorl of sub-recumbent whitish setae ; club fuscus, small, sub-globular, with apex acuminate, as long as 2 apical funicular segments, finely and uniformly pubescent.

Prothorax black, almost as long as broad, with anterior margin straight, having well-developed ocular lobes and fine vibrissae ; dorsal surface convex, coarsely and somewhat closely punctate and each puncture with a very short pale recumbent setae, covered with interspersed pale and brownish scales ; lateral sides narrowly rounded, almost as broad at apex as at slightly bisinuate base. scutellum small, rectangular with its anterior margin rounded, completely covered with whitish pale scales. Elytra black, oblong, with dorsal outline convex, running parallel from base to beyond middle and then narrowing at apex, with apices jointly sinuate, much wider at shoulders than base of prothorax, shoulders very prominent and roundly rectangular ; striae narrower than intervals, formed by deep squarish punctures and each puncture with a minute seta, interspaces squamose ; intervals broad, flat, densely covered with dark-brown and brownish scales and some patches of whitish scales, each interval with a row of distantly placed scale-like recumbent setae. Legs black, densely covered with pale scales and fine recumbent setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a small femoral tooth ; anterior tibiae bisinuate internally with a row of spines on their apical halves, apical end of each tibiae with a fringe of fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose, first joint of hind tarsi 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna black, densely covered with pale scales, punctate and each puncture with a short and spathulate pale seta. Abdominal sternites black, covered with brownish and greenish scales, punctate and each puncture with a recumbent pale-seta.

Male genitalia not studied. Bursa copulatrix moderately developed, with a pair of plates at apex ; ventral spiculum long, thick and bent, spathulate at apex. Spermatheca with cornu pointed, collum and ramus lying parallel to each other.

Measurements.—*Length*

Female body : 7.0 to 7.6 mm ; rostrum : 1.2 to 1.3 mm.

Breadth

Female body : 2.7 to 3.1 mm ; rostrum : 0.7 to 0.8 mm.

Distribution.—INDIA : Uttar Pradesh, Dehradun.

Holotype in Zoology Department, Panjab University, Chandigarh.

Genus 10. **Oedophrys** Marshall.

1941. *Oedophrys* Marshall, *Ann. Mag. nat. Hist.*, (11) 8 : 361.

Frons tumid, more or less strongly convex both transversely and longitudinally ; eyes sub-lateral, broadly ovate. Rostrum broad, almost transverse ; epistome asymmetrical, short ; scrobes short, curving inwards behind ; mentum with four setae. Scape curved, gradually widening from base to apex, with sparse narrow scales and short erect setae. Prothorax transverse, its basal margin slightly bisinuate, with ocular lobes feeble or obsolete and vibrissae fine. Scutellum bare. Elytra widest behind middle, longitudinally convex, jointly rounded at apex. Legs slender, hind corbels entirely open ; claws free. Female genitalia with bursa copulatrix well-developed ; ventral spiculum thin and long ; spermatheca with collum lying at right angle to ramus.

Type species.—*Mylocerus convexifrons* Faust

Distribution.—INDIA, BURMA, CHINA.

Key to the species of genus **Oedophrys** Marshall

1. Elytra tuberculated, each tubercal beset with a spathulate sub-erect seta ; pronotum with dorso-lateral depressions deep, prominent	<i>multituberculatus</i> sp. nov.
Elytra not tuberculated ; pronotum with dorso-lateral depressions shallow, less prominent	.

2. Elytra piceous, almost uniformly covered with light brownish and pale appressed scales, with a common blackish band at about middle ; scutellum red-brown, bare ; pronotal punctures beset with very minute whitish setae

rufiscutallatus sp. nov.

Elytra testaceous, sparsely covered with whitish and light brown scales, with a transverse white band at declivity ; scutellum testaceous, densely squamose ; pronotal punctures with prominent whitish setae

.albofasciatus sp. nov.

36. **Oedophrys multituberculatus** sp. nov.

(Fig. 165)

Frons piceous, a little narrower than length of eye, much elevated than upper margins of eyes, covered with dense broadly-ovate white and cupreus scales ; central fovea small ; circular, concealed by scales ; eyes piceous, ovate, moderately bulging. Rostrum piceous, much longer than broad ; dorsal area moderately depressed behind antennae, covered with similar scales as on frons, with area behind epistome moderately impressed forming two ovate depressions one on each side of central carina, with central carina almost on level with dorso-laterals anteriorly but lower posteriorly ; dorso-lateral carinae convergent upto antennal insertion and sharply divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and shortly acuminate ; lateral areas shining, scarcely covered with whitish scales, each with a curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, moderately squamose ; scape cylindrical, moderately curved, gradually clavate, covered with recumbent and sub-erect whitish and brownish scales ; funicle with joint 1 as long as 2, 3-7 much longer than broad, with all joints covered with whitish and brownish scales ; club-fusiform, fuscus, finely pubescent.

Prothorax wider than long, with ocular lobes not well-developed and vibrissae long and few. Pronotum piceous, transversely and longitudinally convex, widest at middle, with base shallowly bisinuate and apex almost truncated, laterally rounded, with large deep rounded depressions sublaterally near base one on each side along with small shallow rounded depressions obliquely above

them in apical half, with middle of dorsum moderately depressed, with lateral angles impressed ; vestiture consisting of dense broadly-ovate white and cupreus scales and few whitish and brownish spathulate scales, white scales located in middle, cupreus scales placed on lateral sides. Scutellum small, broadly-ovate, finely pubescent with white scales.

Elytra piceous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, separately shortly acuminate at apices striae narrow, with shallowly rounded and closely set punctures ; intervals broad, convex, slightly impressed at shoulders, with all intervals irregularly granulated ; vestiture consisting of dense broadly-ovate white and cupreus scales and few white brownish spathulate scales, a long patch of white scales on interval 3 in basal half, large sub-erect spathulate white and brownish scales on all intervals. Legs piceous, densely covered with white, cupreus and brownish scales ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny-tooth ; tibiae with their apices beset with dense brunneus bristles ; squamose ; hind tarsus with first joint of hind tarsus almost as long as 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a white or cupreus scales. Abdominal sternites piceous, punctate, densely covered with broadly ovate mixed white and cupreus scales and few whitish spathulate scales.

Male genitalia not studied. Bursa copulatrix well-developed ; ventrale spiculum long and thin but blunt at apex ; spermatheca with cornu curved and pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Body : 5.5 mm ; rostrum : 0.7 mm.

Breadth

Body : 2.4 mm ; rostrum : 0.4 mm.

Holotype.—Female ; Upper Burma, Seingku Valley ; (Ex. Advng conference) ; 13.v.1926 ; F. Kingdom Ward. Material in British Museum (N.H.), London.

37. **Oedophrys rufiscutallatus** sp. nov.
(Fig. 166)

Frons fusco-rufous, tumid, strongly convex, wider than length of eye, laterally projecting over eyes, covered with green scales with brownish tinge, punctate with punctures large and shallow and each puncture with an erect seta ; central fovea deep and elongated, lying near base of rostrum ; eyes piceous, sunken into head, entirely lateral, nearly circular and almost flat. Rostrum fusco-rufous, as long as broad, narrowing slightly from base to middle and dilated towards apex ; dorsal area covered with green scales having brownish tinge and some spathulate short setae, with area behind epistome bare and with a short median carina along with a transverse carina delimiting behind, its surface behind transverse carina impressed and with a bare piceous central carinae ; dorsal diverging in apical half and parallel in basal half ; epistome asymmetrical, moderate, not extending behind level of insertion of antennae, margined behind by a low obtuse carinae angled carina ; lateral areas shining, having few scales ; scrobes short open, curving inwards posteriorly and almost visible from above ; mentum with 4 setae. Antennae ferrugineous, moderately long ; scape stout, curved, gradually clavate, sub-cylindrical, surpassing anterior margin of prothorax, its surface covered with sparse greenish scales and short erect dark-brown setae ; funicle with joint 2 a little longer than 1, 3-7 subequal but shorter than 1, covered with sparse greenish scales and some recumbent setae, each joint with a single whorl of long erect setae ; club regularly fusiform and finely pubescent.

Prothorax fuscus, transverse ; anterior margin somewhat straight with obsolete ocular lobes and sparse fine vibrissae laterally ; posterior margin shallowly sinuate ; surface of pronotum punctate and each puncture with a short sub-recumbent setae ; vestiture of green scales having brownish tinge, three sub-denuded stripes with central stripe narrower than dorso-laterals, two post-median depressions each bounded dorso-laterally by a ridge, a shallow transverse impression on each side in front of

middle ; lateral sides rounded, somewhat narrower at base than at apex. Scutellum fulvescent, bare, rectangular with anterior margin rounded.

Elytra fuscus, 1.5 times as long as broad, strongly declivous posteriorly, with shoulders roundly rectangular, widest behind middle and much wider at base than prothorax, its surface covered with green scales suffused at places with brownish and blackish along with a less marked band of blackish scales at top of declivity ; striae moderate, formed by deep separated punctures and each puncture with a minute seta ; intervals broad, almost flat, even, each with a row of short to long truncate setae of greenish, brownish and blackish colouration. Legs fuscus, covered with green scales and recumbent green setae ; fore-coxae contiguous, placed in middle of prosternum ; femora with anterior pair narrower in basal half and abruptly clavate beyond that, middle femora almost gradually clavate ; hind femora flattened and widened in base half, gradually clavate ; tibiae with apical ends furnished with a fringe of blackish bristles and a short mucro, corbels of hind tibiae enclosed ; tarsi setose ; hind tarsus with first joint about 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna covered with green scales and short sub-recumbent setae. Abdominal sternites covered with green scales and sub-recumbent green setae.

Male genitalia not studied. Bursa copulatrix well-developed ; ventral spiculum thin, gradually thickening towards apex, rounded at apex. Spermatheca with cornu curved and pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Female body : 4.0 to 4.6 mm ; rostrum : 0.5 to 0.6 mm.

Breadth

Female body : 1.8 to 2.0 mm ; rostrum : 0.5 to 0.6 mm.

Holotype.—Female ; India ; Assam, Borajan forest ; 3.v.1979 ; H. R. Pajni. *Paratypes* : Females 2, same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

38. *Oedophrys albofasciatus* sp. nov.
(Fig. 167)

Frons ferrugineous, much wider than length of eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate cupreous and white scales and few white and brownish spathulate scales ; central fovea small, circular, concealed by scales ; eyes black, ovate, moderately bulging. Rostrum ferrugineous, a little wider than long, parallel sided ; dorsal area moderately depressed behind antennae, covered with similar scales as on frons, with area behind epistome forming elongated oblique depressions one on each side of central carina, with central carina little lower than dorso-laterals ; dorso-lateral carinae gradually convergent upto antennal insertion and sharply divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and almost obtuse ; lateral areas shining, densely covered with whitish scales, each with a curved sulcus running from upper angle of scrobe to upper margin of eye, with a lower sulcus concealed by dense scales. Antennae ferrugineous, long, densely squamose ; scape elongated, cylindrical, moderately curved, gradually clavate, covered with white recumbent and brunneus sub-erect scales ; funicle with joint 1 almost as long as 2, 3-7 much longer than broad, all joints covered with white and brunneus scales ; club fusiform, fuscus, finely pubescent.

Prothorax wider than long, with ocular lobes indistinct and vibrissae short and few ; pronotum ferrugineous, transversely and longitudinally convex, widest at middle, with base and apex almost truncated, laterally rounded, with lateral angles impressed ; vestiture consisting of general dense broadly-ovate white and fuscus scales and few spathulate white scales, 2 broad longitudinal white stripes in middle separated by a narrow longitudinal stripe of fuscus scales, broad fuscus stripes one on each sub-lateral side, dense white scales on lateral sides. Scutellum small, oblong, covered with short recumbent white scales.

Elytra ferrugineous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with apices shortly acuminate ; striae narrow, with shallowly rounded closely set punctures ;

intervals broad, convex, those at humeral parts slightly impressed ; vestiture consisting of dense broadly-ovate white and cupreus to fuscus scales and few spathulate white and brunneus scales, a V-shaped fuscus patch in middle of apical half followed by a similar but broader patch of snowy white scales, white spathulate scales present on all intervals in basal half and brunneus spathulate scales in apical half. Legs ferrugineous, densely covered with white scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae beset with dense brunneus bristles at apices ; tarsi squamose, hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna ferrugineous, punctate and each puncture beset with a white scale. Abdominal sternites ferrugineous, punctate, densely covered with broadly-ovate and spathulate white scales.

Male genitalia not studied. Bursa copulatrix well-developed, with few sclerotized plates at apex ; ventrale spiculum long and thick, spathulate at apex ; spermatheca with cornu curved and pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Body : 4.5 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.2 mm ; rostrum : 0.3 mm.

Holotype.—Female ; China, Foochow ; 1937 ; M. S. Yang. In British Museum (N.H.), London.

Genus 11. *Cyrtepistomus* Marshall

1913. *Cyrtepistomus* Marshall, *Ann. Mag. nat. Hist.*, (8) 12 : 186.

Eyes rounded and moderately convex. Rostrum at least as long as broad, with genae strongly dilated, its dorsal area clearly defined by dorso-lateral carinae, without any bare space behind epistome ; epistome flattened, with posterior margin broadly

rounded ; mentum with 4 setae. Antennae moderately long ; scape cylindrical, gradually clavate and gently curved ; funicle with joints 1 and 2 variable in length. Prothorax transverse, with feeble or obsolete ocular lobes and fine vibrissae, its base subtruncate or shallowly bisinuate. Elytra almost parallel sided or gradually widening from base to beyond middle, with shoulders roundly rectangular. Femora not flattened, pedunculate. Corbels of hind tibiae open. Aedeagus truncate, subtruncate or bisinuate at apex ; phallotreme with internal orificial plates. Bursa copulatrix moderate to well developed ; spermatheca with collum directed towards ramus.

Type species.—*Phyllobius jucundus* Redtenbacher

Distribution.—INDIA, BURMA, CHINA, MALAYA.

Key to species of genus *Cyrtepistomus* Marshall

1. Funicle with joint 2 longer than 1	2
Funicle with joint 2 not longer than 1	11
2. Submentum with a conical vertical tubercle	<i>.qularis</i> sp. nov.
Submentum without any tubercle	3
3. Elytra with alternate intervals subcostate	<i>.subcostatus</i> sp. nov.
Elytra with all the intervals of equal height	4
4. Width of frons much greater than length of eye	5
Width of frons less than or equal to length of eye	8
5. Elytron with appressed scales and numerous recumbent scales	<i>.pini</i> Marshall
Elytron with appressed rounded scales and or sub-erect scales in regular rows	6
6. Elytra covered with pale and long setae. Rostrum with shining scales near apex	<i>.herbicola</i> sp. nov.
Elytra covered with green scales and short setae	7
7. Scape covered with fine and inconspicuous setae ; elytral setae suberect ; scutellum bare	<i>.jucundus</i> (Redtenbacher)
Scape covered with conspicuous setae ; elytral setae erect and sub-erect ; scutellum squamose	<i>.himachalensis</i> sp. nov.

8. Elytra covered with recumbent scales	9
Elytra covered with erect or sub-erect scales	10
9. Body with appressed scaling brownish grey ; ocular lobes obsolescent	<i>.bardus</i> Marshall
Body with scaling green ; ocular lobes well- developed	<i>.infidelis</i> sp. nov.
10. Elytra with intervals alternately covered with pale green and brownish scales and thin and pointed setae	<i>.varicolor</i> sp. nov.
Elytra with intervals uniformly covered with appressed greyish ovate scales and suberect truncated scales	<i>rudis</i> sp. nov.
11. Funicle with joint 2 equal to 1	12
Funicle with joint 2 shorter than 1	21
12. Elytra with non appressed scales erect	13
Elytra with non appressed scales recumbent	20
13. Elytra with at least two tubercles	14
Elytra without tubercles	15
14. Elytra with row of small tubercles on intervals 1, 3, 5 and 6	<i>.tuberculatus</i> sp. nov.
Elytra with single tubercle at apex of interval 4	<i>.bicallosus</i> sp. nov.
15. Body with appressed scales fimbriate ; elytra with scattered setae	<i>.lanatus</i> sp. nov.
Body with appressed scales not fimbriate	16
16. Prothorax distinctly bisinuate at base	<i>chloris</i> sp. nov.
Prothorax truncate or sub-truncate at base	17
17. Elytra covered with narrow, ovate scales	<i>victoriae</i> sp. nov.
Elytra covered with rounded scales	18
18. Frons with a broad median sulcus	<i>sulcifrons</i> sp. nov.
Frons with only small fovea	19
19. Elytra strongly declivous, with common chevron-shaped brown band behind middle ; rostrum asymmetrical at apex, extended on left side	<i>vinctus</i> sp. nov.
Elytra flattened, without any band ; rostrum symmetrical at apex	<i>planus</i> sp. nov.

20. Ocular lobes distinct ; scaling on body chalky white *albus* sp. nov.
Ocular lobes obsolescent ; scaling on body green ; prothorax with a low elevation in middle of base and a narrow dark stripe on either side *.tenuiclavis* sp. nov.
21. Frons slightly depressed ; epistome asymmetrical, left side extending a little more than right *.championi* sp. nov.
Frons convex ; epistome symmetrical *frontalis* sp. nov.

39. *Cyrtepistomus qularis* sp. nov.
(Figs. 30a, 30b, 168)

Frons black, shallowly depressed in middle, its width greater than length of an eye, densely covered with pale green appressed scales and some non-appressed sub-erect setae ; eyes convex, highest behind middle. Rostrum about as long as apical width, gradually narrowing from base to antennae, dilated at genae ; dorsal area flat, densely covered with green scales and with some shining scales with bluish tinge at apical region, with central carina almost concealed with scales ; dorso-lateral carinae parallel from base to middle and divergent towards apex ; epistome short, declivous anteriorly ; lateral areas shining, covered with sparse scales ; sub-mentum with a vertical conical tubercle in middle. Antennae moderately long, piceous ; scape long, moderately curved, clavate, covered with pale recumbent setae ; funicle with joint 2 much longer than 1, 3 and 4 sub-equal but shorter than 1, 5-7 sub-equal and shortest ; club elongated, fusiform, uniformly pubescent.

Prothorax gently rounded at middle, with moderate ocular lobes, without vibrissae ; pronotum piceous, transverse, sub-quadrate, as wide at base as at apex, its basal margin shallowly bisinuate and basal angles projecting slightly, its apical margin truncate, with a rounded elevation in middle near base, its surface punctate ; vestiture consisting of pale green appressed scales and short sub-recumbent setae. Scutellum black, small, with some green appressed scales.

Elytra black, oblong, parallel from shoulders up to beyond middle, narrowing towards apices, much wider at roundly rectan-

gular shoulders than base of prothorax, declivous posteriorly, with apices jointly rounded ; striae narrow strial punctures partly concealed with scales ; intervals broad, slightly convex ; elytral vestiture consisting of pale appressed scales and a row of fine erect setae on each interval. Legs black ; fore coxae contiguous, covered with dense shining green scales ; femora clavate, covered with small bluish green appressed scales and pale sub-recumbent setae ; tibiae slender, shallowly bisinuate ; fore tibia with a row of spines at apical one third ; hind tarsus with first joint twice as long as second. Thoracic sterna black, punctate, each puncture with a green sub-erect seta. Abdominal sterna punctate, punctures dense on apical segment.

Aedeagus straight, subtruncate at apex, with sub-apical phallosome enclosed by feeble orificial plates ; aedeagal apodemes twice as long as aedeagus, each pointed at apex ; phallobase ring shaped, with phallobasic apodeme as long as aedeagus & blunt at apex ; endophallus lying between aedeagal apodemes ; endophallic armature comprising dense setae in apical half, short denticles and tubercles and a pair of long curved plates at apex. Gastral spiculum with lateral arms strong, its median arm tapering and curved near apex. Ovipositor moderately long and weakly sclerotized ; coxites sclerotized and sparsely setose ; bursa copulatrix moderately developed, without any chitinized plates ; spiculum ventrale long, slender, truncate at apex. Spermatheca with cornu straight and tapering towards apex, collum directed towards ramus.

Measurements.—

Male Body : Length, 6.5 mm ; breadth, 2.3 mm.

Rostrum : Length, 0.7 mm ; breadth, 0.7 mm.

Female Body : Length, 6.5 mm ; breadth, 2.5 mm.

Rostrum : Length, 0.7 mm ; breadth, 0.7 mm.

Holotype.—Male ; India : Kumaon, U.P., H. G. Champion ; 1920. *Paratypes* : Males 8, Female 1, same data as for holotype. Material in British Museum, (N.H.), London.

Remarks.—This species belongs to a group of species in which joint 2 of funicle is longer than 1 and out of them it has the nearest

resemblance with *jucundus* Redt. as the appressed scales covering the body are green in both of them. However, submentum in the present species is provided with a conical, vertical tubercle which is absent in *jucundus* Redt.

40. *Cyrtepistomus subcostatus* sp. nov.
(Fig. 169)

Frons black, flat, its width greater than length of eye, with a short median stria, densely covered with appressed pale green scales and some short setae ; eyes black, large, flat. Rostrum black, as long as its apical width, gradually narrowing from base to antennae and moderately dilated at genae ; dorsal area much narrower than frons, shallowly depressed in front, with median carina more raised in apical region, densely covered with pale scales and some sub-erect setae with some shining green scales in apical region ; dorso-lateral carinae parallel in basal half and divergent towards apex ; epistome broad ; lateral areas densely covered with pale green scales, each with a shallow sulcus from upper angle of scrobe towards upper margin of eye. Antennae piceous, long, slender ; scape slender, moderately curved, gradually clavate ; funicle with joint 2 much longer than 1, 3 longer than 4 but shorter than 1, 6th shortest, 5 and 7 sub-equal ; club elongated, fusiform, pubescent.

Prothorax gently rounded laterally and widest behind middle, with well developed ocular lobes and long vibrissae. Pronotum black, transverse, slightly broader at base than at apex, its basal margin shallowly bisinuate and basal angles projecting laterally, with apex sinuate in middle, with a shallow rounded fovea on each side behind middle, its surface punctate with punctures partly concealed by scales ; vestiture consisting of pale green appressed scales and short recumbent setae. Scutellum small, black, covered with some sub-recumbent setae.

Elytra piceous, oblong, gradually widened from shoulders to behind middle, narrowing towards apices, wider at obliquely rounded shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow, punctate, with strial punctures almost concealed by scales ; intervals much broader

than striae, intervals 3, 5 and 7 sub costate ; vestiture consisting of small green rounded scales and recumbent white setae. Legs piceous, long ; coxae covered with dense pale green scales ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae slender ; fore tibiae with a row of spines on apical one third of inner margin ; hind tarsus with second joint twice the length of 1st joint. Thoracic sterna piceous, punctate, densely covered with green rounded scales and pale recumbent setae. Abdominal segments punctate, densely covered with green scales and pale sub-erect setae in punctures.

Male genitalia not studied. Ovipositor short and weakly sclerotized ; coxites sclerotized and sparsely setose ; bursa copulatrix feebly developed, without any chitinized plates ; spiculum ventrale moderately long and slender, narrow at apex. Spermatheca with cornu long, curved and tapering towards apex ; collum directed towards ramus.

Measurements.—

Female body : Length, 7.8 mm ; breadth, 2.6 mm.

Rostrum : Length, 1.0 mm ; breadth, 1.0 mm.

Holotype.—Female : India : Meghalaya, Khasi Hills ; Andrewes Besquest ; B.M. 1922. *Paratypes* : Females 2, same data as for holotype. Material in British Museum, (N. H.), London.

Remarks.—This species can be easily separated from all other species of genus *Cyrtepistomus* from the elytra which have alternate intervals sub-costate.

41. *Cyrtepistomus pini* Marshall
(Figs. 31, 170)

1924. *Cyrtepistomus pini* Marshall, *Ann. Mag. nat. Hist.*, (9) 13 : 285.

Frons brown, finely and longitudinally striolate, covered with sparse yellowish-green scales and pale sub-erect setae, wider than base of rostrum, with an inconspicuous central fovea ; eyes large, fusco-piceous, rounded. Rostrum brown, as long as its basal

width, gradually narrowing from base to middle, then moderately dilated, its surface covered with pale-green scales and short pale sub-recumbent setae ; dorsal area flat, finely and longitudinally striolate, with a sharp central carina throughout its length ; dorso-lateral carinae feeble, almost obsolete in basal one-third, slightly converging behind and diverging strongly towards apex ; epistome flattened, with posterior margin very broadly rounded and reaching level of insertion of antennae ; lateral areas longitudinally and finely striolate, each with a sulcus from upper angle of scrobe towards eye ; scrobes small, narrow, strongly curving inwards behind, almost visible from above ; mentum with 4 setae. Antennae brown, moderately long ; scape curved, slender, clavate, exceeding front margin of prothorax, its surface covered with greenish recumbent setae ; funicle with joint 2 distinctly longer than 1, all joints covered with recumbent greenish setae, each joint with a distinct whorl of sub-erect setae ; club fusiform, finely and uniformly pubescent.

Prothorax brown, transverse, widest at middle, of equal width at base and apex, with obsolete ocular lobes and a fringe of fine vibrissae, with shallow transverse impression before middle on each side ; surface rugosely punctate throughout, covered with sub-recumbent dense setae and sparse scales ; lateral sides rounded, strongly constricted near base and slightly so behind apex ; basal margin subtruncate. Scutellum small, oblong, rectangular, with anterior margin rounded, sparsely squamose.

Elytra brown, almost parallel sided, each with very shallow oblique impression on disk about one-fourth from base, their apices jointly rounded, much wider at shoulders than base of prothorax ; striae narrower than intervals, formed by close and bare punctures ; intervals broad, flat, with basal one-fourth of intervals 2-4 bulged, all intervals covered with pale truncate setae and scarce pale-greenish scales. Legs brown, covered with pale sub-recumbent setae and greenish scales ; procoxae contiguous, placed in middle of prosternum ; femora clavate, each with a small tooth ; fore tibiae shallowly sinuate near base internally, apical end of each tibia with a fringe of pale bristles and a short mucro, corbels of hind tibiae open ; claws free and long. Thoracic sterna brown, covered with narrow pale scales in middle and circular

scales laterally. Abdominal sterna brown, covered with green narrow scales and pale sub-erect setae.

Aedeagus straight, weakly bilobed at apex with small exophallic valve projecting out aedeagal apodemes 1.5 times as long as aedeagus, slightly curved near apex ; phallobasic apodeme shorter than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with dense rows of setae and curved plate at apex. Bursa copulatrix moderately developed ; ventral spiculum long, spatulate at apex. Spermatheca with cornu pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 5.8 mm ; rostrum : 0.9 mm.

Female body : 6.2 to 6.8 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 1.9 mm ; rostrum : 0.9 mm.

Female body : 2.0 to 2.2 mm ; rostrum : 1.0 to 1.1 mm.

Distribution.—INDIA : Uttar Pradesh ; Kumaon, Almora, Nainital.

Source.—*Pinus longifolia*.

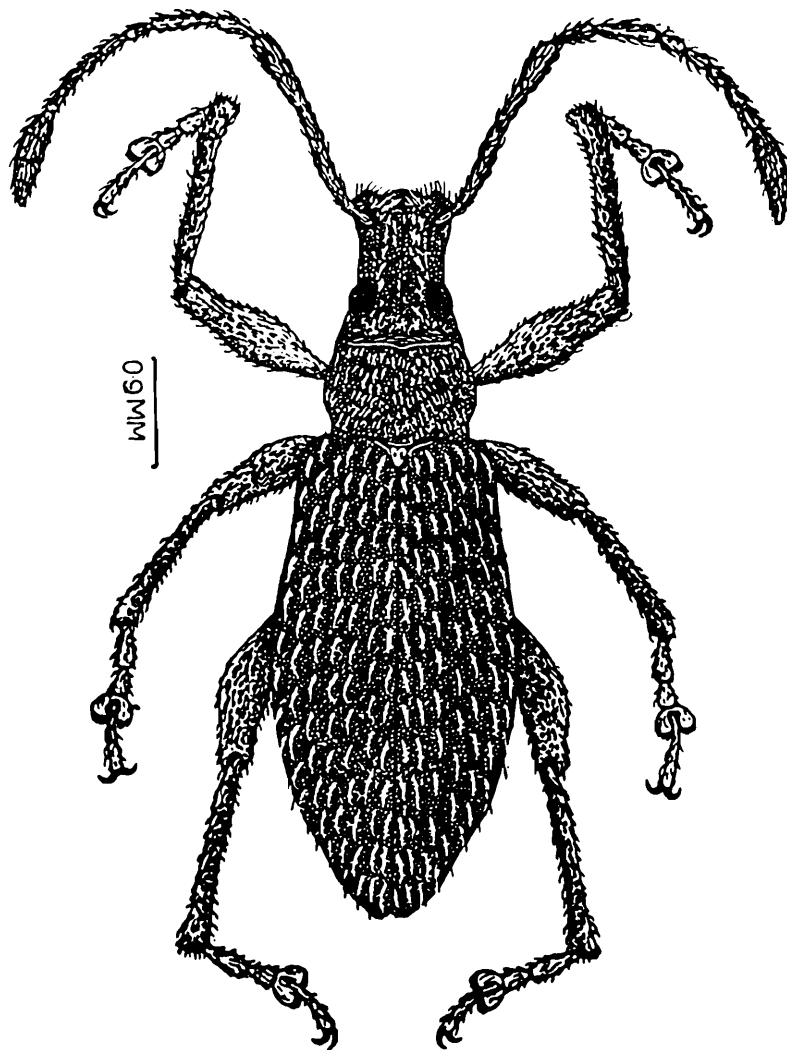
Holotype in British Museum, (N.H.), London.

42. *Cyrtepistomus herbicola* sp. nov.

(Figs. 32a, 32b, 171)

Frons piceous, slightly depressed in middle, its width much greater than length of eye, densely covered with pale scales with greenish tinge and some sub-erect setae, with central fovea small ; eyes black, small, slightly convex. Rostrum piceous, slightly longer than its apical width, almost parallel sided in its basal half, only slightly dilated at genae ; dorsal area flat, densely covered with uniform pale-green scales and spatulate setae with some greenish shining scales at apical end ; dorso-lateral carinae parallel up to

middle and divergent towards apex ; epistome short ; lateral areas shining, covered with scanty green and coppery scales and few recumbent setae ; scrobes small and shallow. Antennae piceous, moderately long ; scape slender, curved, gradually clavate, covered with narrow recumbent setae ; funicle covered with fine whitish setae, with joint 2 longer than 1, 3 longer than 4 but shorter than 1, 5-7 sub-equal and shortest ; club fusiform, finely and uniformly pubescent.



Cyrtepistomus herbicola sp. nov.

Prothorax widest behind middle, with weakly developed ocular lobes and without vibrissae. Pronotum piceous, transverse, shallowly bisinuate at base, with apex truncate, rounded laterally

behind middle and broadly tubular at apex, with a shallow impressed line separated by a slight elevation in middle of base, punctate ; vestiture consisting of dense pale scales mixed with some coppery scales and sub-erect setae. Scutellum small, with few setae.

Elytra piceous, oblong, much wider at prominent roundly rectangular shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow with punctures closely set and partly hidden by scales ; intervals broad, flat, convex on declivity ; vestiture consisting of scattered pale scales with a single row of erect setae on each interval. Legs piceous ; fore coxae contiguous, covered with dense small green scales with coppery reflection and a few erect setae at apical end ; femora clavate, covered with sparse grey scales ; tibiae straight ; fore and middle tibiae with row of small spines on inner margin of each ; tarsi squamose ; joint 1 of hind tarsus 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna piceous, densely covered with grey scales with coppery reflection and white setae. Abdominal sternites piceous, punctate, covered with dense grey scales giving coppery reflection, scales dense on apical segment.

Aedeagus straight, truncate at apex, with sub-apical phallotreme enclosed by feeble orificial plates ; aedeagal apodemes twice as long as aedeagus, each pointed at apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus and blunt at apex ; endophallic armature comprising dense spines and tubercles near apical end and papillae and tubercles elsewhere, with a pair of long curved plates at apex. Gastral spiculum with lateral arms strong, its median arm tapering and curved near apex. Coxites sclerotized and sparsely setose ; bursa copulatrix moderately developed, without any plates ; spiculum ventrale moderately long, slender. Spermatheca with cornu pointed and curved at apex, collum short, and lying parallel to ramus.

Measurements.—

Male : Body length : 6.5 mm ; breadth : 2.4 mm.
Rostrum length : 1.0 mm ; breadth : 1.0 mm.

Female : Body length : 7.0 mm ; breadth : 2.6 mm.
Rostrum length : 1.0 mm ; breadth : 1.0 mm.

Holotype.—Male ; India : West Himalayas, at 6000 ft ; P.J. Barrand Coll., 1923. *Paratypes* : Males 2, Females 2, same data as for holotype. Material in British Museum, (N.H.), London.

Remarks.—The present species shows a general resemblance to *C. pini* Mshl. but the scales covering the body in this case are pale with coppery reflection as compared to greenish scales in the latter species. Moreover, each interval of elytra has one row of long erect setae in contrast to numerous short, recumbent setae in *pini* Mshl.

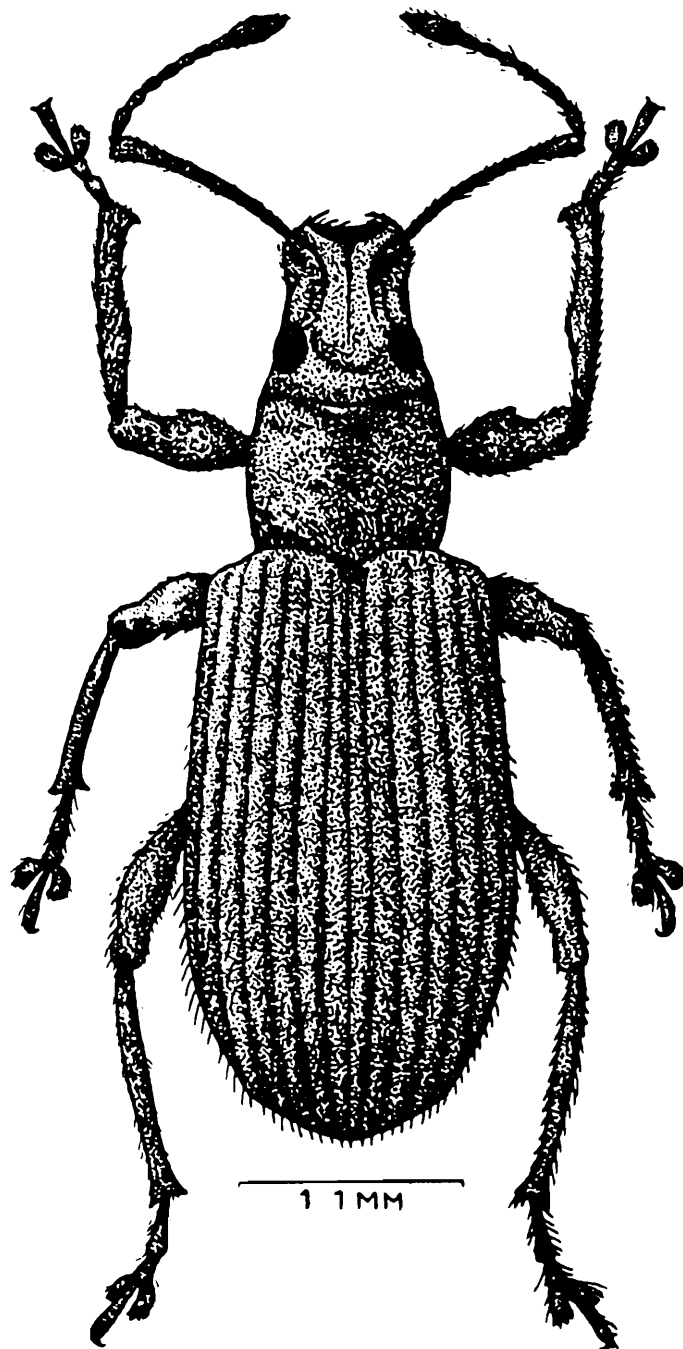
43. *Cyrtepistomus jucundus* (Redtenbacher)
(Figs. 33, 172)

1844. *Phyllobius jucundus* Redtenbacher, in Hügel, Kaschmir, (4) 2 : 544.

1913. *Cyrtepistomus jucundus* : Marshall, *Ann. Mag. nat. Hist.*, (8) 12 : 186.

Frons brown, not striolate, covered with shining green scales and pale sub-recumbent setae, wider than the base of rostrum ; eyes piceous, rounded and moderately convex. Rostrum brown, as long as its basal width, gradually narrowed from base to scrobes, thence moderately dilated, its surface covered with shining green scales and pale sub-recumbent setae ; dorsal area almost flat, not striolate, with a fine central carina throughout its length ; dorso-lateral carinae feeble, almost obsolete in basal one-third, parallel in basal half, and strongly diverging apically ; lateral areas longitudinally and finely striolate, each with a shallow sulcus from upper angle of scrobe towards eye ; epistome flattened, with its posterior margin very broadly rounded and extending behind insertion of antennae ; scrobes small, strongly curving inwards, almost visible from above ; mentum with 4 setae ; antennae brown, moderately long ; scape curved, slender, clavate, exceeding front margin of prothorax, its surface covered with fine green recumbent and sub-recumbent setae ; funicle with joint 2 about 1.5 times longer than 1, all joints covered with fine green setae and each with a whorl of sub-erect setae ; club fusiform, finely and uniformly pubescent.

Prothorax brown, transverse, widest behind middle, somewhat broader at apex than at base, with a shallow transverse impression before middle on each side, with anterior margin shallowly sinuate in middle, with weak ocular lobes and fine vibrissae, its surface punctate with punctures large and visible through shining green scales and fine recumbent setae; lateral sides rounded, strongly constricted near base and slightly so behind apex; basal margin



Cyrtepistomus jucundus Redtenbacher

shallowly bisinuate. Scutellum bare, rectangular, with anterior margin rounded.

Elytra brown, almost parallel sided, with apices jointly rounded, wider at shoulders than base of prothorax ; striae much narrower than intervals, formed by close and bare punctures ; intervals broad, flat, of equal height except raised sutural intervals, each interval with a single row of pale suberect setae and densely covered with shining green scales. Legs brownish, with procoxae contiguous and placed in middle of prosternum ; femora clavate, each with small tooth, covered with green recumbent setae ; tibiae sinuate near base on inner edges, apical end of each with a fringe of brownish bristles and a small mucro ; corbels of hind tibiae open, tarsi densely setose ; claws free and long. Thoracic sterna brown, covered with narrow green scales in centre and rounded scales on sides as well as green recumbent setae. Abdominal sternites brown, covered with green narrow scales and green suberect setae.

Aedeagus straight, truncate at apex, with exophallic valve small ; phallotreme sub-apical, with large orificial plates ; aedeagal apodemes 2.5 times as long as aedeagus, each gently curved at apex ; phallobase ring-shaped, its apodeme 1.5 times as long as aedeagus. endophallus beset with rows of setae and papillae throughout, having a pair of curved plates at apex. Bursa copulatrix moderately developed ; ventral spiculum thin and curved. Spermatheca with cornu pointed at apex, collum directed towards ramus.

Measurements.—

Length

Male body : 6.6 to 7.0 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 7.2 to 7.7 mm ; rostrum : 1.1 to 1.2 mm.

Breadth

Male body : 2.4 to 2.6 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.7 to 3.2 mm ; rostrum : 1.1 to 1.2 mm.

Distribution.—INDIA : Kashmir ; Uttar Pradesh, Mussoorie.

Holotype in Vienna Museum (Austria).

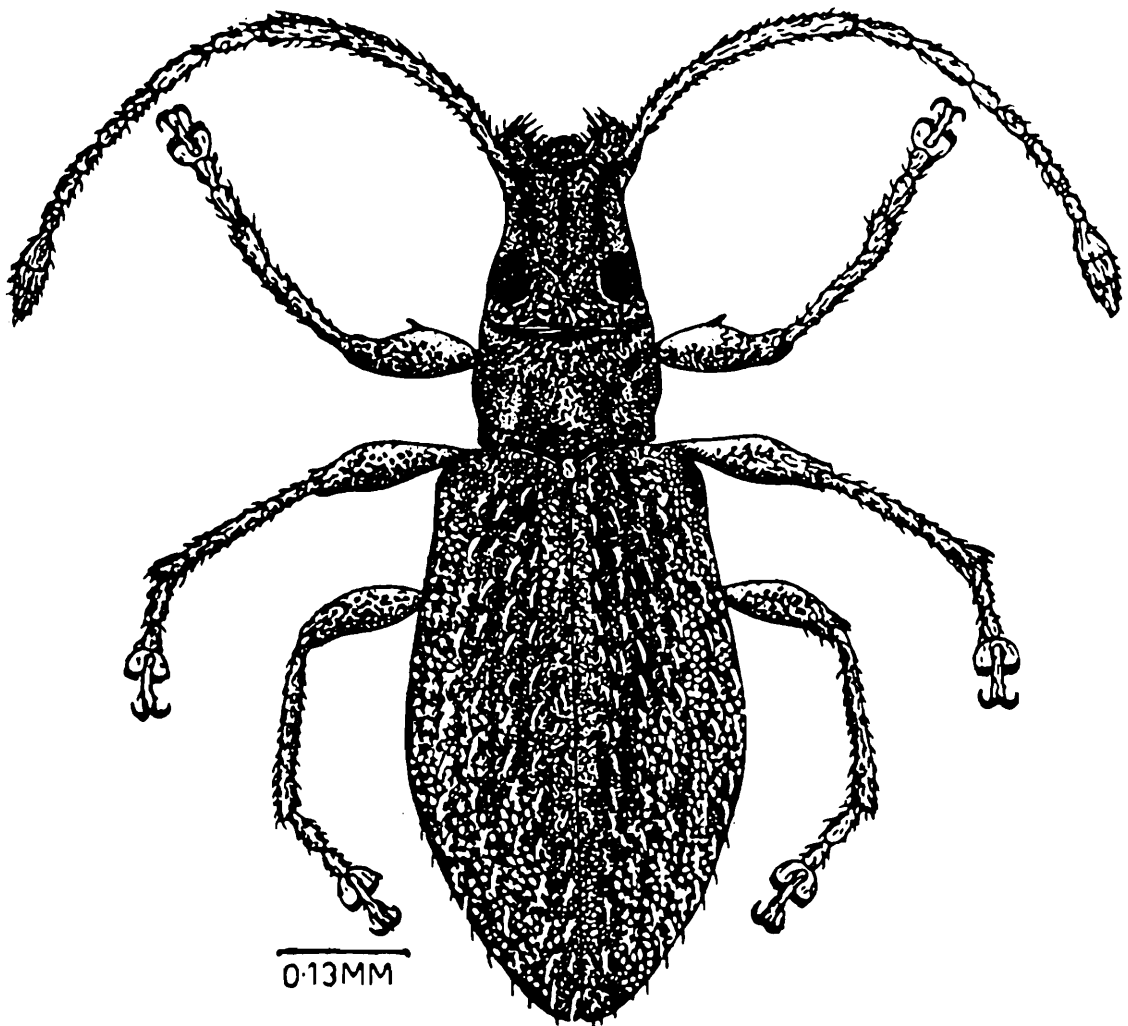
44. *Cyrtepistomus himachalensis* sp. nov.
(Figs. 34, 173)

Frons fuscus, punctate and each puncture with pale sub-erect seta, wider than base of rostrum ; eyes piceous, rounded and moderately convex. Rostrum fuscus, almost as long as its basal width, gradually narrowing from base to scrobes thence moderately dilated, its surface covered with blue and green scales and spathulate pale setae ; dorsal area almost flat, weakly striolate ; dorso-lateral carinae feeble, strongly diverging apically and gradually converging behind ; lateral areas weakly striolate, each with broad shallow sulcus from upper angle of scrobe towards eye ; epistome with its margins carinate and broadly rounded behind, almost at level with line of insertion of antennae ; scrobes small, narrow, almost visible from above ; mentum with 4 setae. Antennae fuscus, moderately long ; scape curved, gradually clavate, exceeding front margin of prothorax, its surface beset with recumbent and sub-recumbent greenish setae ; funicle with joint 2 a little longer than 1, all joints beset with recumbent greenish setae alongwith whorls of sub-erect pale setae ; club fusiform, finely and uniformly pubescent.

Prothorax fuscus, transverse, widest at middle, anterior margin with feeble ocular lobes and fine vibrissae, its surface with large punctures and each puncture with sub-recumbent pale seta, with lateral sides rounded and strongly constricted near base, basal margin shallowly bisinuate. Scutellum small, fuscus, rectangular, with anterior margin rounded, covered with blue and green scales.

Elytra fuscus, almost parallel sided from base to beyond middle and then narrowing towards apex, with apices jointly rounded, much wider at shoulders than base of prothorax, with shoulders roundly rectangular ; striae narrow, with punctures close and moderately deep ; intervals broad, almost flat, covered with blue and green scales, each with single row of long pale setae alongwith scattered small setae on some intervals. Legs dark-brown ; coxae covered by narrow pale scales and some pale setae ; procoxae contiguous, placed towards anterior margin of prosternum ; femora clavate, toothed, covered with sparse green recumbent to sub-erect setae ; tibiae slender, covered densely with green, sub-erect setae ; anterior tibiae also with green scales and shallowly

bisinate internally, each tibia with a fringe of pale bristles and a small mucro ; corbels of hind tibiae open ; tarsi densely setose ; claws free and long. Thoracic sterna fuscus, punctate and each puncture with green sub-erect seta, covered by blue and green scales. Abdominal sternites covered with blue and green scales, punctate and each puncture with sub-erect green seta, 1st and 2nd visible sternites almost bare in middle.



Cyrtepistomus himachalensis sp. nov.

Aedeagus straight, tubular, sub-truncate at apex ; exophallic valve small, not projecting out ; phallotreme sub-apical, with well developed orificial plates ; aedeagal apodemes about twice as long as aedeagus, each slightly curved near apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus beset with dense rows of setae and papillae and one pair of curved plates at apex. Coxites sparsely setose ; bursa copulatrix

well-developed, with a plate near apex ; spiculum ventrale long and strongly curved at apex. Spermatheca with cornu pointed, collum directed towards ramus.

Measurements.—

Length

Male body : 6.9 mm ; rostrum : 0.9 mm.

Female body : 7.5 mm ; rostrum : 1.0 mm.

Breadth

Male body : 2.5 mm ; rostrum : 0.9 mm.

Female body : 2.8 mm ; rostrum : 1.0 mm.

Holotype.—Male ; Himachal Pradesh, Dharamsala ; H.R. Pajni ; 1979. *Paratype* : 1 Female, same data as for holotype. Deposited in Zoology Department, Panjab University, Chandigarh.

Remarks.—This species goes close to *C. jucundus* (Redt.) as the scales covering the body in both of them are greenish. However, the ground colour of this species is dark-brown to blackish as compared to uniformly testaceous in *jucundus*. Moreover, the scutellum is also covered over by greenish scales and setae whereas the same is bare in the latter species.

45. *Cyrtepistomus bardus* Marshall
(Figs. 35a, 35b)

1941. *Cyrtepistomus bardus* Marshall 1, *Ann. Mag. nat. Hist.*, (11) 8 : 364.

Frons piceous, flat, its width slightly less than length of eye, with a narrow median fovea, densely covered with grey-brown scales and a few yellow recumbent setae ; eyes large, grey, convex. Rostrum about as long as its apical width, rapidly narrowing from base to scrobes and dilated at genae ; dorsal area flat, densely covered with scales, with a fine median carina, with area behind epistome impressed and bare ; dorso-lateral carinae gradually divergent from base to apex, squamose ; epistome short, its lateral angles projecting forwards more sharply than usual ; lateral areas

shining, striolate, sparsely covered with grey scales. Antennae brown, very long, slender ; scape long, slender, gently curved, clavate, covered with green scales and brown setae ; funicle with joint 2 longer than 1, 7th shortest ; club elongated, uniformly pubescent.

Prothorax slightly rounded laterally in middle, with feeble ocular lobes, without vibrissae. Pronotum piceous, transverse, as wide at base as at apex, its basal margin sub-truncate and apex shallowly sinuate in middle, with a broad saddle like transverse depression in middle and a shallow depression on each side behind middle, coarsely punctate and punctures almost concealed by scales ; vestiture consisting of uniform grey-brown scales and few short recumbent setae. Scutellum small, shining brown, bare.

Elytra piceous, oblong, wider at roundly rectangular shoulders than base of prothorax, declivous posteriorly, with apices jointly rounded ; each with a transverse impression at one-fourth from base ; striae narrow with punctures deep and closely set ; intervals broad, suture distinctly elevated at top of declivity ; vestiture consisting of grey brown scales and short pale recumbent setae. Legs brown ; fore coxae contiguous, densely covered with pale scales ; femora clavate, each with a small preapical tooth on lower surface ; tibiae slender, densely squamose ; hind tarsus with joint 1 as long as 2, third bilobed joint spongy beneath. Thoracic sterna fuscus, punctate, with a small seta in each puncture. Abdominal sternites punctate, with pale setae.

Aedeagus straight, shallowly sinuate at apex, with short exophallic valve ; aedeagal apodemes twice as long as aedeagus, each narrow at apex ; phallobase ring shaped, with phallobasic apodeme longer than aedeagus and blunt apically ; endophallus lying between aedeagal apodemes ; endophallic armature comprising dense spines and tubercles with a few papillae and two pairs of elongated plates near apex. Female genitalia not studied.

Measurements.—

Body : Length, 6.0 mm ; breadth, 2.0 mm.
Rostrum : Length, 0.9 mm ; breadth, 0.7 mm.

Distribution.—BURMA : Kambaiti.

Holotype in B.M.(N.H.), London.

46. *Cyrtepistomus infidelis* sp. nov.

Frons piceous, flat, narrower than length of eye, striolate and with a short median stria, squamose ; eyes large, nearly flat. Rostrum piceous, as long as its apical width, gradually narrowing from base to scrobes and dilated at genae ; dorsal area flat, covered with green appressed scales and few non-appressed scales, with a fine median carina ; dorso-lateral carinae gradually divergent ; epistome short, broad ; lateral areas finely striolate beneath scales. Antennae ferrugineous, long ; scape long, cylindrical, gradually clavate ; funicle with joint 2 longer than 1-3—7 sub-equal and shortest ; club fusiform, finely pubescent.

Prothorax gently rounded laterally and widest at middle, with moderately developed ocular lobes ; pronotum piceous, transverse, as wide at truncate base as at apex, smooth, punctate, punctures concealed by scales ; vestiture consisting of dense metallic green appressed scales and few short non appressed setae.

Elytra ferrugineous, oblong, gradually divergent up to two third length, narrowing towards apices, much wider at roundly rectangular shoulders than base of prothorax, declivous posteriorly, with apices jointly sinuate ; striae narrow, strial punctures partly visible through scales ; intervals broad, flat ; vestiture consisting of dense green broadly ovate scales, numerous short sub-recumbent setae on each interval. Legs ferrugineous, covered with green scales ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; tarsi squamose ; hind tarsus with first joint longer than second, third as long as second ; claws free. Thoracic sterna piceous, punctate, covered with green scales and some short setae. Abdominal sternites piceous, punctate, moderately covered with small broadly ovate scales and some spatulate seta-like scales. Genitalia not studied.

Measurements.—

Female : Body : length, 5.2 mm ; breadth, 2.0 mm.

Rostrum : length, 0.6 mm ; breadth, 0.6 mm.

Holotype.—Female ; India : Uttar Pradesh. Kumaon.

Holotype in British Museum, (N.H.), London.

Remarks.—This species goes close to *C. bardus* Mshl. as the non appressed scales are recumbent in both of them. However, appressed scales on the body in *infidelis* are green and not brownish grey as in *C. bardus* Mshl. Also, the ocular lobes are much developed in the former species but obsolescent in the latter.

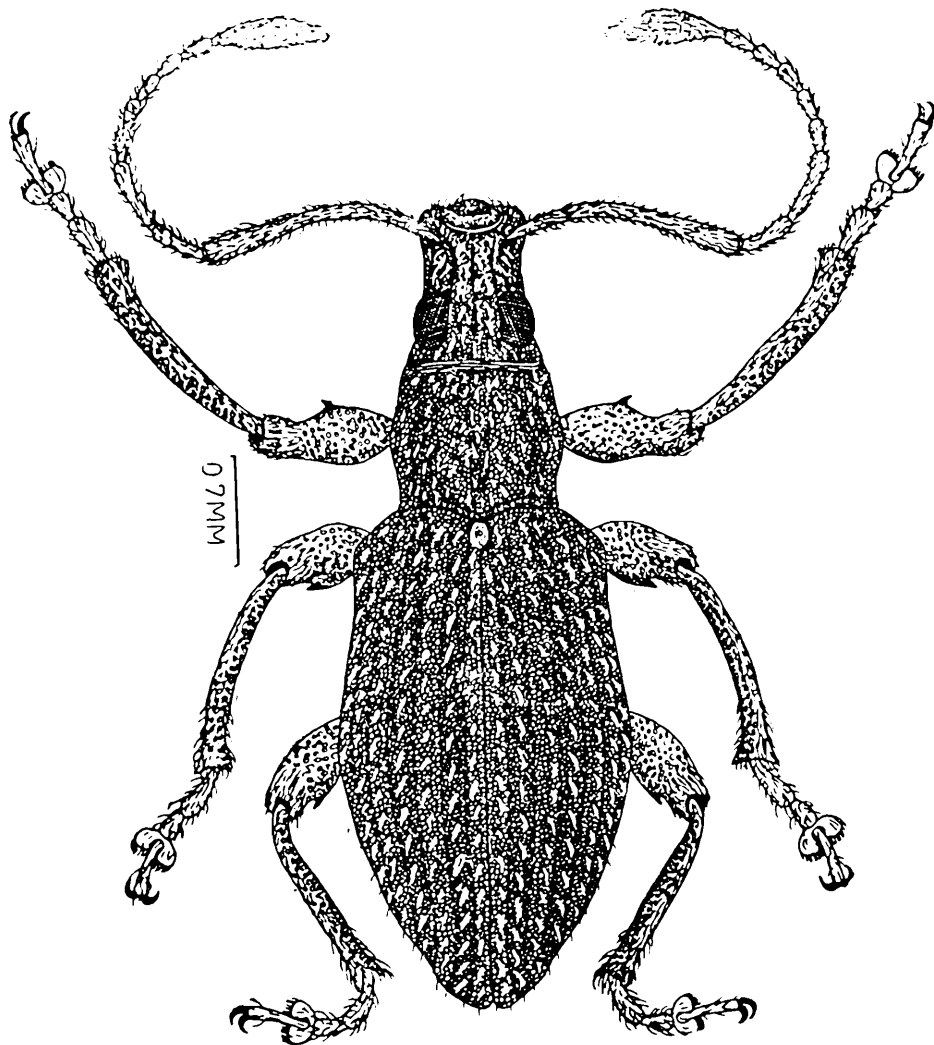
47. *Cyrtepistomus varicolor* sp. nov.

(Figs. 36, 174)

Frons ferrugineous, densely covered with pale-green scales, with a row of erect setae near eye, somewhat declivous anteriorly, as broad as dorsal area of rostrum, with an elongated central fovea ; eyes piceous, dorso-lateral, large, circular, somewhat convex. Rostrum ferrugineous, almost as long as its apical width, gradually narrowing from base to scrobes and dilated at apex ; dorsal area flat in front, somewhat raised behind middle, covered with pale-green scales, with a row of pale-green sub-erect setae along each dorso-lateral carina, with central carina strong and complete ; dorso-lateral carinae weak, diverging strongly towards apex and gradually converging behind ; epistome moderately long, its carinate posterior margin forming an obtuse angle, sloping in front ; lateral areas obliquely and longitudinally striolate, with two sulci running from upper and lower angles of scrobe to eye ; scrobes broad, curving inwards and open behind, almost visible from above ; mentum with 4 setae. Antennae dark-brown, long ; scape curved, sub-cylindrical, clavate, reaching near middle of prothorax, its surface densely covered with seta-like greenish-yellow scales and brown subrecumbent setae ; funicle with joint 2 distinctly longer than 1, covered with thin pale-green scales and sub-recumbent setae alongwith a whorl of sub-erect setae on each joint ; club fusiform, as long as four apical funicular joints, finely and uniformly pubescent.

Prothorax ferrugineous, transverse, punctate with punctures not concealed by scales and each puncture with a pale sub-recumbent seta, with broadly rounded ocular lobes and fine vibrissae ; surface covered with two broad dorso-lateral stripes and a narrow central

stripe of brown scales alternating with green stripes ; lateral sides feebly rounded, a little broader at apex than at slightly bisinuate base. Scutellum small, ferrugineous, somewhat bell-shaped, covered with pale-green setae.



Cyrtepistomus varicolor sp. nov.

Elytra ferrugineous, oblong, gradually widening from base to behind middle and then narrowing to apex, with apices jointly sinuate and separately acuminate, much wider at shoulders than base of prothorax ; striae narrow, formed by deep closely set punctures and each puncture with minute seta ; intervals broad, convex, covered with alternate stripes of light-greenish and brownish scales, each interval with a row of long and erect setae. Legs brownish, covered with green scales and short recumbent setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, slender, each with a small tooth ; tibiae slender, apical

end of each tibia with a fringe of fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; claws free. Thoracic sterna densely and broadly punctate, punctures not covered by pale-green scales. Abdominal sternites punctate and each puncture with pale seta, punctures not covered with pale green scales.

Aedeagus straight, weakly bilobed at apex, with exophallic valve short ; aedeagal apodemes 1.7 times as long as aedeagus, thin and slender ; phallobase ring-shaped, its apodeme almost as long as aedeagus ; endophallus surpassing aedeagal apodemes anteriorly, beset with clusters of dense setae and papillae, having a pair of curved plates at apex. Coxites sparsely setose ; bursa copulatrix moderately developed ; ventral spiculum long and curved. Spermatheca with cornu pointed at apex, collum somewhat directed towards ramus.

Measurements.—

Length

Male body : 5.7 to 6.1 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 6.3 to 6.8 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.4 to 2.6 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 2.7 to 3.0 mm ; rostrum : 0.7 to 0.8 mm.

Holotype.—Male ; Assam, Tejpur ; H.R. Pajni ; 1979.
Paratypes : Male 1, Females 2, same date as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

Remarks.—This species can be easily distinguished from all other species as the body is very densely covered with scales which form alternate longitudinal bands of light greenish and light brownish scales on the intervals of elytra.

48. *Cyrtepistomus rudis* sp. nov.
(Figs. 37a, 37b)

Frons piceous, flat, much narrower than length of eye, sparsely covered with greyish ovate scales and brownish setae, with an

elongated central fovea ; eyes large, convex. Rostrum piceous, almost as long as its apical width, parallel sided from base to scrobes and dilated at genae ; dorsal area shallowly depressed anteriorly, as wide at base as frons, sparsely covered with ovate whitish scales, with fine median carina, with area behind epistome impressed and sparsely covered with few narrow scales, with transverse carina behind epistome low, dorso-lateral carinae gradually divergent from base to scrobes and strongly divergent at apex ; epistome small, broad and declivous anteriorly ; lateral areas shining, sparsely covered with narrow appressed scales, each with a broad sulcus running from upper margin of scrobe to upper margin of eye and deep narrow sulcus from lower margin of scrobe to lower margin of eye. Antennae piceous, long, covered with dense sub-erect recumbent acuminate setae ; scape slender, moderately curved, clavate at apex ; funicle with joint 2 distinctly longer than 1, joints 3 to 7 sub equal and funnel shaped ; club fusiform, acuminate and pubescent.

Prothorax moderately rounded laterally and widest at middle, with moderately developed ocular lobes and distinct vibrissae ; pronotum piceous, transverse, of equal width at base and apex, its basal margin shallowly bisinuate, with apex very shallowly sinuate in middle, punctate with coarse sub-confluent punctures ; vestiture consisting of greyish ovate scales with sparse recumbent and sub-erect setae. Scutellum small, elongated and almost bare.

Elytra piceous, oblong, gradually widening from shoulders to behind middle, narrowing towards apices, strongly declivous posteriorly, with apices jointly sinuate ; striae narrow with punctures small and set apart ; intervals broad, flat ; vestiture consisting of sparse narrow ovoid scales and brownish recumbent setae, some patches of rounded appressed scales, especially towards sides and apex. Legs piceous, covered with narrow non-appressed grey seta-like scales ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; fore-tibia deeply sinuate internally with row of spines on inner margin ; tarsi squamose. Thoracic sterna piceous, covered with whitish scales. Abdominal sternites punctate with a seta-like scale in each puncture.

Aedeagus straight, bisinuate at apex, with sub-apical phallotreme enclosed by feeble orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, slender, each somewhat clavate at apex ; phallobase ring shaped, with apodeme almost as long as aedeagus and clavate at apex ; endophallus lying between aedeagal apodemes ; endophallic armature comprising short spines and tubercles and a pair of curved plates at apex. Gastral spiculum with lateral arms strong, its median arm thick and acuminate at apex. Female genitalia not studied.

Measurements.—

Male : Body : length, 5.0 mm ; breadth, 1.8 mm.
Rostrum : length, 0.6 mm ; breadth, 0.5 mm.

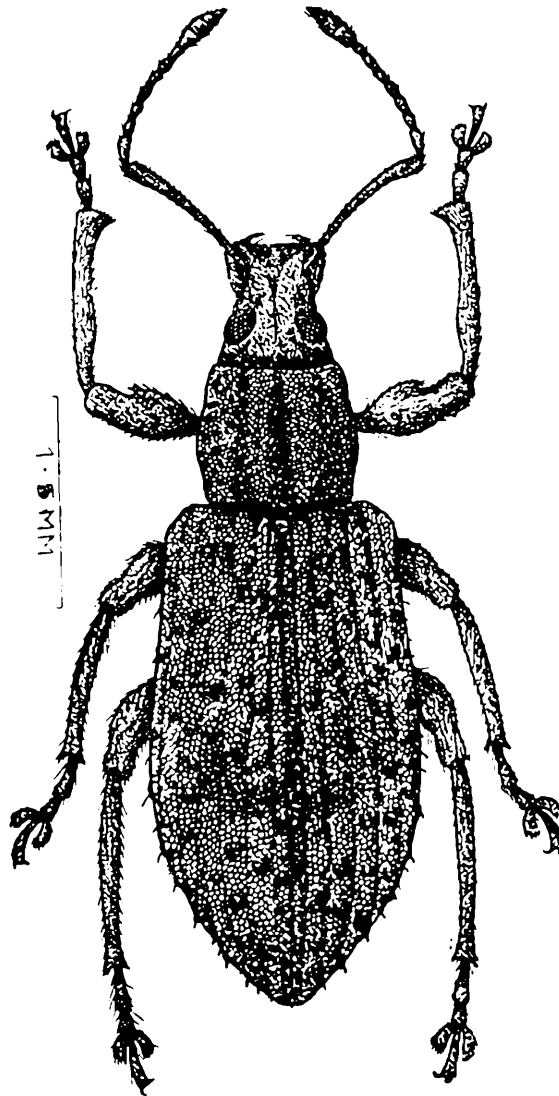
Holotype.—Male : India : Assam ; Manipur ; Fry Coll. B.M. ; 1900. In British Museum (N.H.), London.

Remarks.—The present species shows general resemblance with *C. varicolor* but the appressed scales covering the body are greyish and ovate and not rounded and arranged in alternate stripes of pale and brownish scales as in the latter species.

49. *Cyrterpistomus tuberculatus* sp. nov.
(Fig. 175)

Frons black, its width equal to length of eye, with a deep median stria, densely covered with brown appressed scales and a few sub-erect setae ; eyes brown, moderately convex. Rostrum black, shorter than its apical width, gradually narrowing from base to middle and strongly dilated at apex ; dorsal area shallowly impressed, rapidly narrowing behind, its base raised and higher than frons, sparsely covered with pale setae, with a strong median carina, with area behind epistome covered with a few appressed scales ; dorso-lateral carinae gradually diverging from base to scrobes and strongly divergent at apex ; epistome broad and raised ; lateral areas covered with pale brown appressed scales, each with a deep sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, moderately long, covered with stiff setae ; scape slender, gradually widening distally, covered with recumbent

and erect setae ; funicle with two basal joints subequal, joints 3 and 4 sub-equal but shorter than 1 and 2, 5 to 7 sub-equal and shortest ; club fusiform, finely and uniformly pubescent.



Cyrtepistomus tuberculatus sp. nov.

Prothorax gently rounded laterally and widest at middle, with moderately developed ocular lobes; pronotum black, transverse, its basal margin shallowly bisinuate, with apex truncate, with a shallow rounded fovea on each side behind middle, punctate, with coarse punctures visible through scales ; vestiture consisting of pale brown appressed scales and pale recumbent setae middle. Scutellum elongated, covered with a few setae on margins.

Elytra black, oblong, gradually widening from base to beyond middle, narrowing towards apices, wider at roundly rectangular

shoulders than base of prothorax, declivous posteriorly, with apices jointly rounded ; striae narrow, shallow with punctures distinctly visible ; intervals broad ; intervals 1, 3, 5, 6 and 7 with a row of small rounded tubercles each and each tubercle bearing a moderately long sharp erect seta ; vestiture consisting of dense brownish scales on upper surface and pale scales on declivity and towards sides. Legs piceous ; fore-coxae contiguous, covered with dense pale-green scales and few pale setae ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae slender, shallowly sinuate internally ; fore-tibia with a row of erect stiff setae on inner margin ; tarsi suquamose ; hind tarsus with first joint twice as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna dark brown, covered with appressed scales and dense setae. Abdominal sternites punctate, with a seta in each puncture.

Male genitalia not studied. Bursa copulatrix well developed, with chitinized folds ; ventral spiculum moderately long, slender, blunt at apex. Spermatheca with cornu long, curved and tapering towards apex, collum directed towards ramus.

Measurements.—

Female : Body : Length, 6.5 mm ; breadth, 2.6 mm.
Rostrum : Length, 0.7 mm ; breadth, 0.7 mm.

Holotype.—Female ; India : Manipur ; Fry Coll. ; 1905 ; In British Museum (N.H.), London.

Remarks.—This species belongs to the group of species in which joints 1 and 2 of funicle are equal and out of them it has nearest resemblance with *bicallosus* as the non appressed scales on elytra are erect in both of them. However, the elytra in the present species have a row of small tubercles each on intervals 1, 3, 5 and 6 which are missing in *bicallosus*.

50. *Cyrtepistomus bicallosus* sp. nov.
(Figs. 176)

Frons black, somewhat convex, its width much greater than length of eye, densely covered with brownish grey scales and few

brown erect setae, without central fovea ; eyes lateral, flat. Rostrum black, about as long as broad, gradually narrowing from base to middle, moderately dilated at genae ; dorsal area broad, shallowly impressed, covered with dense brownish grey scales, with central carina visible only in apical region, with transverse carina behind epistome distinct ; dorso-lateral carinae not distinct, squamose ; lateral areas covered with appressed scales and few sub-erect setae ; epistome small, declivous anteriorly. Antennae short ; scape with stiff sub-erect setae ; funicle with joints 1 and 2 sub-equal, joint 3 longer than 4 but shorter than 1, 6th shortest ; club short, fusiform and uniformly pubescent.

Prothorax almost parallel sided, slightly wider at middle, with ocular lobes obsolete and 4-6 long vibrissae. Pronotum uneven, transverse, with its basal margin shallowly bisinuate, with apex truncate, with a shallow transverse impression before middle and a deep rounded depression on each side behind middle, punctate and punctures almost hidden by scales ; vestiture consisting of dense brownish grey appressed scales and a few pale sub-erect setae. Scutellum small, black, bare.

Elytra black, oblong, almost parallel sided up to middle, wider behind middle, narrowing towards apices, much broader at roundly rectangular shoulders than base of prothorax, apices jointly rounded ; striae narrow, punctate and punctures almost hidden by scales ; intervals broad, convex and more so posteriorly with prominent callus at apex of interval 4 ; vestiture consisting of dense brownish grey scales, a common triangular darkbrown patch at top of declivity with its apex directed backwards ; some sparse non appressed scales on each interval. Legs black ; fore coxae contiguous, densely covered with scales ; femora clavate, each with a small pre-apical tooth on lower surface, sparsely covered with rounded scales and pale setae ; tibiae slender ; tarsi squamose ; hind tarsus with first joint 1.5 times as long as second, with third bilobed joint spongy beneath. Thoracic segments black, punctate and each puncture with yellow setae. Abdominal segments black, punctate, with dense scales.

Male genitalia not studied. Bursa copulatrix poorly developed, without any plates ; ventral spiculum moderately long, rounded

at apex. Spermatheca with cornu tapering and curved at apex, collum straight and slightly curved at apex.

Measurements.—

Body : Length, 4.5 mm ; breadth, 2.2 mm.
Rostrum : Length, 0.8 mm ; breadth, 0.8 mm.

Holotype.—Female : Burma ; Ruby Mines (Doherty) Fry Coll. ; 1905. In British Museum (N.H.), London.

51. *Cyrtepistomus lanatus* sp. nov.
(Figs. 38a, 38b)

Frons ferrugineous, slightly convex, its width greater than length of eye, punctate, punctures concealed with grey fimbriate scales and long erect setae ; eyes black, large, nearly flat. Rostrum as long as its apical width, parallel sided from base to apex and moderately dilated at genae ; dorsal area shallowly depressed, covered with minute fimbriate scales and fine erect setae, with a strong median carina, with area behind epistome squamose ; dorso-lateral carinae parallel from base to middle and divergent towards apex ; lateral areas densely covered with minute fringed scales and fine setae. Antennae piceous ; scape slender, slightly curved in middle, clavate at apex, covered with recumbent setae ; funicle with joints 1 and 2 sub-equal, all joints covered with recumbent and sub-recumbent fine setae.

Prothorax gently rounded laterally and widest at middle, with feeble ocular lobes and short vibrissae. Pronotum ferrugineous, transverse, as wide at base as at apex, its basal margin arcuate, with apex truncate, with a very shallow collar like apical constriction, punctate with punctures closely set and clearly visible through scales ; vestiture consisting of dense grey fimbriate scales and long fine setae. Scutellum small, covered with minute fimbriate scales.

Elytra piceous, oblong, parallel sided, narrowing towards apices, much wider at roundly rectangular shoulders than base of prothorax, declivous posteriorly, with apices jointly rounded ; striae narrow, with punctures closely set ; intervals slightly wider than

striae, flat; elytral vestiture consisting of small fimbriate scales and numerous irregular long setae. Legs piceous, fore coxae contiguous, covered with dense grey scales; femora clavate, each with a small pre-apical tooth on lower surface, covered with fine setae; tibiae slender; fore tibiae shallowly sinuate internally, densely covered with sub-recumbent white setae; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna piceous, punctate, covered with fimbriate scales. Abdominal sterna piceous, punctate, covered with fringed grey scales and long seta in each puncture.

Aedeagus straight, shallowly sinuate at apex, with subapical phallotreme enclosed by feeble orificial plates; aedeagal apodemes twice as long as aedeagus, each acuminate at apex; phallobase ring-shaped with its apodeme longer than aedeagus and blunt at apex; endophallus lying between aedeagal apodemes; endophallic armature comprising dense tubercles, setae, short spines and pair of long curved plates at apex. Gastral spiculum with median arm thick and curved near apex at right angle. Female genitalia not studied.

Measurements.—

Body : Length, 5.0 mm; breadth, 1.8 mm.

Rostrum : Length, 0.5 mm; breadth, 0.5 mm.

Holotype.—Male; India; Belgaum; G.A.K. Marshall coll., 1950. In British Museum (N.H.), London.

Remarks.—This species differs from all other species of genus *Cyrtepistomus* as the appressed scales on the body are fimbriate as compared to rounded or ovate scales in the other species.

52. *Cyrtepistomus chloris* sp. nov.

(Figs. 39)

Frons piceous, flat, narrow, its width about half the length of eye, with median stria largely concealed, densely covered with shining light green appressed scales and some pale erect setae; eyes large, black, rounded. Rostrum piceous, as long as its apical width,

parallel sided in basal half and strongly dilated at genae ; dorsal area slightly higher at base, densely covered with pale green appressed scales and few erect setae, without any median carina ; dorso-lateral carinae gradually divergent from base to scrobes ; epistome raised above level of rostrum and broad ; lateral areas squamose, each with sulcus running from upper angle of scrobe towards upper margin of eye. Antennae piceous, long ; scape long, slender, slightly curved, gradually clavate, covered with short recumbent setae ; funicle with joints 1 and 2 equal, 3 to 7 subequal and shorter than 1 ; club fusiform, uniformly pubescent.

Prothorax gently rounded laterally and widest at middle, with short ocular lobes. Pronotum piceous, somewhat transverse, slightly broader at base than at apex, its basal margin deeply bisinuate, with a slight constriction before base to make basal angles project laterally, with apex truncate, punctate and punctures almost concealed with scales ; vestiture consisting of dense pale green scales and a short sub-erect seta in each puncture. Scutellum small, densely covered with green scales.

Elytra piceous, oblong, gradually widening from shoulders to beyond middle, narrowing towards apices, wider at rectangularly rounded shoulders than base of prothorax, declivous posteriorly, with apices separately and shortly acuminate ; striae narrow, with punctures partly covered by scales ; intervals broad, slightly convex ; vestiture consisting of dense pale green appressed scales and row of stiff erect setae on each interval. Legs piceous, small, fore coxae contiguous, densely covered with pale green scales ; femora clavate, each with a small pre-apical tooth on lower surface, covered with pale green appressed scales and few recumbent setae ; tibiae slender ; fore tibia with a row of spines on apical one third of inner margin ; tarsi squamose ; hind tarsus with first joint twice as long as second. Thoracic sternites piceous, densely covered with pale green scales. Abdominal sterna piceous, punctate, covered with dense green scales and a pale seta like scale in each puncture.

Aedeagus straight, truncate at apex, with subapical phallotreme enclosed by feeble orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, each blunt at apex ; phallobase ring-shaped,

with apodeme as long as aedeagus and acuminate at apex ; endophallus lying between aedeagal apodemes ; endophallic armature comprising dense papillae and spines throughout its length. Female genitalia not studied.

Measurements.—

Male body : Length, 4.2 mm ; breadth, 1.4 mm.

Rostrum : Length, 0.6 mm ; breadth, 0.6 mm.

Holotype.—Male ; India : West Bengal Darjeeling ; G.A.K. Marshall Coll. ; 1950. *Paratypes* : Males 2. Same data as for holotype. Material in British Museum (N.H.), London.

53. *Cyrtepistomus victoriae* sp. nov.

(Figs. 40a, 40b, 177)

Frons black, depressed, as broad as length of an eye, sparsely covered with narrow scales having coppery reflection, with central fovea absent ; eyes large and convex. Rostrum black, as long as its apical width, narrowing from base to scrobes and strongly dilated at genae ; dorsal area flat, sparsely covered with narrow appressed scales of coppery reflection, with a fine median carina, with area behind epistome impressed ; dorso-lateral carinae gradually divergent from base to scrobes and rapidly divergent at apex ; epistome broad, sloping anteriorly ; lateral areas shining, covered with some narrow scales, each with a sulcus running from upper angle of scrobe towards upper margin of eye. Antennae brunneus, long, densely covered with narrow acuminate setae ; scape cylindrical, gradually clavate ; funicle with joints 1 and 2 equal, 3-7 shortest and sub-equal ; club fusiform, finely pubescent.

Prothorax widest at middle, its sides rounded for a short distance behind middle, with obsolete ocular lobes and short sparse vibrissae. Pronotum black, transverse, as wide at base as at apex, with base truncate and basal angles somewhat projecting obliquely, with a shallow constriction near base, with apex truncate and a shallow constriction near it, punctate with punctures set apart ; vestiture consisting of narrow appressed scales with coppery reflection and recumbent setae.

Elytra black, oblong, gradually widening from shoulders to behind middle, widest behind middle, narrowing towards apices, much wider at rounded shoulders than base of prothorax, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with punctures shallow and closely set ; intervals broad, flat ; vestiture consisting of sparse white appressed scales and a row of erect setae on each interval. Legs ferrugineous, moderately covered with narrow white scales, procoxae contiguous ; femora clavate, each with pre-apical tooth on lower surface ; tibiae straight, fore tibiae shallowly sinuate internally ; tarsi squamose ; hind tarsus with first joint twice as long as second. Thoracic sterna black, punctate and each puncture with a narrow whitish seta. Abdominal sternites piceous, covered sparsely with narrow white scales.

Aedeagus straight, deeply bisinuate at apex, with subapical phallotreme enclosed by feeble orificial plates ; aedeagal apodemes twice as long as aedeagus, each narrowed at apex ; phallobase ring-shaped, with apodeme slightly longer than aedeagus and blunt at apex ; endophallus lying between aedeagal apodemes ; endophallic armature comprising dense papillae near apex and setae throughout its length, with a pair of curved plates at apex. Gastral spiculum with lateral arms strong, its median arm thick and curved at apex. Bursa copulatrix moderately developed, with few wrinkles on its surface ; ventral spiculum very long, slender, narrowed at apex. Spermatheca with cornu curved and pointed at apex, collum directed towards ramus.

Measurements.—

Body : Length, 5.0 mm ; breadth, 2.0 mm.

Rostrum : Length, 0.7 mm ; breadth, 0.7 mm.

Holotype.—Male ; Burma : Chin Hills, Mt. Victoria, 9300 ft., Leg. G. Heinrich Coll. ; 1938. *Allotype* : female, same data as for holotype. Material in British Museum (N.H.), London.

54. *Cyrtepistomus sulcifrons* sp. nov.

(Fig. 178)

Frons black, slightly narrower than length of an eye, densely squamose, with a broad deep median sulcus ; eyes large and gently

convex. Rostrum black, as long as its apical width, gradually narrowing from base to scrobes, strongly dilated at genae ; dorsal area almost flat, sparsely covered with pale scales, with a low median carina ; dorso-lateral carinae gradually divergent ; epistome short, broad, steeply declivous anteriorly ; lateral areas shining, sparsely covered with pale broadly ovate scales, each with a sulcus running from upper margin of scrobe to upper margin of eye. Antennae piceous, long, moderately covered with white setae ; scape long, cylindrical, gradually clavate ; funicle with joints 1 and 2 equal, 3-7 sub-equal and shortest ; club fusiform, finely pubescent.

Prothorax moderately rounded laterally and widest at middle, with moderately developed ocular lobes and short vibrissae. Pronotum black, transverse, somewhat wider at shallowly bisinuate base than at truncate apex, with a sub lateral shallow depression on each side near base, punctate with punctures nearly concealed by dense scales ; vestiture consisting of dense whitish and fuscus scales mixed with few short spathulate setae.

Elytra piceous, oblong, gradually divergent up to basal two third, narrowing towards apices, much wider at roundly rectangular shoulders than base of prothorax, declivous posteriorly, with apices jointly sinuate ; striae narrow, with punctures somewhat elongated and set apart ; intervals broad, moderately convex ; vestiture consisting of dense ovate pale scales, with a single row of short erect setae on each interval. Legs brunneus, densely covered with narrow whitish scales ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae slightly curved ; tarsi squamose ; hind tarsus with first joint twice as long as second. Thoracic sterna black, punctate, covered with pale scales and some short setae. Abdominal sternites piceous, punctate, moderately covered with broadly ovate scales and spathulate setae.

Male genitalia not studied. Bursa copulatrix well developed, without any plates ; ventral spiculum very long, slender, flattened and truncate at apex. Spermatheca with cornu curved and rounded at apex, collum directed towards ramus.

Measurements.—

Female Body : length, 5.0 mm ; breadth, 2.0 mm.
Rostrum : length, 0.5 mm ; breadth, 0.5 mm.

Holotype.—Female ; India : Assam ; Fry Coll. ; 1905. Holotype in British Museum (N.H.), London.

Remarks.—The present species belongs to a group of 3 species comprised by *sulcifrons*, *vinctus* and *planus* in which the base of prothorax is truncate or sub-truncate and appressed scales are circular. The species under reference is characterized by a broad median sulcus on the frons as compared to a small fovea on the frons of *vinctus* and *planus*.

55. *Cyrtepistomus vinctus* sp. nov.
(Figs. 41a, 41b, 179)

Frons black, flat, slightly wider than length of eye, densely covered with pale brown scales and sub-erect setae, with central fovea elongated ; eyes black, moderately convex. Rostrum piceous, as long as its apical width, narrowing from base to scrobes, strongly dilated at genae, its apex asymmetrical with left gena broader and more produced forwards than right ; dorsal area flat, covered with appressed pale scales and suberect setae, with median carina visible in apical half ; dorsolateral carinae parallel from base to middle and divergent towards apex ; lateral areas densely covered with pale appressed scales and few sub-recumbent setae. Scape slender, clavate, with short pale recumbent setae ; funicle with two basal joints sub-equal, 3-7 sub-equal and shorter ; club elongated, finely and uniformly pubescent.

Prothorax gently rounded laterally, widest at little behind middle, with obsolete ocular lobes and distinct vibrissae. Pronotum piceous, with basal margin narrower than apex and sub-truncate, with a constriction near base, with apex truncate and slightly raised, with a shallow sub-lateral depression behind middle and a longitudinal raised area in basal half on either side, punctate ; vestiture of general pale scales and broad stripes of brown scales sub-laterally. Scutellum small, covered with pale grey scales.

Elytra piceous, oblong, sinuate at base, parallel sided up to behind middle, narrowing towards apex, wider at rectangular shoulders than base of prothorax, strongly declivous posteriorly, jointly rounded at apices ; striae narrow, with punctures closely

set and largely concealed by scales ; intervals broad, flat ; vestiture consisting of general dark brown and pale scales, a brown stripe confined to interval 4 at base but extending irregularly onto intervals 3 and 5 and connecting behind middle with a broad common chevron-shaped brown band running between striae 5 and 6, with a row of numerous setae on each interval. Legs piceous, with fore-coxae contiguous ; femora clavate, covered with scanty pale scales, each with a small pre-apical tooth ; tibiae slender ; tarsi squamose ; hind tarsus with joint 1 as long as second. Thoracic sterna black, punctate, covered with grey setae. Abdominal segments piceous, punctate, densely covered with grey scales and few short sub-erect setae aggregated on apical segment.

Aedeagus small, straight, sinuate at apex, with sub-apical phallotreme and a small exophallic valve ; aedeagal apodemes twice as long as aedeagus, each blunt at apex ; phallobase ring-shaped, with apodeme longer than aedeagus ; endophallus lying between aedeagal apodemes ; endophallic armature comprising dense papillae, small denticles, tubercles and spines. Gastral spiculum moderately long, with lateral arms strong, its median arm thick and curved at apex. Bursa copulatrix moderately developed, with a few chitinized folds ; ventral spiculum moderately long, slender, flattened at apex. Spermatheca with cornu acuminate, collum gently curved, bent at tip towards ramus.

Measurements.—

Male	Body	: length, 3.5 mm ; breadth, 1.5 mm.
	Rostrum	: length, 0.5 mm ; breadth, 0.5 mm.
Female	Body	: length, 4.5 mm ; breadth, 2.0 mm.
	Rostrum	: length, 0.5 mm ; breadth, 0.5 mm.

Holotype.—Female ; India : Bihar, Chhapra ; Mackenzie ; 1950, *Payatypes* : Females 2, Male 1, same data as for holotype. Material in British Museum (N.H.), London.

Remarks.—The species under reference differs from the allied species *planus* in having a common chevron shaped brown band behind the middle of elytra and in the apex of rostrum being asymmetrical. In the case of *planus*, the elytra do not have any such band and the apex of rostrum is symmetrical.

56. *Cyrtepistomus planus* sp. nov.
(Fig. 180)

Frons piceous, flat, nearly twice as broad as length of eye, its longitudinal striolation and median fovea entirely concealed by dense grey scales and sub-erect pale setae ; eyes black, feebly convex. Rostrum as long as its apical width, gradually narrowing from base to scrobes, moderately dilated at genae ; dorsal area flat, covered with dense brown scales, with median carina not visible through scales ; dorso-lateral carinae squamose, parallel from base to scrobes and divergent towards apex ; lateral areas shining, longitudinally striolate, covered with scanty grey scales and few pale recumbent setae ; epistome broad, sloping in front. Antennae piceous, moderately long ; scape curved, gradually clavate at apex, covered with short recumbent setae ; funicle with two basal joints sub-equal, joint 4 longer than 3 but shorter than 1, 5-6 sub-equal, 7 shortest, all joints with sub-erect setae ; club elongated, finely and uniformly pubescent.

Prothorax moderately rounded laterally, widest behind middle, with short ocular lobes and distinct vibrissae. Pronotum piceous, transverse, narrower at base than apex, its basal margin truncate and rapidly widening from base to behind middle but becoming broadly tubular at apex, with a very shallow transverse impression near apex, punctate with punctures set apart and visible through scales ; vestiture consisting of dark brown scales in middle and pale sub-recumbent scales mixed with irregular grey scales on sides. Scutellum small, elongated, covered with grey scales.

Elytra piceous, oblong, gradually widening from base to behind middle, narrowing towards apices, wider at rectangular shoulders than base of prothorax, somewhat flattened on disk and declivous posteriorly, with apices separately rounded ; striae narrow strial punctures closely set and partly covered with scales ; intervals broad, somewhat convex ; elytral vestiture consisting of general brown scales with conspicuous small grey spots on shoulders and some very irregular grey spots on disk. Legs piceous ; fore coxae contiguous ; femora clavate, sparsely covered with grey scales and sub-recumbent setae, each with a small pre-apical spine on lower surface ; tibiae slender, straight ; fore tibiae sinuate internally,

each with a row of spines in apical half of inner margin ; tarsi squamose, hind tarsus with second joint longer than first.

Male genitalia not studied. Bursa copulatrix feebly developed, with its surface wrinkled ; ventral spiculum short, flattened at apex. Spermatheca with cornu curved and tapering towards apex, collum strongly bent towards ramus.

Measurements.—

Female Body length, 6.2 mm ; breadth, 2.5 mm.
 Rostrum length, 0.7 mm ; breadth 0.7 mm.

Holotype.—Female ; India : H.P., Mandi ; K.G. Champion Coll. ; 1953. *Paratypes* : Females 2, same data as for holotype. Material in British Museum (N.H.), London.

57. **Cyrtepistomus albus** sp. nov.
(Figs. 42a, 42b)

Frons black, flat, as wide as length of eye, densely covered with chalky white ovate scales and some white spathulate setae, with central fovea concealed by scales ; eyes large, circular and gently convex. Rostrum black, longer than its apical width, parallel sided from base to scrobes, moderately dilated at genae ; dorsal area shallowly depressed in middle, slightly narrower at base than frons, densely covered with white scales and spathulate setae, with fine median carina visible at apex only ; dorso-lateral carinae gradually diverging from base to apex, squamose ; epistome broad, sloping anteriorly ; lateral areas densely covered with white scales and short spathulate setae, each with a shallow sulcus running from upper margin of scrobe to upper margin of eye. Antennae piceous, moderately long ; scape slender, somewhat clavate at apex, covered with dense chalky white recumbent setae ; funicle with two basal joints subequal, 3-6 shortest and sub-equal, joint 7 slightly longer than 3 ; club elongated, uniformly and finely pubescent.

Prothorax gently rounded laterally and widest slightly behind middle, with distinct ocular lobes and sparse short vibrissae. Pronotum black, transverse, somewhat narrowed at shallowly bisinuate base, with apex slightly sinuate and broader than base, with

two sub-lateral shallow foveae, punctate ; vestiture consisting of uniform chalky white scales with short spathulate setae. Scutellum small, pentagonal, covered with dense white scales.

Elytra black, oblong, almost parallel sided up to behind middle, narrowing towards apices, much wider at obliquely rounded shoulders than base of prothorax, gradually declivous posteriorly, with apices separately rounded ; striae narrow with punctures set apart ; intervals broad and flat ; vestiture consisting of dense white scales and short white recumbent setae. Legs black, with sparse white scales and recumbent setae ; fore coxae contiguous and lying slightly towards apex ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; tarsi squamose. Thoracic sterna black, densely covered with white scales and appressed setae. Abdominal sternites punctate, with sparse setae.

Aedeagus straight, truncate at apex, with a small exophallic valve, with sub-apical phallotreme enclosed by well developed orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, each blunt at apex ; phallobase ring-shaped, with its apodeme as long as aedeagus ; endophallus lying between aedeagal apodemes ; endophallic armature comprising small papillae along with short denticles and tubercles. Gastral spiculum comparatively short, with lateral arms strong, its median arm thick and curved at apex. Female genitalia not studied.

Measurements.—

Body : length, 4.0 mm ; breadth, 1.5 mm.

Rostrum : length, 0.6 mm ; breadth, 0.5 mm.

Holotype.—Male ; India : Maharashtra, Nagpur, 1000 ft ; E.A.D. Abreu ; 1919. Holotype in British Museum (N.H.), London.

Remarks.—The present species resembles *tenuiclavis* in the non appressed setae of elytra being recumbent. But the general scaling on its body is chalky white unlike the green scaling of *tenuiclavis*.

58. *Cyrtepistomus tenuiclavis* sp. nov.
(Figs. 43a, 43b, 181)

Frons piceous, flat, its width slightly greater than length of eye, densely covered with green scales and few pale spathulate setae, with a fine median stria ; eyes black, gently convex. Rostrum piceous, slightly shorter than its apical width, parallel sided from base to scrobes, dilated at genae ; dorsal area flat, covered with dense pale green scales and spathulate setae, with median carina partly covered with scales ; dorso lateral carinae parallel from base to middle, divergent towards apex, with area behind epistome squamose ; epistome large, declivous anteriorly ; lateral areas densely covered with pale green scales and few setae. Antennae, piceous, long ; scape slender, gently curved, very slightly widened at apex, covered with pale recumbent setae ; funicle with two basal joints equal, joint 4 slightly longer than 3 but shorter than 1 and 2, 7th shortest ; club more slender and elongated than usual, only slightly wider than funicle, pubescent.

Prothorax moderately rounded laterally and widest behind middle, with feeble ocular lobes. Pronotum piceous, transverse, as broad at base as at apex, its basal margin shallowly bisinuate with a constriction near base making basal angles project obliquely, with apex truncate and carrying shallow collar like constriction with low elevation in middle of base, punctate with punctures concealed by scales ; vestiture consisting of pale green scales, a narrow sub-denuded dark line on each side, with sub-recumbent spathulate seta in each puncture. Scutellum small, triangular, densely covered with pale green scales.

Elytra piceous, oblong, slightly widened behind middle, much wider at roundly rectangular shoulders than base of prothorax, with apices separately rounded ; striae narrow ; intervals broad, slightly convex, with suture somewhat raised at top of declivity ; vestiture consisting of uniform pale green scales and numerous recumbent setae on each interval. Legs fuscus ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae slender, shallowly sinuate internally ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate, covered with pale green

scales and a few setae. Abdominal sternites piceous, punctate, with punctures more dense on apical segments and each with a pale seta.

Aedeagus straight, sinuate at apex, with subapical phallotreme enclosed by curved orificial plates, with exophallic valve somewhat elongated ; aedeagal apodemes twice as long as aedeagus, each rounded at apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus and enlarged at apex ; endophallus lying between aedeagal apodemes ; endophallic armature comprising short denticles and a pair of curved plates at apex. Gastral spiculum with lateral arms strong, its median arm thick and curved near apex. Bursa copulatrix well developed, with transverse folds on its surface ; ventral spiculum long, rounded at apex. Spermatheca with cornu curved, collum curved towards ramus and lying very close to it.

Measurements.—

Male Body : length, 7.2 mm : breadth, 2.5 mm.
 Rostrum : length, 0.8 mm ; breadth, 1.0 mm.

Female Body : length, 7.2 mm ; breadth, 2.7 mm.
 Rostrum : length, 0.8 mm ; breadth, 1.0 mm.

Holotype.—Male ; Burma : Maymyo ; H.L. Andrewes.
Allotype : Female. Same data as for holotype. Material in British Museum (N.H.), London.

Remarks.—The club in this species is more slender and elongated than usual, being only slightly wider than the funicle.

59. *Cyrtepistomus championi* sp. nov.
(Figs. 44a, 44b, 182)

Frons piceous, slightly depressed, much wider than length of eye, densely covered with pale brown scales and sub-erect setae, with a small central fovea ; eyes black, moderately convex. Rostrum as long as its apical width, parallel sided from base to scrobes and dilated at genae ; dorsal area flat, squamose, with a fine median

carina, with area behind epistome covered with scales and transverse carina distinct, its apical area asymmetrical with left side less developed than right ; epistome flat, asymmetrical, with posterior carina partly obsolete on left ; dorso-lateral carinae almost parallel from base to scrobes and divergent apically ; lateral areas densely covered with pale brown scales and few sub-recumbent setae, each with a sulcus running from upper angle of scrobe towards upper margin of eye. Antennae piceous, moderately long ; scape stout, gradually clavate, covered with pale short setae ; funicle with joint 1 slightly longer than 2, 3 a little longer than 4 but shorter than 2, 5-7 sub-equal and shortest ; club elongated, finely and uniformly pubescent.

Prothorax gently rounded laterally and widest slightly behind middle, with obsolete ocular lobes and distinct vibrissae. Pronotum piceous, transverse, narrower at base than at apex, with its base and apex truncate, with slight sub-lateral elevation on both sides from middle to base on brown stripes, punctate ; vestiture consisting of general grey scales with spathulate setae and brown admedian stripes on both sides. Scutellum small, rounded, covered with pale scales.

Elytra piceous, oblong, slightly wider behind middle, much broader at roundly rectangular shoulders than base of prothorax, with apices jointly rounded ; striae narrow, with punctures almost concealed with scales ; intervals broad, feebly convex, with intervals 3 and 4 raised behind scutellum ; vestiture consisting of pale and brown scales, indefinite darker markings, numerous sub-recumbent setae on each interval. Legs piceous, covered with scanty pale recumbent setae ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; fore tibia slightly sinuate internally, tarsi squamose ; hind tarsus with first joint twice as long as second. Thoracic sterna piceous, punctate, with a small seta in each puncture. Abdominal sternites piceous, punctate with punctures large on apical segment.

Aedeagus straight, sinuate at apex, with phallotreme subapical, with exophallic valve elongated ; aedeagal apodemes twice as long as aedeagus, each broad at apex ; phallobase rings shaped with phallobasic apodeme longer than aedeagus and swollen at apex ;

endophallus lying between aedeagal apodemes ; endophallic armature comprising rows of setae dense papillae, short spines and a plate at apex. Gastral spiculum with lateral arms strong, its median arm thick and curved near apex. Bursa copulatrix well developed, with its surface wrinkled ; ventral spiculum very long, thin, flattened and truncate at apex. Spermatheca with cornu pointed at apex, collum short.

Measurements.—

Male Body : length, 5.5 mm ; breadth, 1.9 mm.
 Rostrum : length, 0.9 mm ; breadth, 0.9 mm.

Female Body : length, 5.7 mm ; breadth, 2.1 mm.
 Rostrum : length, 0.9 mm ; breadth, 0.9 mm.

Holotype.—Male ; India : U.P. ; Kumaon ; H.G. Champion Coll. 1953. *Allotype* ; Female. *Paratypes* : Females 2 ; same data as for holotype. Material in British Museum (N.H.), London.

Remarks.—The present species resembles *frontalis* as the joint 2 of funicle is shorter than 1 in both of them. The frons in *championi* is slightly depressed and the epistome is asymmetrical as compared to the convex frons and symmetrical epistome in *frontalis*.

60. *Cyrtepistomus frontalis* sp. nov.
(Fig. 183)

Frons ferrugineous, convex, much wider than length of eye, sparsely covered with pale ovate scales, with central fovea small and circular ; eyes comparatively small, black, moderately convex. Rostrum shorter than its apical width, gradually narrowing from base to scrobes and moderately dilated at genae ; dorsal area shallowly depressed in middle, separated by a transverse ridge from a broad bare areas behind epistome, sparsely covered with pale scales, with central carina lower than dorso-laterals, dorso-lateral carinae convergent upto scrobes and divergent at apex ; lateral areas shining, sparsely covered with pale scales and setae, without longitudinal sulcus ; epistome short, steeply declivous anteriorly.

Antennae ferrugineous, moderately long, covered with pale setae ; scape stout, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 longer the 2, 3-7 longer than broad and roughly funnel shaped ; club fusiform, uniformly pubescent.

Prothorax parallel sided in anterior half and narrowing rapidly to base, with obsolete ocular lobes and distinct vibrissae. Pronotum ferrugineous, transverse, broader at apical margin than base, its basal and apical margins truncate, with a low sub-lateral projection on each side in middle, punctate with sub-confluent punctures ; vestiture consisting of sparse pale scales and brownish spathulate setae. Scutellum small, rectangular, with a few setae.

Elytra ferrugineous, oblong, gradually widening from shoulders to two third length, narrowing towards apices, much wider at obliquely rounded shoulders than base of prothorax, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow with punctures circular and shallow ; intervals broad, flat ; vestiture consisting of pale ovoid scales with numerous whitish sub-recumbent setae. Legs ferrugineous, densely covered with narrow whitish setae ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; fore tibiae sinuate internally ; tarsi squamose ; hind tarsus with first joint 1.5 times as long as second. Thoracic sterna ferrugineous, punctate, covered with sub-recumbent short setae. Abdominal sternites punctate, with a short seta in each puncture.

Male genitalia not studied. Bursa copulatrix moderately developed, its surface with transverse wrinkles and without any plates ; ventral spiculum long, slender, blunt at apex. Spermatheca with cornu pointed and strongly curved at apex, collum directed towards ramus.

Measurements.—

Female : Body : length, 5.4 mm ; breadth 2.3 mm.

Rostrum : length, 0.6 mm ; breadth 0.7 mm.

Holotype.—Female ; India : Kumaon, W. Almora ; H. G. Champion Coll. ; 1953. Holotype in British Museum (N.H.), London.

Genus 12. *Platymycteropsis* Voss

1941. *Platymycteropsis* Voss, Mitt. Munchen. Ent. Ges., 31 : 249.
 1941. *Phrixopogon* : Marshall, Ann. Mag. nat. Hist., (11) 8 : 366.
 1944. *Phrixopogon* : Marshall, Ann. Mag. nat. Hist., (11) 11 : 81.
 1948. *Phrixopogon* : Marshall, Proc. Zool. Soc., Lond., 117 : 689-707.

Frons not continuous with rostrum laterally, forming a wide angle with it, its width much greater than length of eye ; Rostrum almost as long as broad ; scrobes partly enclosed behind each by an oblique curved carina running from inner edge of scrobe towards middle of eye ; epistome elongate, extending behind level of insertion of antennae. Scape curved ; funicle with joint 2 not longer than 1 ; club long and slender. Prothorax transverse, with ocular lobes feeble or obsolete and vibrissae distinct ; pronotum sometimes with a tooth near each basal angle. Elytra with shoulders oblique, not much wider than base of prothorax, dehiscent at apices. Legs with femora toothed ; corbels of hind tibiae enclosed, each with a bare inner carina ; claws free. Aedeagus weakly bilobed at apex, with exophallic valve projecting out ; phallotreme with internal orificial plates. Female genitalia with bursa very well-developed, bearing sclerotized plates.

Type species.—*Corigetus excisangulus* Reitter

Distribution.—INDIA, BURMA, CHINA, MALAYA, PHILIPPINES.

Key to the species of genus *Platymycteropsis* Voss

1. Pronotum with a tooth near each basal angle	2
—Pronotum without such teeth	4
2. Mentum with more than 4 setae, scales on body dull brown	<i>excisangulus</i> (Reitter)
—Mentum with 4 setae	3
3. Frons steeply sloping to rostrum ; body covered with shining pale scales	<i>denticollis</i> (Marshall)
—Frons almost flat ; body covered with pale green scales	<i>anguicollis</i> (Marshall)

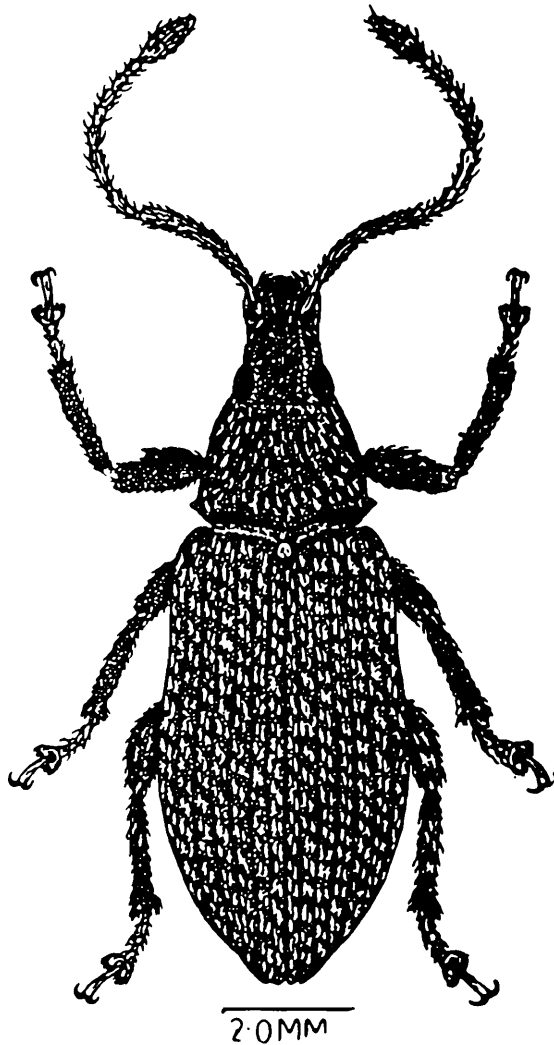
4. Scape slender, cylindrical, clavate at apex *sikkimensis* (Marshall)
 —Scape stout, compressed, angular. 5
5. Scutellum broad, setae on elytral intervals
 white *herbeus* (Marshall)
 —Scutellum narrow, setae on elytral intervals
 pale *fausti* (Marshall)

61. *Platymycteropsis excisangulus* (Reitter)
 (Figs. 184)

1900. *Corigetus excisangulus* Reitter, Deutsche Ent. Zeit., : 65.
 1941. *Platymycterus* (*Platymycteropsis*) *excisangulus* : Voss, Mitt. Munch. Ent. Ges. XXXI : 248.
 1941. *Phrixopogon excisangulus* Marshall, Ann. Mag. nat. Hist., (11) 8 : 367.

Frons fusco-piceous, weakly striate, sloping down to rostrum, broader than length of an eye, its surface covered with pale-green circular scales and sub-recumbent to sub-erect setae ; central fovea narrow, elongated ; eyes piceous, large, round, lateral, slightly convex. Rostrum fusco-piceous, almost as long as broad, running parallel from base to scrobes and moderately dilated towards apex, its surface densely covered with pale-green scales and sub-recumbent spatulate setae ; dorsal area depressed in front, with central carina strong and as high as angle of epistome ; dorso-lateral carinae as high as central carina, diverging apically and almost parallel behind ; lateral areas each with a bare carina running obliquely in a curve from inner angle of scrobe towards middle of eye alongwith two longitudinal sulci one from inner and one from outer angle of scrobe to eye ; epistome long, with margins carinate, with a fringe of setae overlying it ; scrobes broad, partly enclosed behind, almost visible from above ; mentum with 4 setae. Antennae fusco-piceous, moderately long ; scape curved, sub-cylindrical, gradually widening from base to apex, reaching middle of prothorax, its surface covered densely with narrow pale-green scales and pale sub-recumbent setae ; funicle with joints 1 and 2 equal, 3 longer than 4-7 but shorter than first two, all joints covered with pale-green scales and pale recumbent setae alongwith a whorl of sub-erect setae on each joint ; club fusiform, with margins of two basal segments oblique, finely and uniformly pubescent.

Prothorax fuscus transverse, transversely convex, with pair of dorsolateral shallow depressions behind middle ; anterior margin shallowly sinuate in middle, with moderate ocular lobes and fine vibrissae ; surface of pronotum with large punctures concealed by dense pale and brownish scales and each puncture with a sub-recumbent pale seta ; lateral sides sub-conical, widest at base,



Platymycteropsis exisangulus Reitter

with a short tooth close to each basal angle, gradually narrowing anteriorly, with a shallow broad constriction at apex ; basal margin bisinuate with its broadly rounded median lobe slightly turned up. Scutellum fusco-piceous, small, bare, rectangular with anterior margin rounded.

Elytra fusco-piceous, oblong, parallel sided, each with a small process at the apex, with shoulders very sloping ; striae narrow,

formed by small deep punctures and each puncture with a minute seta ; intervals broad, almost flat, of equal height, covered with uniform pale-green and greyish scales and numerous sub-recumbent setae in middle becoming erect towards lateral and apical areas. Legs fuscus, densely covered with pale-green scales and recumbent to sub-erect setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, unidentate ; tibiae with anterior pair incurved at apex, shallowly sinuate beneath on basal third, apical end of each tibia with a fringe of short fuscus spines interspersed with setae and a small mucro, corbels of hind tibiae enclosed ; tarsi setose ; hind tarsus with first joint more than twice as long as second, third bilobed joint spongy beneath and as long as second ; claws free. Thoracic sterna fusco-piceous, covered with pale-green scales and pale sub-erect setae, with scales sparse and narrow in middle of each sternite. Abdominal sternites covered with dense pale-green scales and pale sub-erect setae, with sparse and narrow scales in middle of first and second visible sternites.

Male genitalia not studied. Bursa copulatrix well-developed and more sclerotized in apical half ; ventral spiculum long, thick and curved, rounded and broadened at apex. Spermatheca with cornu rounded and curved at apex, collum lying adjacent to ramus.

Measurements.—

Length

Female body : 9.3 mm ; Rostrum : 1.3 mm.

Breadth

Female body : 3.8 mm ; Rostrum : 1.2 mm.

Range.—China ; India : Manipur, Sagolmang.

Holotype in Dresden Museum (Germany).

62. *Platymycteropsis denticollis* (Marshall)
(Figs. 185)

1948. *Phrixopogon denticollis* Marshall, Proc. Zool. Soc., Lond., **117** : 691, 698.

Frons fuscus, striate, sloping down rather steeply to rostrum, slightly convex transversely, narrower than usual, only a little wider

than length of eye, its surface covered with narrow pale-green scales having metallic reflection and recumbent setae ; central fovea rounded, deep ; eyes piceous, lateral, nearly rounded. Rostrum fuscus, almost as long as broad, running parallel from base to scrobes and moderately dilated towards apex, its surface sparsely covered with pale-green scales of coppery reflection and sub-recumbent setae ; dorsal area depressed in front, with a low transverse ridge behind epistome ; central carina strong, bare, lower than pointed angle of epistome in front and nearly as high as dorso lateral carinae behind ; dorso-lateral carinae strong, bare, diverging apically and quite parallel behind ; lateral areas each with a curved bare carina arising from below dorso-lateral carina near its middle to upper angle of the eye and a bare carina running obliquely in a curve from inner angle of scrobe towards middle of eye ; epistome long, with margins strongly carinate, with fringe of setae overlying it ; scrobes broad, partly enclosed behind ; almost visible from above ; mentum with 4 setae. Antennae fuscus, moderately long ; scape curved, sub-cylindrical, very gradually widening from base to apex, passing anterior margin of prothorax, its surface covered with pale-green recumbent setae ; funicle with joints 1 and 2 equal, 3 longer than 4, but shorter than first two, 5-7 sub-equal and shortest, covered with pale-green scales having coppery reflection and pale-green recumbent setae, with a whorl of sub-erect setae on each joint ; club-fusiform, with margins of two basal segments oblique, finely and uniformly pubescent.

Prothorax fuscus, almost as long as broad, transversely convex ; anterior margin somewhat straight with weak ocular lobes and fine vibrissae ; surface of pronotum with pale-green scales having metallic reflection and sub-recumbent setae, with punctures coarse and close and not concealed by scales in middle, with a shallow transverse furrow near base ; lateral sides sub-conical, widest at base, each with a triangular tooth just in front of basal angle, gradually narrowing anteriorly, with a shallow broad constriction at apex. Scutellum fuscus, small, bare, bellshaped.

Elytra fuscus, oblong, somewhat widened behind middle, each with a small process at apex ; shoulders sloping, with a small granule at each basal angle ; striae formed by moderate and separated punctures and each puncture with a minute seta ; intervals broad,

almost flat, of equal height, covered with dense pale-green scales having coppery reflection and numerous sub-recumbent ribbon-like setae, also with minute inconspicuous granules. Legs fuscus, covered with sparse pale scales and sub-recumbent setae ; fore-coxae contiguous, placed a little behind middle of prosternum ; femora clavate, unidentate ; tibiae with anterior pair incurved at apex, shallowly sinuate below at base, apical end of each tibia with a fringe of fuscus bristles interspersed with setae and a short mucro, corbels of hind tibiae enclosed ; tarsi setose : hind tarsus with first joint about twice as long as second, third bilobed joint spongy beneath and shorter than second ; claws free. Thoracic sterna fuscus, covered with pale-green scales having coppery reflection and sub-recumbent pale setae. Abdominal sternites covered with dense pale-green scales having coppery reflection and fine sub-erect pale setae, with sparse and narrow scales in the middle of first and second visible sternites.

Male genitalia not studied. Bursa copulatrix well-developed, with a pair of large shoe-shaped plates near apex ; ventral spiculum long and thick, rounded and broadened at apex. Spermatheca with cornu rounded and slightly curved at apex, collum lying close to ramus.

Measurements.—

Length

Female body : 9.3 mm ; Rostrum : 1.0 mm.

Breadth

Female body : 3.5 mm ; Rostrum : 1.0 mm.

Range.—Malaya, Selangor ; Indo-China ; India : Manipur, Ukhrul.

Holotype in British Museum (N.H.), London.

63. *Platymycteropsis angulicollis* (Marshall)

(Figs. 45, 186)

1948. *Phrixopogon angulicollis* Marshall, Proc. Zool. Soc., Lond., **117** : 691, 697.

Frons fusco-piceous, striate, almost flat, nearly twice as wide as length of eye, a little higher than eyes, its surface covered with

pale-green scales and sub-recumbent pale setae, with median fovea inconspicuous and almost covered with scales ; eyes piceous, lateral, nearly rounded. Rostrum piceous, almost as long as broad, running parallel from base to scrobes and moderately dilated towards apex ; dorsal area covered with pale-green scales and sub-recumbent pale-green setae, with the area near epistome bare and deeply depressed ; central carina lower than pointed angle of epistome ; dorso-lateral carinae diverging in apical half and higher than carinate margins of epistome, almost parallel and covered with scales in basal half and there higher than fine central carina ; lateral areas less densely squamose, each with a bare carina running obliquely in a curve from inner edge of scrobe towards middle of eye ; epistome very long, reaching almost middle of rostrum, with fringes of long setae overlying it ; scrobes broad, partly enclosed behind, almost visible from above ; mentum with 4 setae. Antennae piceous, moderately long ; scape stout, curved, broad, compressed throughout its length parallel-sided in apical half, reaching near middle of prothorax, its surface covered with longitudinal rows of pale sub-recumbent setae ; funicle with joint 1 a little longer than 2, 3 and 4 sub-equal but much shorter than 2, 5-7 sub-equal and shortest, covered with green narrow scales and whorls of small greenish sub-recumbent to sub-erect setae ; club long, somewhat fusiform, with margins of two basal segments oblique, finely and uniformly pubescent.

Prothorax piceous, transverse; anterior margin shallowly sinuate, with moderate ocular lobes and fine vibrissae laterally ; surface of pronotum with large sub-reticulate punctures visible through sparse scaling in middle and each puncture with a sub-erect pale seta, with rest of the surface covered with dense pale-green scales, with transverse furrow near base terminating into deep depressions and a shallower furrow near apex ; lateral sides sub-conical, each with triangular process close to basal angle ; basal margin shallowly bisinuate. Scutellum fusco-piceous, small, rectangular with anterior margin rounded.

Elytra fusco-piceous, oblong, parallel-sided, with shoulders sloping and separately rounded at apex ; striae very narrow, formed by small punctures almost concealed by scales and whitish powder ; intervals broad, flat, with dense pale-green scales and numerous

pale truncate setae. Legs fusco-piceous, covered with sparse pale-green recumbent to erect setae and sparse scaling on middle and hind femora ; fore-coxae contiguous and placed in middle of prosternum ; femora clavate, unidentate ; tibiae with anterior pair incurved at apex and shallowly bisinuate beneath, apical end of anterior two pairs with a fringe of very small fusco-piceous bristles and a mucro, corbels of hind tibiae enclosed ; tarsi setose ; hind tarsus with first joint about twice as long as first, third bilobed joint spongy beneath and as long as second ; claws free. Thoracic sterna fusco-piceous, covered with green scales and small sub-recumbent pale-green setae, with scales in middle of each sternite narrow. Abdominal sternites covered with dense pale-green scales and fine sub-recumbent setae, with sparse and narrow scales in middle of first and second visible sternites.

Aedeagus straight, weakly bilobed at apex, with exophallic valve longer than lateral lobes, more sclerotized near apex ; phallotreme sub-apical, with moderately developed orificial plates ; aedeagal apodemes more than twice as long as aedeagus, each gradually thickening from base to apex and curved near apex ; phallobase ring-shaped, its ventral apodeme longer than aedeagus and rounded at apex ; endophallus not surpassing aedeagal apodemes, much densely beset with rows and clusters of setae and papillae, having a pair of curved plates at apex. Bursa copulatrix well-developed, with a few small and a large plates at apex ; ventral spiculum long and thick, broad and rounded at apex. Spermatheca with cornu rounded at apex, collum recurved and lying adjacent to ramus.

Measurements.—

Length

Male body : 9.6 mm ; rostrum : 1.5 mm.

Female body : 10.2 mm ; rostrum : 1.6 mm.

Breadth

Male body : 3.9 mm ; rostrum : 1.5 mm.

Female body : 4.2 mm ; rostrum : 1.6 mm.

Range.—China : India ; Manipur, Sagolamang (Ex. *Cassia fistula*) ; Burma, Karen Hills.

Holotype in British Museum (N.H.), London.

64. *Platymycteropsis sikkimensis* (Marshall)
(Fig. 187)

1948. *Phrixopogon sikkimensis* Marshall, Proc. zool. Soc. Lond., 117 : 693.

Frons fuscus, somewhat flat transversely, separated from rostrum by shallow impression, slightly higher than upper margins of eyes, covered with recumbent greenish scales and few brown sub-erect setae ; central fovea deep, circular ; eyes large, rounded, flat. Rostrum fuscus, a little broader than long, narrowing from base to antennae and widened at apex ; dorsal area shallowly depressed in front, with median carina at same level as posterior angle of epistome and as high as dorso-lateral carinae, covered with greenish scales and few sub-erect setae ; epistome long, with margin strongly carinate, with fringes of setae overlying it ; scrobes broad, partly enclosed behind ; mentum with 6 setae. Antennae piceous, long ; scape comparatively slender, sub-cylindrical, with recumbent setae ; funicle very long and slender, with joints 1 and 2 equal, 3 shorter than 4, 5-7 sub-equal and shortest, covered with whitish recumbent setae, all joints covered with whorls of setae ; club fusiform, shorter than two preceding joints, uniformly pubescent.

Prothorax fuscus, almost as long as broad, transversely convex ; anterior margin somewhat straight, with obsolete ocular lobes and fine vibrissae widest at base and narrowing to apex ; dorsal surface flattened in middle, with two faint sub-lateral impressions on each side one before and one behind middle ; vestiture consisting of recumbent yellow and green scales and yellow sub-erect setae. Scutellum fuscus, small, covered with few sub-erect brown setae.

Elytra fuscus, oblong, parallel-sided, slightly widened behind middle ; striae narrow, formed by small deep punctures and each puncture with brownish sub-erect seta ; intervals flat, covered with uniform brown and green scales and brown sub-recumbent setae. Legs piceous, densely covered with whitish recumbent setae ; fore-coxae contiguous ; femora clavate, each with short sharp tooth, covered with white recumbent setae ; tibiae slightly incurved at apex, apical end of each tibia with a fringe of short fuscus bristles and a small mucro, corbels of hind tibiae enclosed ; tarsi setose, hind tarsus with first joint longer than second, third bilobed joint

spongy beneath ; claws free. Thoracic sterna fuscus, covered with green recumbent scales and sub-erect white setae. Abdominal sternites fuscus, covered with recumbent green scales and whitish sub-erect setae.

Male genitalia not studied. Bursa copulatrix well-developed, with large plates near apex ; ventrale spiculum long and pointed at apex. Spermatheca with cornu pointed at apex ; collum swollen and lying very close to ramus.

Measurements.—

Length

Body : 8.9 mm ; rostrum : 1.1 mm.

Breadth

Body : 3.5 mm ; rostrum : 0.7 mm.

Range.—India ; Sikkim, Gopaldhara, Rungbong Valley.

Holotype in British Museum (N.H.), London.

65. **Platymycteropsis herbeus** (Marshall)
(Fig. 188)

1948. *Phrixopogon herbeus* Marshall, Proc. Zool. Soc. Lond., 117 : 696.

Frons fuscus, sloping down to rostrum, somewhat flat transversely, covered with cupreus scales and yellow sub-recumbent seta-like scales ; central fovea deep, circular, concealed by scales ; eyes small, slightly convex. Rostrum piceous, as long as broad, running parallel from base to antennal insertions ; dorsal area depressed in front, with central carina lower than rounded angle of epistome, its dorso-lateral carinae curving outward in front, covered with yellow and green recumbent scales and few pale sub-recumbent seta-like scales ; epistome long, with margin strongly carinate ; scrobes broad, partly enclosed behind ; mentum with 7 setae. Antennae slender, piceous ; scape flattened dorsally, covered with recumbent white setae ; funicle long, slender, with joint 1 longer than 2, joint 3 a little longer than 4, 5 to 7 sub-equal but shortest of all,

joints covered with sub-recumbent whitish setae ; club narrow, as long as two preceding joints and uniformly pubescent.

Prothorax fuscus, slightly longer than broad, with obsolete ocular lobes and fine long vibrissae, with apex shallowly constricted and base slightly bisinuate, parallel-sided in basal half and thereafter narrowing to apex ; pronotum flattened in middle, with shallow sub-lateral impressions one on each side behind middle ; vestiture consisting of recumbent greenish fimbriate scales and sub-erect whitish setae ; scutellum broad, covered with recumbent greenish scales and a few sub-recumbent white seta-like scales.

Elytra piceous, parallel-sided upto middle, widened behind middle, separately rounded at apices ; striae shallowly impressed, with punctures obscured by scaling ; intervals flat, with numerous short recumbent setae and more sparse longer sub-erect whitish setae on posterior half ; surface covered with greenish recumbent scales with whitish powder. Legs piceous, covered with variable green scales and recumbent pale setae ; fore-coxae contiguous ; femora clavate, each with a short spiny tooth, covered with whitish sub-recumbent setae ; tibiae slender, gradually clavate, apical end of each tibia with fringe of short brown bristles, fore-tibiae slightly incurved apically ; corbels of hind tibiae enclosed ; tarsi covered with long sub-erect white setae ; hind tarsus with joint 1 as long as 2 and 3, third bilobed joint spongy beneath ; claws free. Thoracic sterna fuscus, covered with recumbent green scales and white sub-erect setae. Abdominal sternites fuscus, covered with recumbent green scales and few whitish scales.

Male genitalia not studied. Bursa copulatrix well-developed, with sclerotized plates at apex ; ventral spiculum long and thick but narrow and pointed at apex. Spermatheca with cornu rounded and slightly curved at apex ; collum lying close to ramus.

Measurements.—

Length

Body : 8.6 mm ; rostrum : 1.2 mm.

Breadth

Body : 3.1 mm ; rostrum : 0.8 mm.

Range.—India ; West Bengal, Darjeeling, Nurbong ; Bangladesh, Sylhet, Chandkira.

Holotype in British Museum (N.H.), London.

66. *Platymycteropsis fausti* (Marshall)
(Figs. 46a, 46b)

1948. *Phrixopogon fausti* Marshall, Proc. Zool. Soc., Lond., 117 : 705.

Frons fuscus, flat, sloping down to rostrum, broader than length of eye, covered with shining yellow and green scales and few brownish sub-erect seta-like scales ; central fovea deep, circular, concealed by scales ; eyes large, flat. Rostrum fuscus, as long as broad, running parallel from base to scrobe and dilated at apex ; dorsal area depressed in front, median carina lower than rounded angle of epistome, dorso-lateral carinae curving outwards in front, covered with green and yellow scales and few sub-recumbent seta-like scales ; epistome long, with margin strongly carinate, with fringes of setae overlying it ; scrobes broad, partly enclosed behind ; mentum with 4 setae. Antennae fuscus, long ; scape stout, curved, compressed throughout its length, parallel-sided in apical half, reaching near middle of prothorax, covered with recumbent whitish setae ; funicle with joint 3 longer than 4, 3-7 sub-equal, covered with recumbent whitish setae ; club elongate, with joint 3 sub-cylindrical and narrower than 2.

Prothorax fuscus, transverse, with obsolete ocular lobes and fine vibrissae, parallel sided in basal half, with broad shallow constriction at apex, with very shallow sub-lateral impressions behind and transverse depression across middle of base, its basal margin shallowly bisinuate ; pronotum with small closely set punctures and each puncture with a sub-erect yellow seta, covered with mixture of yellow and green recumbent scales. Scutellum small, fuscus, bare.

Elytra fuscus, parallel, separately rounded at apex ; striae narrow, with small close punctures largely obscured by dense scales and powder ; intervals with numerous recumbent setae, covered with shining green scales. Legs piceous, covered with sparse green

scales and recumbent setae ; forecoxae contiguous ; femora clavate, each with a small spiny tooth ; tibiae slightly incurved at apex, apical end of each tibia with a fringe of brown bristles, corbels of hind tibiae enclosed ; tarsi setose ; hind tarsus with joint 2 shorter than 1, third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, covered with green scales and few yellow setae. Abdominal sternites piceous, covered with shining green scales and few sub-erect yellow setae.

Aedeagus straight, weakly bilobed at apex, with exophallic valve projecting out ; phallotreme sub-spical with moderately developed orificial plates ; aedeagal apodemes 3 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme 1.5 times as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of papillae and tubercles : Gastral spiculum thick, lateral arms short with outer fimbriate margin, median arm curved and swollen at apex. Female genitalia not studied.

Measurements.—

Length

Body : 7.8 mm ; rostrum : 0.9 mm.

Breadth

Body : 2.5 mm ; rostrum : 0.6 mm.

Range.—India : Pondicherry ; Burma : Tharrawaddy.

Holotype in British Museum (N.H.), London.

Genus 13. **Epius** Marshall

1948. *Epius* Marshall, Proc. Zool. Soc., Lond., 117 : 707.

Head with frons broader than length of eye ; eyes piceous, rounded. Rostrum a little longer than broad, parallel-sided from base to scrobes and only gently dilated at apex ; epistome small, forming an acute angle behind ; scrobes broad, partly enclosed behind, almost dorsal ; mentum with 4 setae. Antennae short, each with shape gradually widening from base to apex. Scutellum almost

rounded. Elytra oblong ; striae narrow. Legs with femora unidentate, apical end of each tibia with a long mucro, corbels of hind tibiae open, claws free. Male genitalia with aedeagus sub-truncate at apex, exophallic valve only slightly projecting ; phallotreme without orificial plates.

Type species.—*Corigetis nobilis* Faust.

Distribution.—INDIA.

Key to the species of genus *Epius* Marshall

1. Postero lateral angles of prothorax produced into tooth-like processes : elytra covered with irregular transverse stripes of greyish-brown, whitish and black scales *meghalayensis* sp. nov
- Postero-lateral angles of prothorax not produced into processes ; elytra covered with patches of brown and yellowish green scales *minutus* sp. nov.

67. *Epius meghalayensis* sp. nov. (Fig. 47)

Frons piceous, sloping down to rostrum, 1.5 times broader than length of eye, its surface completely covered with fulvous scales and a few sub-erect spathulate scales, with central fovea almost concealed by scaling ; eyes piceous, large, rounded, lateral. Rostrum piceous, a little longer than broad, running parallel from base to scrobes and gently dilated towards apex, its surface completely covered with fulvous scales and a row of pale spathulate setae along dorso-lateral carina ; dorsal area broadly depressed in front, with central carina flattened there and in level with epistome ; dorso-lateral carinae parallel throughout, much elevated in apical half and much higher than lateral margins of epistome ; lateral areas completely covered with fulvous scales, each with bare oblique carina running in a curve from inner angle of scrobe towards middle of eye ; epistome small, its angle broadly interrupted in middle, with apices of lateral margins elevated ; scrobes broad, straight, partly enclosed behind, visible from above ; mentum with 4 setae. Antennae piceous, short ; scape somewhat curved, thickened, sub-cylindrical, gradually widening from base

to apex, surpassing anterior margin of prothorax, its surface completely covered with fulvous scales and stout sub-erect setae ; funicle with joint 1 longer than 2 and 3-7 sub-equal but shorter than 2, covered with pale green scales, with first and second joints having two whorls and remaining single whorl of stout erect setae ; club fusiform, with margins of two basal segments oblique, finely and uniformly pubescent.

Prothorax piceous, transverse, sub-conical, with a shallow sub-lateral impression on each side behind middle, its anterior margin sinuate in middle and carrying moderate ocular lobes and fine vibrissae ; surface of pronotum completely covered with compactly placed greyish-fulvous scales, punctate with punctures somewhat hidden by scales, with basal margin bisinuate, with a long process projecting obliquely in front of basal angle and almost touching basal angle of elytron on either side. Scutellum piceous, small, almost rounded, covered completely with scales.

Elytra piceous, oblong, widest at shoulders, parallel-sided, constricted at apical 1/4th, separately rounded at apex, with shoulders oblique ; striae narrow, formed by separated exposed punctures and each puncture with a minute seta ; intervals broad, almost flat, of equal height ; vestiture consisting of greyish-brown, whitish and blackish scales forming alternate irregular transverse bands, a row of sub-erect setae on each interval. Legs fuscopiceous, completely covered with compactly placed fulvous and pale scales and sub-recumbent to sub-erect pale setae ; forecoxae contiguous and placed in middle of prosternum ; femora clavate, unidentate ; tibiae with anterior pair incurved at apex, apical ends of all pairs with a fringe of piceous bristles interspersed with some setae and a long mucro, corbels of hind tibiae open ; tarsi setose, thick, with first joint of each tarsus nearly 1.5 times as long as second, third bilobed joint spongy beneath and a little longer than second ; claws free. Thoracic sterna fusco-piceous, completely covered with pale scales and sub-recumbent pale setae. Abdominal sternites covered with dense scales and sub-recumbent setae.

Aedeagus straight, tubular, sub-truncate at apex ; exophallic valve slightly projecting out ; phallotreme sub-apical, without any

orificial plates ; aedeagal apodemes longer than aedeagus, thin and slender, each pointed at apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus ; endophallus with its apical half lying between aedeagal apodemes and basal half concealed within aedeagus, beset with rows of setae and papillae, with a plate at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.3 mm ; rostrum : 0.7 mm.

Breadth

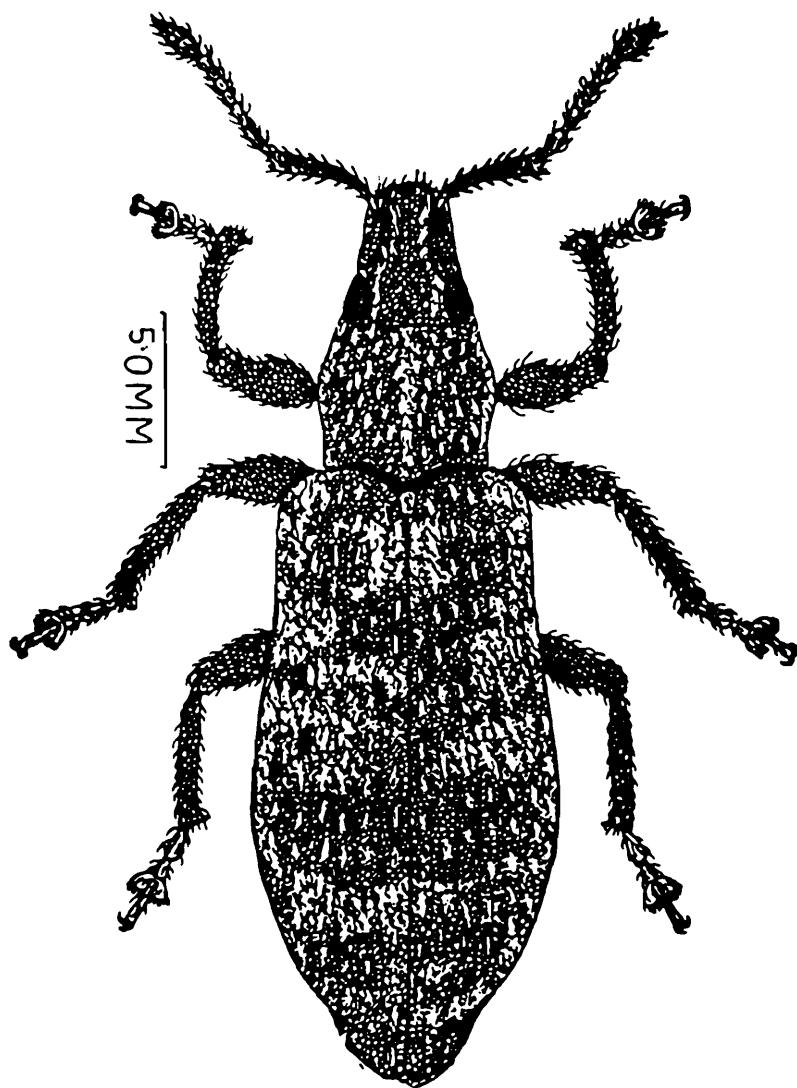
Male body : 2.2 mm ; rostrum : 0.6 mm.

Holotype.—Male ; India ; Meghalaya, Cherrapunji ; H. R. Pajni ; 6. V 1979. Holotype in Zoology Department, Panjab University, Chandigarh.

68. *Epius minutus* sp. nov.
(Fig. 48)

Frons fuscus, flat, almost as broad as length of eye, its surface completely covered with yellowish-green scales with a longitudinal stripe of brown scales in middle and a few spathulate sub-erect setae, with central fovea concealed by scaling ; eyes piceous, large, rounded. Rostrum fuscus, as long as broad, running parallel from base to scrobes and slightly dilated towards apex ; dorsal area depressed, completely covered with yellowish-green scales and a row of pale spathulate setae along dorso-lateral carina, with central carina obsolescent ; dorso-lateral carinae parallel but slightly converging behind, covered with scales ; lateral areas uneven, covered with brown scales, each with a bare oblique carina running in a curve from inner angle of scrobe towards middle of eye ; epistome small, its angle broadly interrupted in middle, with lateral margin forming anterior border of scrobe, with a fringe of long setae overlying it ; scrobes broad, straight, partly enclosed behind, visible from above ; mentum with 4 setae. Antennae

fusco-piceous, short ; scape somewhat curved, thickened, sub-cylindrical, gradually widening from base to apex, reaching anterior margin of prothorax, its surface completely covered with yellowish-green scales and stout sub-recumbent setae funicle with joint 1 longer than 2, 3-7 sub-equal but shorter than 2, covered with yellowish-green scales, each joint with a single whorl of distinct sub-erect setae ; club fusiform, with margins of two basal segments oblique, finely and uniformly pubescent.



Epius minutus sp. nov.

Prothorax fuscus, transverse, broadest in middle, uneven, with a shallow sub-lateral impression on each side behind middle ; anterior margin straight with moderate ocular lobes and sparse short vibrissae ; basal margin bisinuate ; surface of pronotum

completely covered with compactly placed brown scales, with a central narrow and two lateral stripes of yellowish-green scales, punctate with punctures hidden by scales and each puncture having a small spatulate seta. Scutellum fuscus, small, almost rounded, completely covered with yellowish-green scales.

Elytra fuscus, oblong, widest at shoulders, parallel-sided, shallowly constricted at apical one-fourth, separately rounded at apex, with shoulders rectangularly rounded ; striae narrow, formed by elongated exposed punctures and each puncture with a minute seta ; intervals broad, almost flat, of equal height, completely covered with compactly placed patches of brown and yellowish-green scales, with a row of recumbent seta-like scales on each interval. Legs fuscus, densely covered with yellowish-green scales and short sub-recumbent setae ; fore-coxae contiguous and placed somewhat towards anterior margin of prosternum ; femora clavate, unidentate ; tibiae with anterior and middle pairs incurved throughout their length and more so at apex, apical end of each pair with a fringe of small piceous spines interspersed with some setae and a long mucro, corbels of hind tibiae open ; tarsi setose, with first joint of each tarsus nearly twice as long as second, third bilobed joint spongy beneath and as long as second ; claws free. Thoracic sterna fuscus, completely covered with yellowish-green scales and sub-recumbent pale setae. Abdominal sternites covered with dense green scales and sub-recumbent setae with a few long setae at apex.

Aedeagus straight, sub-truncate at apex, with exophallic valve not projecting out ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; endophallus with its apical half lying between aedeagal apodemes, its basal half concealed within aedeagus, beset with rows of setae in basal half and papillae in apical half, with a small plate at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 3.4 mm ; rostrum : 0.5 mm .

Breadth

Male body : 1.2 mm ; rostrum : 0.5 mm

Holotype.—Male ; Assam, Baguri ; H. R. Pajni ; 24. IV 1979.
Holotype in Zoology Deptt., Panjab University, Chandigarh.

Genus 14. *Hilaus* Marshall

1944. *Hilaus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 81,97.

Frons flat, transverse ; eyes broadly ovate, nearly flat. Rostrum as long as broad, with dorsal area narrower than frons ; lateral areas steeply declivous ; epistome sharply carinate, forming an acute angle ; scrobes short ; mentum with 4 setae. Antennae squamose, each with scape gradually clavate ; funicle with joint 2 equal to or longer than 1. Prothorax widest at bisinuate base, with ocular lobes distinct. Elytra with shoulders oblique, widest behind middle. Legs slender, with corbel of each hind tibia containing a low bare carina just within the outer row of setae ; claws free. Male genitalia with aedeagus weakly bilobed at apex ; exophallic valve projecting out ; phallotreme with external orificial plates. Female genitalia with bursa well-developed, beset with rows of papillae near apex.

Type species.—*Corigetus bidentulus* Faust

Distribution.—INDIA, BURMA.

Key to the species of genus *Hilaus* Marshall.

1. Body covered with bands of greenish, brownish and blackish scales; elytron with a transverse blackish band at top of declivity	<i>bidentulus</i> (Faust)
—Body uniformly covered with green scales	<i>chlorosquamosus</i> sp. nov.

69. *Hilaus bidentulus* (Faust) (Figs. 49, 189)

1895. *Corigetus bidentulus* Faust, Ann. Mus. Genova (2) 14 (34) : 203.

1944. *Hilaus bidentulus* : Marshall, Ann. Mag. nat. Hist., (11) 11 : 98.

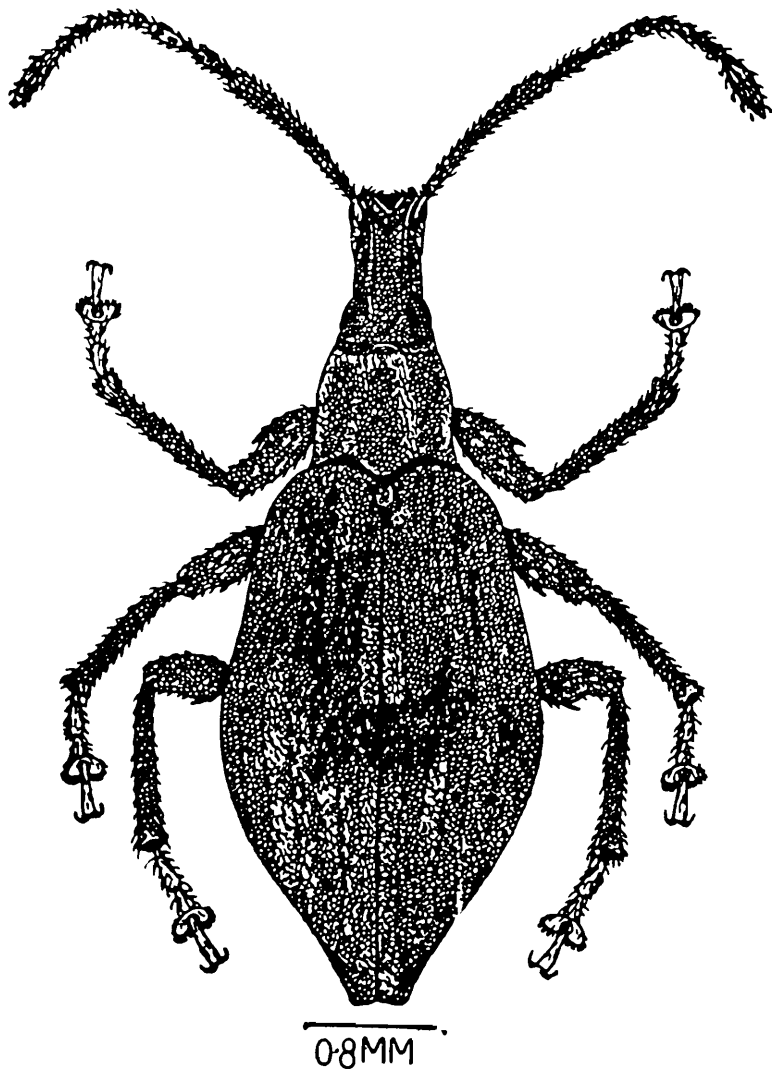
Frons fusco-piceous, transversely flat, broader than base of rostrum, its surface uneven, covered with brown scales in centre and green scales near eyes, alongwith pale spathulate setae each arising from a large puncture, with central fovea deep and oblong ;

eyes piceous, large, nearly convex. Rostrum fusco-piceous, longer than broad, very gradually narrowing from base to scrobes and dilated towards apex ; its surface densely covered with brown and metallic-green scales and spathulate recumbent setae ; dorsal area steeply depressed, more so in apical half ; central carina much smaller, lying behind epistome, with a large deep favoea near end ; dorso lateral carinae covered with scales, diverging apically and almost parallel behind ; lateral areas steeply sloping outwards, covered with brown and green scales ; epistome long, its margins sharply carinate, with a fringe of long setae overlying it ; scrobes dorso lateral, broad, open, somewhat visible from above ; mentum with 4 setae. Antennae fusco-piceous, long ; scape curved, gradually clavate, cylindrical, reaching middle of prothorax, covered densely with pale-green and brown scales and brown sub-recumbent setae ; funicle with joint 2 longer than 1,3 and 4 sub-equal but shorter than first two, 5-7 equal and shortest, joints densely covered with green elongated scales, with whorls of erect pale-green setae on each joint ; club fusiform, finely and uniformly pubescent.

Prothorax fusco-piceous, as long as broad, transversely flattened, with a deep rounded depression on each side behind the middle ; anterior margin sinuate in the middle, with well-developed ocular lobes and a few vibrissae laterally ; surface of pronotum covered with 5 stripes of alternate brown and green scales with central brown stripe narrower than dorso-lateral stripes, punctate with large punctures not concealed by scaling and each puncture with a sub-erect pale seta, basal margin bisinuate ; lateral sides gently rounded, broadest at base. Scutellum fusco-piceous, small, rectangular with anterior margin rounded, completely covered with brown scales.

Elytra fusco-piceous, oblong-ovate, steeply declivous posteriorly, gently widening from shoulders to beyond middle and narrowing from there to apex, apices shortly and separately acuminate, with shoulders oblique ; striae narrow, formed by conspicuous deep punctures and each puncture with a minute seta ; intervals broad, slightly convex, with sutural intervals higher at top of declivity ; vestiture of brown and pale green scales on alternate intervals with green intervals intermittently spotted with brown scales, a conspicuous irregular transverse band of blackish

scales at top of declivity, numerous brown and pale-green setae on all intervals, spathulate and sub-recumbent setae in rows in apical one-fourth. Legs fusco-piceous, densely covered with metallic green scales and pale sub-erect setae; coxae with narrow and sparse scaling, fore-coxae contiguous and placed in middle of prosternum; femora clavate, unidentate; tibiae with anterior pair shallowly bisinuate, apical end of each pair with a



Hilaus bidentulus Marshall

fringe of piceous bristles and mucro, corbels of hind tibiae closed; tarsi densely setose; first joint of each tarsus twice as long as second, third bilobed joint spongy beneath and as long as second; claws free. Thoracic sterna fusco-piceous, covered with narrow pale scales in middle and metallic green large scales laterally, with pale spathulate and sub-recumbent setae. Abdominal sternites covered with rounded metallic green scales, with narrow scales in

centre of first and second visible sternites, with greenish spathulate and sub-recumbent setae becoming long and sub-erect towards apex.

Aedeagus straight, slightly bilobed at apex, with exophallic valve long and projecting out ; phallotreme sub-apical, with orificial plates lying externally ; aedeagal apodemes twice as long as aedeagus, thin and slender ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus ; endophallus lying between aedeagal apodemes, not surpassing them, beset with two rows of setae laterally with rows of papillae elsewhere and a plate at apex. Bursa copulatrix moderately developed, with rows of papillae near apex ; ventral spiculum long and thin. Spermatheca with cornu pointed at apex, collum recurved and lying close to ramus.

Measurements.—

Length

Male body : 6.3 to 6.6 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 6.7 to 7.3 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.5 to 2.6 mm , rostrum : 0.6 to 0.7 mm.

Female body : 2.8 to 3.1 mm ; rostrum : 0.7 to 0.8 mm.

Range.—India ; Assam, Meghalaya ; Burma.

Holotype in Dresden Museum (Germany).

70. *Hilaus chlorosquamosus* sp. nov.

(Fig. 50)

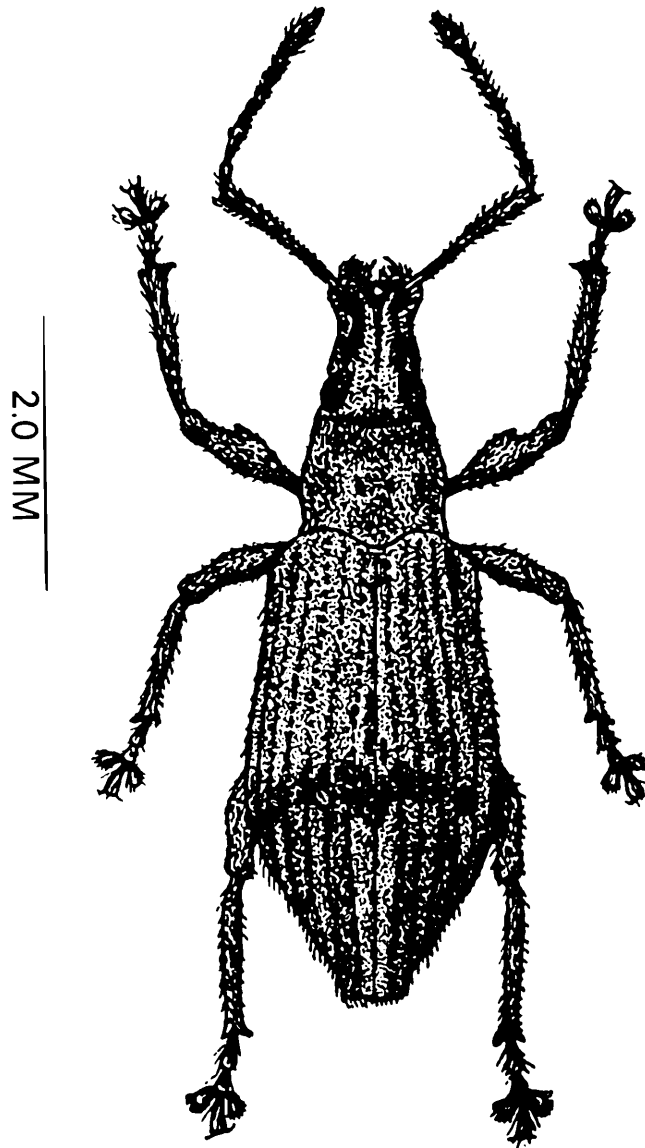
Frons piceous, flat, weakly striate, broader than base of rostrum, its surface covered with metallic green scales and sub-recumbent spathulate setae each arising from a large puncture ; central fovea deep, oblong ; eyes piceous, large, rounded, lateral. Rostrum piceous, longer than broad, gradually narrowing from base to scrobes and dilated towards apex, its surface densely covered with shining green scales and spathulate sub-erect setae each

arising from a large puncture ; dorsal area slightly convex in basal half and depressed in front, with central carina bare and becoming obsolete towards apex ; dorso-lateral carinae feeble, covered with scales throughout their length, diverging apically and almost parallel behind ; lateral areas steeply sloping outwards, feebly and longitudinally striolate, with scattered scales ; epistome long, with margins sharply carinate, with fringes of long setae overlying it ; scrobes dorso-lateral, broad, open, somewhat visible from above ; mentum with 4 setae. Antennae fuscus, long ; scape curved, gradually clavate, cylindrical, passing anterior margin of prothorax, covered with sparse elongated green scales and brown sub-recumbent setae ; funicle with joints 2 longer than 1, 4 longer than 3 but shorter than first two, 5-7 equal and shortest, sparsely covered with green elongated scales becoming inconspicuous on apical joints and whorls of erect brown setae on each joint ; club fusiform, with margin of basal segment oblique, finely and uniformly pubescent.

Prothorax piceous, transverse, flattened, with a deep oblique depression on each side behind middle ; anterior margin sinuate in middle, with well-developed ocular lobes and few vibrissae ; surface of pronotum with large punctures not concealed by dense metallic-green scaling, each puncture with a sub-recumbent spathulate seta ; basal margin bisinuate ; lateral sides gently rounded, widest at middle. Scutellum piceous, small, almost circular, completely covered with shining green scales.

Elytra piceous, oblong-ovate, steeply declivous posteriorly, parallel-sided from shoulders to beyond middle, jointly sinuate from there to apex, with apices shortly and separately acuminate and shoulders oblique ; striae narrow, formed by conspicuous deep punctures and each puncture with a minute seta ; intervals broad, slightly convex, of equal height, covered with metallic-green scales and pale spathulate setae each arising from a small granule. Legs fuscus, densely covered with shining green scales and greenish sub-recumbent to sub-erect setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, unidentate ; tibiae with anterior pair incurved at apex, apical end of each with a fringe of pale spines and a mucro, corbels of hind tibiae closed ; tarsi densely setose ; first joint of each tarsus

twice as long as second, third bilobed joint spongy beneath and shorter than second ; claws free. Thoracic sterna fuscus, covered with dense pale scales in middle and metallic-green scales laterally, with setae spathulate and sub-recumbent. Abdominal. sternites covered with dense scales in middle and dense metallic-green scales laterally.



Hilus chlorosquamosus sp. nov.

Aedeagus straight, bilobed at apex, with exophallic valve long ; phallotreme sub-apical, with orificial plates lying externally ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme slightly longer than aedeagus ; endophallus lying between aedeagal apodemes, not

surpassing them, beset with dense rows of setae and a small plate at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.7 to 5.9 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 1.5 to 1.6 mm ; rostrum : 0.7 to 0.8 mm.

Holotype.—Male ; Meghalaya, Shillong ; H.R. Pajni, 11-V-1978.
Paratypes : Males 2, H.R. Pajni ; 11-V-1978. Material in Zoology Department, Panjab University, Chandigarh.

Genus 15. **Doliophron** Marshall

1941. *Doliophron* Marshall, Ann. Mag. nat. Hist., (11) 8 : 365.

1944. *Doliophron* Marshall, Ann. Mag. nat. Hist., (11) 11 : 81, 97.

Frons broader than eye ; eyes large, flat or only slightly convex. Rostrum stout, longer than broad, only slightly narrowing in front ; epistome elongate, sharply carinate, forming an acute angle behind ; scrobes short, curving inwards ; mentum with 4 setae. Antennae slender ; scape gently curved, setose with all setae recumbent ; funicle with joint 7 longer than basal joint of club ; club narrowly elongate. Prothorax transverse, with ocular lobes feeble or obsolete, with distinct vibrissae. Elytra widest behind middle. Legs slender, corbels of hind tibiae open. Aedeagus weakly bilobed at apex, with exophallic valve projecting out ; phallotreme with internal orificial plates. Female genitalia with bursa well-developed and having highly sclerotized plates.

Type species.—*Cyrtepistomus gracilicornis* Fst. (*Corigetus*)

Distribution.—INDIA, BURMA.

Key to the species of genus **Doliophron** Marshall

1. Body with ground colour dark-brown, completely devoid of appressed scales, covered with fine setae

gracilicornis (Faust)

—Body with ground colour piceous, densely covered with greenish to bluish circular scales; intervals of elytra with n row each of sub-erect setiform scales

tenuicornis (Faust)

71 ***Doliophron gracilicornis* (Faust)**
(Figs. 51a, 51b)

1897. *Corigetis gracilicornis* Faust, Deutsche Ent. zeitschr., : 374.

1941. *Doliophron gracilicornis* : Marshall, Ann. Mag. nat. Hist., (11) 8 : 366.

Frons piceous, a little wider than length of eye, slightly elevated than upper margins of eyes, moderately covered with spathulate whitish scales, with central fovea small and circular ; eyes black, sub-circular, strongly bulging. Rostrum piceous, much longer than broad, with sides convergent ; dorsal area moderately depressed behind antennae, moderately covered with spathulate whitish scales, with area behind epistome deeply depressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae gradually divergent to apex ; epistome small, gradually declivous anteriorly, with hind margin carinate and sharply acuminate ; lateral areas shining, moderately covered with scales as on frons, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, moderately squamose ; scape elongated, cylindrical, slightly curved, gradually clavate, covered with recumbent narrow whitish scales ; funicle with joint 1 slightly longer than 2, with all joints profusely covered with long sub-erect whitish scales.

Prothorax a little wider than long, with ocular lobes poorly developed and vibrissae long. Pronotum piceous, transversely and longitudinally convex, widest at middle, with base deeply bisinuate and with apex almost truncated, laterally rounded with angles of base impressed ; vestiture consisting of dense uniform covering of long whitish scales. Scutellum small, circular, almost denuded.

Elytra piceous, oblong, parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides slightly impressed near apices and each apex shortly acuminate ; striae narrow, with

rounded closely set punctures ; intervals broad and convex ; vestiture consisting of uniform but moderate covering of long and small whitish scales, a row of long sub-erect whitish scales on each interval, short whitish scales filling striae punctures. Legs brunneus, moderately covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with dense testaceous bristles. Thoracic sterna piceous, punctate and each puncture beset with a narrow whitish scale. Abdominal sternites brunneus, punctate, moderately covered with sub-erect long whitish scales.

Aedeagus straight, weakly bilobed at apex, with exophallic valve partly coming out ; phallosome sub-apical, with orificial plates ; aedeagal apodemes slightly longer than aedeagus, each curved near apex ; phallosome ring-shaped, with phallosomic apodeme as long as aedeagus ; endophallus beset with rows of papillae. Female genitalia not studied.

Measurements.—

Length

Male body : 5.0 mm ; rostrum : 0.5 mm.

Breadth

Male body : 1.5 mm ; rostrum : 0.4 mm.

Range.—India : Bombay, Chota Nagpur.

Holotype in Dresden Museum (Germany).

72. *Doliophron tenuicornis* (Faust)
(Figs. 52, 190)

1891. *Corigetus tenuicornis* Faust, Stett. Ent. zeit., : 366.

1941. *Doliophron tenuicornis* : Marshall, Ann. Mag. nat. Hist., (11) 8 : 366.

Frons shining black, weakly striolate, transversely flat, broader than length of eye, covered with sparse bluish-green rounded scales and a few sub-recumbent pale setae, each seta arising from

a small puncture ; central fovea large and elongate, almost covered with scales ; eyes piceous, large, almost rounded. Rostrum shining black, a little longer than broad, very gradually narrowing from base to scrobes and little dilated at apex ; its surface covered with sparse bluish-green rounded scales and a few pale recumbent setae ; dorsal area flat, somewhat depressed in apical half and in centre throughout along central carina ; central carina broadened near epistome ; dorso-lateral carinae feeble, covered with scales, parallel, a little diverging towards apex ; lateral areas shining, bearing sparse narrow scales, each with a narrow sulcus running from upper angle of scrobe towards eye ; epistome long, with margins strongly carinate, extending well behind antennae and forming a somewhat obtuse angle, with fringes of long setae overlying it ; scrobes nearly dorsal, small, curving inwards, visible from above ; mentum with 4 setae. Antennae fusco-piceous, long ; scape curved, clavate, cylindrical, passing middle of prothorax, beset with short recumbent setae ; funicle slender, with joints 1 and 2 equal, 3 to 5 and 7 sub-equal but shorter than first two, 6 shortest, joint 7 longer than basal joint of club, all joints beset with recumbent and sub-erect setae ; club long and slender, finely and uniformly pubescent.

Prothorax shining black, transverse, somewhat convex transversely, with a dorso-lateral rounded depression on each side behind middle and a shallow transverse impression in front of middle ; anterior margin broadly sinuate in middle, with moderate ocular lobes and long vibrissae ; surface of pronotum with large punctures, bare in middle, covered with bluish-green scales and some pale setae ; basal margin sub-truncate ; lateral sides gently rounded, of equal width at apex and base. Scutellum shining black, bare, rectangular with anterior margin rounded.

Elytra fusco-piceous, oblong-ovate, steeply declivous posteriorly, gently widening from shoulders to beyond middle and narrowing from there to apex, with apices jointly rounded ; broader at shoulders than prothorax, with shoulders obtusely rounded ; striae narrow, somewhat broader near base, formed by conspicuous closely set punctures and each puncture with a minute seta, with some punctures concealed by scales and powdery material ; intervals broad, convex, of equal height, covered with sparse bluish-green

scales with a row of sub-erect pale setae on each interval. Legs fusco-piceous, sparsely covered with bluish-green scales and pale recumbent setae ; pro-coxae contiguous, placed in middle of prosternum ; femora long, clavate, unidentate ; tibiae with anterior two pairs deeply sinuate near base, apical end of each tibia with a fringe of pale bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint nearly twice as long as second ; third bilobed joint spongy beneath ; claws free. Thoracic sterna shining black, covered with very few bluish-green scales in middle, with scales sparsely distributed laterally, with setae pale and recumbent. Abdominal sternites covered with sparse bluish-green scales, with scales in centre of first and second visible sternites sparse, with setae short and sub-recumbent in basal segments but becoming long and sub-erect apically.

Aedeagus straight, weakly bilobed at apex, with exophallic valve longer than lateral lobes and projecting out, with apex and lateral sides more sclerotized ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes about twice as long as aedeagus, each gently curved near apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus very densely beset with rows and clusters of setae and papillae, having a pair of curved plates at apex. Bursa copulatrix well-developed, with a pair of highly sclerotized plates near apex ; ventral spiculum long and thick. Spermatheca with cornu blunt at apex, curved collum lying adjacent to ramus.

Measurements.—

Length

Male body : 7.2 to 7.4 mm ; rostrum : 1.0 to 1.1 mm.

Female body : 7.6 to 8.2 mm ; rostrum : 1.1 to 1.2 mm.

Breadth

Male body : 2.5 to 2.6 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.6 to 2.9 mm ; rostrum : 1.0 to 1.1 mm.

Range.—Burma, Sadon : India ; West Bengal, Darjeeling ; Sikkim, Gangtok ; Meghalaya, Cherrapunji.

Holotype in Dresden Museum (Germany).

Genus 16. *Eryngus* Marshall.

1948. *Eryngus* Marshall, Proc. Zool. Soc., Lond., 117 : 707.

Frons broader than dorsal area of rostrum ; eyes large, circular ; rostrum slightly longer than broad, with its sides parallel from base to scrobes but dilated at genae ; dorso-lateral carinae distinct, strongly diverging towards apex ; lateral areas without any oblique carinae ; mentum with 4 setae. Antennae very long, each with joint 7 of funicle longer than basal joint of club. Prothorax transverse, with lateral sides constricted near base, its basal margin bisinuate. Elytra oblong, flat, with intervals flat as well as convex. Legs with femora dentate ; corbels of hind tibiae open ; claws free. Male genitalia with aedeagus weakly bilobed at apex, with exophallic valve long and projecting out of aedeagus ; phallotreme with external orificial plates.

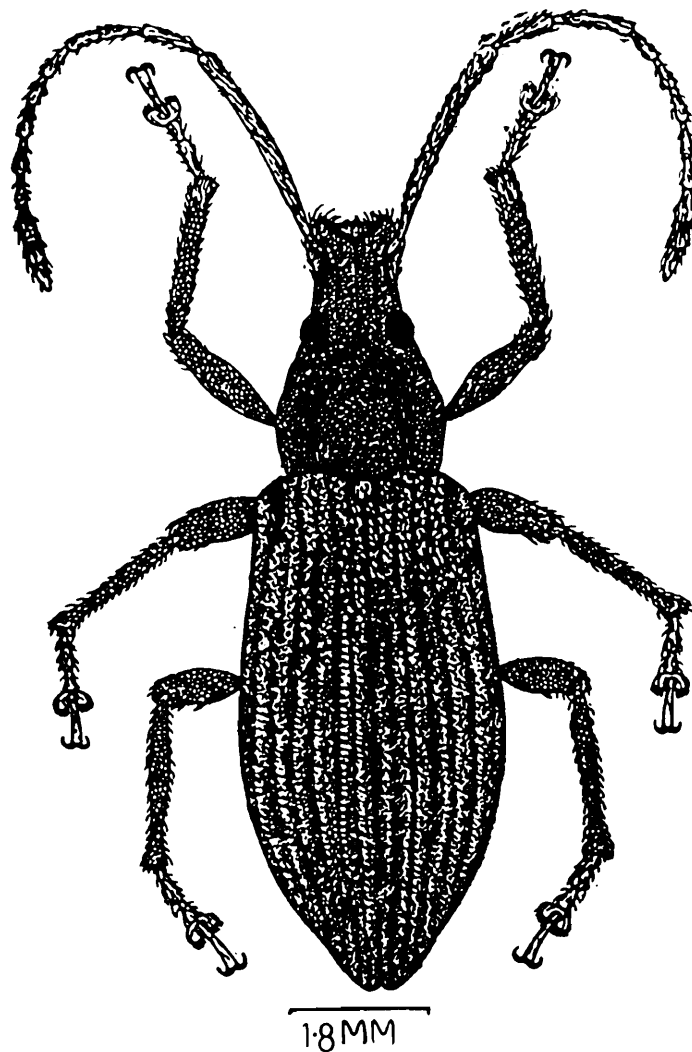
Type species.—*Phrixopogon mystacinus* Mshl.

Distribution.—INDIA.

73. *Eryngus fuscotarsis* sp. nov.
(Fig. 53)

Frons black, wider than base of rostrum, with posterior half convex and anterior shallowly impressed, punctate and each puncture with a short recumbent seta, densely covered with shining bluish-green scales, with a large triangular patch of transparent scales at base ; central fovea deep and elongated, not covered by scales ; eyes black, large, moderately convex, circular. Rostrum black, slightly longer than broad, running parallel from base to scrobes and dilated at apex ; deeply impressed behind epistome and shallowly so behind, covered with shining bluish-green scales and pale recumbent setae ; central carina sharp, running upto central fovea of frons ; dorso-lateral carinae distinct, strongly diverging towards apex and parallel behind ; epistome moderately long, forming behind an acute angle exceeding level of insertion of antennae ; lateral areas plane, squamose, each with a squamose sulcus from lower margin of scrobe to eye and a curved squamose sulcus from lower margin of scrobe towards eye ; scrobes moderately broad, small, curving inwards, almost visible from above ;

mentum with 4 setae. Antennae very long ; scape piceous in basal half and red brown apically, curved, sub-cylindrical, gradually clavate, reaching near base of rostrum, covered with green seta-like scales and brownish recumbent setae ; funicle red-brown, with joints 1 and 2 sub-equal, 3-7 sub-equal, joint 7 longer than basal joint of club, all joints covered with seta-like green scales and brownish recumbent setae alongwith a whorl of sub-erect setae near apex of each joint ; club red-brown, elongated, as long as two apical funicular joints, finely and uniformly pubescent.



Eryngus fuscotarsis sp. nov.

Prothorax piceous, transverse, broadest at base ; anterior margin shallowly sinuate in middle with distinct ocular lobes and long vibrissae ; dorsal surface finely punctate and each puncture with a sub-recumbent pale seta, with a moderately deep fovea behind

middle on each side, covered with bluish-green scales interspersed with few transparent scales ; lateral sides weakly rounded, constricted near base, a little narrower at apex than at bisinuate base. Scutellum small, piceous, oblong, with anterior margin rounded, sparsely squamose and densely setose.

Elytra piceous, oblong, flat, running parallel from base to behind middle and narrowing to apex, with apices separately rounded and shoulders rectangularly rounded ; striae narrower than intervals, formed by large deep punctures, covered with transparent and a few bluish-green scales ; intervals broad, convex, with 1, 3 and 5 convex, dorsal intervals covered with scattered transparent and bluish-green scales and lateral densely so, each interval with numerous pale, recumbent setae. Legs fuscus, densely covered with blue-green scales and pale recumbent setae ; pro-coxae contiguous, densely covered with narrow pale scales and setae, placed towards anterior margin of prosternum ; femora clavate, each with a spine-like tooth ; tibiae slender, anterior and middle tibiae with a row of spines on their inner apical halves, apical end of each tibia with a fringe of pale bristles and a mucro, corbels of hind tibiae open ; tarsi densely squamose ; hind tarsus with first joint nearly twice as long as second, third bilobed joint shorter than second and spongy beneath ; claws free, small. Thoracic sterna piceous, punctate and each puncture with a pale seta, covered with narrow pale scales in middle and with bluish-green scales laterally. Abdominal sternites fuscus, punctate and each puncture with a short pale seta, covered with pale narrow scales in middle and blue-green scales laterally.

Aedeagus straight, weakly bilobed at apex, with exophallic valve long ; phallotreme sub-apical, with small orificial plates lying externally ; aedeagal apodemes nearly twice as long as aedeagus, gradually thickening from base to apex ; phallobase ring-shaped, with apodeme slightly longer than aedeagus ; endophallus surpassing aedeagal apodemes anteriorly, beset with very dense rows of setae and papillae throughout, having a pair of plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 9.7 mm ; rostrum : 1.5 mm.

Breadth

Male body : 2.8 mm ; rostrum : 1.3 mm.

Holotype.—Male ; Meghalya, Cherrapunji ; H. R. Pajni ; 4.V 1979. Holotype in Zoology Department, Panjab University, Chandigarh.

Genus 17. **Crinorrhinus** Marshall.

1941. *Crinorrhinus* : Marshall, Ann. Mag. nat. Hist., (11) 8 : 373.
 1942. *Crinorrhinus* : Marshall, Proc. R. ent. Soc., Lond. (B)11 : 143.
 1944. *Crinorrhinus* : Marshall, Ann. Mag. nat. Hist., (11)11 : 81, 98.

Frons not wider (and sometimes narrower) than an eye and separated from rostrum by a shallow or well marked transverse impression ; eyes large and almost flat. Rostrum stout, a little longer than its basal width ; dorsolateral carinae converging posteriorly ; epistome bounded by a sharp carina ; mentum with 4 setae. Antennae elongate ; scape slender and moderately curved ; funicle with joint 2 longer than 1 ; club narrowly elongate. Prothorax transverse, bisinuate at base. Elytra more or less dilated behind middle in both sexes. Femora having a triangular tooth carinate on its distal edge (except in *strabo* Mshl. in which the tooth is small and sharp) ; corbels of hind tibiae open. Aedeagus weakly bilobed at apex, with exophallic valve lying within aedeagus ; phallotreme with internal orificial plates. Female genitalia with bursa well-developed, collum and ramus lying at a right angle to each other.

Type species.—*Phytoscaphus crassirostris* Faust

Distribution.—INDIA, BURMA.

Key to the species of genus **Crinorrhinus** Marshall.

1. Elytra with alternate intervals costate, with basal margin between intervals 3 & 5 obtusely elevated ; frons with central fovea very large ; funicle with joint 2 much longer than 1 *foveifrons* (Faust)
 —Elytra with intervals of equal height, with basal margin not elevated 2

2. Frons with central fovea deep and rounded, lying in a line with hind margins of eyes ; funicle with joint 2 slightly longer than 1 3
 —Frons with central fovea shallow and elongated, lying in about middle of the eyes 4
3. Frons slightly narrower than length of eye, transversely convex ; elytra with dorsal intervals shiny, without granules, costate at base ; metasterna sulcate throughout .*crassirostris* (Faust)
 —Frons slightly wider than length of an eye, transversely flat ; elytral intervals with sparse minute granules and not costate at base ; metasterna not sulcate except at apices .*approximans* (Marshall)
4. Elytra covered only with narrow setiform scales 5
 —Elytra with patches of rounded or ovate scales along with setiform scales 6
5. Rostrum much longer than its basal width, parallel sided in basal half, broadly dilated at genae, with dorsal area rapidly narrowed basally and there much narrower than frons ; elytra unevenly clothed with cupreus setae ; fore-femora with short tooth each .*cuprisetis* Marshall
 —Rostrum about as long as its basal width, narrower from base to antennae, only slightly dilated at genae and there not wider than base, with dorsal area sub-parallel sided in its basal half and there nearly as wide as frons ; elytra with uniform grey setae ; fore-femora with large tooth each .*griseus* Marshall
6. Rostrum not longer than its basal width, gradually narrower from base to antennae, slightly dilated at genae and there scarcely wider than base ; prothorax truncate at base ; elytra with apices separately rounded and not produced *sartus* Marshall
 —Rostrum longer than its basal width, parallel sided in its basal half, strongly dilated at genae and there much wider than base ; prothorax shallowly bisinuate at base ; elytra with apices separately and sharply acuminate, shortly produced 7

7. Rostrum separated from head by shallow impression ; lateral area with sulcus in front of eye shallow and oblique ; prothorax narrower at base than apex ; setae on elytra and pronotum dark . *sparsutus* Marshall
- Rostrum separated from head by deep impression ; lateral area with sulcus in front of eye deep and parallel to dorso-lateral carina ; prothorax not narrower at base than apex ; setae on elytra and pronotum pale . *nebulosus* Marshall

74. *Crinorrhinus foveifrons* (Faust)
(Fig. 141)

1897. *Phytoscaphus foveifrons* Faust, Deutsche Ent. zeitschr., : 386.

1941. *Crinorrhinus foveifrons* : Marshall, Ann. Mag. nat. Hist., (11)8 : 374.

Frons jet black, separated from rostrum by a distinct transverse impression, transversely convex, not wider than length of an eye, covered with sparse pale scales becoming dense near eyes ; central fovea deep and rounded, lying on a line between hind margins of eyes, almost concealed with powdery material ; areas below and behind eyes densely setose ; eyes large, circular and almost flat. Rostrum shining black, a little longer than its basal width, narrower at its base than head, running parallel from base to scrobes and dilated towards apex ; dorsal area bare, broadly impressed, much narrower at base than frons ; central carina fine and running to behind middle ; dorso-lateral carinae converging strongly from apex to base ; lateral areas each with a deep sulcus running from upper angle of scrobe to upper margin of eye and below this another curved deep sulcus partly concealed by pale recumbent setae ; epistome long, with margins sharply carinate, extending well behind bases of antennae and forming a somewhat acute angle, with fringes of short and long setae overlying it ; scrobes dorso-lateral, small, curving inwards, almost visible from above ; mentum with 4 setae, outer ones nearly twice as long as inner ones. Antennae jet-black, moderately long ; scape curved in apical half, clavate, passing anterior margin of prothorax, beset with fuscous sub-recumbent setae ; funicle with joint 2 much longer than 1, 3-5 sub-equal but shorter than first two, 6 and 7 sub-equal and shortest, all joints setose ; club fusiform, finely and uniformly pubescent.

Prothorax jet-black, almost as long as broad, somewhat convex transversely, with a deep rounded depression on each side behind middle, its anterior margin straight, with broadly rounded ocular lobes and short vibrissae ; surface of pronotum rugosely punctate, more so in basal two-third, beset with short pale setae ; lateral sides rounded, of equal width at apex and base, each with a stripe of dense pale scales ; basal margin deeply bisinuate. Scutellum jet-black, small, rectangular with apical margin rounded, sparsely setose.

Elytra jet-black, oblong-ovate, declivous posteriorly, widening from shoulders to beyond middle and narrowing from there to apex, with apices separately rounded and dehiscent, much wider at shoulders than prothorax, with shoulders roundly rectangular ; striae narrower than intervals, formed by broad separated punctures filled with powdery material ; intervals broad, 3, 5 and 6 costate, intervals 3 to 5 with basal margin obtusely elevated, covered with short pale recumbent setae and a few patches of similar setae especially on striae. Legs jet-black, clothed with sparse recumbent setae ; procoxae contiguous, placed in middle of prosternum , femora clavate, hind femora each with a sub-apical stripe of pale scales, with tooth broadly triangular and its distal edge carinate ; tibiae deeply sinuate near base on inner edge, their apical ends with a fringe of small black bristles and an inconspicuous mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint nearly twice as long as second, third bilobed joint spongy beneath and a little shorter than second ; claws free. Thoracic sterna jet-black, covered with fine recumbent setae, pro and mesosterna covered with whitish powdery material, meta-episternum sulcate throughout. Abdominal sternites jet-black, beset with fine sub-erect setae, setae in middle of 1st and 2nd visible sternites much sparsely distributed, last visible sternite with large deep punctures.

Male genitalia not studied. Bursa copulatrix well developed, with a small nipple-like structure near apex ; ventral spiculum long and thick, rounded at apex. Spermatheca with cornu pointed at apex, collum directed towards ramus.

Measurements.—

Length

Female body : 8.4 mm ; rostrum : 1.2 mm.

Breadth

Female body : 3.8 mm ; rostrum : 0.9 mm.

Range.—India ; Bombay, Belgaum, Kanara, Jalewadi, Bangalore. Holotype in Dresden Museum, (East Germany).

Source.—Well vegetation.

75. *Crinorrhinus crassirostris* (Faust)
(Figs. 54, 142)

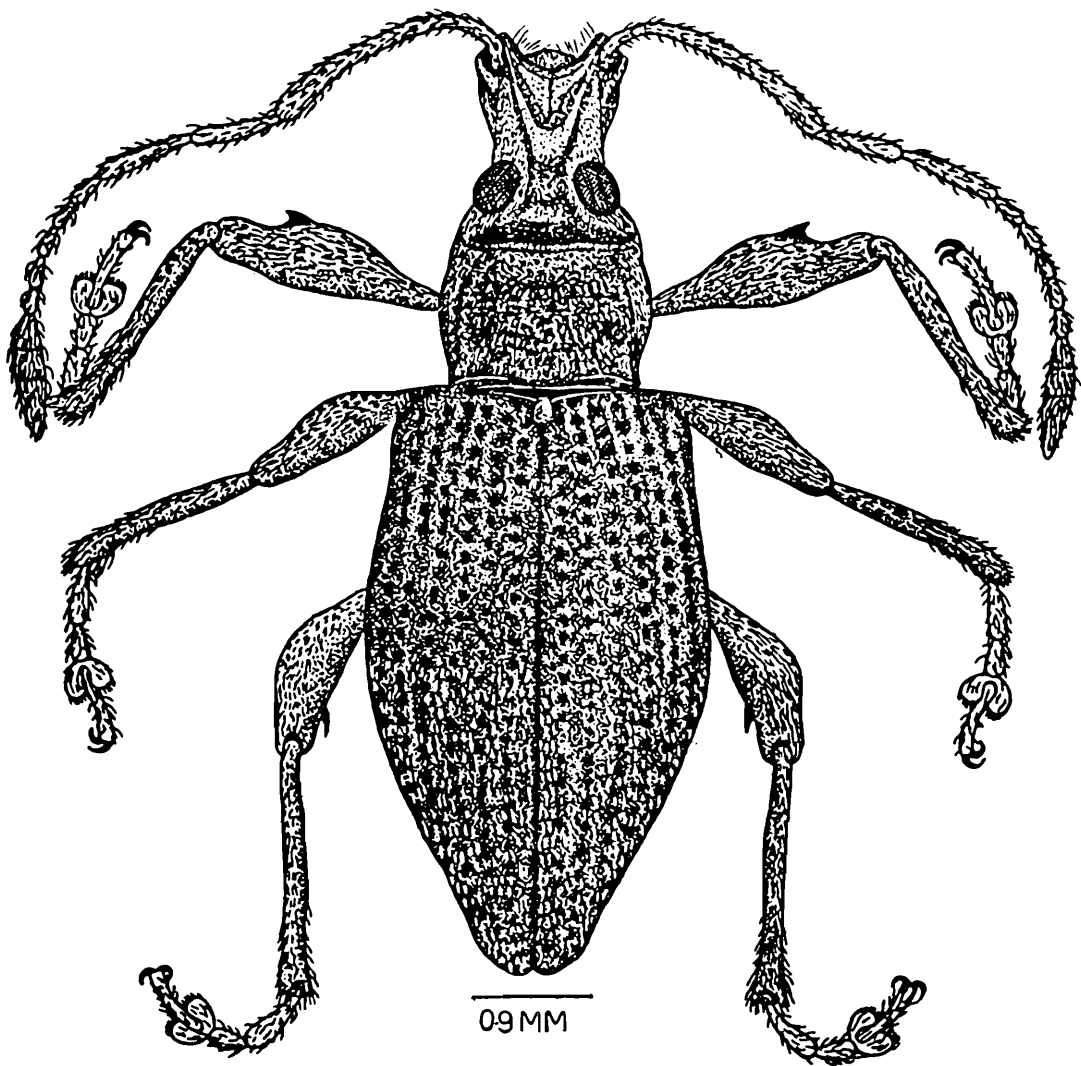
1897. *Phytoscaphus crassirostris* Faust, Deutsche Ent. Zeitschr., : 385.

1941. *Crinorrhinus crassirostris* : Marshall, Ann. Mag. nat. Hist., (11)8 : 373.

Frons jet-black, separated from rostrum by a distinct transverse impression, transversely convex, not wider than length of an eye, covered with sparse pale scales becoming dense near eyes ; central fovea deep and rounded, lying on a line with hind margins of eyes, almost concealed with powdery material ; eyes piceous, large, circular and almost flat. Rostrum shining black, stout, longer than its basal width, narrower at its base than head, running parallel from base to scrobes and dilated towards apex, its surface beset with sparse pale setae ; dorsal area broadly impressed ; central carina very fine and complete ; dorso-lateral carinae converging strongly from apex to base ; lateral area with a strong carina uniting with the dorso-lateral one at about middle and a deep sulcus immediately adjoining it, below this another semilunar deep sulcus partly concealed by pale sub-erect setae and powdery material ; epistome long, with margins sharply carinate, extending well behind bases of antennae, forming a somewhat acute angle ; scrobes dorso-lateral, small, curving inwards, somewhat visible from above ; mentum with 4 setae. Antennae moderately long, scape piceous, moderately curved in apical half, clavate, slender, reaching near middle of prothorax, beset with sparse, sub-recumbent setae ; funicle fusco-piceous, with joint 2 longer than 1, 3-5 sub-equal but shorter than first two, 6 and 7 sub-equal and shortest, all joints setose ; club fusco-piceous, narrowly elongate, finely and uniformly pubescent.

Prothorax jet-black, transverse, somewhat convex transversely, with broadly rounded ocular lobes and short vibrissae ; surface of

pronotum with large punctures beset with small fine pale setae , lateral sides rounded, of equal width at apex and base, each with a stripe of dense pale scales ; basal margin bisinuate. Scutellum shining-black, small, rectangular with anterior margin rounded, sparsely setose.



Crinorrhinus crossirostris Marshall

Elytra shining-black, oblong-ovate, widening from shoulders to beyond middle and narrowing from there to apex, with apices separately rounded and dehiscent, with shoulders rectangularly rounded ; striae narrow, somewhat broader near base, formed by closely set conspicuous punctures ; intervals broad, flat, covered with fine recumbent setae and occasionally with a few patches of narrow scales, body often covered with whitish powdery material.

Legs shining-black, clothed with pale recumbent setae ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, with femoral tooth broadly triangular having its distal edge carinate ; tibiae deeply sinuate near base on inner edge, apical end of each with a fringe of small black bristles and a small mucro, corbels of hind tibiae open ; tarsi densely setose ; first joint of each tarsus more than twice as long as second, third bilobed joint spongy beneath ; claws free. Thoracic sterna shining-black, covered with short sub-recumbent setae ; meta-episternum sulcate throughout. Abdominal sternites shining-black, covered with fine sub-recumbent setae becoming erect and longer towards apex, last visible sternite with large deep punctures.

Aedeagus straight, weakly bilobed at base, with exophallic valve long and lying in the vicinity of aedeagus ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes nearly twice as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of setae and papillae, having two pairs of plates at apex. Bursa copulatrix well-developed, with a nipple-like process at apex ; ventral spiculum very long and gently curved near apex. Spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Male body : 7.8 to 8.2 mm ; rostrum : 1.0 to 1.1 mm.

Female body : 8.4 to 9.0 mm ; rostrum : 1.1 to 1.3 mm.

Breadth

Male body : 2.2 to 2.4 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.6 to 3.2 mm ; rostrum : 0.9 to 1.0 mm.

Range.—India : East Thana ; Maharashtra ; Bombay ; Karnataka ; Belgaun ; Goa, Colim ; Jammu & Kashmir, Srinagar.

Holotype in Dresden Museum (Germany).

76. *Crinorrhinus approximans* Marshall
(Fig. 193)

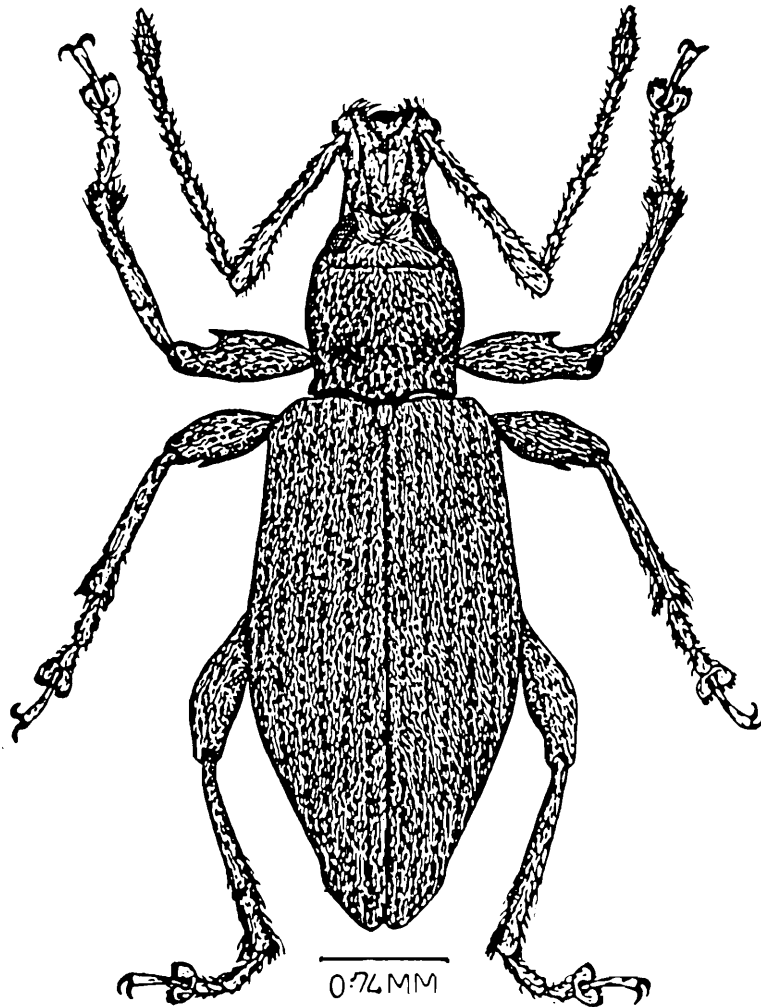
1942. *Crinorrhinus approximans* Marshall, Proc. R. ent. Soc., bond. (B)11 : 144.

Frons piceous, shiny, slightly broader than length of eyes, separated from rostrum by distinct transverse impression, covered with sub-recumbent pale setae ; central fovea deep, circular, almost concealed by scales ; eyes piceous, large and circular. Rostrum piceous, about as long as its basal width, running parallel from base to antennal insertion and dilated at apex ; dorsal area impunctate, shallowly depressed, with short central carina near apex ; dorso-lateral carinae straight ; lateral area with a carina joining dorso-lateral area with a carina beyond middle ; vestiture consisting of pale sub-recumbent setae ; epistome long, with margin sharply carinate ; scrobes small, broad ; mentum with 4 setae. Antennae piceous, moderately long ; scape curved beyond middle, covered with pale recumbent setae ; funicle with joint 2 a little longer than 1, 3 somewhat longer than 4 ; club narrowly elongate, finely and uniformly pubescent.

Prothorax piceous, transverse, with broadly rounded ocular lobes and short vibrissae ; surface of pronotum with large punctures beset with small fine pale setae, with two sub-lateral circular depressions, covered with recumbent setae ; lateral sides rounded, of equal width at base and at apex ; basal margin bisinuate. Scutellum piceous, small, rectangular, sparsely setose.

Elytra piceous, oblong, widening from shoulders to beyond middle and narrowing from there to apex, with apices separately rounded ; striae shallow, with close punctures ; intervals flat, with numerous pale sub-recumbent setae and few patches of narrow scales, often covered with whitish powdery material. Legs piceous, with sparse pale setae ; fore-coxae contiguous ; femora clavate, each with tooth broadly triangular ; tibiae deeply sinuate near base on inner edge, apical end of each with fringe of black bristles and a short mucro ; corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with joint 1 longer than 2, third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, covered with few pale setae. Abdominal sternites piceous, covered with fine sub-recumbent setae becoming erect and longer towards apex.

Male genitalia not studied. Bursa copulatrix poorly developed, with its surface marked by wrinkles ; ventral spiculum thin, long, flattened at apex ; spermatheca with cornu pointed at apex, collum narrow and sharply bent at apex, ramus short and thick.



Crinorrhinus approximans Faust

Measurements.—

Length

Body : 6.5 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.1 mm ; rostrum : 0.4 mm.

Range.—India ; Bombay, Surat, Belgaun, Puri, Hoshangabad.

Holotype in British Museum (N.H.), London.

77. *Crinorrhinus cuprisetus* Marshall
(Figs. 55a, 55b)

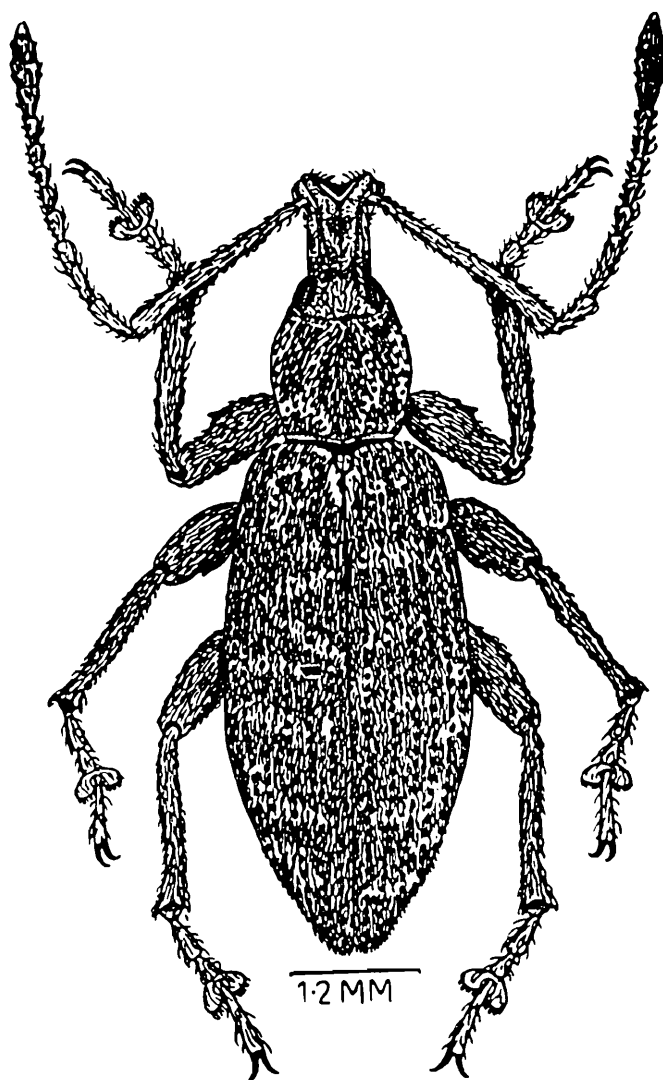
1942. *Crinorrhinus cuprisetus* Marshall, Proc. R. ent. Soc. Lond. (B) 11 : 145.

Frons piceous, as broad as eye, flat, with close shallow punctation and evenly setose ; central fovea in form of short sulcus, concealed by scales ; eyes large, convex. Rostrum piceous, separated from head by deep impression, much longer than its basal width, running parallel from base to scrobes and dilated at apex ; dorsal area coarsely and shallowly punctate, somewhat depressed in middle ; lateral carinae converging rather rapidly behind ; dorsal area with a feeble narrow median carina in anterior half and obtuse transverse ridges near apex ; lateral area with carinae close to dorso-lateral and uniting with it above scrobe, with a deep longitudinal sulcus beneath this ; epistome long, with carinate margin. Antennae piceous, long ; scape straight, gradually clavate, covered with brown sub-recumbent setae ; funicle with joint 2 equal to 1, all joints covered with sub-recumbent white setae ; club elongate and uniformly pubescent.

Prothorax piceous, transverse, with obsolete ocular lobes and fine long vibrissae, rounded laterally, widest at middle and narrowed at apex, with basal margin bisinuate ; pronotum closely and coarsely punctate, with shallow transverse impression beyond middle and two rounded post-median depressions ; vestiture consisting of recumbent pale setae. Scutellum small, piceous, covered with pale setae.

Elytra piceous, with oblique shoulders, almost parallel, with apices separately rounded ; striae shallow, with strong separated punctures ; intervals somewhat broader than striae, feebly convex ; covered with recumbent brownish setae. Legs piceous ; femora clavate, each with a short triangular tooth, covered with whitish sub-recumbent setae ; tibiae slender, clavate, covered with brown sub-recumbent setae ; corbels of hind tibiae open ; tarsi setose ; hind tarsus with joint 1 longer than 2 and 3, third bilobed joint spongy beneath ; claws free. Thoracic sterna fuscus, punctate and each puncture with suberect white seta. Abdominal sternites fuscus, punctate, with punctures closely set and each with whitish sub-recumbent seta.

Aedeagus straight, weakly bilobed at base, exophallic valve long; phallotreme sub-apical with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme slightly longer than aedeagus ; endophallus



Crinorrhinus cupresetis Marshall

not surpassing aedeagal apodemes, beset with rows of tubercles and papillae ; gastral spiculum thick and long, lateral arms short, each with process at base, its median arm thick, swollen and slightly curved at apex. Female genitalia not studied.

Measurements.—

Length

Body : 7.8 mm ; rostrum : 1.4 mm.

Breadth

Body : 3.1 mm ; rostrum : 0.4 mm.

Range.—India : Bombay.

Holotype in British Museum (N.H.), London.

78. *Crinorrhinus griseus* Marshall

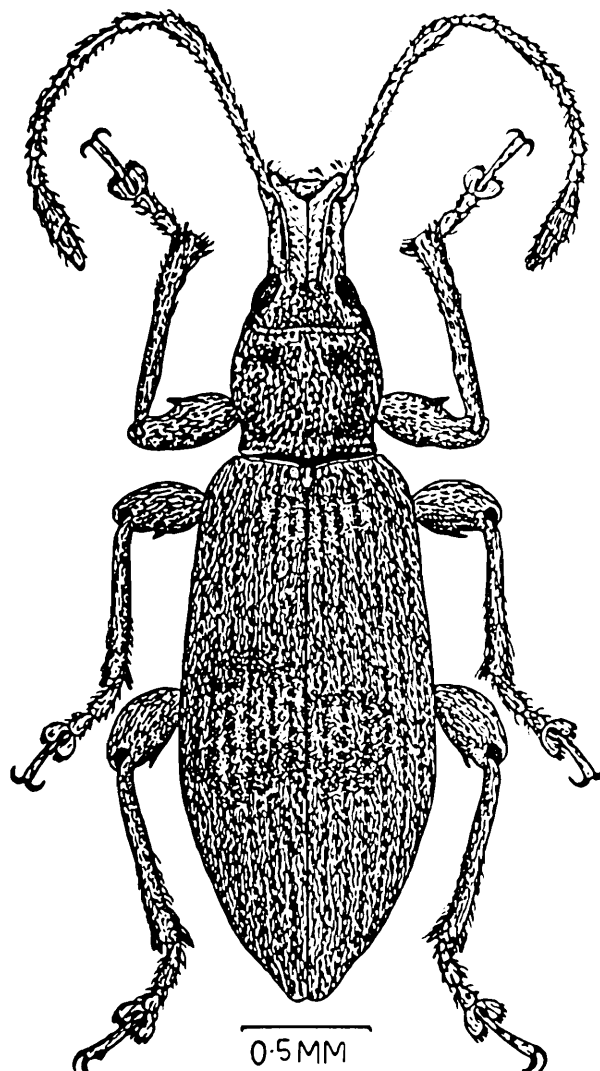
1942. *Crinorrhinus griseus* Marshall, Proc. R. ent. Soc. Lond. (B) 11 : 145.

Frons testaceous, as broad as an eye, depressed, covered with sparse sub-recumbent pale setae ; central fovea in form of shallow sulcus, almost concealed by scales ; eyes large, circular, somewhat bulging. Rostrum piceous, shallowly separated from head, about as long as its basal width, running parallel from base to antennal insertion and then dilated at apex ; dorsal area shallowly depressed, almost parallel-sided in basal half ; lateral area with fine carina uniting with dorso-lateral at middle and a short narrow sulcus adjoining it, with one deep and another shallow sulcus below scrobe and hidden by scales, surface covered with few whitish setae ; epistome large, obtuse, with carinate margin ; scrobes broad, small ; mentum with 4 setae. Antennae long, testaceous ; scape strongly curved, clavate, covered with recumbent whitish setae ; funicle with joint 2 longer than 1, joint 3 slightly longer than 4, all joints covered with recumbent whitish setae ; club elongate and uniformly pubescent.

Prothorax testaceous, wider than long, with broadly rounded ocular lobes and somewhat long vibrissae, feebly rounded laterally and widest at middle, with base and apex of equal width, sub-truncate at base ; pronotum closely and coarsely punctate, with two sub-lateral shallow impression, beyond middle and a shallow impression in middle, covered with sub-recumbent brown setae. Scutellum small, oblong, bare.

Elytra testaceous, parallel sided from roundly rectangular shoulders to beyond middle in male, only slightly wider beyond middle in female, with apices separately rounded ; striae shallow, with small close punctures, intervals broader than striae, almost

flat ; vestiture consisting of sub-recumbent pale setae. Legs testaceous, covered with sparse pale setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with large triangular tooth carinate distally, covered with recumbent pale setae ; tibiae compressed, apical end of each with fringe of fuscus spines



Crinorrhinus griseus Marshall

and an indistinct mucro, corbels of hind tibiae open, tarsi densely setose ; hind tarsus with joint 1 slightly longer than 2, third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, covered with few whitish sub-recumbent setae, with a bare central area on meta-sternum. Abdominal sternites piceous, covered with white sub-recumbent setae becoming longer and sub-erect at apex.

Male and female genitalia not studied.

Measurements.—*Length*

Body : 6.3 mm ; rostrum : 0.9 mm.

Breadth

Body : 2.3 mm ; rostrum : 0.4 mm.

Range.—India ; West Bengal, Chota Nagpur, Barwa.

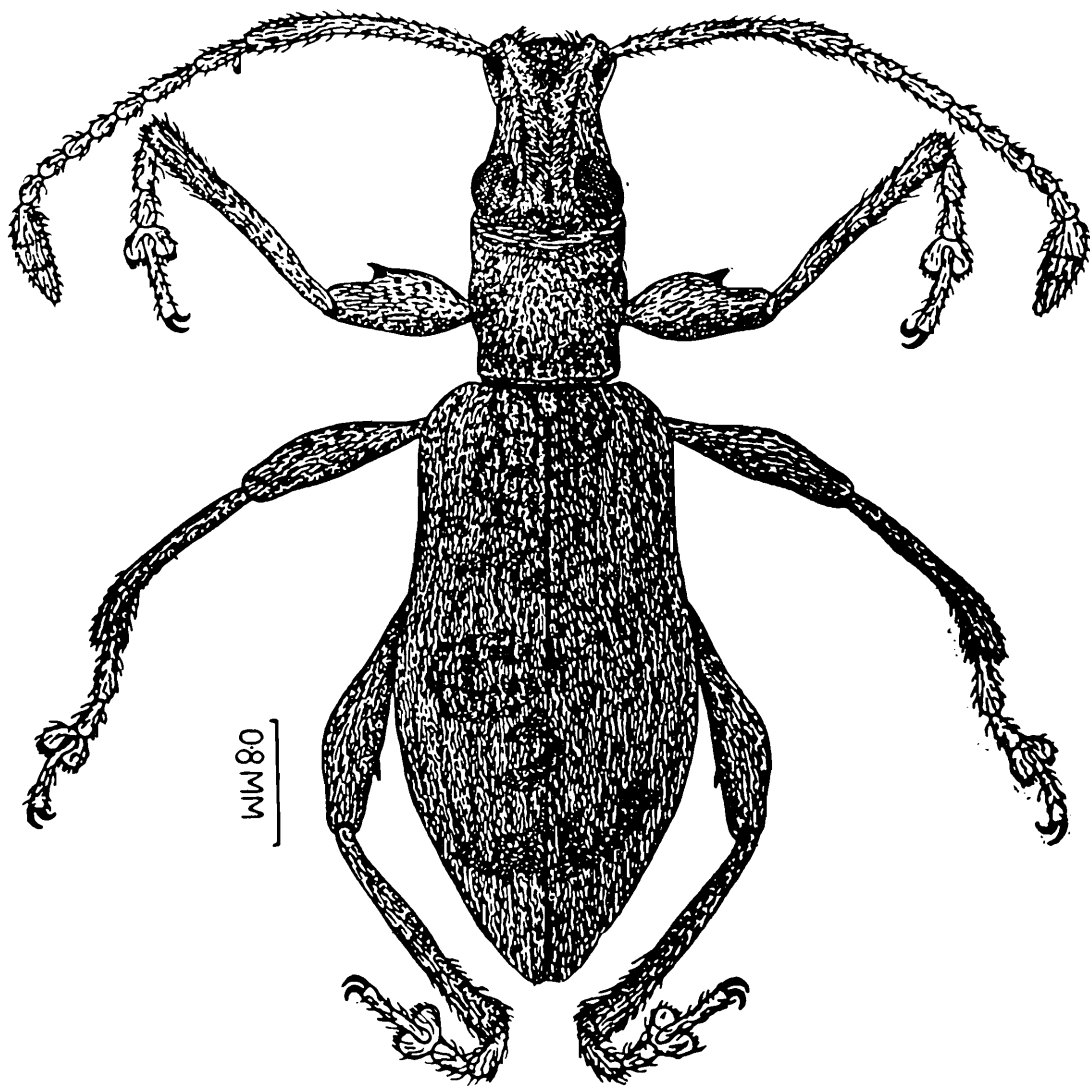
Holotype in British Museum (N.H.), London.

79. **Crinorrhinus sartus** Marshall
(Figs. 56, 194)

1942. *Crinorrhinus sartus* Marshall, Proc. R. ent. Soc. Lond. (B) 11 : 144, 146.

Frons fuscus, separated from rostrum by a shallow transverse impression, flat, as wide as length of an eye, with very shallow close punctation, covered with sparse setiform pale scales, with scales dense near eyes ; central fovea in the form of a deep sulcus at about middle of eyes ; eyes piceous, large, rounded. Rostrum fuscus, nearly as long as its basal width, gradually narrowing from base to scrobes and then dilated towards apex ; dorsal area beset with sparse whitish setiform scales, almost flat, more or less aciculate, impunctate ; central carina very fine, nearly obsolescent ; dorso-lateral carinae sharp, diverging apically and slightly converging posteriorly ; epistome much widened, moderately long, with margins sharply carinate, extending well behind antennae and forming an acute angle behind ; lateral area with more or less distinct oblique carina near dorso-lateral carina and uniting with it beyond middle, with a broad shallow squamose sulcus from upper angle of scrobe to eye ; scrobes dorso-lateral, small, curving inwards, almost visible from above ; mentum with 4 setae. Antennae moderately long, fuscus ; scape clavate, slender, rather strongly curved in apical half, passing anterior margin of prothorax, beset with pale recumbent setae ; funicle with joint 1 slightly longer than 2, 3 and 4 equal but shorter than first two, 5-7 subequal and shortest, all joints beset with long recumbent setae becoming sub-erect on apical joints ; club fusiform, finely and uniformly pubescent.

Prothorax fuscus, as long as broad, almost flat, with a low sub-lateral costa from base to middle and a short low median one behind middle, with a broad shallow transverse impression before middle ; anterior margin shallowly sinuate in middle, with feeble



Crinorrhinus surtus Marshall

ocular lobes and long vibrissae ; surface of pronotum with coarse and close punctures, with scales sparse on disk and dense dorso-laterally ; lateral sides moderately rounded in the middle, shallowly constricted and of equal width at base and apex ; basal margin truncate. Scutellum fuscus, small, oblong, rectangular with anterior margin rounded, covered with narrow scales.

Elytra fuscus, slightly widened to apex, with apices separately rounded ; shoulders roundly rectangular ; striae narrow, formed

by deep and closely set punctures and each puncture with a minute seta, punctures not covered by scales ; intervals broader than striae, smooth and shiny, almost flat, densely clothed with greyish-white scales mottled with variable confluent patches of dark-brown scales. Legs fuscus, covered with narrow pale scales ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a large triangular tooth carinate distally, with a few sub-apical less narrow scales on middle and hind-femora ; tibiae sinuate near base on inner edge, apical end of each with a fringe of fuscus bristles and an indistinct mucro ; corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna fuscus, covered with narrow greyish-white scales, with a bare central area on metaternum. Abdominal sternites fuscus, covered with narrow greyish-white scales and fine sub-recumbent setae becoming longer and sub-erect towards apex, last visible sternite with large deep punctures.

Aedeagus straight, bilobed at apex, with exophallic valve projecting out of it ; phallotreme sub-apical, with small orificial plates ; aedeagal apodemes about 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus and curved near apex ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with very dense rows of setae and papillae, having a pair of long curved plates at apex. Bursa copulatrix well-developed ; ventral spiculum long, curved and broadened at apex. Spermatheca with cornu pointed at apex, collum and ramus at right angle to each other.

Measurements.—

Length

Male body : 5.9 to 6.5 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 6.9 to 7.5 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.0 to 2.2 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.3 to 2.5 mm ; rostrum : 1.0 to 1.1 mm.

Range.—Uttar Pradesh ; Fyzabad ; Chandigarh (Ex. *Dalbergia sissoo* and *Vitis vinifera*).

Holotype in British Museum (N.H.), London.

80. *Crinorrhinus sparsutus* Marshall
(Fig. 57)

1942. *Crinorrhinus sparsutus* Marshall, Proc. R. ent. Soc. Lond. (B) 11 : 144, 146

Frons piceous, aciculate, separated from rostrum by a rather shallow impression, flat, a little narrower than length of eye; covered with sparse setiform greenish scales and sub-recumbent pale setae, scales denser near eyes; central fovea in form of a deep sulcus, at about middle of eyes, concealed by scales; eyes piceous, large, rounded and convex. Rostrum piceous, longer than its basal width, running parallel from base to scrobes and then dilated towards apex, its surface beset with sparse narrow greenish scales and some recumbent setae; dorsal area finely aciculate, impunctate, shallowly impressed in middle, with a short median carina at apex; dorso-lateral carinae sharp, diverging apically and gradually converging posteriorly; epistome much widened, moderately long, with right margin sharply carinate and left margin less so, extending well behind antennae and forming an acute angle behind; lateral area with a more or less distinct oblique carina near dorso-lateral carina and uniting with it beyond middle, with a very broad squamose sulcus from base to scrobe; scrobes dorso-lateral, small, curving inwards, almost visible from above; mentum with 4 setae. Antennae moderately long, fuscus; scape clavate, slender, rather strongly curved in apical half, passing anterior margin of prothorax, beset with greenish recumbent setae; funicle with joints 1 and 2 equal, 3 and 4 equal but shorter than first two, 5-7 subequal and shortest, all joints beset with pale sub-recumbent setae becoming sub-erect on apical joints; club sub-cylindrical in middle, narrowing at base and apex, finely and uniformly pubescent.

Prothorax fusco-piceous, as long as broad, somewhat convex transversely, with a trace of low abbreviated median costa and a short sub-lateral costa on each side from base to middle, with two post-median impressions distinct, with a broad shallow transverse impression before middle; anterior margin shallowly sinuate in middle, with feeble ocular lobes and long vibrissae; surface of pronotum with coarse and close punctures, with scales inconspicuous and narrow, with broad lateral stripes of wider yellowish scales; lateral sides moderately rounded, widest behind middle.

constricted at slightly bisinuate base. Scutellum fusco-piceous, small, covered with narrow greenish scales, rectangular with anterior margin rounded.

Elytra fusco-piceous, parallel from rounded rectangular shoulders to behind middle and narrowing from there to apex, with apices separately acuminate ; striae narrow, formed by small close punctures becoming deeper and larger in lateral striae, some punctures also filled with a few greenish scales ; intervals broader than striae, slightly convex, smooth and shiny ; vestiture of minute brownish setae and scattered confluent spots of ovate greenish scales on striae. Legs fusco-piceous, covered with narrow yellowish white scales ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, with anterior pair much swollen in middle, each with tooth triangular and carinate distally ; tibiae sinuate near base on inner edge, apical end of each with a fringe of fuscous spines and an indistinct mucro ; corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna fusco-piceous, covered with yellowish-white scales, with a bare central area on meta-sternum. Abdominal sternites fusco-piceous, covered with yellowish-white scales and fine sub-recumbent setae, latter becoming longer and sub-erect towards apex.

Aedeagus straight, bilobed at apex, with exophallic valve short and strongly sclerotized towards apex ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, each gently curved near apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus and curved near apex ; endophallus lying between aedeagal apodemes, beset with very dense rows of setae and short papillae, having a pair of curved plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.0 to 6.4 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.0 to 2.2 mm ; rostrum : 0.7 to 0.8 mm.

Source.—Grass.

Range.—Uttar Pradesh, Fyzabad ; Himachal Pradesh, Kiratpur.

Holotype in British Museum, (N.H.), London.

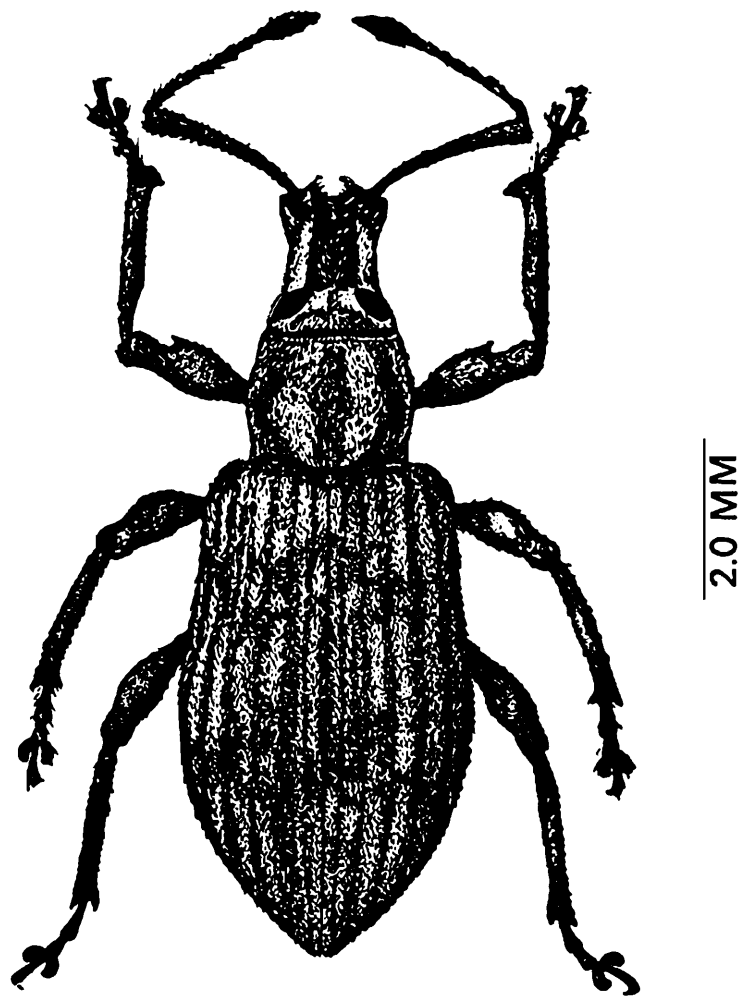
81. ***Crinorrhinus nebulosus* Marshall**
(Figs. 58, 195)

1942. *Crinorrhinus nebulosus* Marshall, Proc. R. ent. Soc. Lond. (B) 11 : 144, 147.

Frons fusco-piceous, separated from rostrum by deep transverse impression, flat, a little wider than length of eye, covered with dense narrow scales anteriorly, with central fovea in form of a short deep sulcus at about middle of eyes and partly concealed by scales ; eyes piceous, large, rounded and almost flat. Rostrum piceous, longer than its basal width, running parallel from base to scrobes and strongly dilated towards apex, its surface beset with sparse recumbent setae ; dorsal area broadly impressed, with a low median carina anteriorly ; dorso-lateral carinae diverging towards apex and moderately converging behind ; epistome moderately long, with margins sharply carinate, extending well behind antennae, forming an acute angle behind ; lateral area with a longitudinal carina terminating at dorso-lateral one at about middle, with a deep sulcus running from upper angle of scrobe to the middle of eye and almost concealed by dense scaling, below this another very deep semilunar sulcus ; scrobes dorso-lateral, small, curving inwards, almost visible from above ; mentum with 4 setae. Antennae moderately long ; scape piceous, moderately curved, clavate, slender, reaching before middle of prothorax, beset with fine recumbent setae ; funicle fuscus, with joints 1 and 2 equal, 3 a little longer than 4, 5 and 7 but shorter than first two, 6 shortest, all joints beset with long recumbent setae and with a whorl of sub-erect setae near apex of each ; club-fuscus, elongate, finely and uniformly pubescent.

Prothorax fuscus, transverse, longitudinally and transversely convex, with a small median carina and a shallow depression on each side behind middle ; anterior margin straight with broadly

rounded ocular lobes and somewhat long vibrissae ; surface of pronotum with coarse and close punctures mostly concealed by pale scales and short sub-recumbent setae ; lateral sides slightly rounded, widest at middle, with apex a little narrower than base ; basal margin shallowly bisinuate. Scutellum fusco-piceous small pentagonal, sparsely setose.



Crinorrhinus nebulosus Marshall

Elytra fuscus, with suture and strial punctures piceous, shiny, without granules, oblong-ovate, declivous posteriorly, widening from shoulders to beyond middle in both sexes and narrowing from there to apex, with apices separately acuminate and shoulders obliquely rounded ; striae broad, nearly as broad as intervals, formed by closely set large punctures and each puncture with a minute seta ; intervals as broad as striae, feebly convex, thinly clothed with pale recumbent setae, with ovate fawn scales forming

irregular patches, latter sometimes uniting to cover most of the elytra. Legs fuscus ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, covered with sparse whitish scales, with a sub-apical band of scales on middle and hind-femora, each with tooth triangular and continued distally as a carina ; tibiae sinuate near base on the inner edge, apical end of each with a fringe of fuscus bristles and a very small mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint more than twice as long as second, third bilobed joint spongy beneath ; claws free. Thoracic sterna fuscus, covered with narrow whitish scales and whitish powdery material. Abdominal sternites fuscus, covered with narrow whitish scales and sub-erect whitish setae becoming longer and denser towards apex, with scales sparse on first and second visible sternites, last visible sternite with large deep punctures.

Aedeagus straight, weakly bilobed at apex, with exophallic valve small and lying in vicinity of aedeagus, strongly sclerotized in apical half ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes nearly twice as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme a little longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with very dense rows of setae and papillae, having a pair of long plates at apex. Bursa copulatrix well-developed ; ventral spiculum long and thick. Spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Male body : 7.7 mm ; rostrum : 1.2 mm.

Female body : 9.2 mm ; rostrum : 1.3 mm.

Breadth

Male body : 2.3 mm ; rostrum : 0.9 mm.

Female body : 3.3 mm ; rostrum : 1.0 mm.

Source.—*Colebroohia opposilijalia*.

Range.—W. Bengal, Barwa ; Madhya Pradesh, Chikalda, Balaghat.

Holotype in British Museum (N.H.), London.

Genus 18. *Himachala* Gen. nov.

Frons broader than length of eye ; eyes moderately large and convex. Rostrum transverse, separated from head by a very shallow transverse impression ; carina of left margin of epistome depressed. Antenna with first joint of funicle distinctly longer than second. Prothorax transverse, with a low dorso-lateral costa from base to middle, with ocular lobes obsolete and vibrissae long, its basal margin truncate. Scutellum transversely rectangular, placed high above elytra. Elytra with apices jointly rounded, intervals covered with narrow scales and long sub-erect setae. Femora each with a small spine-line tooth ; corbels of hind tibiae open ; claws free. Aedeagus bilobed at apex, with exophallic valve long and slender ; phallotreme without orificial plates. Female genitalia with bursa highly sclerotized in apical half.

Type species.—*Himachala fulvescens* sp. nov.

Distribution.—INDIA.

Key to the species of genus *Himachala* Gen. nov.

1. Ground colour fuscus ; body densely covered with fulvous scales mottled with brownish spathulate scales (length 6.0 to 7.0 mm) *.fulvescens* sp. nov.
- Ground colour piceous ; body densely covered with greyish scales mottled with brownish spathulate scales (length 5.4 to 5.8 mm) *.squamifrons* sp. nov.

82. *Himachala fulveascens* sp. nov. (Figs. 59, 196)

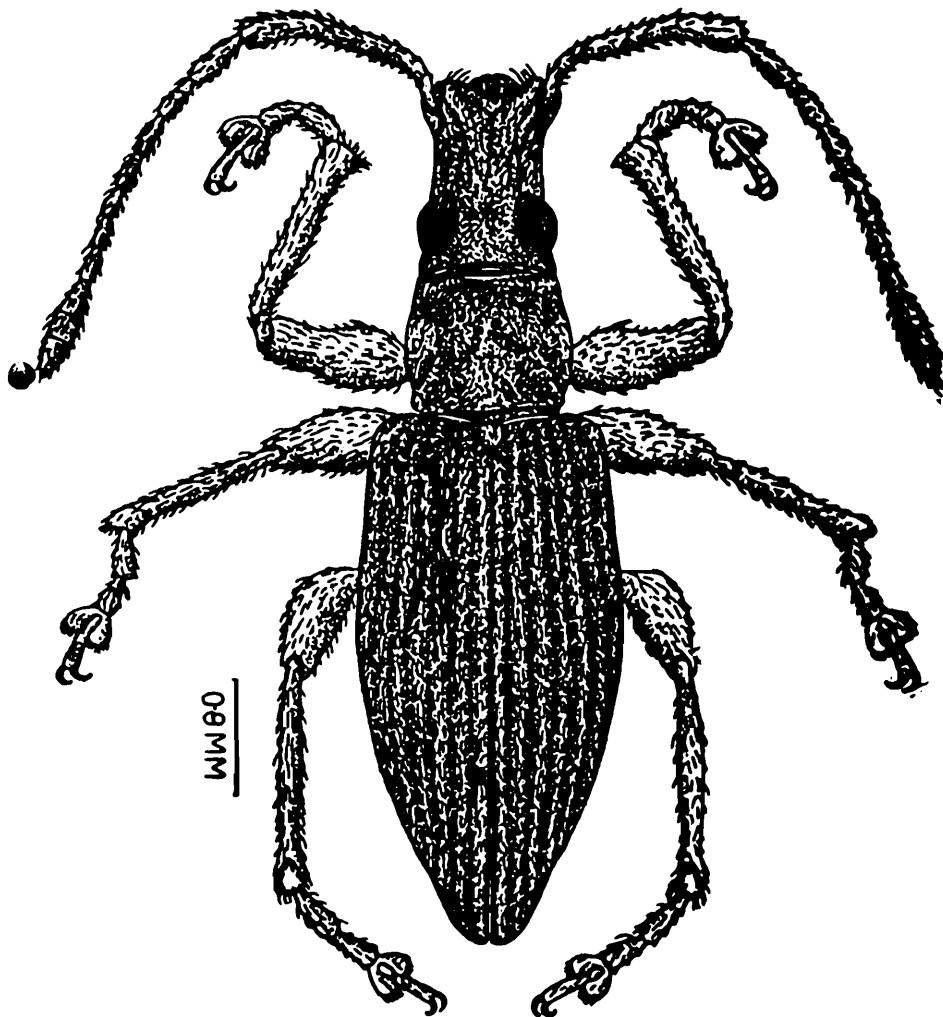
Frons fuscus, apparently separated from rostrum by a very shallow transverse impression, flat, wider than length of eye, with shallow

punctuation, covered with spathulate fulvous scales and pale recumbent setae becoming sub-erect and long near eyes ; central fovea rounded, shallow, lying close to base of rostrum, not concealed by scales ; eyes piceous, moderately large, convex. Rostrum fuscus, almost as long as broad, running almost parallel from base to scrobes and dilated at apex, its surface beset with fulvous spathulate scales and pale recumbent setae ; dorsal area flat near base, depressed in front, with a very fine central carina ; dorso-lateral carinae weak, especially in the basal half, slightly converging behind and strongly diverging towards apex ; epistome long, much widened, with right margin sharply carinate and carina on left margin obsolete, extending well behind antennae to form an acute angle ; lateral areas each with a more or less distinct oblique carina near dorso-lateral carina and uniting with it in middle and below this a broad and shallow impressed area ; scrobes dorso-lateral, small, curving inwards, almost visible from above ; mentum with 4 setae. Antennae moderately long, fusco-piceous ; scape stout, thick, somewhat broadened, clavate, strongly curved, reaching near middle of prothorax, beset with pale recumbent setae ; funicle with joint 1 distinctly longer than 2 and gradually clavate, 3 a little longer than 4 but shorter than 2, 5-7 sub-equal and shortest, all joints beset with pale recumbent setae becoming sub-erect on apical joints ; club fusiform, finely and uniformly pubescent.

Prothorax fuscus, transverse, almost flat, with low dorso-lateral costa from base to middle and shallow transverse impression before middle on each side ; anterior margin straight, with obsolete ocular lobes and long vibrissae ; surface of pronotum shallowly punctate and each puncture with a sub-recumbent pale seta, clothed with fulvous scales in middle with a distinct band of brown and fulvous scales dorso-laterally ; lateral sides moderately rounded, constricted near base and much shallowly so near apex, narrower at truncate base than apex. Scutellum fuscus, small, placed high above elytra, squarish with anterior margin rounded, densely covered with spathulate fulvous scales and pale recumbent setae.

Elytra fuscus, almost parallel-sided, narrowed to apex, with apices jointly rounded ; much wider at shoulders than prothorax and shoulders less roundly rectangular ; striae narrow, formed by deep and closely set exposed punctures and each puncture with

fine conspicuous seta ; intervals much broader than striae, almost flat, densely clothed with fulvous scales mottled with variable confluent patches of brownish spathulate scales alongwith long pale and brownish setae. Legs fuscus ; pro-coxae contiguous, placed somewhat nearer to anterior margin of prosternum ; femora clavate, each with a spine-like tooth, covered with pale recumbent setae in basal half and with interspersed scales in apical half, scales dense on hind femora ; tibiae shallowly sinuate near base on inner edge, each with a fringe of small fuscus bristles at apex ; corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first



Himachala fulvescens sp. nov.

joint about 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath, claws free. Thoracic sternum fuscus, densely covered with spathulate fulvous scales and suberect

pale setae. Abdominal sternites fuscus, densely covered with narrow fulvous scales and pale sub-erect setae.

Aedeagus straight, bilobed at apex ; exophallic valve long and thin, strongly sclerotized towards apex ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes more than twice as long as aedeagus, each curved near apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus and curved near apex ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with dense rows of setae and papillae, having a pair of plates at apex. Bursa copulatrix well-developed, with its apical half highly sclerotized ; ventral spiculum long and curved. Spermatheca with cornu pointed, collum lying almost at right angle to ramus.

Measurements.—

Length

Male body : 6.0 to 6.4 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 6.6 to 7.1 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.2 to 2.3 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 2.3 to 2.5 mm ; rostrum : 1.0 to 1.1 mm.

Source.—Grass.

Holotype.—Male : India ; Haryana, Pinjore ; 4.VI.1977 ; H. R. Pajni. *Paratypes* : Males 3, Females 2 ; 14.X.1977 ; Male 1 ; Himachal Pradesh, Solan ; 21.IX.1976 ; Female 1, Himachal Pradesh, Nalagarh ; 7.VIII.1978 ; Female 1 ; Himachal Pradesh, Nahan ; 16.VI.1977 Collector for Paratypes same as for holotype. Material in Zoology Department., Panjab University, Chandigarh.

83. *Himachala squamifrons* sp. nov.

(Fig. 197)

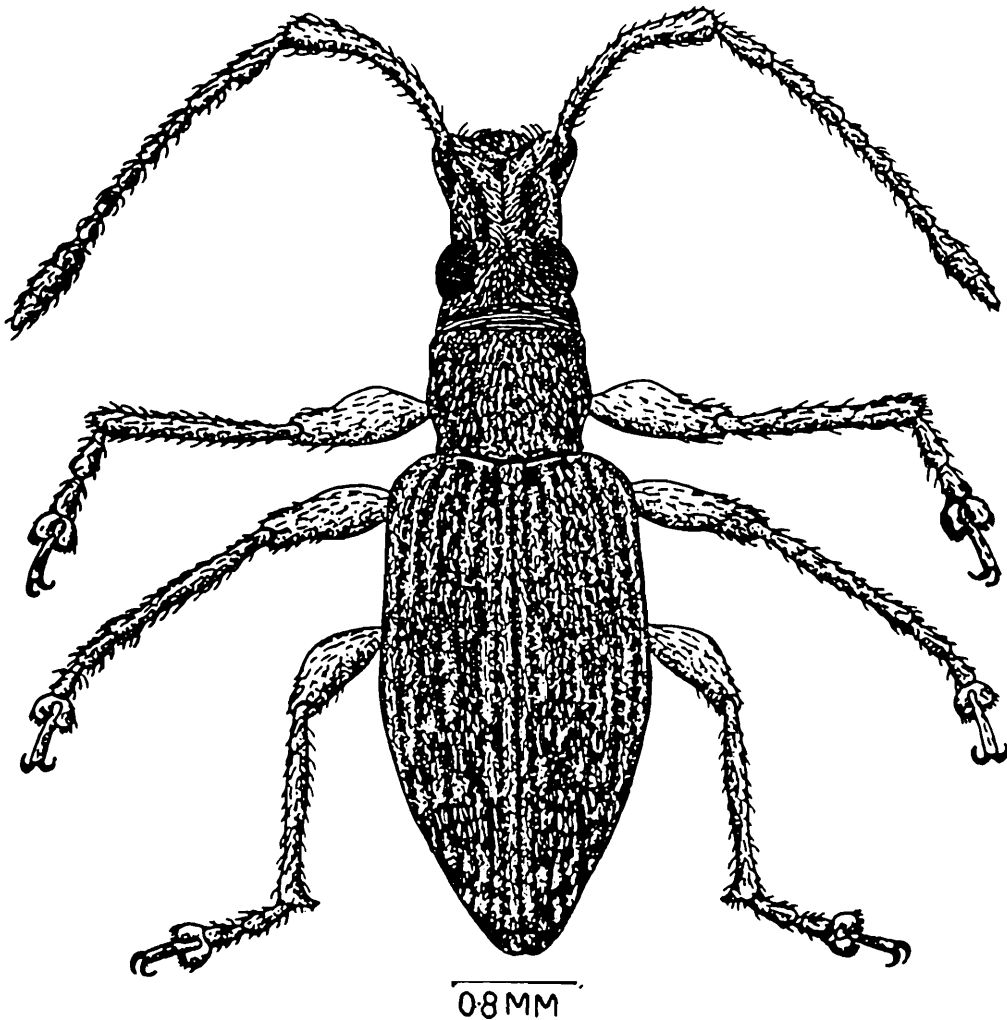
Frons piceous, separated from rostrum by shallow transverse impression, somewhat impressed, wider than length of eye, with shallow punctation, covered with spathulate greyish scales and

greyish recumbent setae ; central fovea elongated, deep, lying much closer to base of rostrum, somewhat concealed by scales ; eyes piceous, moderately large, convex. Rostrum piceous, as long as broad, gradually narrowing from base to scrobes and dilated at apex, its surface covered with greyish spathulate scales and greyish sub-recumbent setae ; dorsal area almost flat, with a strong carina ; dorso-lateral carinae weak, slightly converging behind and strongly diverging apically ; lateral areas longitudinally weakly striolate, each with distinct oblique carina near dorso-lateral carina and uniting with it in middle and below this a broad and shallowly impressed area ; epistome long, widened, with carina on left margin obsolete, extending well behind antennae, forming an acute angle behind ; scrobes dorso-lateral, small, curving inwards, almost visible from above ; mentum with 4 setae. Antennae moderately long, piceous ; scape slender, gradually clavate, curved, reaching middle of prothorax, beset with greyish recumbent setae ; funicles with joint 1 distinctly longer than 2, 3 a little longer than 4 but shorter than 2, 5-7 sub-equal and shortest, all joints beset with greyish recumbent setae becoming sub-erect on apical joints ; club fusiform, finely and uniformly pubescent.

Prothorax piceous, a little broader than long, almost flat, with low dorso-lateral costa from base to middle and a shallow transverse impression before middle on each side ; anterior margin shallowly and broadly sinuate, with obsolete ocular lobes and long vibrissae ; surface of pronotum rugosely punctate, covered with greyish scales in middle with more or less distinct bands of brown and greyish scales dorso-laterally ; lateral sides moderately rounded, shallowly constricted near base and much shallowly so near apex, broader at apex than at almost truncate base. Scutellum piceous, small, placed a little above elytra, squarish with anterior margin rounded, densely covered with spathulate greyish scales and greyish recumbent setae.

Elytra piceous, almost parallel-sided from base to behind middle and narrowing to apex, with apices jointly rounded and shoulders less roundly rectangular ; striae narrow, formed by deep and closely set punctures and each puncture with fine conspicuous seta ; intervals broad, much broader than striae, almost flat, densely clothed with spathulate greyish scales mottled with variable confluent

patches of brownish scales along with numerous greyish and brownish setae. Legs piceous ; pro-coxae contiguous, placed nearer to the anterior margin of prosternum ; femora clavate, each with a spine-like femoral tooth, covered with pale recumbent setae and interspersed scales ; tibiae shallowly sinuate near base on inner edge, each with a fringe of brownish bristles ; corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint about 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna fuscus, covered with narrow greyish scales and sub-erect pale setae. Abdominal sternites fuscus, covered with narrow greyish scales and pale sub-erect setae.



Himachala squamifrons sp. nov.

Male genitalia not studied. Bursa copulatrix well-developed, with its apical half highly sclerotized ; ventral spiculum long and curved

near base. Spermatheca with cornu pointed at apex, collum making more than right angle with ramus.

Measurements.—

Length

Female body : 5.5 to 6.0 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Female body : 2.0 to 2.2 mm ; rostrum : 1.0 to 1.11 mm.

Source.—Wild vegetation

Holotype.—Female ; Himachal Pradesh, Nalagarh ; H. R. Pajni ; 7.VIII.1978. *Paratypes* : Females 2 ; same data is for holotype. Material in Zoology Department, Panjab University, Chandigarh.

Genus 19. *Meionops* Marshall

1917. *Meionops* Marshall, Ann. Mag. nat. Hist., (8) 19 : 191.

Frons separated from rostrum by very shallow transverse impression ; eyes widely separated, small. Rostrum rather broad, stout, longer than its basal width ; scrobes apical, short, with space from scrobe to eye broadly impressed. Antennae elongate, slender ; scape cylindrical, abruptly clavate ; funicle with joint 1 much longer than 2 ; club spindle-shaped. Prothorax transverse, with sides rounded, its apex narrower than base, with ocular lobes not prominent. Elytra with the base truncate, with shoulders feeble and obliquely rounded. Legs with femora strongly clavate and each having large tooth ; tibiae sinuate internally near base ; corbels of hind tibiae open.

Type species.—*Meionops aspersus* Marshall.

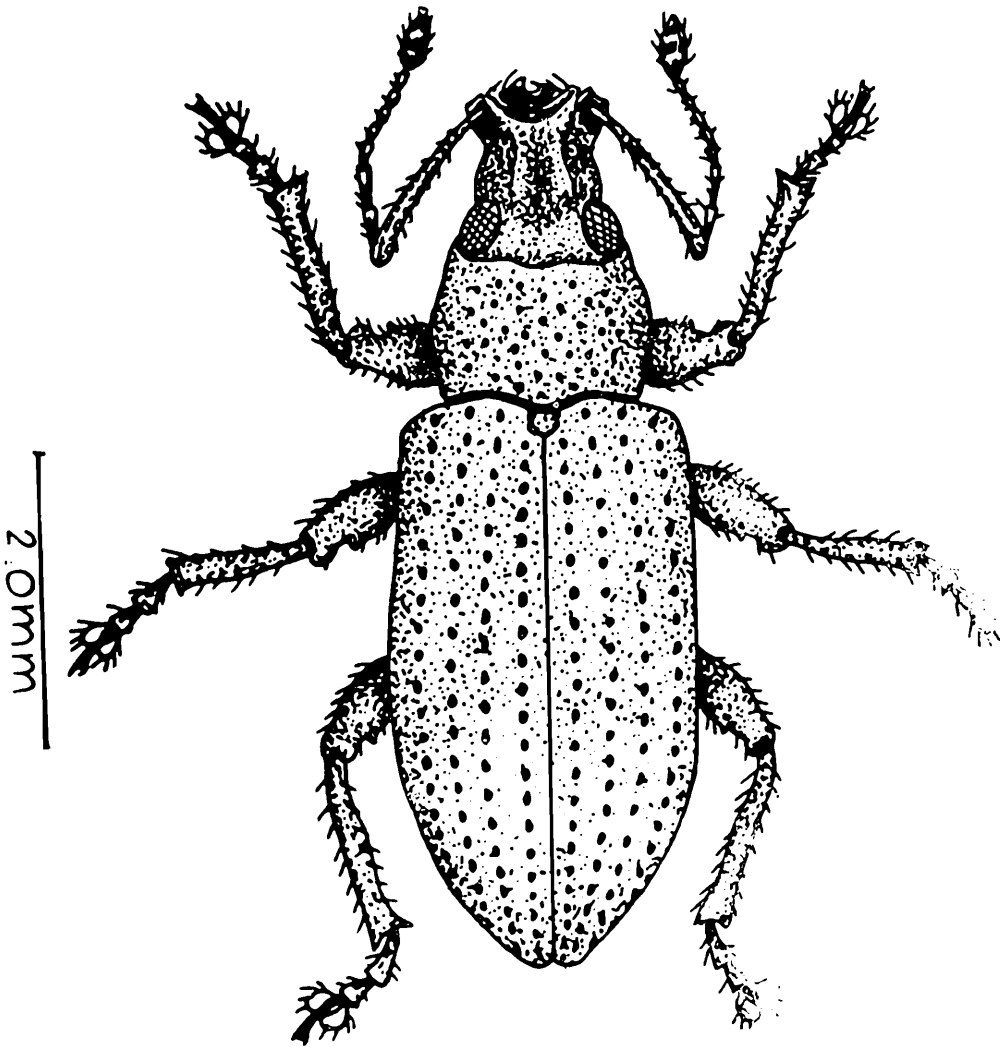
Distribution.—INDIA.

84. *Meionops aspersus* Marshall (Figs. 60a, 60b)

1917. *Meionops aspersus* Marshall, Ann. Mag. nat. Hist., (8) 19 : 192.

Frons piceous, separated from rostrum by shallow transverse impression, flat, covered with pale recumbent scales ; central fovea

deep, small, almost concealed by scales ; eyes small, fuscus, somewhat convex. Rostrum piceous, shining, parallel from base to antennal insertion and dilated at apex ; dorsal area flat, covered with pale scales and few spathulate seta-like scales ; lateral areas each with deep narrow furrow running towards upper edge of eye becoming broader near scrobes, covered with pale recumbent scales ; epistome large, obtuse, with hind margin carinate ; scrobes broad, partly curved inwards. Antennae piceous, long ; scape cylindrical, gradually clavate, covered with recumbent pale seta-like scales ; funicle with joint 1 somewhat longer than 1, 3 to 7 as long as broad : club spindle-shaped and uniformly pubescent.



Meionops aspersus Marshall

Prothorax piceous, transverse, with ocular lobes obsolete and vibrissae short, rounded laterally, with apex narrower than slightly bisinuate base ; vestiture consisting of brown and pale recumbent

scales, spathulate pale sub-recumbent scales filling punctures. Scutellum small, piceous, covered with pale scales.

Elytra piceous, with shoulders somewhat rounded and apices jointly rounded, slightly broader behind middle ; striae shallow, with large punctures ; intervals almost flat ; vestiture consisting of white and yellowish recumbent scales, whitish sub-recumbent setae in strial punctures, intervals with spathulate pale sub-recumbent seta-like scales. Legs piceous, covered with yellow scales ; femora gradually clavate, each having a large tooth ; tibiae compressed, covered with recumbent yellowish scales and spathulate pale seta-like scales ; corbels of hind tibiae open ; tarsi setose ; hind tarsus with joint 1 somewhat longer than second, third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, punctate and each puncture with sub-erect whitish seta, densely covered with recumbent whitish scales. Abdominal sternites piceous, covered with whitish scales and long sub-erect pale setae.

Aedeagus straight, slightly bisinuate at apex ; exophallic valve moderately long ; phallotreme sub-apical, with orificial plates well-developed ; aedeagal apodemes about 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme slightly longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of tubercles. Gastral spiculum thick ; lateral arms short and dentate ; median arm thick, somewhat curved and swollen at apex. Female genitalia not studied.

Measurements.—

Length

Body : 6.3 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.6 mm ; rostrum : 0.4 mm.

Range.—India ; Assam.

Holotype in British Museum (N.H.), London.

20. *Marshalla* Gen. nov.

Frons narrower than length of an eye ; eyes large, almost flat, oblong, Rostrum longer than its apical width, parallel-sided in basal one-third and widening beyond upto apex, with interantennal area raised to form a plate supporting a long and obtuse-angled epistome ; scrobes small, broad. Antennae long ; scape curved and cylindrical ; funicle with joints 1 and 2 subequal. Prothorax transverse, with ocular lobes well-developed, its surface granulated, with basal margin truncate. Elytra sub-oblong, ovate, with shoulders weakly developed. Legs with corbels of hind tibiae enclosed, each having an internal bare carina ; claws free. Male genitalia with aedeagus broadly triangular at apex, with exophallic valve and orificial plates well-developed ; phallobasic apodeme almost as long as aedeagus ; endophallus with a pair of endophallic plates. Female genitalia with burse copulatrix well-developed ; spermatheca with collum globular and lying parallel to ramus.

Type species.—*Marshalla bituberculatus* sp. nov.

Distribution—INDIA.

Remarks.—This is a unique genus distinct from all the described genera of Cyphicerini and characterized by the very high level of greatly developed epistome as compared to the height of rostrum. The epistome is bounded by a strong carina, with its posterior margin obtuse and extending well behind the level of insertion of antennae. The genus is so far represented by a single species from Eastern India.

85. *Marshalla bituberculatus* sp. nov.

(Figs. 61, 198)

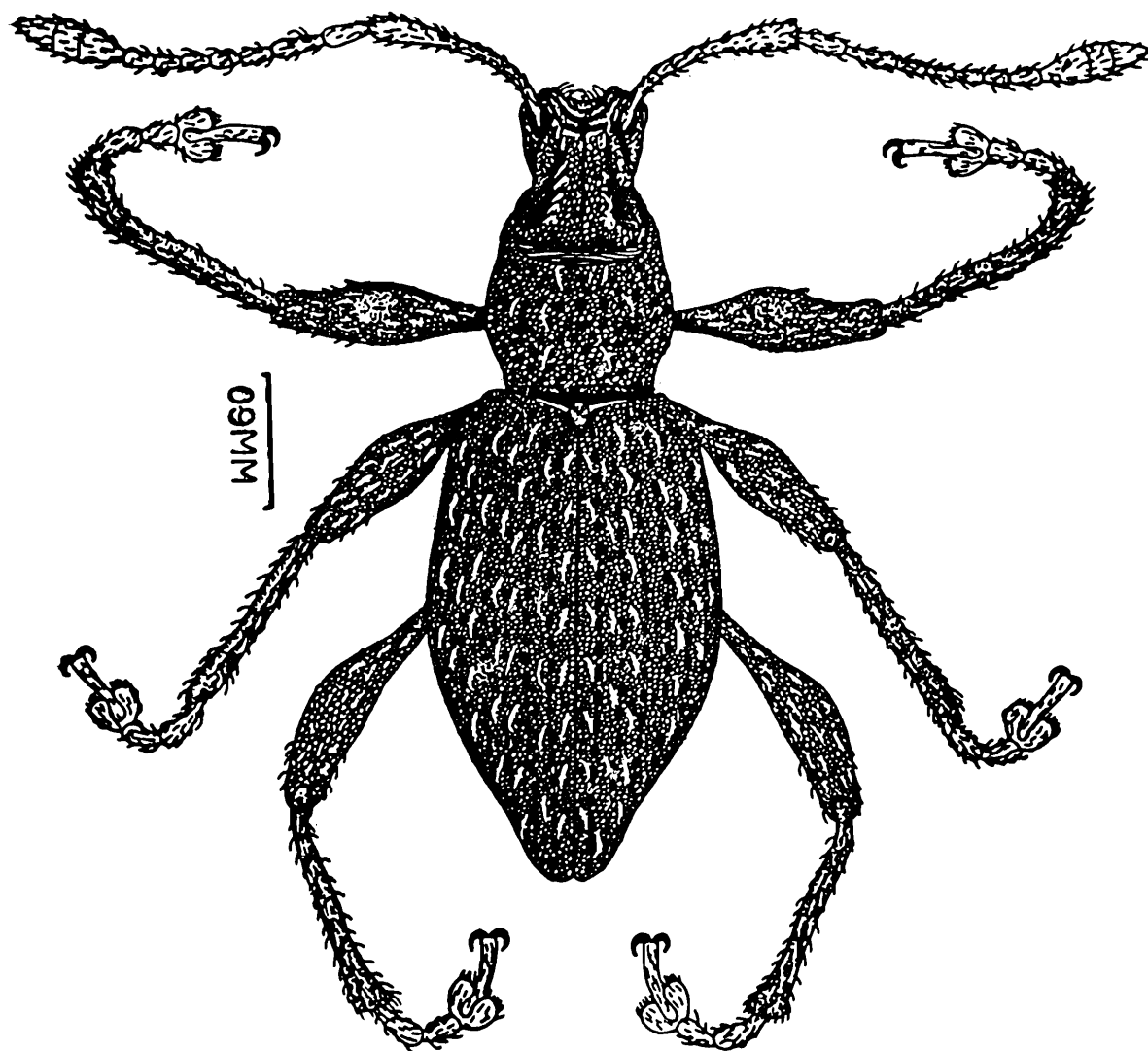
Frons black, almost as broad as dorsal area of rostrum, narrower than length of an eye, flat, completely covered with brownish and green overlapping scales and 2 to 4 pale erect setae on inner margin of each eye, with a deep rounded central fovea not concealed by scales ; eyes piceous, large, almost flat, oblong. Rostrum black, longer than its apical width, running parallel from base to one-third and then widening towards apex ; dorsal area flat, covered

with brownish and green scales and a few pale erect setae along each dorso-lateral carina, with interantennal area raised to form a plate ; central carina distinct, complete ; dorso-lateral carinae feeble, concealed by scales, gradually converging behind ; epistome forming an obtuse angle extending far beyond level of insertion of antennae ; lateral areas each with a broad squamose costa running straight from scrobe to eye, with a squamose sulcus above and below it ; scrobes small, broad, curving inwards, almost visible from above. Antennae long, piceous, covered with green scales and sub-erect pale setae ; scape curved, cylindrical, clavate, just reaching middle of prothorax ; funicle with joints 1 and 2 subequal, 3 to 7 sub-equal ; club fusiform, densely and finely pubescent.

Prothorax shining black, somewhat broader than long, widest at middle ; anterior margin almost straight, with well-developed ocular lobes and fine vibrissae laterally ; surface closely and coarsely punctate, with interspaces in middle part having conspicuous granules and some of them with an erect pale seta, surface covered with interspersed brownish and greenish scales ; lateral sides rounded, narrowly constricted in basal half, wider at apex than at truncate base. Scutellum small, completely covered with green scales.

Elytra shining black, sub-oblong, ovate, with poorly developed shoulders, with apices jointly rounded ; striae narrower than intervals, formed by shallow punctures and each puncture with a very fine recumbent seta, with interspaces covered with scales ; intervals broad, with intervals 1 to 3 and basal one-fourth of remaining intervals flat and remainder convex, with a large conspicuous tubercle at base of interval 1, covered with interspersed brownish and greenish scales, with a row of distantly placed erect setae on each interval. Legs shining black, covered with green scales and pale sub-erect setae, with coxae covered by pale scales ; pro-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior and middle tibiae with a row of fuscus spines on their inner apical halves, apical end of each tibia with a fringe of brownish bristles and a mucro ; corbels of hind tibiae enclosed, each with a fine internal bare carina ; tarsi densely setose, spongy beneath, hind tarsus with first joint about 1.5 times as long as

second, third bilobed joint as long as second ; claws free. Thoracic sterna shining black, covered with pale scales in middle and greenish scales laterally, punctate and each puncture with a fine sub-recumbent seta. Abdominal sternites shining black, covered with



Marshalla bituberculatus sp. nov.

brown and greenish scales, punctate and each puncture with a pale sub-recumbent seta, with punctures dense and setae comparatively longer in apical sternite.

Aedeagus straight, broadly triangular at apex, with exophallic valve long, its apical end and lateral sides more sclerotized ; phallosome sub-apical, with a small internal orificial plate on each side ; aedeagal apodemes 1.3 times as long as aedeagus, each curved

near apex ; phallobase ring-shaped ; phallobasic apodeme almost as long as aedeagus, curved near apex, thicker than aedeagal apodemes ; endophallus lying between aedeagal apodemes, beset with dense rows and clusters of setae and papillae, having a pair of curved plates at apex. Bursa copulatrix well-developed, with many rows of short tubercles, having a membranous lobe at apex ; ventral spiculum short and thick, curved near base. Spermatheca with cornu curved and pointed at apex, collum globular and lying parallel to ramus.

Measurements.—

Length

Male body : 5.2 to 5.9 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 6.2 to 6.7 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.1 to 2.2 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.9 to 3.1 mm ; rostrum : 0.7 to 0.8 mm.

Holotype.—Male ; India ; Assam ; Bogapaw ; 28.IV.1979 ; C.S. Sidhu. *Paratypes* : Male 1, Females 2, same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

Genus 21. *Amblyrrhinus* Schonherr

1826. *Amblyrrhinus* Schonherr, Curc. Disp. meth., : 183.

1931. *Amblyrrhinus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 9, 33.

Frons broader than length of eye ; eyes lateral, large almost flat. Rostrum transverse, robust, gradually narrowing from base to apex, with area behind epistome concave ; lateral areas depressed ; scrobes reaching near eyes ; mentum with two setae. Antennae inserted near middle of rostrum, short ; scape gradually clavate and curved ; funicle with joint 1 longer than 2. Prothorax with well-developed ocular lobes, with basal margin deeply bisinuate. Elytra with shoulders less prominent. Legs small, robust, with bases of femora widened ; corbels of hind tibiae open. Male genitalia with aedeagus sinuate at apex ; orificial plates missing ;

phallobasic apodeme somewhat than aedeagus ; endophallus with a pair of curved plates at apex. Female genitalia with bursa copulatrix moderately developed ; spermatheca with collum directed towards ramus.

Type species.—*Amblyrrhinus poricollis* Schonh.

Distribution.—INDIA, SRI LANKA, PAKISTAN, ARABIA, SUDAN.

Key to the species of genus *Amblyrrhinus* Schonherr

1. The basal half of dorsal area of rostrum quite or almost flat, with apical excavation appearing deep in contrast ; prothorax much broader at base than at apex

.. .. 2

The basal half of dorsal area of rostrum concave, almost as deep as apical area ; prothorax of equal width at apex and base

.. .. 3
2. Elytra with numerous recumbent and brownish setae on each interval, with ground colour black, covered with brownish scales, having a patch of pale scales on top of declivity of each elytron

.. *poricollis* Schonherr

—Elytra with a single row of recumbent and brownish setae on each interval, with ground colour fuscus, covered with dark-brown scales, without any patches of pale scales

.. .. *posticus* Walker

3. Elytra without any patches of whitish scales

.. .. *minuticornis* sp nov.

—Elytra each with a patch of whitish scales at top of declivity

.. .. 4

4. Elytra at shoulders as wide as base of prothorax, beset with narrow appressed setae

.. *cavirostris* sp. nov.

—Elytra at shoulders much wider than base of prothorax, beset with broad erect setae

subrecticollis Marshall

86. *Amblyrrhinus poricollis* Schonherr
(Figs. 62, 199)

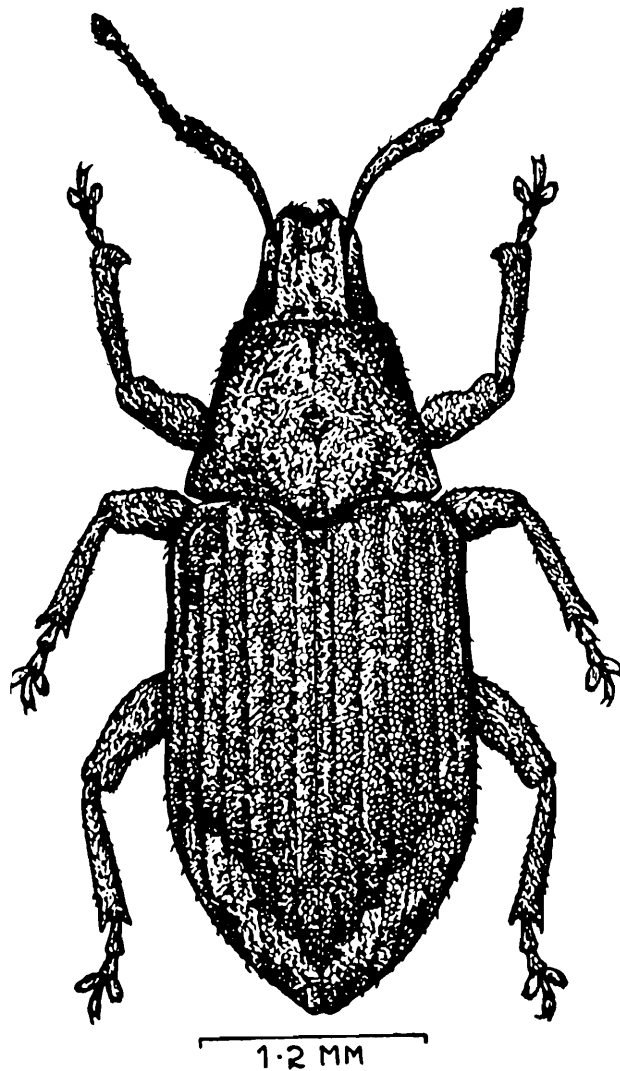
1826. *Amblyrrhinus poricollis* Schonherr. Curc. Disp. meth., : 184.

1931. *Amblyrrhinus poricollis* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 9, 33.

Frons black, transverse, almost flat, much densely covered with pale and fawn scales, with punctures somewhat visible through scaling and each puncture with a pale seta, with central fovea elongated and covered with scales ; eyes piceous, almost flat, large, rounded. Rostrum black, shorter than its basal width, gradually narrowing from base to apex; dorsal area much densely covered with pale scales, with punctures somewhat visible through scaling and each puncture with a spathulate pale seta, little impressed or flat in basal half and deeply concave in apical half : central carinae fine, bare in apical one-third, concealed in remaining two-third ; dorso-lateral carinae raised high and almost hanging over sides, converging from base to apex ; lateral areas strongly depressed, densely covered with pale scales ; epistome moderately long, sharply carinate, forming an acute angle behind, not reaching a line between insertion of antennae ; scrobes long, extending a little in front of eyes, narrow, straight, open behind, somewhat visible from above ; mentum with two setae. Antennae black, short, inserted behind middle of rostrum ; scape strongly curved in basal half, sub-cylindrical, gradually clavate, densely covered with fawn scales and pale recumbent setae ; funicle with joint 1 longer than 2, 2 a little longer than 7, 3-6 subequal and shortest, densely covered with narrow recumbent and broad sub-recumbent setae ; club short, as long as three apical funicular joints, fusiform, densely and finely pubescent.

Prothorax black, transversely and longitudinally convex ; Surface of pronotum punctate with punctures somewhat visible through dense pale and fawn scales and each puncture with a brownish recumbent seta, broadly impressed behind middle on each side ; anterior margin sub-truncate, with well-developed ocular lobes and few vibrissae laterally ; lateral sides widening strongly from apex to near base and almost parallel from there to base ; basal margin deeply bisinuate. Scutellum small, black, densely covered with pale scales, rectangular with anterior margin rounded.

Elytra black, oblong, very gradually widening from base to behind middle, then narrowing towards apex, with apices separately rounded ; shoulders obliquely rounded, not prominent ; striae distinct but punctures hidden by scales ; intervals somewhat convex ; vestiture of dense pale and brownish scales, patches of dark-brown scales, a more distinct transverse patch behind middle, a broad pale oblique band behind middle, numerous recumbent brownish setae on intervals. Legs black, densely covered with pale scales



Amblyrrhinus poricollis Schonherr

and pale sub-recumbent setae ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, base of hind femora much widened but anterior and middle femora less so, femoral tooth short ; tibiae stout, with anterior two pairs having a row of spines on their inner apical halves, apical end of each tibia with a fringe

of long fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint longer than second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna piceous, densely covered with pale scales and short recumbent setae, with scales narrow in middle of pro-and mesosternum. Abdominal sternites much densely covered with pale scales and recumbent pale setae with a row of spine-like setae near apex.

Aedeagus straight, slightly sinuate at apex, with exophallic valve short, with apical end and lateral sides more sclerotized ; phallosome sub-apical, without any orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, gradually thickening from base to apex ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus, curved near middle, thicker than aedeagal apodemes ; endophallus lying between aedeagal apodemes, beset with a cluster of setae and rows of small papillae, having a pair of curved plates at apex. Bursa copulatrix well-developed, with a pair of highly sclerotized small plates near apex and large weakly sclerotized plate below it, its apical end with small membranous lobe ; spiculum ventrale long, broadened at apex. Spermatheca with cornu curved and pointed at apex and lying over itself, collum directed towards ramus.

Measurements.—

Length

Male body : 3.9 to 5.1 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 5.3 to 6.3 mm ; rostrum : 0.5 to 0.6 mm.

Breadth

Male body : 1.8 to 2.2 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.6 to 3.1 mm ; rostrum : 0.8 to 0.9 mm.

Range.—India, very common in Punjab, Himachal Pradesh and Uttar Pradesh (Ex. *Dalbergia sissoo*)

Holotype in Stockholm Museum (Sweden).

87. *Amblyrrhinus posticus* Walker
(Figs. 63, 200)

1859. *Amblyrrhinus posticus* : Walker, Ann. Mag. nat. Hist., 3 : 263.
1931. *Amblyrrhinus posticus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 9, 34.

Frons fuscus, flat, much densely covered with whitish scales, punctate with punctures scarcely visible through scales and each puncture with a broad recumbent seta ; central fovea elongated, almost concealed by scales ; eyes shining black, large, sub-oval, almost flat. Rostrum fuscus, transverse, gradually narrowing from base to apex ; dorsal area much densely covered with whitish scales and short sub-recumbent setae, flat in basal half and concave in apical half ; central carina fine, completely concealed by scales ; dorso-lateral carinae overhanging lateral areas, running parallel from base to near apex ; epistome small, with margins carinate, forming an acute angle behind, not reaching level of insertion of antennae ; lateral areas depressed ; scrobes reaching near eyes ; curving upwards, somewhat visible from above ; mentum with two setae. Antennae fuscus, short, inserted near middle of rostrum ; scape strongly curved, sub-cylindrical, gradually clavate, densely covered with brownish scales and greyish recumbent setae ; funicle with joint 1 longer than 2, 3 and 7 subequal but shorter than 2, 4-6 subequal and shortest, densely covered with greyish scales and each with a whorl of setae ; club globular, short, densely and finely pubescent.

Prothorax fuscus, somewhat convex, punctate and punctures partly visible through scales, covered with greyish and brownish scales and brownish recumbent setae ; anterior margin sub-truncate, with well-developed ocular lobes and fine vibrissae ; lateral sides widening from apex to near base and almost parallel from there to base ; basal margin deeply bisinuate. Scutellum small, fuscus, rectangular with anterior margin rounded.

Elytra fuscus, oblong, very gradually widening from base to behind middle and then narrowing towards apex, with apices separately acuminate ; shoulders obliquely rounded, not prominent ; striae distinct, with punctures hidden by scales ; intervals

flat, completely covered with dark-brown and brownish scales, each interval with a row of short brownish setae. Legs fuscus, densely covered with whitish scales and recumbent setae ; procoxae contiguous, placed in middle of prosternum; femora clavate, with bases widened and teeth short ; tibiae stout, with anterior two pairs having a row of spines internally, apical end of each tibia with a fringe of fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose; hind tarsus with first joint longer than second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna fuscus, densely covered with whitish scales and short recumbent setae. Abdominal sternites much densely covered with whitish scales and recumbent whitish setae.

Aedeagus straight, weakly bilobed at apex, with exophallic valve long and narrow and lying partly out of it, with apical end and lateral sides more sclerotized ; phallotreme sub-apical, without any orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus and broadened at apex ; endophallus lying between aedeagal apodemes, beset with a cluster and a row of setae, with papillae arranged in rows, with a pair of curved plates at apex. Bursa copulatrix well-developed with a pair of highly sclerotized small plates at apex ; ventral spiculum long, curved all along its length, broadened at apex. Spermatheca with cornu pointed at apex, collum directed towards ramus.

Measurements.—

Length

Male body : 4.1 to 4.6 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 4.7 to 5.3 mm ; rostrum : 0.5 to 0.6 mm.

Breadth

Male body : 1.9 to 2.0 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.1 to 2.3 mm ; rostrum : 0.8 to 0.9 mm.

Range.—India ; Tamil Nadu, Mangrai Forest, Tanjore ; Bihar, Pusa ; Madhya Pradesh, Raipur ; Uttar Pradesh, Dehradun,

Kumaon, W. Almora ; Punjab, Hoshiarpur, Beas Valley ; Pakistan, Karachi ; Srilanka, Peradeniya, Nilaveli, Colombo.

Holotype in British Museum (N.H.), London.

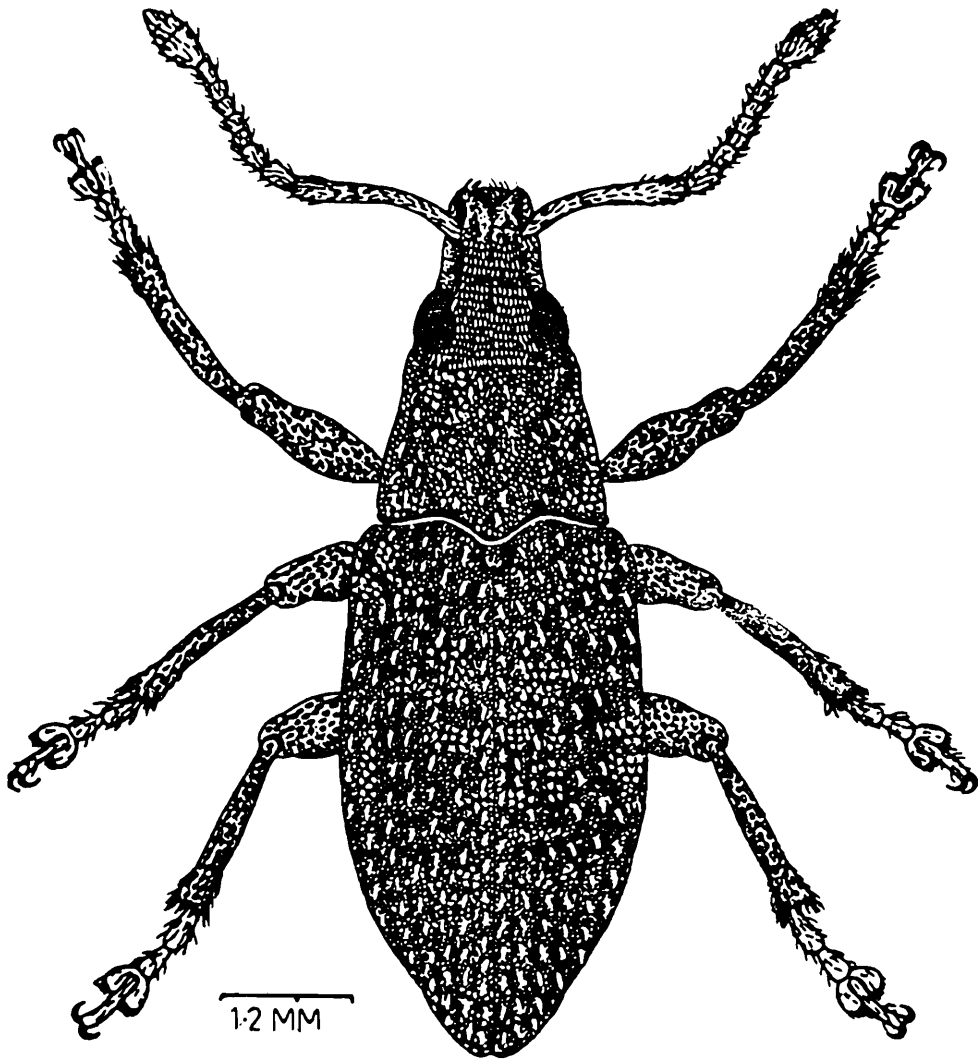
88. *Amblyrrhinus minuticornis* sp. nov.
(Figs. 64, 201)

Frons piceous, concave, much densely covered with greyish scales and broad recumbent setae, with central fovea elongated and covered with scales ; eyes black, large, sub-oval and flattened. Rostrum piceous, transverse, almost parallel sided from base to apex, its surface much densely covered with greyish concave scales and dull-whitish recumbent setae ; dorsal area strongly depressed in middle with a deep concave area in apical half and almost similarly depressed area in basal half, central carina fine and concealed by scales ; dorso-lateral carinae high and almost hanging over lateral sides ; epistome small, terminal, sharply carinate, forming an acute angle behind ; lateral areas depressed ; scrobes extending upto near eyes, narrow, curving upwards, somewhat visible from above ; mentum with two setae. Antennae piceous, small, inserted at middle of rostrum ; scape stout, curved, somewhat impressed, gradually clavate, densely squamose and setose ; funicle somewhat short, with joint 1 distinctly longer than 2, 3-7 subequal but shorter than 2, densely squamose, with a whorl of setae on each joint : club fusiform, densely and uniformly pubescent.

Prothorax piceous, as long as broad, coarsely and densely punctate and each puncture with a recumbent brownish seta, much densely covered with greyish concave scales ; lateral sides narrowly rounded, as broad at apex as at bisinuate base ; anterior margin straight, with well-developed ocular lobes and fine vibrissae. Scutellum small, piceous, rectangular with anterior margin rounded, densely squamose.

Elytra piceous, oblong, parallel-sided, with dorsal outline convex and spices separately rounded, with shoulders roundly rectangular, much wider at shoulders than base of prothorax ; striae narrow, almost hidden by scales ; intervals flat, densely covered with greyish scales, each interval with a row of sub-erect short setae.

Legs fuscus, densely squamose and sparsely setose ; procoxae contiguous, placed in middle of prosternum ; femora clavate, widened at bases, each with a short tooth ; tibiae stout, with anterior and middle pairs having a row of spines internally, apical end of each tibia with a fringe of black bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first



Amblyrrhinus minuticornis sp. nov.

joint longer than second, third bilobed joint almost as long as second and spongy beneath ; claws free. Thoracic sterna fuscus, densely covered with greyish scales and few recumbent setae. Abdominal sternites densely squamose and setose.

Aedeagus straight, bilobed at apex, with exophallic valve long and narrow and partly lying out of it, with apical end and lateral

sides more sclerotized ; phallotreme sub-apical, without any orificial plate ; aedeagal apodemes 1.3 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus and broadened at apex ; endophallus lying between aedeagal apodemes, not surpassing them, beset with rows of setae and small papillae, having a pair of long plates at apex. Bursa copulatrix moderately developed. Spermatheca with cornu lying on its body and curved at apex, collum recurved and lying close to ramus.

Measurements.—

Length

Male body : 3.8 to 4.2 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 4.1 to 4.6 mm ; rostrum : 0.5 to 0.6 mm.

Breadth

Male body : 1.2 to 1.3 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 1.5 to 1.7 mm ; rostrum : 0.5 to 0.6 mm.

Source.—*Dalbergia sisso* ; *Engenia* sp. ; *Zizyphus* sp.

Holotype.—Male ; India ; Chandigarh ; 20. V 1976 ; H.R. Pajni; *Paratypes*: Male 1, Female 1, Abohar, 23. IX, 1978 ; Male 1, Females 2 ; 27. V 1977, Hoshiarpur ; Males 2, Female 1 ; 24. IX. 1978 ; Ganganagar ; C. S. Sidhu. Material in Zoology Department, Panjab University, Chandigarh.

89. ***Amblyrrhinus cavirostris*** sp. nov.
(Figs. 65a, 65b, 202)

Frons piceous, wider than length of eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate white scales and a few spathulate whitish scales, with central fovea concealed by scales ; eyes black, ovate, convex. Rostrum piceous, much longer than broad ; dorsal area deeply depressed behind antennae, covered with white scales, its area behind epistome strongly impressed, with central carina very much lower than dorso-laterals ; dorso-lateral carinae sinuous ; epistome long, gradually declivous

anteriorly, with hind margin carinate and shortly acuminate ; lateral areas shining, with ovate white scales, without any prominent sulcus. Antennae long, densely squamose ; scape ferruginous, cylindrical, gradually clavate, strongly curved, covered with recumbent white ovate and narrow scales ; funicle with joint 1 as long as 2 and 3 together, 3 to 7 longer than broad and roughly funnel-shaped ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderate ocular lobes and long numerous vibrissae. Pronotum piceous, transversely and longitudinally convex, impressed and widest at base, with base deeply bisinuate and apex almost truncate, rounded laterally, with lateral angles of base cuneiform ; vestiture consisting of general broadly-ovate white and brown scales and few spathulate white scales, 5 distinct brown stripes, 3 in middle roughly forming a trident and one each on lateral sides, with dense patches of white scales on lateral angles, short white scales filling punctures. Scutellum small, circular, densely pubescent with white scales.

Elytra piceous, oblong, sub-parallel upto little beyond middle, slightly wider at shoulders than base of prothorax, with shoulders sub-rounded, gradually declivous posteriorly, with lateral areas impressed near apices and each apex shortly acuminate ; striae narrow, with sub-rounded and distantly set punctures ; intervals broad, convex ; vestiture consisting of broadly-ovate white to dark brown scales and few spathulate whitish scales, longitudinal whitish patches on intervals 5 and 6 near apex, dark brown scales forming 2 irregular transverse patches at apical half, sparse sub-erect spathulate whitish scales on all intervals. Legs piceous, covered with white scales ; pro-coxae contiguous, placed much before middle of prosternum ; femora clavate, each with a short cuneiform tooth ; tibiae with their apices beset with dense dark brown bristles ; tarsi squamose ; hind tarsus with first joint longer than 2 and 3 together. Thoracic sterna piceous, punctate with punctures concealed with dense whitish scales. Abdominal sternites piceous, punctate, densely covered with broadly-ovate fulvous and white scales.

Aedeagus straight, somewhat sinuate at apex, exophallic valve small ; phallotreme subapical, without any orificial plates ; aedeagal

apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme somewhat longer than aedeagus ; endophallus beset with cluster of setae and rows of papillae, having pair of curved plates at apex. Gastral spiculum thick and well-developed, lateral arms short ; median arm straight and thick, pointed and somewhat curved at apex. Bursa copulatrix moderately developed ; spermatheca with cornu curved and pointed at apex, collum directed towards ramus.

Measurements.—

Length

Male body : 5.2 mm ; rostrum 0.6 mm.

Female body : 6.5 mm ; rostrum 0.6 mm.

Breadth

Male body : 2.0 mm ; rostrum 0.4 mm.

Female body : 2.5 mm ; rostrum 0.5 mm.

Holotype—Male ; India : Madras, Madara ; 1902 ; H.R. Andrewes. *Paratypes* : Male 1 ; South Bombay ; Females 2, same data as for holotype. Material in British Museum (N.H.), London.

90. *Amblyrrhinus subrecticollis* Marshall
(Figs. 66, 203)

1913. *Amblyrrhinus subrecticollis* : Marshall, Ann. Mag. nat Hist., (8) 12 : 187.

1931. *Amblyrrhinus subrecticollis* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 9, 39.

1960. *Amblyrrhinus subrecticollis* : Voss, Opusc. Zool. Munich., 37 : 5.

Frons black, concave, much densely covered with pale and brownish scales and stout erect seta-like brownish scales, with lateral sides hanging over eyes, with central fovea elongated and covered with scales ; eyes black, large, circular and almost flat. Rostrum black, as long as broad, almost parallel from base to apex, its surface much densely covered with pale and brown depressed scales and brownish erect setae ; dorsal area strongly

depressed in middle, with a deep concave area in apical half and somewhat less depressed area in basal half ; central carina fine and almost concealed by scaling ; dorso-lateral carinae raised high and almost hanging over sides ; lateral areas strongly depressed, densely covered with pale and brownish concave scales ; epistome small, terminal, sharply carinate on margins, forming an acute angle behind ; scrobes extending behind middle of rostrum, narrow, curving inwards, almost visible from above ; mentum with two setae. Antennae black, short, inserted at middle of rostrum ; scape strongly curved, stout gradually clavate, much densely covered with brown and pale, scales and stiff recumbent setae ; funicle somewhat short, with joint 1 distinctly longer than 2, 3-7 sub-equal but shorter than 2, much densely beset with pale and brown scales and pale and brownish sub-recumbent setae ; club oval, acuminate at apex, with dense uniform pubescence.

Prothorax black, punctate and each puncture with a sub-erect pale or brown seta, vestiture of general dense concave scales, dorso-lateral broad stripes and a central line formed by brown scales, two dorsal stripes formed by pale scales ; base bisinuate ; anterior margin sub-truncate, with well-developed ocular lobes and vibrissae ; lateral sides almost straight, only slightly narrowed in front, much narrower than elytra at base. Scutellum small, black, densely covered with pale scales, rectangular with anterior margin rounded.

Elytra black, oblong, parallel-sided, declivous near apex, with apices jointly rounded, widest at shoulders, with shoulders roundly rectangular ; striae distinct, with punctures hidden by scales ; intervals convex, much densely covered with dark-brown concave scales, with an oblique whitish spot on each at top of declivity, each interval with one or two rows of erect seta-like scales. Legs black, covered with pale scales and sub-recumbent setae ; precoxae contiguous, placed in middle of prosternum ; femora clavate, widened at bases, each with tooth short ; tibiae thick and stout, with anterior two pairs having a row of spines on their inner apical halves, apical end of each tibia with a fringe of long black bristles and mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint longer than second, third bilobed joint almost as long as second and spongy beneath ; claws free.

Thoracic sterna fusco-piceous, densely covered with pale scales, with scales narrow in middle. Abdominal sternites much densely covered with pale and greyish scales and pale recumbent setae, with a row of few spine-like setae near apex.

Aedeagus straight, bilobed at apex, with exophallic valve partly lying out of it, with apical end and lateral sides more sclerotized ; phallotreme sub-apical, without any orificial plates ; aedeagal apodemes about 1.3 times as long as aedeagus, curved near apex ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of setae and papillae, having a pair of curved plates at apex. Bursa copulatrix well-developed, with a highly sclerotized plate near apex ; ventral spiculum long, broadened at apex. Spermatheca with cornu curved and pointed at apex, collum directed towards ramus.

Measurements.—

Length

Male body : 4.6 to 4.9 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 5.3 to 5.7 mm ; rostrum : 0.5 to 0.6 mm.

Breadth

Male body : 2.0 to 2.1 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 2.2 to 2.5 mm ; rostrum : 0.5 to 0.6 mm.

Source.—Under bark of *Dalbergia sissoo* & *Eugenia* sp.

Range.—INDIA, Bombay, Poona, Bihar, Uttar Pradesh, Fyzabad, Kumaon, Ranikhet, Sitapur, Haldwani, Almora.

Genus 22. **Thyraul**us Marshall

1944. *Thyraul*us Marshall, Ann. Mag. nat. Hist., (11) 11 : 442.

Frons slightly above upper level of eyes ; eyes almost circular and only very slightly convex. Rostrum longer than broad,

dilated at apex ; dorso-lateral carinae straight and parallel from base to apex ; lateral area without any oblique carina ; scrobes very short ; epistome with its hind margin sharply carinate, forming an acute angle that slightly exceeds antennae, its sides anteriorly forming inner boundary of scrobe ; mentum with two setae. Antennae long and slender ; scape cylindrical, gradually clavate, with recumbent setae ; funicle with joint 2 much longer than 1, distal joints elongate. Prothorax with base deeply bisinuate and ocular lobes well-developed. Elytra separately rounded at base. Legs with a small sharp femoral tooth ; front tibiae straight dorsally, corbels of hind pair with a bare inner carina.

Type species.—*Thyraulius prasinus* Marshall

Distribution.—INDIA.

Key to the species of Genus *Thyraulius* Marshall

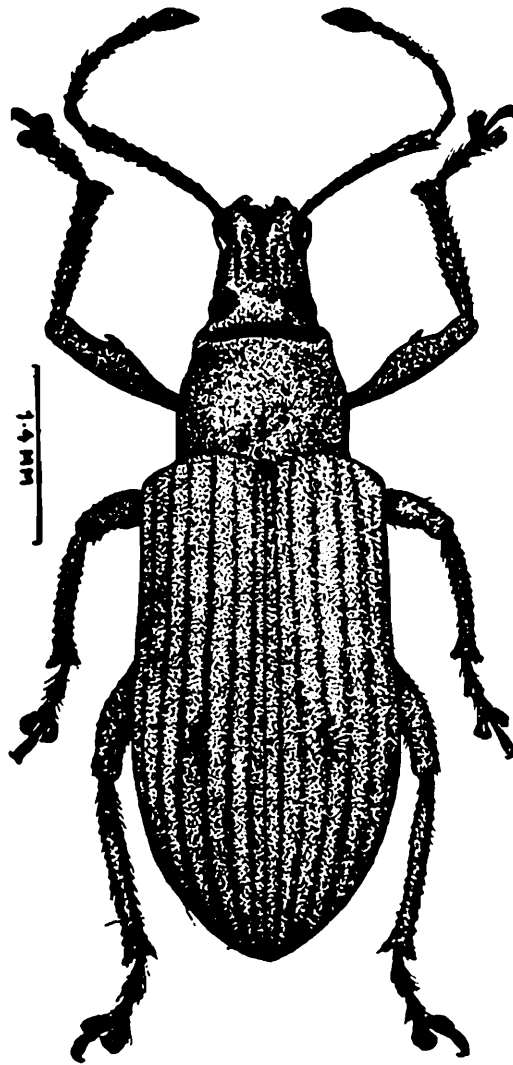
1. Frons somewhat wider than dorsal area of rostrum, its width greater than length of an eye ; elytra with numerous short appressed seta like scales *prasinus* Marshall
- Frons much narrower, its width equal to that of dorsal area of rostrum ; elytra with a row of short erect setae on each interval *crinitus* sp. nov.

91. *Thyraulius prasinus* Marshall (Figs. 67a, 67b)

1944. *Thyraulius prasinus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 442.

Frons fuscus, its width greater than length of an eye, somewhat wider than dorsal area of rostrum, covered with recumbent pale green scales and spatulate yellowish seta-like scales ; central fovea deep and elongated ; eyes fuscus, convex, somewhat bulging. Rostrum fuscus, slightly longer than broad, running parallel from base to scrobes and then dilated at apex ; with central carina much lower than dorso-laterals ; dorsal area almost flat ; dorso-lateral carinae obtuse and covered with scales, median carina also concealed except at apex ; epistome small, declivous anteriorly, with hind margin carinate and acuminate ; lateral areas

shining, covered with pale green scales ; scrobes broad, dorso-lateral. Antennae testaceous, long, densely squamose ; scape elongated, gradually clavate, covered with recumbent grey scales and sub-recumbent pale seta-like scales ; funicle with joint 2 longer than 1, all joints covered with whitish recumbent seta-like scales and sub-erect setae ; club elongated and uniformly pubescent.



Thyraulus prasinus Marshall

Prothorax piceous, transverse, with moderate ocular lobes and short vibrissae, rounded laterally, widest at little beyond middle, very shallowly constricted at apex and deeply bisinuate at base ; apex as wide as base, with dorsal margin truncate ; pronotum flat longitudinally in middle, with large separated punctures almost entirely covered by scales, with a small depression on each side

near base ; vestiture consisting of pale green recumbent scales and spathulate sub-recumbent seta-like scales. Scutellum testaceous, small, rectangular, almost bare, with a few pale scales.

Elytra piceous, much wider at shoulders than base of prothorax, somewhat broader in basal half then dilated behind middle, with apices acuminate posteriorly ; striae with closely set shallow punctures mostly posteriorly ; striae with closely set shallow punctures mostly covered by scales and each puncture with a seta-like scale ; intervals flat ; vestiture consisting of pale green shining scales ; intervals with recumbent broadly ovate scales. Legs ferrugineous, covered with whitish scales ; fore-coxae contiguous ; femora clavate, compressed, each with short spiny tooth ; tibiae slender, covered with shining white scales and spathulate white setae ; tarsi each with joint 2 longer than 1, third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, punctate and each puncture with pale setae. Abdominal sternites piceous, punctate, densely covered with shining pale scales.

Aedeagus straight, sinuate at apex, exophallic valve moderately long ; phallosome sub-apical ; aedeagal apodemes slightly longer than aedeagus ; phallobase ring-shaped as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of papillae and tubercles. Gastral spiculum long ; lateral arms short ; median arm thick, swollen and broad at apex. Female genitalia not studied.

Measurements.—

Length

Body : 8.2 mm ; rostrum : 1.0 mm.

Breadth

Body : 3.5 mm ; rostrum : 0.7 mm.

Range.—South India, Nilgiri Hills.

Holotype in British Museum (N.H.), London.

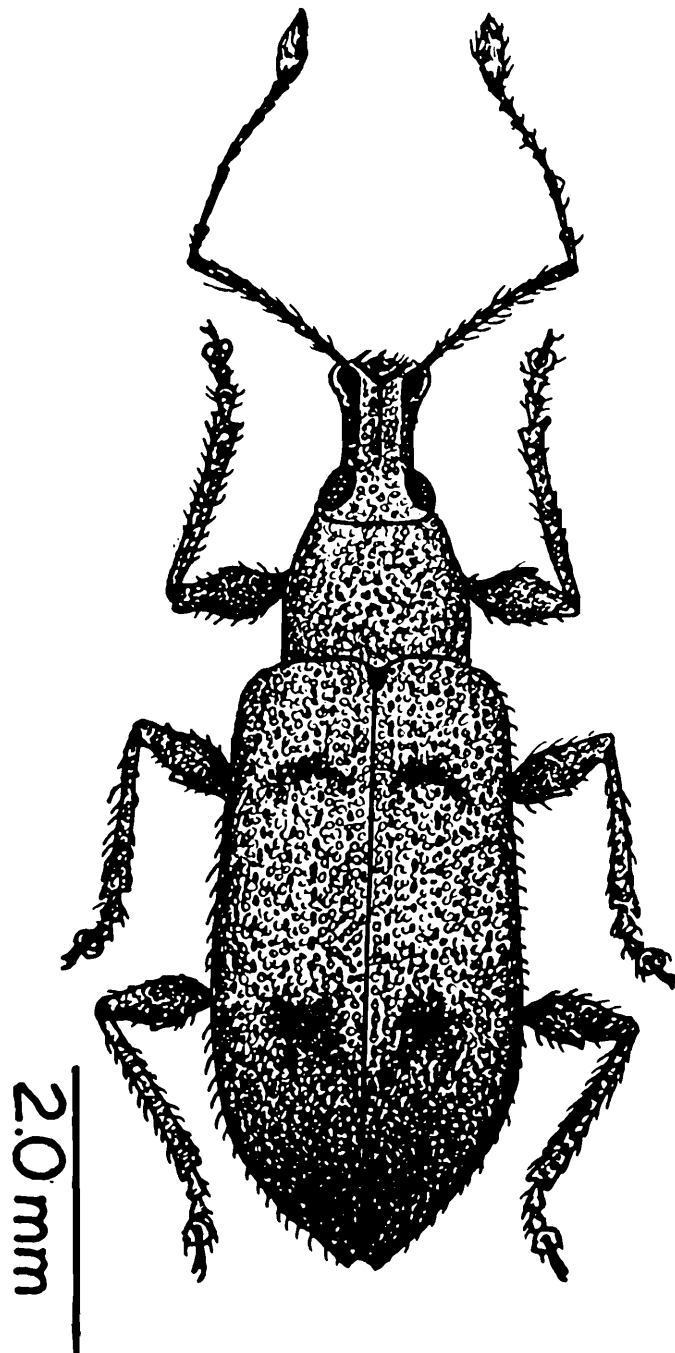
92. **Thyraulus crinitus** sp. nov.
(Figs. 68a, 68b)

Frons piceous, much narrower than length of eye, higher than upper margins of eyes, covered with recumbent snowy-white scales and few spatulate snowy-white scales, its central fovea concealed by scales ; eyes piceous, ovate, bulging moderately. Rostrum piceous, much longer than broad, narrowing from base to antennal insertion and dilated thereafter, densely covered with similar scales as on frons, area behind epistome strongly impressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae parallel upto a little before antennal insertion and divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and acuminate ; lateral areas shining, covered sparsely with snowy-white scales, each with a narrow shallow sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, densely squamose ; scape elongated, cylindrical, gradually clavate ; club fuscus, moderately curved, covered with narrow whitish scales ; funicle with joint 1 much shorter than 2, 3 to 7 longer than broad and of almost same length ; club fusiform, elongated, fuscus, finely pubescent.

Prothorax longer than broad, with moderate ocular lobes and vibrissae. Pronotum piceous, transversely and longitudinally convex slightly impressed at base, widest at little before middle, with base deeply bisinuate and apex shallowly constricted, laterally rounded, with two shallow sub-lateral depressions in basal half ; vestiture consisting of uniform covering of dense broadly ovate and spatulate snowy white scales. Scutellum small, circular, almost denuded.

Elytra piceous, oblong, sub-parallel upto middle and convergent thereafter, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with apices sharply acuminate posteriorly ; striae narrow, with shallow closely set punctures ; intervals broad and convex ; vestiture consisting of broadly-ovate and narrow snowy white scales, some regular rows of long narrow white scales, narrow white scales besetting striae punctures. Legs piceous, densely covered with snowy-white scales ; fore-coxae contiguous, placed in middle of prosternum ; femora gradually clavate, each with a short spiny tooth, with a

broad dark patch on inside of hind femur ; tibiae with their apices densely beset with dark brown bristles ; tarsi squamose ; hind tarsus with first joint much longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a white



Thyraulus crinitus sp. nov.

scale but punctures almost concealed by scales. Abdominal sternites piceous, punctate, densely covered with broadly-ovate and narrow snowy-white scales.

Aedeagus straight, sinuate at apex, exophallic valve long, lateral sides more sclerotized ; phallotreme sub-apical, with weak orificial plates ; aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of papillae and tubercles, with pair of plates at apex. Gastral spiculum with alar arms short, median arm thick and swollen at apex. Female genitalia not studied.

Measurements.—

Length

Body : 6.5 mm ; rostrum : 0.7 mm.

Breadth

Body : 2.5 mm ; rostrum : 0.4 mm.

Holotype.—Male ; South India, Coorg, Mercara, Mysore ; 20.X. 1915 ; Fletcher. Material in British Museum (N.H.), London.

Genus 23. **Hamartus** Marshall

1944. *Hamartus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 434, 439.

Frons as wide as length of an eye ; eyes almost circular and nearly flat. Rostrum transverse ; dorso-lateral carinae elevated, invading frons, straight and parallel ; epistome very short, forming an obtuse angle behind, its margin forming inner boundaries of scrobes ; scrobes broad, parallel and dorsal ; mentum with two setae. Antennae squamose ; scape sub-cylindrical ; funicle with two basal joints equal. Prothorax somewhat transverse, widest at deeply bisinuate base, with ocular lobes feeble. Elytra much wider at shoulders than base of prothorax. Legs with middle pair somewhat curved ; corbels of hind tibiae enclosed, each with an inner bare carina. Male genitalia with aedeagus bilobed at apex, with exophallic valve short ; orificial plates missing ; phallobasic apodeme as long as aedeagus ; endophallus with a pair of conical plates at apex. Female genitalia with bursae moderately developed ; spermatheca with cornu curved and pointed at apex, collum lying parallel to ramus.

Type species.—*Corigetus instabilis* Marshall

Distribution.—INDIA.

93. *Hamartus instabilis* (Marshall)

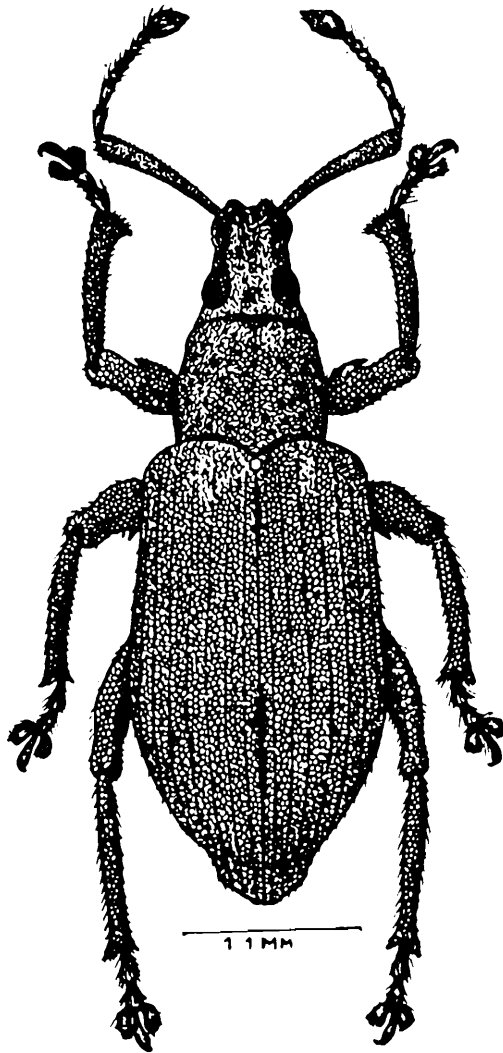
(Figs. 69, 204)

1925. *Corigetus instabilis* : Marshall, Bull. Ent. Res. 15 : 339.1944. *Hamartus instabilis* : Marshall, Ann. Mag. nat. Hist., (11) 11 : 439.

Frons fuscus, almost flat, about as broad as an eye, lying a little above upper margins of eyes, completely covered with fawn scales, with central fovea shallow and concealed by scales, with punctures somewhat visible through scales and each puncture with a seta-like sub-erect fawn scale ; eyes piceous, large, nearly circular almost flat. Rostrum fuscus, a little broader than long, running almost parallel from base to apex or slightly diverging towards apex ; dorsal surface broadly impressed throughout, with impression deepest between scrobes and gradually becoming shallower behind, covered with fawn scales and erect spathulate setae, with a very fine central carina elevated towards apex ; dorso-lateral carinae sharp, elevated, running parallel throughout covered with scales, forming inner margins of scrobes ; lateral areas impressed, covered with scales ; epistome short, steeply sloping anteriorly, with margin distinctly carinate and forming behind an obtuse angle not extending beyond line of insertion of antennae ; scrobes very broad, entirely dorsal, parallel, completely visible from above, open, ending rather steeply behind, longer than space between their bases and eye ; mentum with two setae. Antennae short, fuscus ; scape as long as funicle and club together, somewhat compressed, feebly curved, gradually widening from base to apex, passing anterior margin of prothorax, densely covered with fawn scales and sub-recumbent seta-like fawn scales ; funicle with joints 1 and 2 equal, 3 to 5 broader than long and shortest, 6 and 7 about as long as broad, all joints densely squamose and each with a single whorl of sub-erect setae ; club rather short, ovate, as long as three apical funicular joints, finely and uniformly pubescent.

Prothorax fuscus, a little broader than long, wider at base than at apex, with maximum width at little behind middle ; anterior margin almost straight, with almost obsolete ocular lobes and thin tuft of vibrissae ; surface of pronotum transversely convex and longitudinally quite flat, densely covered with fawn scales and three faint blackish stripes of scales, marked with large punctures visible

through scales and each puncture containing a short spathulate fawn seta ; lateral sides gently rounded, not constricted near apex, with basal margin deeply bisinuate. Scutellum fuscus, small, sub-quadrate, densely covered with pale scales.



Hamartus instabilis Marshall

Elytra fuscus, gradually widening from base to behind middle, narrowing towards apex, with apices separately rounded, convex, steeply declivous near apex, much wider at shoulders than base of prothorax, with shoulders roundly rectangular ; striae very narrow, with punctures reduced to narrow slits and each with a minute recumbent seta ; intervals broad, uniformly studded with sub-circular slightly overlapping fawn and pale scales, with sub-recumbent seta-like fawn scales on intervals. Legs fuscus, densely covered

with fawn and a few greenish scales and short setae ; fore-coxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, each with a sharp spine-like tooth ; tibiae slender, fore-tibiae not sinuate internally, middle pair slightly curved, apical end of each tibia with a fringe of fuscus bristles and a mucro, corbels of hind tibiae enclosed, each with a sharp bare carina ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free and small. Thoracic sterna fuscus, densely covered with fawn scales, punctures visible through scales and each puncture containing a short recumbent seta. Abdominal sternites covered with fawn scales, marked with punctures and each puncture with a pale seta, with punctures becoming larger and denser and setae longer towards apex.

Aedeagus straight, bilobed at apex, with exophallic valve short, its apical half highly sclerotized ; phallotreme sub-apical, without any orificial plates ; aedeagal apodemes 1.8 times as long as aedeagus, each curved near apex ; phallobase ring-shaped, with apodeme as long as aedeagus and broadened at apex ; endophallus lying between aedeagal apodemes, beset with dense papillae, having a pair of conical plates at apex. Bursa copulatrix moderately developed ; ventral spiculum long and thick, spathulate at apex. Spermatheca with cornu curved and pointed at apex, collum lying parallel to ramus.

Measurements.—

Length

Male body : 4.7 mm to 4.9 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 4.9 to 5.2 mm ; rostrum : 0.5 to 0.6 mm.

Breadth

Male body : 1.8 to 1.9 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 2.0 to 2.2 mm ; rostrum : 0.6 to 0.7 mm.

Range.—INDIA : Bombay, Kanara, Bassein Forest, Goa, Miramar beach.

Holotype in British Museum, (N.H.), London.

Genus 24. *Scaeorrhinus* Marshall

1944. *Scaeorrhinus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 434, 439.

Frons equal to or greater than length of eye ; eyes very large, nearly circular, flat. Rostrum very stout, nearly as wide as head, transverse, slightly dilated at apex, continuous with frons ; scrobes dorsal, very broad, continued indefinitely upto eyes ; dorso lateral carinae more or less raised, straight and parallel from base to apex, not ascending frons ; epistome elongate, forming an acute angle behind, not adjoining scrobes anteriorly ; mentum with two setae. Scape cylindrical, gradually widening from base to apex, covered with recumbent setae and narrow scales ; funicle stout, more or less squamose. Prothorax transverse, rounded laterally, without ocular lobes. Elytra much wider at roundly rectangular shoulders than prothorax. Femora each with a sharp tooth ; corbels of hind tibiae open.

Type species.—*Scaeorrhinus boops* Marshall.

Distribution.—INDIA.

Key to the species of genus *Scaeorrhinus* Marshall

1. Rostrum with dorsal area as wide as frons and deeply depressed, with lateral carinae strongly raised ; prothorax deeply constricted just before base, with basal angles projecting *boops* Marshall
- Rostrum with dorsal area narrower than frons, not depressed in basal half and shallowly so in front, with dorsal carinae much lower ; prothorax not constricted at base, with basal angles not projecting *tardus* sp. nov.

94. *Scaeorrhinus boops* Marshall

1944. *Scaeorrhinus boops* Marshall, Ann. Mag. nat. Hist. (11) 11 : 440.

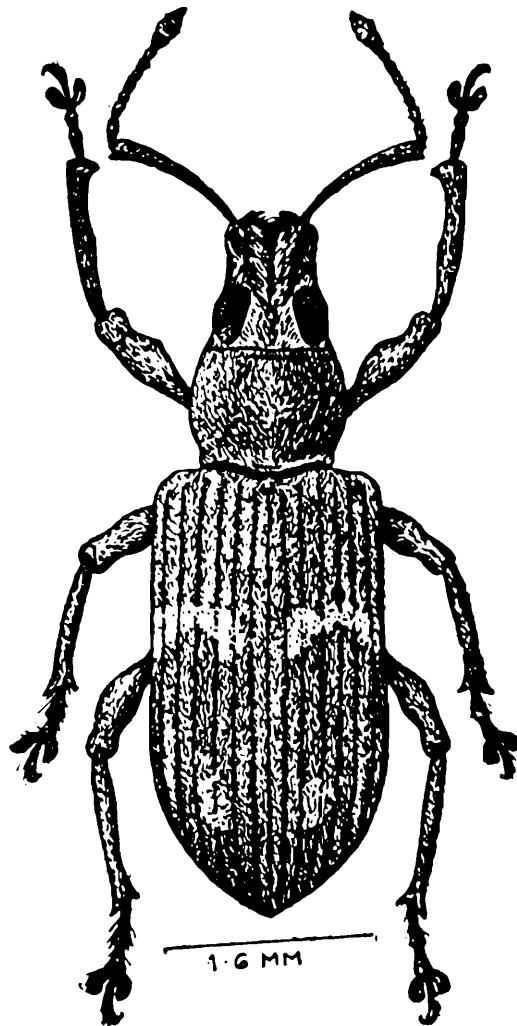
Frons piceous, punctate and punctation almost hidden by narrow brown scales, with a small median fovea ; eyes black, large, flat, nearly rounded. Rostrum broad, transverse, nearly as wide as

frons, running parallel from base to scrobes and slightly dilated towards apex ; dorsal area deeply impressed, with its sides raised into high parallel carinate ridges, covered with brown and whitish narrow scales ; central carina fine ; epistome elongate, its carinate margin forming a sharp acute angle extending well behind level of insertion of antennae, not adjoining scrobes anteriorly ; scrobes dorsal, very broad, continued indefinitely nearly to eyes, without any oblique carina behind them ; lateral areas broad, flat and smooth, sparsely squamose. Antennae piceous, moderately long ; scape cylindrical, gradually clavate, coarsely punctate, covered with narrow pale scales and recumbent setae, reaching near middle of prothorax ; funicle stout, with joint 1 somewhat longer than 2, 3-7 subequal, all joints covered with whitish narrow scales and long recumbent setae ; club fusiform, densely and uniformly pubescent.

Prothorax transverse, strongly rounded laterally, widest behind middle, broadly and deeply constricted before bisinuate base making basal angles prominent, anterior margin truncate, without post-ocular lobes but with distinct vibrissae ; surface of pronotum moderately convex longitudinally, with close coarse punctation almost concealed by dense narrow scales. Scutellum piceous, sub-quadrate, with anterior margin rounded, sparsely squamose.

Elytra oblong, much wider at shoulders than base of prothorax, running parallel from base to beyond middle, narrowing towards apex, with apices dehiscent and shoulders roundly rectangular ; striae narrower than intervals, impressed, formed by shallow punctures and each puncture with a minute recumbent seta, partly squamose ; intervals slightly convex, rugose, with numerous small granules bearing appressed scale-like setae, covered with dense narrow brown scales and the following distinct white markings ; a narrow transverse band along basal margin, basal one-fifth of interval 1, stripes on the apical fourth of intervals 3, 4, 7, 8, 9 and apex of the suture, a transverse band before middle between striae 1 and 8. Legs fuscus, covered with greyish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a sharp tooth ; tibiae straight, anterior and middle tibiae with a row of spines on their inner apical halves, apical and of each tibia with a fringe of fuscus bristles and mucro, corbles

of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint longer than second, third bilobed joint shorter than second ; claws free. Thoracic sterna densely furnished with grey scales



Scaeorrhinus boops Marshall

and recumbent setae. Abdominal sternites also densely covered with grey scales and recumbent setae.

Male and female genitalia not studied.

Measurements.—

Length

Body : 5.7mm ; rostrum : 0.6 mm.

Breadth

Body : 2.5 mm ; rostrum : 0.9 mm.

Range.—South India, Salem, Ayur, Noganoor.

Holotype in British Museum (N.H.), London.

95. ***Scaeorrhinus tardus* sp. nov.**
(Figs. 70a, 70b)

Frons piceous, slightly wider than length of an eye, almost in a level with upper margins of eyes, covered with mixed greyish-white and golden scales both narrow and spathulate, with central fovea small and circular ; eyes black, ovate, almost flat. Rostrum piceous, a little longer than broad, parallel sided ; dorsal area moderately depressed behind antennae, covered with spathulate and narrow scales of white and golden colour, with area behind epistome shallowly impressed, with central carina lower than dorso-laterals ; dorso—lateral carinae parallel upto middle of rostrum and divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and sharply acuminate ; lateral areas dull, covered sparsely with narrow white scales, each with a curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, long, squamose ; scape stout, moderately curved, gradually clavate, covered with seta-like recumbent white and golden scales ; funicle with joint 1 as long as 2, 3 to 7 transverse and beaded, all joints pubescent with white scales ; club fusiform, finely pubescent.

Prothorax wider than long, with moderate ocular lobes and vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at middle, its bisinuate base a little wider than shallowly constricted apex, laterally rounded ; vestiture consisting of general broadly ovate white and spathulate scales of golden colour, with an ovate dark patch in middle covering entire length and this patch bordered by few dense rows of white scales, with narrow-white seta-like scales filling punctures. Scutellum small, sub-circular, clavate and almost denuded.

Elytra piceous, oblong, parallel upto much beyond middle, wider at shoulders than base of prothorax, with shoulders sub-rounded, gradually declivous posteriorly, with lateral areas near apices impressed and each apex shortly acuminate ; striae narrow, with shallow rounded and closely set punctures ; intervals broad, somewhat convex ; vestiture consisting of white and golden scales, narrow white scales filling strial punctures, with sutural interval and stria 1 densely pubescent with white spathulate scales dispersed in small irregular patches. Legs piceous, densely covered with white scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with dense dark brown bristles ; tarsi densely squamose ; hind tarsus with first joint longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a broadly-ovate snowy-white scale. Abdominal sternites piceous, punctate, densely covered with broadly-ovate and small white scales.

Aedeagus straight, sinuate at apex, exophallic valve partly coming out of it ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, phallobasic apodeme slightly longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with tubercles and papillae. Gastral spiculum thick ; lateral arms short ; median arm thick, curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Female body : 7.5 mm ; rostrum : 0.7 mm.

Breadth

Female body : 2.5 mm ; rostrum : 0.5 mm.

Holotype.—Female ; South India, Kodaikanal ; 1886 ; J. Castcts. Holotype in British Museum (N.H.), London.

Genus 25. **Parascaphus** Marshall

1944. *Parascaphus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 435, 445.

Frons on level with eyes ; eyes flat, ovate, rather acuminate below. Rostrum distinctly longer than broad, dilated at genae, with upper and lower surfaces parallel ; dorso-lateral carinae gradually diverging anteriorly, then curving inwards at apex ; lateral areas without oblique carinae ; epistome very short, almost vertical, forming a wide angle behind ; scrobes nearly parallel sided ; mentum with two setae. Antennae squamose ; scape cylindrical, gradually clavate ; funicle with joint 1 equal to or longer than 2. Prothorax as long as broad, rounded laterally, with base truncate and only slightly wider than apex, with ocular lobes well-developed. Scutellum very small, slightly elevated. Elytra broadly ovate, widest behind middle, with obliquely prominent shoulders. Legs with short and sharp femoral teeth ; tibiae mucronate, corbels of hind tibiae open. Aedeagus somewhat curved, broadly triangular at apex, without an exophallic valve and with a pair of endophallic plates at apex. Female genitalia with bursa copulatrix moderately developed ; spermatheca with collum lying at right angle to ramus or somewhat curved.

Type species.—*Phytoscaphus dissimilis* Marshall.

Distribution.—INDIA, BURMA.

Key to the species of genus **Parascaphus** Marshall

1. Setae on elytral intervals short, broad, recumbent or sub-recumbent	2
—Setae on elytral intervals narrow, long, erect or sub-erect	3
2. Prothorax about as long as broad, cylindri- cal ; frons broader than length of an eye	<i>globoicollis</i> sp. nov.
—Prothorax broader than long ; frons narrower than length of an eye	<i>tergalis</i> sp. nov.
3. Funicle with joint 1 longer than 2	4
—Funicle with joint 1 equal to 2	6

4. Prothorax rugosely punctate	<i>vittacollis</i> sp. nov.	
—Prothorax not rugosely punctate		5
5. Ground colour fuscus ; elytra with setae on intervals thin and sparse	<i>dalbergiae</i> sp. nov.	
—Ground colour testaceous ; elytra with setae on intervals relatively thicker and spathulate	<i>debilis</i> sp. nov.	
6. Scaling on body dominantly dirty white, giving ashy white appearance	<i>orthoscapus</i> sp. nov.	
—Scaling on body dominantly pale with blackish areas		7
7. Elytral intervals with setae pale and spathulate	<i>albosetosus</i> sp. nov.	
—Elytral intervals with setae light brownish, thinner, with truncate ends	<i>.quadriscutellatus</i> sp. nov.	

96. *Parascaphus gobicollis* sp. nov.
(Fig. 205)

Frons piceous, somewhat higher than upper margins of eyes, as wide as space between antennae, covered with recumbent yellowish scales ; central fovea small, deep, almost concealed by scales ; eyes small, fuscus, almost flat. Rostrum piceous, much longer than broad, running parallel from base to antennal insertion and then dilated at apex ; dorsal area somewhat depressed behind antennae, covered with yellowish scales and few spathulate sub-recumbent seta-like scales ; central carina almost on same level as dorso-lateral carinae ; epistome short, declivous anteriorly, with hind margins carinate and forming obtuse angle ; scrobes ovate, not incurved ; mentum with two setae. Antennae piceous, squamose ; scape sub-cylindrical, gradually clavate, covered with yellowish recumbent setae ; funicle with joint 1 equal to 2, 3 to 7 about as long as broad ; club fusiform, finely pubescent.

Prothorax piceous, as long as broad, with well-developed ocular lobes and short vibrissae ; pronotum laterally rounded, transversely and longitudinally convex, with apex truncate and base bisinuate, punctate ; vestiture consisting of grey and yellowish recumbent scales, with spathulate yellowish setae filling punctures. Scutellum very small and covered with appressed scales.

Elytra piceous, parallel from shoulders to beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded ; striae narrow, with closely set large punctures ; intervals broad ; vestiture consisting of brownish and yellowish scales, with whitish sub-recumbent setae filling punctures, intervals with yellowish spathulate seta-like scales. Legs piceous and densely covered with greyish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae beset with dense brownish bristles ; corbels of hind tibiae open ; tarsi with joint 1 equal to 2 and third bilobed joint spongy beneath ; claws free. Thoracic sterna piceous, punctate, each puncture with sub-recumbent greyish setae. Abdominal sternites piceous, covered with greyish spathulate seta-like scales.

Male genitalia not studied. Bursa copulatrix moderately developed ; ventral spiculum spathulate at apex. Spermatheca with cornu pointed at apex, collum curved towards ramus.

Measurements.—

Length

Male body : 3.4 mm ; rostrum : 0.4 mm.

Female body : 3.3 mm ; rostrum : 0.4 mm.

Breadth

Male body : 1.2 mm ; rostrum : 0.2 mm.

Female body : 1.3 mm ; rostrum : 0.2 mm.

Holotype.—Male : India ; Bihar, Pusa ; 21. VIII. 1915 ; U. Bahadur. *Paratypes* : Females 3, Male 1, same data as for holotype. Material in British Museum (N.H.), London.

97. ***Parascaphus tergalis* sp. nov.**
(Fig. 206)

Frons brunneus, narrower than length of an eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate and few spathulate whitish scales ; central fovea small and circular but

concealed by dense scales ; eyes black, broadly-ovate, slightly bulging. Rostrum brunneus, much longer than broad, with sides divergent ; dorsal area depressed behind antennae, covered with scales as on frons, area behind epistome impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae almost parallel upto antennal insertion and divergent thereafter ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with dense whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long, with dense white scales ; scape short, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 almost as long as 2, 3 to 7 longer than broad and barrel-shaped ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderately developed ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at base, laterally rounded, with apex truncate and base bisinuate ; vestiture consisting of uniform scaling of dense broadly-ovate whitish and fuscus mixed with few spathulate whitish scales, without any distinct pattern. Scutellum small, longer than broad, pubescent.

Elytra piceous, oblong, parallel upto little beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 slightly impressed at shoulders ; elytral vestiture consisting of broadly-ovate whitish, brownish and fuscus scales in general, with a large almost ovate patch of fuscus scales at middle, with a row of closely set spathulate whitish scales on each interval, narrow white seta-like scales filling striae punctures. Legs brunneus, fairly densely covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense brunneus bristles ; tarsi squamose ; hind tarsus with first joint a little shorter than 2 and 3 together. Thoracic sterna brunneus, punctate and each puncture with a whitish scale. Abdominal sternites brunneus, punctate, covered with dense broadly-ovate and few spathulate whitish scales.

Male genitalia not studied. Bursa copulatrix well-developed ; ventral spiculum long and somewhat curved ; spermatheca with cornu pointed at apex, collum curved towards ramus.

Measurements.—

Length

Female body : 4.1 mm ; rostrum : 0.5 mm.

Breadth

Female body : 1.4 mm ; rostrum : 0.3 mm.

Holotype.—Female ; Burma ; Amherst, Kawkareik ; 20.XI. 1911. Holotype in British Museum (N.H.), London.

98. ***Parascaphus vittacollis*** sp. nov.
(Figs. 71, 207)

Frons brown, almost as broad as dorsal area of rostrum, lying a little above upper margins of eyes, flat, completely covered with dark-brown scales and long sub-erect setae, with central fovea concealed by scales ; eyes shining black, large, sub-ovate and flat. Rostrum brown, distinctly longer than broad, running parallel from base to scrobes and then dilated at apex ; dorsal area impressed throughout, densely covered with interspersed green and brown scales and some erect broad setae, with interantennal area bare ; central carina fine, complete, bare in apical one-third ; dorso-lateral carinae squamose, diverging apically and converging behind ; epistome short, sharply carinate ; lateral areas squamose, each with a deep longitudinal stria from lower angle of scrobe to eye ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae. Antennae moderately long, fuscus ; scape gradually clavate, curved, subcylindrical, passing anterior margin of prothorax, clothed with dark-brown and greenish scales and stiff erect setae ; funicle with joints 1 and 2 subequal, 3-7 subequal, covered with greenish and brownish scales and each with a whorl of stiff erect setae ; club globular, finely and uniformly pubescent.

Prothorax brown, as long as broad, very narrowly rounded, of equal width at base and apex ; anterior margin extended on to head, with well-developed ocular lobes and a few vibrissae ; dorsal surface rugosely punctate and each puncture with a long erect seta, with punctures not concealed by dark-brown scales ; basal margin gently bisinuate. Scutellum small, brown, rectangular with anterior margin rounded, densely clothed with brownish and greenish scales.

Elytra brown, almost parallel from base to behind middle, then strongly narrowing towards apex, with apices separately rounded and shortly acuminate, much wider at shoulders than base of prothorax, with shoulders very prominent and roundly rectangular ; striae narrow, formed by deep punctures and each puncture with a minute seta, with punctures partially concealed by scales ; intervals broad, somewhat convex, covered with confluent patches of greenish and dark-brown scales, each interval with a row of erect long setae. Legs brown, densely covered with brownish and greenish scales and short pale setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a conspicuous tooth ; tibiae with anterior and middle pairs dentate internally, apical end of each tibia with a fringe of black bristles and mucro, corbels of hind tibiae open ; tarsi densely setose, hind tarsus with first joint 1.5 times longer than second, third bilobed joint longer than second and spongy beneath ; claws free and long. Thoracic sterna brownish, covered with pale scales and short setae. Abdominal sternites brownish, punctate and each puncture with a recumbent seta, covered with pale scales and setae.

Aedeagus somewhat curved, broadly triangular and pointed at apex, without an exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme sub-apical, with weakly sclerotized orificial plates ; aedeagal apodemes 1.3 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus ; endophallus partly lying between aedeagal apodemes, beset with dense rows of setae in basal half and a cluster of setae near apex, remainder marked with small papillae, having a pair of plates at apex. Bursa copulatrix moderately developed ; ventral spiculum thin, spatulate at apex. Spermatheca with cornu pointed at apex, collum curved towards ramus.

Measurements.—*Length*

Male body : 3.6 to 4.1 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 3.6 to 4.1 mm ; rostrum : 0.7 to 0.8 mm.

Breadth

Male body : 1.2 to 1.3 mm ; rostrum : 0.4 to 0.5 mm.

Female body : 1.4 to 1.5 mm ; rostrum : 0.4 to 0.5 mm.

Source.—Grass

Holotype.—Male ; India : Assam, Jorhat ; 25, IV 1979 ; H. R. Pajni. *Paratype* : Female ; same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

99. ***Parascaphus dalbergiae* sp. nov.**
(Figs. 72a, 72b)

Frons piceous, narrower than length of an eye, slightly elevated than upper margins of eyes, covered with broadly-ovate white scales and few fuscous scales along with sparsely dispersed whitish spathulate scales ; central fovea small and circular ; eyes black, ovate, almost flat. Rostrum black, much longer than broad, parallel upto antennal insertion ; dorsal area slightly depressed behind antennae, covered with scales as on frons, with area behind epistome impressed, with central carina a little lower than dorso-laterals ; dorso-lateral carinae divergent ; epistome short, steeply declivous anteriorly ; lateral areas dull, covered with dense whitish scales ; each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, covered with dense narrow whitish scales ; scape cylindrical, slightly curved, gradually clavate ; funicle with joint 1 a little longer than 2, 3 to 7 much longer than broad ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderate ocular lobes and many vibrissae. Pronotum piceous, transversely and longitudinally convex, laterally rounded and widest at middle, with apex truncate and base bisinuate ; vestiture consisting of dense broadly-ovate whitish scales and few spathulate whitish scales, with a distinct

longitudinal stripe of fuscus scales in middle of dorsum running from apex to base, its lateral sides covered with dense whitish scales. Scutellum small, circular, covered with dense white scales.

Elytra ferrugineous, oblong, parallel upto little beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders ; vestiture consisting of dense broadly-ovate whitish scales with whitish spathulate scales present irregularly on intervals, small patches of fuscus scales scattered throughout, with minute seta-like whitish scales filling strial punctures. Legs ferrugineous, densely covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with brunneus bristles ; tarsi squamose ; hind tarsus with first joint a little shorter than 2 and 3 together. Thoracic sterna ferrugineous, punctate and each puncture with a whitish scale. Abdominal sternites ferrugineous, punctate, covered with dense broadly-ovate whitish scales.

Aedeagus somewhat curved, broadly triangular and pointed at apex, without an exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme sub-apical, with weakly sclerotized orificial plates ; aedeagal apodemes about 1.5 times as long as aedeagus, gradually thickened from base to apex ; phallobase ring-shaped, with phallobasic apodeme slightly longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with spines and papillae, having pair of curved plates at apex ; gastral spiculum thick, lateral arms short, median arms thick and curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 3.4 mm ; rostrum : 0.4 mm.

Female body : 3.5 mm ; rostrum : 0.6 mm.

Breadth

Male body : 1.8 mm ; rostrum : 0.2 mm.

Female body : 1.6 mm ; rostrum : 0.3 mm.

Holotype.—Male : India ; Uttar Pradesh, Siwaliks ; 25. III. 1921 ; C.F.C. Beeson. *Paratype* : Female 1, same data as for holotype. Material in British Museum (N.H.), London.

100. ***Parascaphus debilis* sp. nov.**
(Figs. 73a, 73b)

Frons ferrugineous, narrower than length of an eye ; slightly elevated than upper margins of eyes, covered with dense broadly-ovate white scales and few narrow spathulate scales ; central fovea small, circular, almost concealed by dense scaling ; eyes black, broadly ovate, slightly convex. Rostrum ferrugineous, much longer than broad, parallel upto antennal insertion ; dorsal area depressed behind antennae, covered with dense white scales, area behind epistome impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae divergent ; epistome small, steeply declivous anteriorly ; lateral areas dull, covered with dense white scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long, with dense broadly-ovate and narrow white scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint/almost as long as 2, 3 to 7 transverse and barrel-shaped ; club fusiform, finely pubescent.

Prothorax longer than broad, with well-developed ocular lobes and short vibrissae. Pronotum ferrugineous, transversely and longitudinally convex, laterally rounded and widest at middle, with apex truncate and base bisinuate ; vestiture consisting of dense uniform scaling of broadly-ovate and spathulate white scales, without forming any distinct pattern. Scutellum small, a little longer than broad, pubescent.

Elytra ferrugineous, oblong, parallel upto little beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with deep and closely set

punctures ; intervals broad, somewhat convex in apical half ; elytral vestiture consisting of uniform scaling of white scales, a row of white spathulate scales on each interval with few irregularly distributed patches of fuscus scales, short seta-like whitish scales filling striae punctures. Legs ferrugineous, densely covered with white scales ; procoxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense dark brown bristles ; tarsi squamose ; hind tarsus with first segment a little longer than 2 and 3 together. Thoracic sterna ferrugineous, punctate and each puncture with a white scale, punctation concealed by dense scales. Abdominal sternites ferrugineous, punctate, covered with dense white scales.

Aedeagus somewhat curved, without an exophallic valve ; phallosome somewhat sub-apical, with weakly sclerotized orificial plates ; aedeagal apodemes 2 times longer than aedeagus ; phallosome ring-shaped, phallosomic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, with pair of endophallic plates at apex, beset with rows of tubercles and papillae. Gastral spiculum long and thick, lateral arms short and median arm well-developed, curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 4.1 mm ; rostrum : 0.4 mm.

Female body : 4.5 mm ; rostrum : 0.4 mm.

Breadth

Male body : 1.8 mm ; rostrum : 0.2 mm.

Female body : 2.0 mm ; rostrum : 0.2 mm.

Holotype.—Male ; Burma ; N. Torungoo, Pyonchaung ; 21.V 1918 ; C.F.C. Beeson. *Paratype* : Female 1, Bangladesh, Sylhet, Bowring. Material in British Museum (N.H.), London.

101. ***Parascaphus orthoscapus*** sp. nov.

(Figs. 74, 208)

Frons fuscus, almost as broad as dorsal area of rostrum, lying a little above upper margins of eyes, flat in front and somewhat

convex behind, completely covered with pale-brown and blackish scales and a few sub-erect pale setae ; central fovea shallow, elongated, concealed by scales ; eyes shining black, large, sub-ovate and almost flattened. Rostrum fuscus, longer than apical width, running parallel from base to scrobes, strongly dilated at apex ; dorsal area broadly impressed throughout, densely covered with brownish and pale scales and sub-erect pale setae, with interantennal area sparsely squamose ; central carina obsolete ; dorso-lateral carinae concealed by scales, diverging apically and very gradually converging behind ; epistome short, with margins sharply carinate and forming an obtuse angle behind, not exceeding level of insertion of antennae ; lateral areas each with a broad squamose costa running from scrobe straight to eye and deep transverse stria running above and below it ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae. Antennae moderately long, fuscus ; scape gradually clavate, sub-cylindrical, almost straight, just passing anterior margin of prothorax, clothed with bluish-green and pale scales and recumbent pale setae ; funicle with joint 1 slightly longer than 2, 3-6 subequal but shortest, 7 a little longer, furnished with progressively narrowing bluish-green scales and pale sub-recumbent setae, each joint with a distinct whorl of greenish sub-erect setae ; club fusco-piceous, as long as three apical funicular joints, finely and uniformly pubescent.

Prothorax fusco-piceous, transverse, widest near middle ; anterior margin straight with well-developed ocular lobes and short vibrissae ; surface flat, coarsely and largely punctate and each puncture with a small granule beset with a sub-erect brownish seta, covered with interspersed pale and brownish scales ; lateral sides narrowly rounded, as broad at apex as at gently bisinuate base. Scutellum small, fusco-piceous, rectangular with anterior margin rounded, densely clothed with pale scales.

Elytra fusco-piceous, oblong, convex, gradually narrowing from base to beyond middle and then strongly narrowing towards apex, with apices jointly sinuate, much wider at shoulders than base of prothorax, with shoulders prominent and roundly rectangular ; striae narrow, formed by small close punctures concealed by scales ; intervals broad, somewhat convex, covered with irregular indistinct

patches of pale and brownish scales, each interval with a row of irregular truncate setae, becoming short on lateral intervals.

Legs fusco-piceous, densely covered with greyish pale scales and pale sub-recumbent setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short tooth ; tibiae with anterior pair having a row of spines on its inner apical half, apical end of each tibia with a fringe of fuscus bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.3 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free, short. Thoracic sterna piceous, completely covered with pale scales in middle and brownish scales laterally, punctate and each puncture with a fine seta, metasternum with a deep middle fovea in basal half. Abdominal sternites red-brown, densely squamose and finely setose.

Aedeagus somewhat curved, broadly triangular and pointed at apex, without an exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme subapical, with weakly sclerotized orificial plates ; aedeagal apodemes about 1.3 times as long as aedeagus, gradually thickened from base to apex ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus and broadened at apex ; endophallus lying between aedeagal apodemes, beset with very dense rows of setae in basal three-fourth and a cluster of setae near apex, remainder covered with small papillae, having a pair of curved plates at apex. Bursa copulatrix well-developed, with a pair of sclerotized plates at apex ; ventral spiculum curved and long. Spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Body : 4.6 to 5.2 mm ; rostrum : 0.7 to 0.8 mm.

Breadth

Body : 1.7 to 1.9 mm ; rostrum : 0.5 to 0.6 mm.

Source.—*Dalbergia sissoo*.

Holotype.—Female ; India ; Uttar Pradesh, Lohara ; 7.VII. 1978, C. S. Sidhu. *Paratypes* : Male 1, Females : 2 ; Chandigarh ; 22.VIII 1977 ; H. R. Pajni. Material in Zoology Department, Panjab University, Chandigarh.

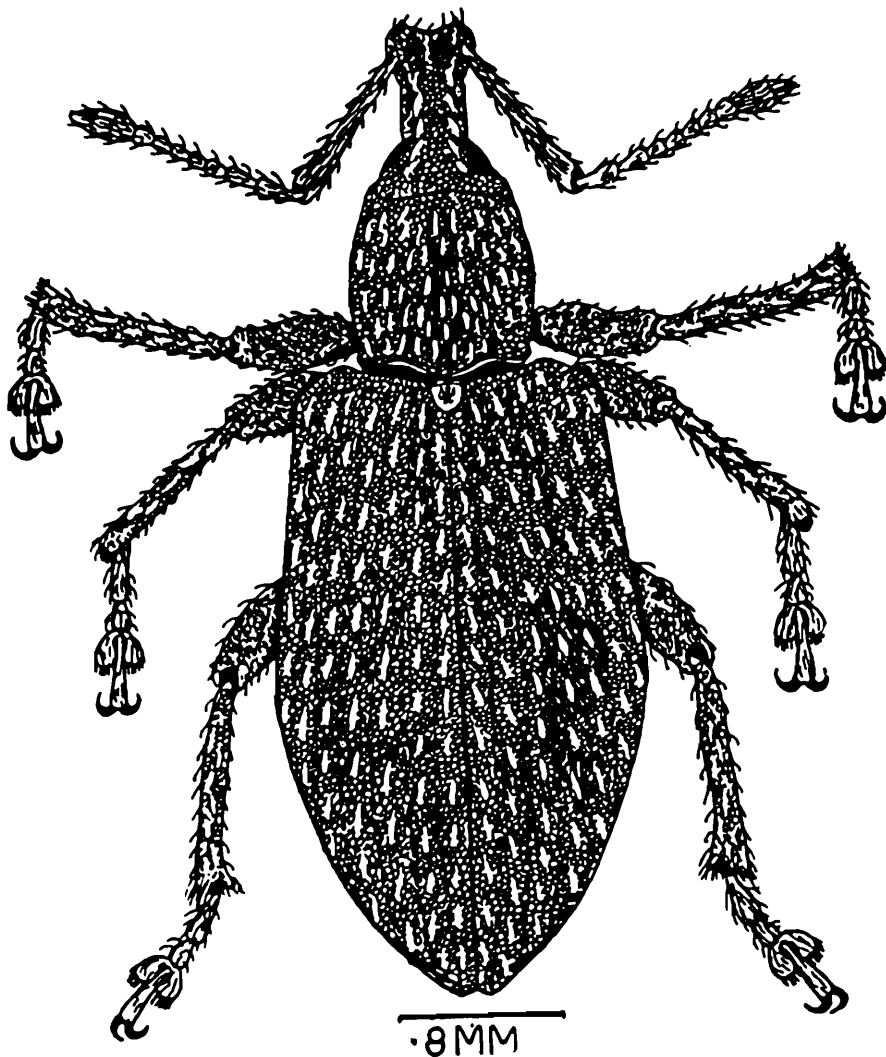
102. ***Parascaphus albosetosus* sp. nov.**
(Fig. 209)

Frons red-brown, a little broader than dorsal area of rostrum, lying a little above upper margins of eyes, flat, completely covered with overlapping pale-brownish scales and few broad pale setae, with an elongated shallow central fovea concealed by scales ; eyes piceous, large, sub-ovate and flattened. Rostrum red-brown, much longer than broad, gradually widening from base to scrobes and then dilated at apex ; dorsal area narrow, broadly impressed throughout, densely covered with pale-brownish scales and a few pale erect setae, with inter-antennal area having sparse scales, without lateral processes ; dorso-lateral carinae feeble, covered with scales, diverging apically and parallel behind ; lateral sides each with a broad squamose costa running from scrobe straight to eye and a deep squamose stria above and below it ; epistome short, sloping anteriorly, with margins sharply carinate, forming behind a wide angle not extending beyond level of insertion of antennae ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae, with a transverse furrow at base. Antennae moderately long ; scape brown, clavate, cylindrical, passing anterior margin of prothorax, clothed with pale-green narrow scales and sub-recumbent setae ; funicle fuscus, with joint 1 longer than 2, 3 to 6 subequal, 7 a little longer but as long as broad, all joints furnished with pale-green narrow scales alongwith a whorl of sub-erect setae ; club blackish, fusiform, finely and uniformly pubescent.

Prothorax reddish-brown, as long as broad, widest at middle ; anterior margin straight with well-developed ocular lobes and short vibrissae ; dorsal surface longitudinally and transversely convex, coarsely and largely punctate, each interspace with a short erect pale seta ; surface clothed with alternate stripes of brownish and pale setae, with central brownish stripe broad in middle and narrowing at base and apex ; lateral sides feebly rounded, slightly

narrower at apex than at feebly bisinuate base. Scutellum small, testaceous, rectangular with anterior margin rounded, clothed with pale scales.

Elytra testaceous, oblong, gradually narrowing from shoulders to beyond middle, strongly narrowing towards apex, with apices separately rounded, much wider at shoulders than base of prothorax, with shoulders very prominent and roundly rectangular; striae narrow, formed by shallow and elongated punctures and each



Parascaphus albosetosus sp. nov.

puncture with a fine recumbent seta, with punctures almost concealed by scales; intervals broad, almost flat, covered with pale scales interspersed with brownish pale scales, with a row of moderately long sub-erect pale setae on each interval. Legs testaceous, densely covered with greenish-pale scales and short setae, with

fore-coxae contiguous and placed in middle of prosternum ; femora clavate, with a short tooth ; tibiae sinuate near base internally, middle and hind tibiae distinctly shorter than fore-tibiae, fore-tibiae and middle tibiae with a row of spines internally near apex, apical end of each tibia with a fringe of fuscus spines and a mucro, corbels of hind tibiae open ; tarsi densely setose, hind tarsus with first joint 1.5 times longer than second, third bilobed joint as long as second and spongy beneath ; claws free and short. Thoracic sterna testaceous, covered with greenish-pale rounded scales and short recumbent setae. Abdominal sternites testaceous, covered with greenish-pale rounded scales, punctate and each puncture with a short recumbent seta.

Male genitalia not studied. Bursa copulatrix with a pair of moderately sclerotized plates near apex ; ventral spiculum long and curved, broadened at apex. Spermatheca with cornu curved and pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Female body : 4.7 to 5.0 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Female body : 1.8 to 1.9 mm ; rostrum : 0.5. to 0.6 mm.

Holotype.—Female ; India ; U.P., Nainital ; 11.V 1930 ; B. M. Bhatia. *Paratypes* : Female 1. same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

103. ***Parascaphus quardiscutellatus* sp. nov.**

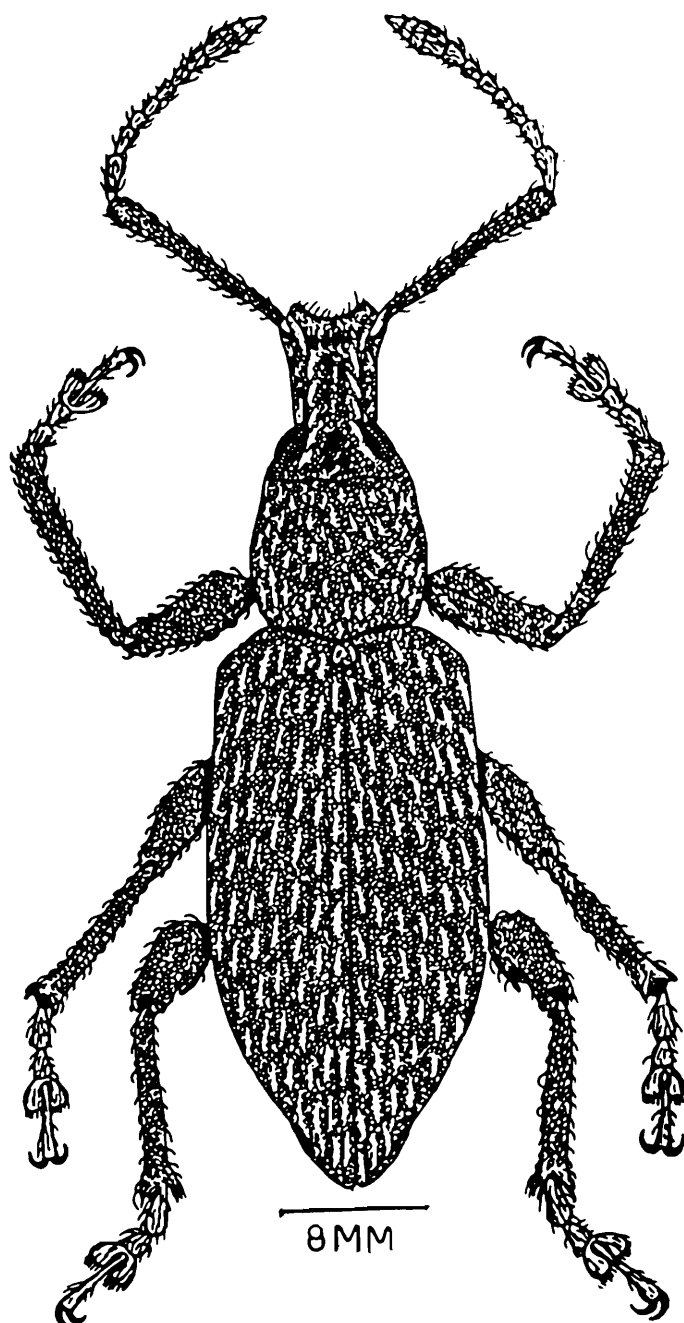
Frons dark-brown, almost as broad as dorsal area of rostrum, lying a little above upper margin of eyes, flat in front and somewhat convex behind, completely covered with brownish-pale scales and a few pale sub-erect setae, with an elongated shallow central fovea concealed by scales ; eyes piceous, large, sub-ovate and almost flattened. Rostrum dark-brown, longer than broad, running parallel from base to scrobes and then dilated at genae ; dorsal area comparatively broader, broadly impressed throughout,

densely covered with brownish-pale scales and some sub-recumbent pale setae, with inter-antennal area steeply and deeply impressed and having sparse scales, without lateral processes ; central carina fine, complete, bare in apical one-third ; dorso-lateral carinae distinct, covered with scales, diverging apically and gradually converging behind ; lateral areas each with a smooth squamose costa running from scrobe straight to eye and a deep longitudinal stria above and below it ; epistome short, steeply sloping anteriorly, with margins sharply carinate, forming an obtuse angle behind not extending beyond level of insertion of antennae ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae, with broad median tooth below these. Antennae moderately long ; scape fuscus, gradually clavate, sub-cylindrical, passing anterior margin of prothorax, clothed with brownish-green scales and pale sub-recumbent setae ; funicle fusco-piceous, with joint 1 longer 2, 3-6 sub-equal but shorter than 2, 7 nearly as long as 2, all joints covered with progressively narrowing greenish scales and a whorl of sub-recumbent setae ; club fusco-piceous, fusiform, finely and uniformly pubescent.

Prothorax dark-brown, transverse, widest at middle, with anterior margin straight with well-developed ocular lobes and a few short vibrissae laterally ; surface coarsely and largely punctate and each puncture with a moderately long sub-erect seta, with punctures concealed by dense scales forming indistinct pale and brownish alternate stripes, with a small rounded fovea behind middle on each side ; lateral sides feebly rounded, as broad at apex, as at gently bisinuate base. Scutellum small, fuscus, rectangular with anterior margin rounded, densely clothed with brownish-pale scales.

Elytra fuscus, oblong, convex, gradually narrowing from shoulders to beyond middle and then strongly narrowing towards apex, with apices separately rounded and shortly acuminate, much wider at shoulders than base of prothorax, with shoulders very prominent and roundly rectangular ; striae narrow, formed by deep and elongated punctures and each puncture with a fine recumbent seta, punctures not concealed by scales ; intervals broad, flat ; dorsal intervals covered with confluent patches of blackish-pale and brownish scales, lateral intervals with only pale scales, each

interval with a row of erect brown setae becoming short and pale on more lateral intervals. Legs brown, densely covered with brownish-green scales and short green setae ; fore-coxae contiguous, placed almost in middle of prosternum ; femora clavate, each



Parascaphus quadriscutellatus sp. nov.

with a short tooth ; tibiae with anterior pair shallowly sinuate internally near base, fore and middle tibiae with a row of spines internally on their apical halves, apical end of each tibia with a

fringe of black bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times longer than second, third bilobed joint as long as second and spongy beneath ; claws free and short. Thoracic sterna testaceous, covered with narrow pale scales in middle and brownish-pale rounded scales laterally, punctate and punctures with short fine setae ; metasternum with a small median fovea in basal half. Adbominal sternites testaceous, first and second visible sternites with pale, narrow scales in middle and brownish-pale rounded seales elsewhere, punctate and punctures with short sub-recumbent setae, apical segment with comparatively larger punctues and long setae.

Aedeagus somewhat curved, broadly triangular and pointed at apex, without exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme sub-apical, with weakly sclerotized orificial plates ; aedeagal apodemes as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of setae in basal four-fifth and cluster of tubercles near apex, with remainder covered with small papillae, having a pair of plates at apex. Bursa copulatrix moderately developed, with a pair of sclerotized plates near apex ; ventral spiculum long and broadened at apex. Spermatheca with cornu pointed at apex, collum lying at right angle to ramus.

Measurements.—

Length

Male body : 4.6 to 5.0 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 4.6 to 5.0 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 1.8 to 1.9 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 2.0 to 2.2 mm ; rostrum : 0.5 to 6.6 mm.

Source.—*Dalbergia sissoo*.

Holotype.—Female ; India ; Chandigarh ; 7.VII. 1978 ; H. R. Pajni. *Paratypes* : Males 2, Female 1, 3. IV 1977, H. R. Pajni. Material is Zoology Department, Panjab University, Chandigarh.

Genus 26. **Rhcnostomus** Marshall

1944. *Rhcnostomus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 435, 445.

Head with frons slightly higher than eyes ; eyes broadly ovate and almost flat. Rostrum as long as or longer than broad, much narrower at base than head, moderately dilated at apex ; dorso-lateral carinae somewhat obscured by scales, curving outwards at apex ; epistome rather indistinct, very short, forming behind a wide angle not exceeding even front margin of scrobes ; mentum with two setae. Antennae setose ; scape nearly straight, gradually clavate ; funicle with joint 1 equal to or longer than 2. Prothorax about as long as broad, not wider at the truncate or slightly arcuate base than apex, with ocular lobes moderate. Elytra sub-oblong, jointly rounded at apices ; more or less flattened on disc. Femora with teeth short and sharp ; corbels of hind tibiae open. Male genitalia with aedeagus somewhat curved and triangular at apex ; orificial plates weakly sclerotized ; phallobasic apodeme shorter than aedeagus ; endophallus with a pair of endophallic plates at apex. Female genitalia with bursa copulatrix moderately developed ; spermatheca with collum lying parallel to ramus.

Type species.—*Rhcnostomus terrenus* Marshall.

Distribution.—INDIA, BURMA.

Key to the species of genus **Rhcnostomus** Marshall

1. Width of frons equal to length of an eye, with median stria prominent ; funicle with joint 1 as long as 2, with distal joints as long as or slightly longer than broad *placidus* sp. nov.
- Width of frons much greater than length of an eye, with median stria weak : funicle with joint 1 nearly as long as 2 and 3 together, 3 to 7 transverse *.terrenus* Marshall

104. **Rhcnostomus placidus** sp. nov.

(Figs. 76a, 76b)

Frons ferrugineous, wider than length of an eye, slightly elevated than upper margins of eyes, covered with pale brown and whitish scales and a few sub-erect whitish spathulate seta-like scales, its

central fovea concealed by scales ; eyes black, broadly ovate, almost flat. Rostrum ferrugineous, a little longer than broad, narrowing slightly from base to scrobes and then dilated at apex ; dorsal area almost flat behind antennae, covered with pale-brown and whitish scales and a few spathulate whitish seta-like scales, with area behind epistome impressed ; central carina lower than dorso-laterals ; dorso-lateral carinae close together upto middle and divergent thereafter ; epistome short, steeply declivous anteriorly ; lateral areas shining, covered with dense white scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, with fairly dense narrow whitish scales ; scape cylindrical, slightly curved, gradually clavate ; funicle with joint 1 longer than 2, 3 to 7 transverse ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderate ocular lobes and long vibrissae. Pronotum ferrugineous, transversely and longitudinally convex, widest at middle, a little narrower at apex than at base, with lateral sides rounded, its anterior and basal margins sub-truncate ; vestiture consisting of general whitish and light brownish scales more dense on apical and basal margins, whitish seta-like spathulate scales filling punctures. Scutellum small, longer than broad, almost flat, covered with small snowy-white scales.

Elytra ferrugineous, oblong, parallel upto two-third of their length, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow and close punctures ; intervals broad, somewhat convex in apical half ; elytral vestiture comprising dull whitish and light-brownish scales, patches of dense snowy-white scales on shoulders, a row of sub-erect whitish seta-like scales on each interval, short seta-like whitish scales filling strial punctures. Legs ferrugineous, densely covered with whitish scales as well as white spathulate seta-like scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with fine shining white bristle-like scales ; tarsi squamose ; hind tarsus with first joint as long as 2 and 3 together. Thoracic sterna ferrugineous, punctate and each puncture with a whitish scale, with punctures almost concealed by whitish scales.

Abdominal sternites ferrugineous, punctate, covered with small broadly-ovate snow-white scales.

Aedeagus somewhat curved, pointed at apex, exophallic valve absent ; phallotreme sub-apical ; aedeagal apodemes as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of tubercles. Gastral spiculum long ; lateral arms short and broad ; median arms thick, curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Body : 3.5 mm ; rostrum : 0.4 mm.

Breadth

Body : 1.5 mm ; rostrum : 0.3 mm.

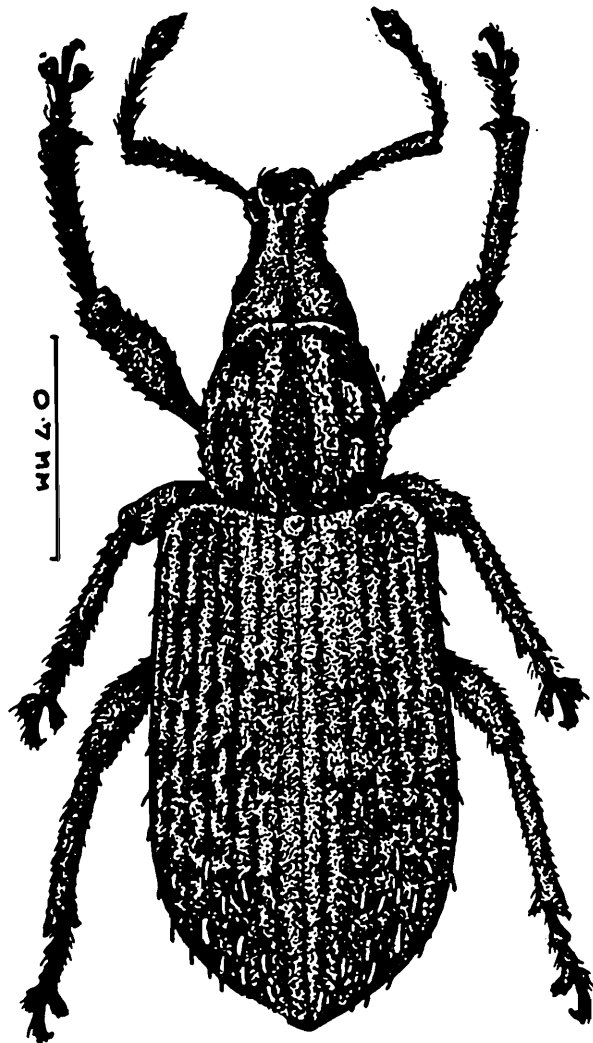
Holotype.—Male ; Burma ; 1949. Holotype in British Museum (N.H.), London.

105. ***Rhcnostomus terrenus* Marshall**
(Figs. 77, 211)

1944. *Rhcnostomus terrenus* Marshall, Ann. Mag. nat. Hist., (11) 11 ; 446.

Frons ferrugineous, much broader than dorsal area of rostrum, lying slightly higher than upper margins of eyes, flat, completely covered with pale-brown scales and a few sub-erect spathulate setae, with central fovea concealed by scales ; eyes piceous, broadly ovate, almost flat. Rostrum ferrugineous, a little longer than broad, narrowing slightly from base to scrobes and then moderately dilated at apex ; dorsal area quite flat behind antennae ; covered with dense pale-brown scales and a few sub-recumbent pale setae, with inter-antennal area impressed, with a few shining green scales and pale spathulate setae, with central carina fine and running throughout its length ; dorso-lateral carinae much feeble, somewhat obscured by scales, diverging both towards apex and base ; lateral areas each with a squamose costa running from scrobe straight to eye and a deep squamose sulcus above and below it ;

epistome rather indistinct, very short, steeply declivous anteriorly, forming behind a wide angle not exceeding even front margin of scrobes ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae, without any trace of median projection posteriorly. Antennae ferrugineous, short ; scape cylindrical, clavate, slightly passing anterior margin of prothorax, clothed with narrow greenish scales and recumbent pale setae ; funicle with joint 1 as long as 2 and 3 together, 3 to 7 transverse, all joints covered with progressively narrowing greenish scales and a whorl of sub-recumbent setae ; club fusiform finely pubescent.



Rhicnostomus terrenus Marshall

Prothorax ferrugineous, about as long as broad, widest behind middle ; anterior margin slightly sinuate in middle, with moderate ocular lobes and fine vibrissae laterally ; surface almost flat, with

close punctures and each puncture with a short spathulate recumbent seta, clothed with greyish brown scales with an indefinite dark stripe on each side and a similar stripe in middle ; lateral sides rounded, with a broad shallow constriction at apex, not wider at gently bisinuate base than the apex, Scutellum ferrugineous, small, sub-quadrate, slightly raised, densely squamose.

Elytra ferrugineous, sub-oblong, parallel for more than two-third of their length from roundly rectangular shoulders, narrowed towards apex, with apices jointly rounded, wider at shoulders than base of prothorax, with shoulders very prominent ; dorsal outline flat from base to beyond middle, steeply declivous at apex ; striae narrow, with shallow and sub-quadrate close punctures partly visible through scales and each puncture with a very fine seta ; intervals broad, almost flat, covered with uniform greyish-brown scales, each with a row of strap-like setae becoming longer and erect on declivity. Legs ferrugineous, densely covered with shining greenish-brown scales as well as short setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a sharp tooth ; tibiae slender, shallowly bisinuate internally, anterior and middle tibiae with a row of spines on their inner apical half, apical end of each tibia with a fringe of pale bristles and a nucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times longer than second, third bilobed joint almost as long as second and spongy beneath ; claws free and long. Thoracic sterna ferrugineous, covered with greyish-brown scales, punctate and each puncture with a small seta ; metasternum with a deep fovea in centre behind middle. Abdominal sternites ferrugineous, with greyish-brown scales, punctates each puncture with a short subrecumbent seta, with setae in apical segment comparatively longer and thinner.

Aedeagus somewhat curved, pointed and triangular at apex, without an exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme subapical, with weakly sclerotized orificial plates ; aedeagal apodemes as long as aedeagus, each spathulate at apex ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of setae partly in apical half and remainder covered with papillae and tubercles, having a pair of plates at

apex. Bursa copulatrix moderately developed ; ventral spiculum long and spatulate at apex. Spermatheca with cornu pointed at apex, collum lying parallel to ramus.

Measurements.—

Length

Male body : 4.1 to 4.4 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 4.1 to 4.4 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 1.3 to 1.5 mm ; rostrum : 0.6 to 0.8 mm.

Female body : 1.3 to 1.5 mm ; rostrum : 0.6 to 0.8 mm.

Source.—Grass.

Range.—India ; Punjab, Abohar ; Haryana, Hissar ; Assam, Torajan Forest ; Bihar, Pusa ; Bhutan, Mangaldai.

Holotype in British Museum (N.H.), London.

Genus 27. *Agrostes* Marshall

1944. *Agrostes* Marshall, Ann. Mag. nat. Hist., (11) 11 ; 447.

Frons slightly higher than upper level of eyes ; eyes rounded and almost flat. Rostrum continuous with frons, nearly as broad at base as head ; dorso-lateral carinae slightly curved outwards at apex ; lateral areas without oblique carinae ; epistome with carinate margin curved or forming an obtuse angle. Antennae slender, setose ; scape gradually clavate ; funicle with joint 2 longer than 1. Prothorax transverse, with ocular lobes well-developed ; scutellum bare. Elytra with roundly rectangular shoulders. Legs with femora shortly toothed ; corbels of hind tibiae enclosed.

Type species.— *Agrostes varisetis* Marshall

Distribution.—INDIA.

Key to the species of genus *Agrostes* Marshall

1. Rostrum as long as its apical width, parallel-sided in its basal half, only slightly dilated at genae ; dorsal area flat, with fine median carina ; ground colour black *varisetis* Marshall

Rostrum gradually narrowing from base to antennae, more dilated at genae ; dorsal area broadly depressed throughout, without any median carina ; ground colour brown *quadrinotatus* Marshall

106. *Agrostes varisetis* Marshall
(Figs. 78a, 78b, 212)

1944. *Agrostes varisetis* Marshall, Ann. Mag. nat Hist., (11) 11 : 447.

Frons fuscus, wider than length of eye, shallowly depressed anteriorly, slightly higher than upper margins of eye, covered with brown scales, with central fovea circular and almost concealed by scales ; rostrum fuscus, as long as its apical width, parallel sided in basal half, only slightly dilated at apex ; dorsal area flat, nearly as wide as frons, with fine median carinae, rather sparsely squamose ; epistome small, gradually declivous anteriorly, with hind margin carinate ; lateral areas shining ; scrobes broad, dorsal. Antennae piceous, long, densely squamose ; scape cylindrical, gradually clavate, covered with brown scales ; funicle with joint 2 longer than 1, all joints covered with brown setae ; club fusiform and pubescent.

Prothorax fuscus, transverse, with moderate ocular lobes and few short vibrissae, somewhat rounded laterally, widest behind middle, with broad shallow constriction at apex ; pronotum flat longitudinally in middle, densely punctate, with a rounded impression on each side near base, covered with brown recumbent scales and short brownish sub-recumbent seta-like scales. Scutellum small, piceous, oblong, shining and almost bare.

Elytra piceous, much broader at roundly rectangular shoulders than prothorax, dilated behind middle ; striae narrow, with closely

set punctures ; intervals broad, somewhat convex ; vestiture consisting of brown and white shining scales, short and recumbent setae becoming longer and suberect posterior to declivity, minute shining white sub-recumbent setae besetting striae. Legs fuscus, covered with brown scales and white setae ; fore-coxae contiguous ; femora clavate, each with a large triangular tooth ; tibiae compressed, clavate, covered with brown scales and spathulate pale setae, their apices beset with dense dark brown bristles ; corbels of hind tibiae enclosed ; tarsi squamose ; hind tarsus with joint 1 longer than 2, third bilobed joint spongy beneath. Thoracic sterna piceous, covered with sub-recumbent whitish setae. Abdominal sternites piceous, punctate, sparsely covered with brown sub-recumbent setae and pale spathulate seta-like scales.

Male genitalia not studied. Bursa copulatrix well-developed, weakly sclerotized ; spermetheca with cornu curved and pointed apex ; collum lying parallel to ramus.

Measurements.—

Length

Body : 7.8 mm ; rostrum : 0.9 mm.

Breadth

Body : 3.0 mm ; rostrum : 0.5 mm.

Range.— South India : Nilgiri Hills ; Coimbatore , Malabar. Material in British Museum (N.H.), London.

Holotype in British Museum (N.H.), London.

107. *Agrostes quadrinotatus* Marshall
(Figs. 79a, 79b, 223)

1944. *Agrostes quadrinotatus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 447.

Frons piceous, narrower than length of eye, a little higher than upper margins of eyes, covered with broadly-ovate spathulate greenish scales, with central fovea small and circular ; eyes black

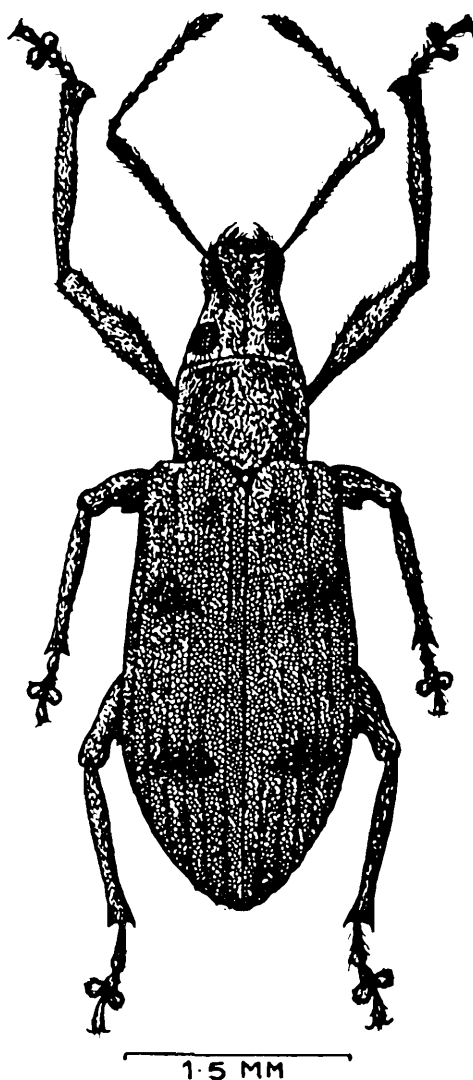
with golden tinge, ovate, convex. Rostrum piceous, much longer than broad, almost parallel sided ; dorsal area behind antennae slightly depressed, covered with broadly-ovate and spathulate greenish scales, with area behind epistome impressed, with dorsal carinae divergent from base to apex ; epistome small, gradually declivous anteriorly, with hind margin carinate and moderately acuminate ; lateral areas shining, covered with sparse narrow and broad greenish scales and few whitish scales, each with a narrow but shallow curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, densely squamose ; scape cylindrical, elongated, gradually clavate, covered moderately with recumbent white scales and sub-erect dark brown scales ; funicle with joint 1 twice as long as 3, 2 twice as long as 1, 3-7 much longer than broad, funnel-shaped ; club fusiform, fuscus finely pubescent.

Prothorax wider than long, with moderate ocular lobes and short vibrissae. Pronotum ferrugineous, transversely and longitudinally convex, widest at middle, with base deeply bisinuate and apex almost truncate, laterally rounded ; vestiture consisting of broadly-ovate greenish scales and short spathulate whitish scales with scales more dense in middle and lateral sides, two broad oblique longitudinal stripes in middle. Scutellum small, oblong, almost denuded and shining.

Elytra brown, oblong, sub-parallel upto little before middle, wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with apices separately acuminate ; striae narrow with deep closely set punctures ; intervals broad, somewhat convex ; vestiture consisting of uniform covering of dense broadly ovate greenish scales, few spathulate whitish scales, short narrow white scales in strial punctures, one denuded patch in apical and basal half of each elytron. Legs ferrugineous, moderately covered with greenish and whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a small spiny tooth ; tibiae with their apices beset with dense dark brown bristles ; tarsi squamose, hind tarsus with first joint longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a greenish or whitish scale. Abdominal sternites piceous, punctate, sparsely covered with

broadly-ovate greenish and few whitish scales, with middle almost denuded.

Aedeagus straight, somewhat sinuate at apex, with exophallic valve partly coming out ; phallotreme sub-apical ; aedeagal



Agrostes quadrinotatus Marshall

apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme slightly longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of tubercles and few papillae, with pair of plates at apex. Gastral spiculum thick ; lateral arms short and broad ; median arms long

and thick, with curved and pointed apex. Bursa copulatrix well-developed, with wall folded ; spermatheca with cornu curved and pointed, collum lying parallel to ramus.

Measurements.—

Length

Male body : 5.1 mm ; rostrum : 0.6 mm.

Female body : 5.6 mm ; rostrum : 0.5 mm.

Breadth

Male body : 1.9 mm ; rostrum : 0.3 mm.

Female body : 2.3 mm ; rostrum : 0.3 mm.

Range.— South India : Nilgiri Hills.

Holotype in British Museum (N.H.), London.

Genus 28. **Phylladobius** Marshall

1944. *Phylladobius* Marshall, Ann. Mag. nat. Hist., (11) 11 : 449.

Frons continuous with the rostrum and almost on a level with eyes ; eyes are more or less convex. Rostrum not longer than broad, rather strongly dilated at the genae ; dorso-lateral carinae rapidly curving outwards at apex ; lateral areas without any oblique carina ; epistome with carinate hind margin forming a broad curve or almost transverse ; mentum with two setae. Antennae slender, elongate, setose ; scape sub-cylindrical, only slightly and gradually clavate ; funicle with joint 2 longer than 1, distal joints elongate. Prothorax transverse, with apex not or but slightly narrower than truncate or feebly bisinuate base, postocular lobes distinct. Elytra much wider at roundly rectangular shoulders than prothorax, jointly rounded at apex. Legs with a small femoral tooth ; front tibiae not sinuate at base, the corbles of hind pair with a bare inner carina.

Types species.— *Phylladobius herbeus*, Marshall.

Distribution.— India, Burma, Malaya.

Key to the species of genus *Phylladobius* Marshall

1. Hind margin of epistome transverse, not wider than scrobes ; rostrum without any carinae adjoining dorso-laterals *segnis* sp. nov.
- Hind margin of epistome forming broad curve, about twice as wide as scrobe ; rostrum with fine carinae adjoining dorso-lateral carinae externally *brunneus* sp. nov.

108. *Phylladobius segnis* sp. nov.
(Fig. 214)

Frons piceous, much narrower than length of an eye, a little elevated than upper margins of eyes, densely covered with broadly-ovate bright light-green and whitish scales and few whitish spathulate scales ; central fovea small, circular, concealed by scales ; eyes black, sub-circular, strongly bulging. Rostrum piceous, much longer than broad, sides convergent ; dorsal area moderately depressed behind antennae, covered with similar scales as on frons, with area behind epistome moderately impressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae parallel upto antennal insertion and sharply divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and obtuse ; lateral areas shining, moderately covered with scales as on frons, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eyes, with lower sulcus not prominent. Antennae brunneus, long, moderately squamose ; scape cylindrical, strongly curved, gradually clavate, covered with narrow recumbent and sub-erect whitish scales ; funicle with joint 1 much shorter than 2, 3 to 7 much longer than broad, with all joints covered with narrow dense whitish scales ; club fusiform, finely pubescent.

Prothorax longer than broad, with ocular lobes not well-developed and vibrissae short and few. Pronotum black, transversely and longitudinally convex, widest at middle, with base strongly bisinuate and apex almost truncate, laterally rounded, with shallow rounded depressions sub-laterally near base one on each side, with

basal ends of sub-lateral sides carinulate, with lateral angles impressed ; vestiture consisting of bright light green broadly-ovate and spathulate scales. Scutellum small, circular, covered with light green scales.

Elytra black, oblong, parallel upto little beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices not impressed and each apex shortly acuminate ; striae narrow, with shallowly rounded and closely set punctures ; intervals broad, convex, with intervals at humeral parts slightly impressed and intervals 2 to 4 little elevated near base ; vestiture consisting of light greenish broadly-ovate and spathulate scales, narrow whitish scales filling striae punctures. Legs black, moderately covered with greenish and whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with short spiny tooth ; tibiae with their apices beset with dense brunneous bristles ; tarsi squamose, hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a pale greenish scale. Abdominal sternites piceous, densely covered with broadly-ovate and few spathulate pale greenish scales.

Male genitalia not studied. Bursa copulatrix well-developed ; ventrale spiculum long and thick. Spermatheca with cornu curved and pointed at apex ; collum bent at right angle in middle ; ramus lying parallel to collum and weakly developed.

Measurements.—

Length

Body : 4.5 mm ; rostrum : 0.6 mm.

Breadth

Body : 1.8 mm ; rostrum : 0.3 mm.

Holotype.— Female ; Burma ; Doherty. In British Museum (N.H.), London.

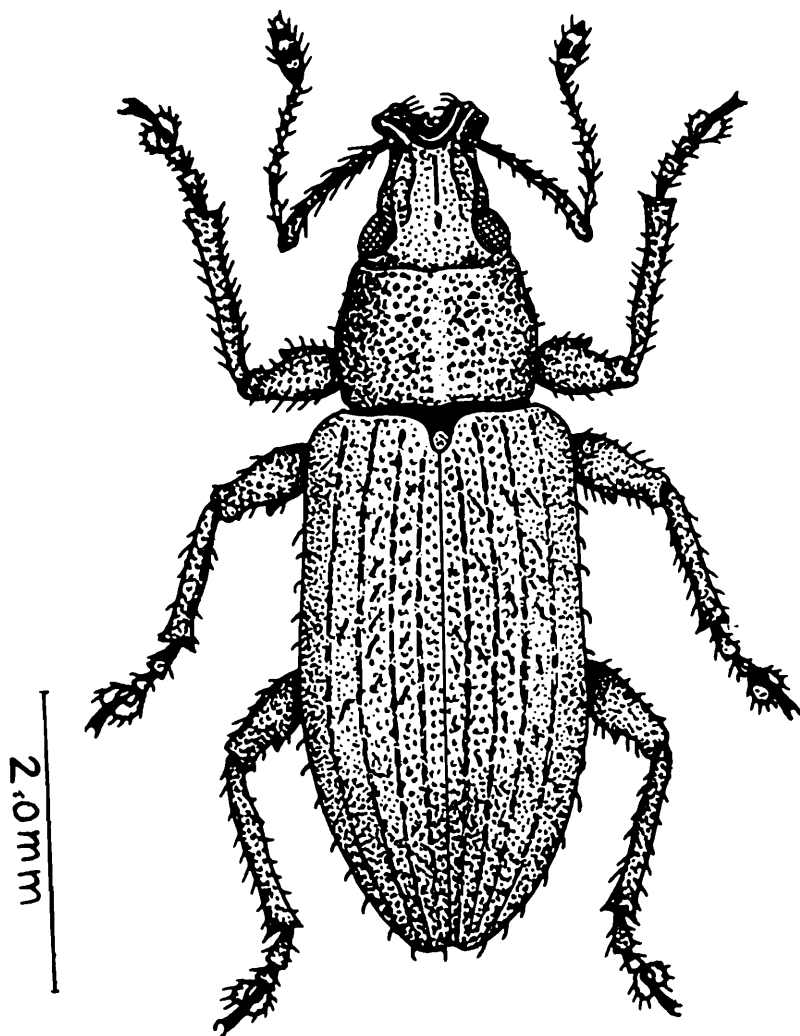
109. **Phylladobius brunneus** sp. nov.
(Figs. 80a, 80b)

Frons brunneus, a little narrower than length of an eye, a little elevated than upper margins of eyes, covered with dense broadly-ovate white and cupreous scales ; central fovea small, circular, almost concealed by scales ; eyes black, sub-circular, slightly convex. Rostrum piceous, much longer than broad, with sides almost parallel ; dorsal area moderately depressed behind antennae, covered with similar scales as on frons, with area behind epistome moderately impressed, with central carina almost on level with dorso-laterals anteriorly but lower posteriorly ; dorso-lateral carinae sub-parallel upto antennal insertion and sharply divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and obtuse ; lateral areas shining, sparsely covered with whitish scales, each with a broad shallow curved sulcus running from upper angle of scrobe to upper margin of eye and a similar sulcus below running from lower angle of scrobe to lower margin of eye. Antennae brunneus, long, moderately squamose ; scape cylindrical, strongly curved, gradually clavate, covered with recumbent and sub-erect whitish scales ; funicle with joint 1 little shorter than 2, 3 to 7 much longer than broad, all joints profusely covered with whitish and brunneus scales.

Prothorax almost as long as broad, with ocular lobes well-developed and vibrissae short but many. Pronotum brunneus, transversely and longitudinally convex, widest at middle, with base shallowly bisinuate and apex almost truncate, laterally rounded, with two rounded depressions on each sub-lateral side in basal half, with lateral angles impressed ; vestiture consisting of broadly ovate white and cupreous scales and few spathulate whitish scales, with small patches of snowy-white scales on depressions and at middle of base. Scutellum, small, sub-circular, covered with dense snowy-white scales.

Elytra brunneus, oblong, parallel upto a little beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices not impressed and each apex shortly acuminate ; striae narrow, with shallowly rounded and closely set punctures ; inter-

vals broad, convex, with intervals at humeral part slightly impressed, with basal part of intervals 3 and 4 highly elevated ; vestiture consisting of mixed dense broadly-ovate white and cupreous scales, few sub-erect whitish spathulate scales scattered irregularly on all intervals, large irregular patches of snowy-white scales in apical half of each elytron, with narrow whitish scales



Phylladobius brunneus sp. nov.

filling striae punctures. Legs brunneus, moderately covered with white scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny-tooth ; tibiae with apices beset with dense brunneus bristles ; tarsi squamose ; hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a white scale. Abdominal sternites brunneus, punctate, densely

covered with broadly-ovate white scales and few spathulate white scales.

Aedeagus straight, bilobed at apex, with exophallic valve coming out of it ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, curved at apex ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with tubercles and with group of papillae at base, with rod lying in apical half. Gastral spiculum with lateral arms short ; median arm curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Body : 5.8 mm ; rostrum : 0.5 mm.

Breadth

Body : 2.0 ; rostrum : 0.3 mm

Holotype.—Male ; India ; Coorg, Ammatti; V 1951 ; P. S. Nathan. In British Museum (N.H.), London.

29. Pseudphytoscapus Gen. nov.

Head with frons somewhat broader than dorsal area of rostrum , eyes large, flattened. Rostrum twice as long as broad, dilated at apex, inter-antennal area bifoveate, central carina feeble and present only in bifoveate area ; epistome very short, its hind angle obtuse ; scrobes narrow, curving inwards ; mentum with two setae. Antenna with scape clavate ; funicle with joint 1 longer than 2. Prothorax almost as long as broad, ocular lobes well-developed. Scutellum almost rounded. Elytra oblong-ovate, shoulders obtuse, not prominent. Legs with tibiae bisinuate internally, corbels of hind pair open. Ventral surface of body covered with green scales. Male genitalia with aedeagus somewhat curved, triangular and pointed at apex, without any exophallic valve or orificial plates ; phallobasic apodeme shorter than aedeagus. Female genitalia

with bursa copulatrix moderately developed, collum and ramus lying parallel to each other.

Type species.—*Phytoscaphus nubilus* Fst.

Distribution.—INDIA, BURMA.

Remarks.—Four of the species in this study fall between the genera *Phytoscaphus* and *Parascaphus*, and appear to belong to a distinct natural group. Accordingly a new genus, *Pseudphytoscapus*, has been proposed with *Phytoscaphus nubilus* Fst. as its type species. The genus agrees with *Phytoscaphus* in dorso-lateral carinae not curving inwards at apex, and in the prothorax being distinctly broader at base than at apex. But it shows differences from the same in having the first funicular joint longer than second, and in showing corbels of hind tibiae open, in addition to several other variations. Moreover, the structure of the aedeagus is very different from that of the *Phytoscaphus* and in fact is similar to that of *Parascaphus*.

Key to the species of genus *Pseudphytoscapus* Gen. nov.

1. Elytra with single row of setae on each interval	2
—Elytra with more than one rows of setae on each interval	4
2. Intervals of elytra with setae sub-recumbent	<i>annuloscutellus</i> sp. nov.
—Intervals of elytra with setae erect or sub-erect	3
3. Elytra with setae on intervals long, thin and erect	<i>bovei</i> sp. nov.
—Elytra with setae on intervals short, spatulate and sub-erect	<i>nubilus</i> (Faust.)
4. Dorsal surface of pronotum with longitudinal stripes of dark-brown scales ; club globular, acuminate at apex ; setae on intervals erect	<i>shillongensis</i> sp. nov.
Dorsal surface of pronotum unicolourous, without any longitudinal stripes ; club fusiform ; setae on intervals sub-recumbent	<i>manoji</i> sp. nov.

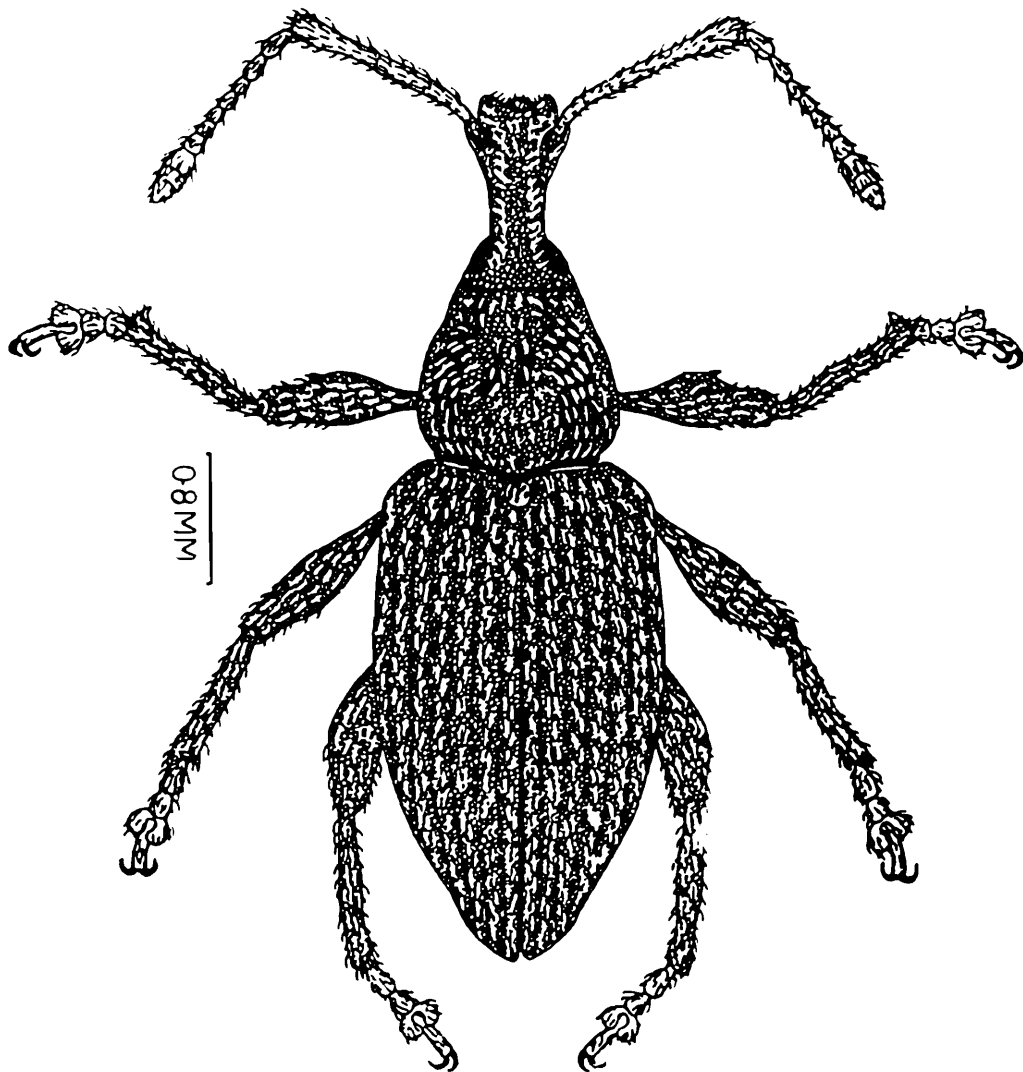
110. *Pseudphytoscapus annuloscutellus* sp. nov.
(Figs. 81, 215)

Frons brown, somewhat broader than dorsal area of rostrum, lying a little above upper margins of eyes, flat, completely covered with brownish scales and some long, broad and erect setae ; central fovea concealed by scales ; eyes shining black, large, flat, depressed. Rostrum brown, distinctly longer than its apical width, running parallel from base to scrobes, strongly dilated at apex ; dorsal area narrow, sulcate throughout, densely covered with brownish and greenish scales and some long erect setae, interscrobal area sparsely squamose, with two lateral processes at apex in male ; epistome short, with margins carinate ; lateral sides each with a broad costa running straight from scrobe to the eye and a deep squamose stria running above and below it ; scrobes broad, curving inwards behind, almost visible from above ; mentum with two setae, with a sharp median tooth. Antennae moderately long, fuscous, densely squamose ; scape gradually clavate, sub-cylindrical, almost straight, passing anterior margin of prothorax ; funicle with joint 1 longer than 2, 3-7 subequal but shorter than first two, all joints with a single whorl of dark-brown setae ; club oval, finely pubescent, as long as three apical funicular joints.

Prothorax brownish, covered with alternate stripes of brownish and dark-brown scales, transverse, widest near middle, anterior margin straight with well-developed ocular lobes and short fine vibrissae ; dorsal surface convex, largely punctate and each puncture with an erect long seta ; lateral sides rounded, narrower at apex than at gently bisinuate base. Scutellum small, rounded, covered with green scales.

Elytra brownish, oblong, with dorsal outline convex, very gradually narrowing from base to beyond middle and then strongly so to apex, with apices jointly rounded, shoulders roundly rectangular and prominent ; striae narrow, formed by small elongated punctures partly concealed by scales and each puncture with a minute seta ; intervals broad, flat, covered with confluent patches of brownish and greenish scales, each interval with irregular sub-erect long setae. Legs brown, covered with greenish scales and pale fine setae, with fore-coxae contiguously placed in middle of

prosternum ; femora clavate, each with a sharp femoral tooth ; tibiae slender, with anterior and middle pairs dentate internally, apical end of each tibia with a fringe of black bristles and mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint longer than second and spongy beneath, claws free. Thoracic sterna brownish, covered with greenish-pale scales and setae. Abdominal sternites brownish, covered with greenish scales and fine setae.



Pseudhpytoscapus annuloscutellus sp. nov.

Aedeagus somewhat curved, pointed and triangular at apex, without exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme subapical, without orificial plates ; aedeagal apodemes somewhat longer than aedeagus ; phallobase

ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of setae in the basal two-third and a cluster of setae near apex, rest of the surface covered with papillae, with a pair of plates at apex. Bursa copulatrix moderately developed, with sclerotized plates at apex. Spermatheca with cornu pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 5.5 to 5.9 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 6.0 to 6.5 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.0 to 2.1 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 2.2 to 2.5 mm ; rostrum : 0.5 to 0.6 mm.

Holotype.—Female ; India ; Maghalaya, Cherrapunji ; 6. V 1979 ; H. R. Pajni. *Paratypes* : Male 1, Females 2, same data as for holotype. Material in Zoology Department, Panjab University, Chandigarh.

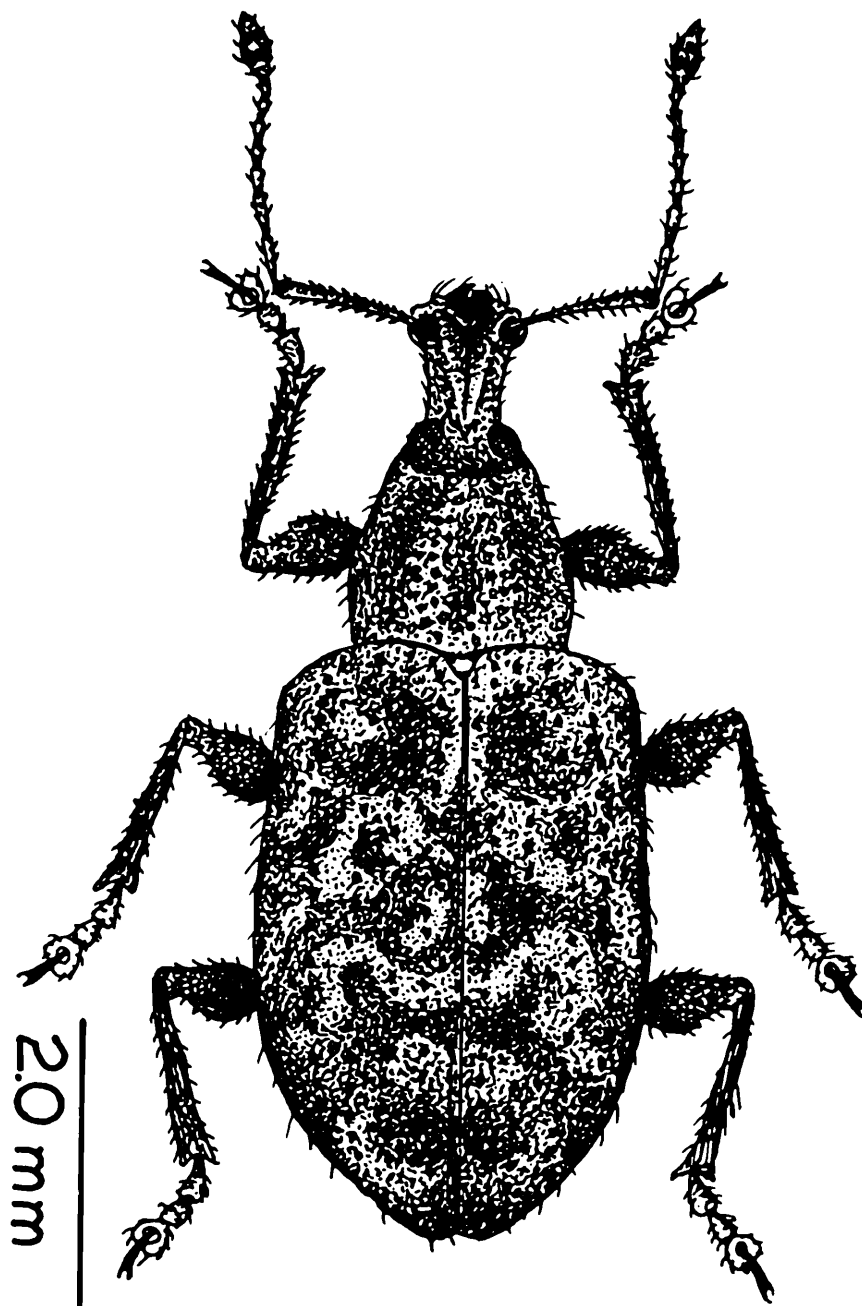
111. *Pseudphytoscapus bovei* sp. nov.

(Figs. 82a, 82b, 216)

Frons piceous, narrower than length of an eye, slightly elevated than upper margins of eyes, covered with broadly-ovate fulvus and white scales and a few sub-erect whitish seta-like scales, central fovea small and circular ; eyes black, broadly ovate, slightly convex. Rostrum piceous, a little longer than broad, sides divergent from base to apex ; dorsal area slightly depressed behind antennae, covered with fulvus and white scales and a few sub-erect spathulate scales, its area behind epistome impressed, with central carina almost on level with dorso-laterals ; dorso-lateral carinae divergent ; epistome short, steeply declivous anteriorly ; lateral areas shining, covered with dense whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, with fairly dense narrow whitish scales ; scape cylindrical, slightly curved, abruptly clavate ; funicle with

joint 1 longer than 2, 3 to 7 much longer than broad ; club fusiform, finely pubescent.

Prothorax longer than broad, with ocular lobes moderate and vibrissae short and few. Pronotum piceous, transversely and



Pseudphytoscapus bovei sp. nov.

longitudinally convex, widest at middle, a little narrower at apex than at base ; lateral sides rounded, with apex constricted and base bisinuate, with bases of sub-lateral sides longitudinally carinulate ;

vestiture consisting of general broadly-ovate placid scales and narrow whitish scales, without any distinct pattern. Scutellum small, circular, almost denuded.

Elytra black, oblong, parallel upto middle, much wider at shoulders than base of prothorax, with shoulders sub-rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with deep closely set punctures ; intervals broad, somewhat convex in apical half ; vestiture consisting of broadly-ovate dull brown and whitish scales distributed in large irregular patches throughout, a row of long needle like whitish or dark brown scales on each interval, with minute seta-like whitish scales filling punctures. Legs ferrugineous, moderately covered with whitish scales ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with small brownish bristles ; tarsi squamose, hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna ferrugineous, punctate and each puncture with a whitish scale. Abdominal sternites ferrugineous, punctate, covered with small broadly ovate whitish scales.

Aedeagus somewhat curved, without an exophallic valve, with lateral sides sclerotized ; phallotreme sub-apical, without any orificial plates ; aedeagal apodemes about 1.5 times as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of setae, with pair of plates at apex ; gastral spiculum thick, each lateral arm short and with process at base, median arm curved and pointed at apex. Bursa copulatrix moderately developed, with sclerotized plates at apex ; ventral spiculum long and spatulate at apex ; spermatheca with cornu pointed, collum lying parallel to ramus.

Measurements.—

Length

Male body : 4.1 mm ; rostrum : 0.3 mm.

Female body : 4.5 mm ; rostrum : 0.5 mm.

Breadth

Male body : 2.0 mm ; rostrum : 0.2 mm.

Female body : 2.4 mm ; rostrum : 0.4 mm.

Holotype.—Female ; India : Bihar, Chota Nagpur ; 1950 ; Cordon.

Paratype.—Male 1, same data as for holotype. Material in British Museum (N.H.), London.

112. *Pseudphytoscapus nubilus* (Faust)
(Figs. 83, 217)

1895. *Phytoscapus nubilus* Faust, Ann. Mus. Genova (2) 14(34) : 216.

1931. *Phytoscapus nubilus*, Schenkling and Marshall, Coleopterorum Catalogus, pars 114 : 24, 37.

Frons fuscus, somewhat broader than dorsal area of rostrum, lying only a little above upper margins of eyes, flat, completely covered with greenish-brown scales and a few pale sub-erect setae, with a deep elongated central fovea not concealed by scales ; eyes piceous, large, rounded and flattened. Rostrum fuscus, double as long as at dilated tip, running parallel from base to scrobes, strongly dilated at apex ; dorsal area narrow, anterior half impressed with inter-antennal area broadly bifoveate, covered with brownish green scales and a row of pale setae along inner margin of each dorso-lateral carina ; central carina faint, present only in bifoveate area ; dorso-lateral carinae feeble, covered with scales, strongly diverging apically ; lateral sides each with a broad squamose costa running from scrobe straight to eye and a deep squamose stria above and below it ; epistome very short, with margins carinate, forming an obtuse angle behind and not exceeding behind the level of insertion of antennae ; scrobes narrow, curving inwards, almost visible from above ; mentum with two setae, lower surface with a conspicuous broad median tooth. Antennae moderately long ; scape fuscus, clavate ; funicle with joint 1 longer than 2, 3 a little longer than broad, 4-7 smaller and globular, all joints clothed with narrow brownish-green scales and a whorl of sub-erect setae ; club and apical joint of funicle blackish, fusiform, finely pubescent.

Prothorax red-brown, almost as long as broad, widest at middle ; anterior margin straight, with strongly developed ocular lobes and short vibrissae laterally ; dorsal surface longitudinally and transversely convex, punctate and each puncture with a spathulate sub-erect brownish seta, covered with indistinct alternate stripes of

dark-brown and greenish-brown scales ; lateral sides feebly rounded, clothed with brownish-green scales, constricted at apex, narrower at apex than at shallowly bisinuate base. Scutellum red-brown, almost rounded, sparsely clothed with brownish-green scales.

Elytra reddish-brown, oblong-ovate, hardly narrowing from shoulders to beyond middle, then strongly narrowing to apex, their apices shortly acuminate, dorsal outline convex and steeply declivous near apex, wider at shoulders than base of prothorax, shoulders obtuse-angled and not prominent ; striae narrow, with deep and elongated stria punctures becoming shallower towards apex, each puncture with a fine seta ; intervals flat, covered with greenish-brown scales dorsally, lateral intervals with brownish green scales, each interval with 1-2 irregular rows of erect and long setae on dorsal side, and short sub-recumbent setae on lateral side. Legs testaceous, with coxae densely covered with pale green scales and some setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a small femoral tooth, densely covered with pale-green scales and short fine setae ; tibiae slender, bisinuate internally, fore and middle tibiae each with a row of small spines on its inner apical half, apical end of each tibiae with a fringe of black spines and a mucro ; corbels of hind tibia open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint almost as long as second and spongy beneath ; claws free and moderately long. Thoracic sterna testaceous, covered with greyish-green and narrow scales in middle and shining brownish-green scales laterally, punctate and each puncture with a small seta ; metasternum with a deep central fovea behind middle. Abdominal sternites testaceous, first and second visible sternites covered with greyish-green narrow scales in middle, remaining surface with shining brownish-green scales, with first visible sternite deeply impressed in middle, surface punctate and each puncture with a small sub-recumbent seta.

Aedeagus somewhat curved and pointed at apex, without an exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme subapical, without any orificial plates ; aedeagal apodemes as long as aedeagus, each curved near apex ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, not surpassing them,

beset with dense rows of setae in basal two-third and a cluster of setae near apex, rest of the surface covered with papillae and tubercles, with a pair of plates at apex. Bursa copulatrix moderately developed, with sclerotized plates near apex ; spiculum ventrale thin and long, spathulate at apex. Spermetheca with cornu pointed at apex, collum lying parallel to ramus.

Measurements.—

Length

Male body : 5.9 to 6.4 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 6.6 to 7.6 mm ; rostrum : 1.0 to 1.2 mm.

Breadth

Male body : 2.0 to 2.2 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 2.4 to 3.0 mm ; rostrum : 0.5 to 0.6 mm.

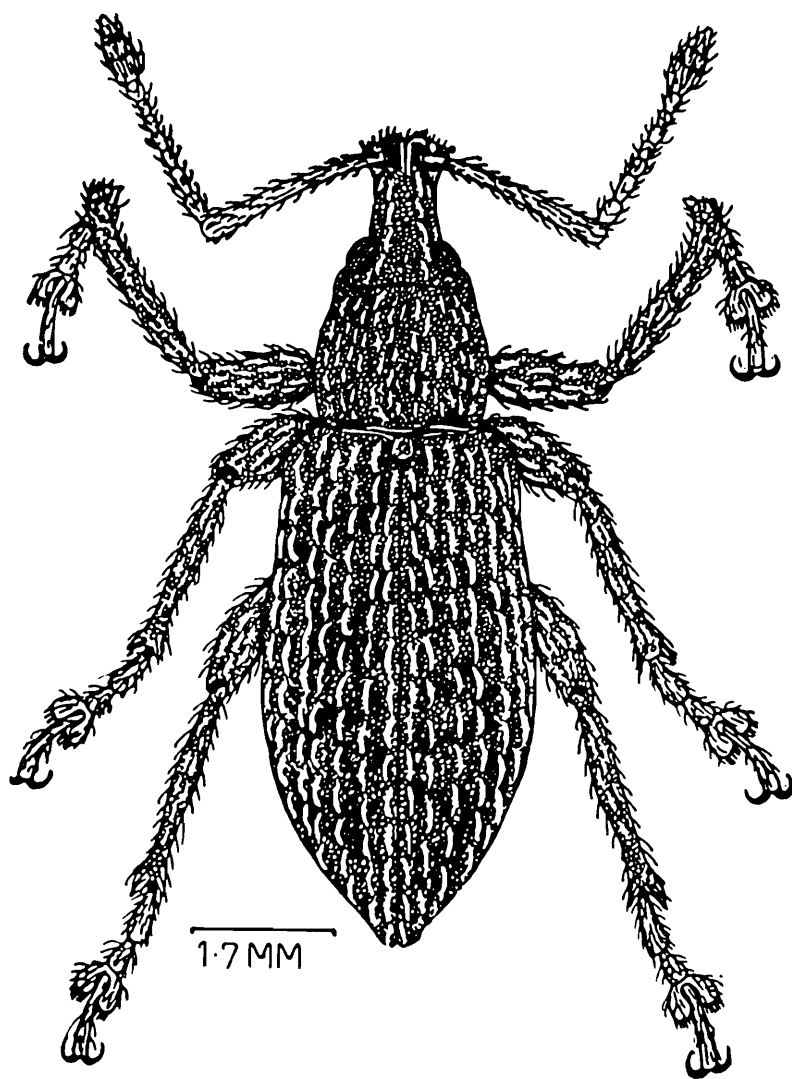
Range.—India : Assam, Tejpur ; Maghalaya, Shillong ; Burma, Shwegomyo, Bhamo.

Holotype in Geneva Museum (Switzerland).

113. ***Pseudphytoscapus shillongensis* sp. nov.**
(Figs. 84, 218)

Frons black, almost as broad as dorsal area of rostrum, lying a little above upper margins of eyes, flat in apical half and somewhat convex in basal half, completely covered with brown scales interspersed with blue-green scales and some long sub-erect setae, its central fovea concealed by scales ; eyes shining black, large, sub-ovate, almost flattened. Rostrum black, longer than its apical width, running parallel from base to scrobes, strongly dilated at apex ; dorsal area narrow, sulcate throughout, densely covered with blue-green and brownish scales and some long sub-erect setae, inter-antennal area bare in females but with a fine central carina ; dorso-lateral carinae diverging apically and parallel behind ; epistome short, its margins sharply carinate and with two lateral processes in male ; lateral sides with a broad squamose costa running from scrobe straight to eye and a deep transverse squamose stria running above and below it ; scrobes broad, curving inwards,

almost visible from above ; mentum with two setae, with a broad median tooth. Antennae moderately long, fuscus ; scape gradually clavate, sub-cylindrical, almost straight, reaching one-third of prothorax, furnished with seta-like green scales and brown sub-erect setae ; funicle with joint 1 longer than 2, 3-7 sub-equal but shorter than first two, all joints furnished with seta-like scales and whorls of sub-erect setae ; club piceous, oval with apex acuminate, as long as three apical funicular joints, very finely pubescent.



Pseudphytoscapus shillongensis sp. nov.

Prothorax black, almost as long as broad, widest near middle ; anterior margin straight, with well-developed ocular lobes and short fine vibrissae laterally ; dorsal surface convex, coarsely and closely punctate and each puncture with an erect brownish seta, punctures concealed by scales ; surface covered with brown scales

with three prominent stripes of greyish-brown scales, with some blue-green scales on the anterior margin ; lateral sides narrowly rounded, covered with blue-green scales, with anterior one-third shallowly constricted, narrower at apex than at gently bisinuate base. Scutellum small, squarish, covered with blue green scales.

Elytra black, oblong, dorsal line convex, gradually narrowing from shoulders to behind middle, then strongly narrowing to apex, apices shortly acuminate, shoulders roundly rectangular ; striae narrow, formed by close elongated punctures and each puncture with a minute seta, interspaces squamose ; intervals broad, somewhat convex, dorsal intervals covered with brown scales and a few patches of blue-green scales, lateral intervals dominantly so, each interval with a row of long brownish setae with setae short on lateral intervals. Legs fuscus, densely covered with blue-green scales and pale fine setae, with fore-coxae contiguously placed in middle of prosternum ; femora clavate, each with a sharp femoral tooth ; tibiae slender, with anterior pair bisinuate internally, anterior and middle tibiae each with a row of spines on apical half, apical end of each tibia with a fringe of black bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.3 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna fusco-piceous, covered with pale narrow scales in middle and shining blue-green scales laterally, punctate and each puncture with a fine pale seta, metasternum with a deep median fovea in basal half. Abdominal sternites fuscus, covered with shining blue-green scales and fine setae.

Aedeagus somewhat curved, broadly triangular and pointed at apex, without an exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme subapical, without orificial plates , aedeagal apodemes somewhat longer than aedeagus ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of setae in basal three-fourth and a cluster of setae near apex, remaining surface covered with small papillae, with a pair of plates at apex. Bursa copulatrix with a pair of moderately sclerotized plates ; spiculum ventrale thick, spatulate at apex. Spermatheca with cornu curved and pointed at apex, collum and ramus lying almost at right angle to each other.

Measurements.—*Length*

Male body : 5.8 to 6.2 mm ; rostrum : 1.0 to 1.1 mm.

Female body : 6.5 to 6.9 mm ; rostrum : 1.1 to 1.2 mm.

Breadth

Male body : 2.0 to 2.2 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 2.5 to 2.7 mm ; rostrum : 0.5 to 0.6 mm.

Holotype.—Female ; India : Meghalaya, Shillong ; 9.V 1978 ; H. R. Pajni. *Paratypes* : females 12, Males 5, same data as for holotype. Material in Zoology Department, Panjab University Chandigarh.

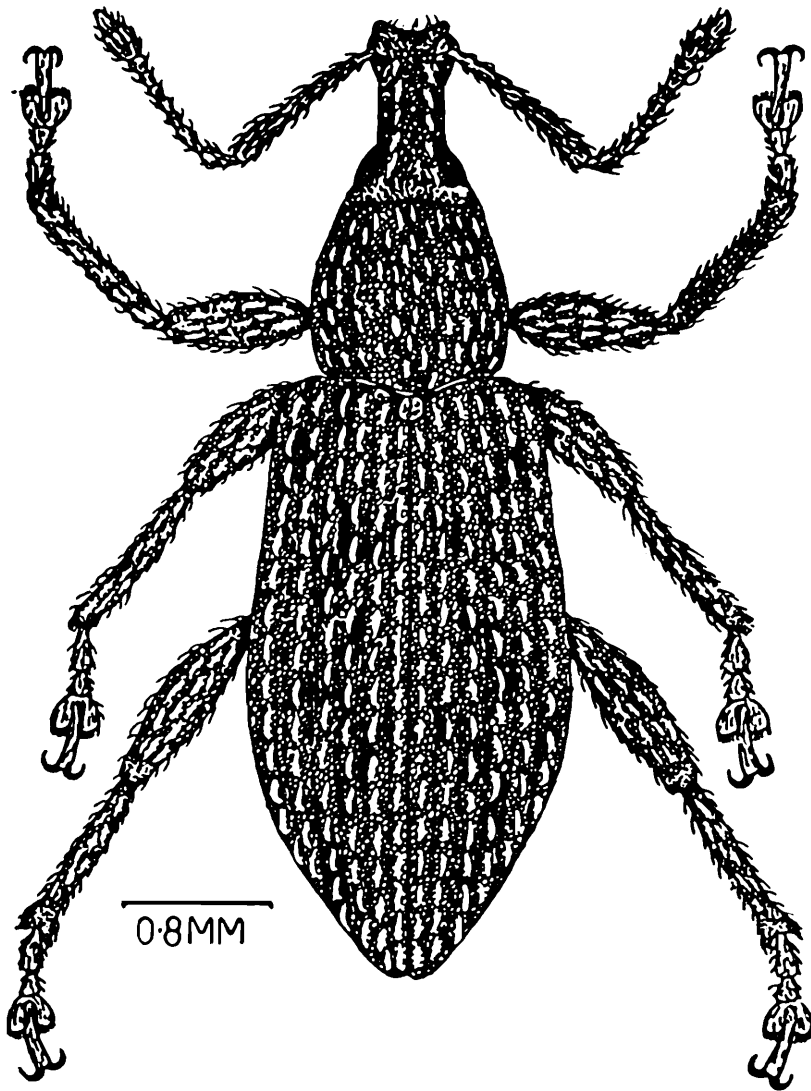
114. *Pseudphytoscapus manoji* sp. nov.

(Figs. 85, 219)

Frons brown, somewhat broader than dorsal area of rostrum, lying a little above upper margins of eyes, flat, completely covered with greenish and brownish scales and some sub-erect broad setae, with central fovea concealed by scales ; eyes shining black, large, flat, depressed. Rostrum brown, distinctly longer than its apical width, running parallel from base to scrobes, strongly dilated at apex ; dorsal area narrow, sulcate throughout, densely covered with greenish scales and some long erect setae, interscrobal area bare and with two lateral processes in male ; epistome short, margins sharply carinate ; lateral sides each with a broad squamose costa running straight from scrobe to eye and a deep squamose stria running above and below it ; scrobes broad, curving inwards behind, almost visible from above ; mentum with two setae, with a sharp median tooth. Antennae moderately long, fuscus, densely squamose ; scape gradually clavate, sub-cylindrical, almost straight, passing anterior margin of prothorax ; funicle with joint 1 longer than 2, 3-7 sub-equal but shorter than first two, all joints with a single whorl of setae ; club oval, acuminate at apex, finely pubescent, as long as three apical funicular joints.

Prothorax brownish, covered with alternate stripes of pale-green and brownish scales, as long as broad, widest near middle ; anterior

margin straight, with well-developed ocular lobes and short fine vibrissae laterally ; dorsal surface convex, coarsely and closely punctate and each puncture with an erect spathulate seta ; lateral sides slightly rounded, with anterior one-third shallowly constricted, narrower at apex than at gently bisinuate base. Scutellum small, rectangular with anterior margin rounded, covered with pale-green scales and spathulate setae.



Pseudphytoscapus manoji sp. nov.

Elytra brownish, oblong, with dorsal outline somewhat convex, very gradually narrowing from base to behind middle and then strongly so to apex, apices jointly rounded, shoulders roundly rectangular and prominent ; striae narrow, formed by elongated

punctures and each puncture with a minute seta, interspaces squamose ; intervals broad, almost flat, covered with brownish and dark-brown scales dorsally and with greenish scales laterally, each interval with a row of sub-erect and long setae. Legs brown, covered with greenish scales and pale fine setae, with fore-coxae contiguously placed in middle of prosternum ; femora clavate, each with a sharp femoral tooth ; tibiae slender, with anterior and middle pairs dentate internally, apical end of each tibia with fringe of black bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint longer than second and spongy beneath, claws free. Thoracic sterna brown, covered with greenish scales and pale setae. Abdominal sternites brown, covered with greenish scales and fine setae.

Aedeagus somewhat curved, pointed and triangular at apex, without an exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes a little shorter than aedeagus ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; andophaillus lying between aedeagal apodemes, beset with dense rows of setae in the basal three-fourth and two clusters of setae near apex, remaining surface covered with papillae, with a pair of plates at apex. Bursa copulatrix with a pair of moderately sclerotized plates at apex ; spiculum ventrale thin, long and spatulate at apex. Spermatheca with cornu pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 4.9 to 5.6 mm ; rostrum : 1.0 to 1.1 mm.

Female body : 5.8 to 6.2 mm ; rostrum : 1.1 to 1.2 mm.

Breadth

Male body : 1.8 to 2.0 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 2.0 to 2.2 mm ; rostrum : 0.5 to 0.6 mm.

Holotype.—Female ; India ; Assam, Baguri ; 24. IV 1979 , H. R. Pajni. *Paratypes* : Males 2, Females 3, same data as for

holotype. Material in Zoology Department, Panjab University, Chandigarh.

Genus 30. *Phytoscaphus* Schonherr

1826. *Phytoscaphus* Schonherr, Curc. Disp. metho., : 210
 1858. *Rhypochromus* : Motschulsky, Etud. ent., 7 : 4.
 1863. *Rhypochromus* : Lacordaire, Gen. Col., 7 : 622.
 1892. *Rhypochromus* : Faust, Stett., Ent. Zeit., 53 : 47.
 1931. *Phytoscaphus* : Schenkling & Marshall, Coleopterorum catalogus, pars 114 : 23, 33.
 1944. *Phytoscaphus* : Marshall, Ann. Mag. nat. Hist., (11) 11 : 436.
 1958. *Phytoscaphus* : Voss, Decheniana, 5 : 26-27.
 1962. *Phytoscaphus* : Morimoto, J. Fac. Kyushu Univ., 12(1), : 53.

Frons a little broader than dorsal area of rostrum ; eyes large, oval, flat. Rostrum distinctly longer than broad, dilated at genae ; epistome short, forming an obtuse angle behind ; scrobes small, broad, open behind ; mentum with two setae. Antennae slender ; scape somewhat curved ; funicle with joint 1 as long as 2 or 2 slightly longer than 1. Prothorax transverse, much broader at base than at apex, with basal margin gently bisinuate. Elytra oblong-ovate, shoulders prominent. Legs with corbels of hind tibiae variable, claws free. Aedeagus subtruncate at apex, with an exophallic valve of variable length, without orificial plates ; endophallus with a pair of plates at apex. Female genitalia with bursa copulatrix moderately developed ; collum lying almost parallel to ramus.

Type Species.—*Curculio triangularis* Olivier

Distribution.—INDIA, BURMA, CHINA, JAPAN, LAOS, SIAM, PHILIPPINE, HONG KONG, AUSTRALIA.

Key to the species of genus *Phytoscaphus* Schonherr

1. Corbels of hind tibiae open	2
—Corbels of hind tibiae enclosed	.16
2. Rostrum with a prominent vertical tooth near base of lower surface	3
—Rostrum without any tooth on lower surface	7

3. Front tibiae with a sharp tooth near middle of inner margin	<i>triangularis</i> (olivier)	
—Front tibiae without such a tooth, at most with an obtuse angulation		4
4. Setae on elytra recumbent		5
—Setae on elytra erect or sub-erect		6
5. Width of frons much less than the length of an eye ; elytra shallowly depressed around scutellum	<i>egregius</i> Faust	
—Width of frons not less than the length of an eye ; elytra not depressed around scutellum	<i>burmica</i> sp. nov.	
6. Funicle with joint 1 not longer than 2	<i>lineatus</i> Faust	
—Funicle with joint 1 somewhat longer than 2	<i>aversus</i> sp. nov.	
7. Setae on elytra recumbent		8
—Setae on elytra erect or sub-erect		9
8. Elytra covered with complete or incomplete alternating stripes of fuscus and pale scales	<i>decorus</i> sp. nov.	
—Elytra covered with uniform coating of pale-white scales	<i>tamarixus</i> sp. nov.	
9. Prothorax sub-cylindrical, nearly as wide at apex as at deeply bisinuate base	<i>orthiderus</i> sp. nov.	
—Prothorax much narrower at apex than at base		.10
10. Rostrum with upper and lower surfaces quite or almost parallel		.11
—Rostrum with upper and lower surfaces diverging distally		.14
11. Elytra light brown, with alternate intervals pale	<i>virgatus</i> sp. nov.	
—Elytra without stripes		.12
12. Elytra with erect setae dense, more or less irregular ; funicle with joint 7 transverse	<i>crispus</i> sp. nov.	
—Elytra with erect setae less numerous, forming single row on each interval ; funicle with joint 7 as long as or longer than broad		.13
13. Rostrum unusually long and cylindrical ; prothorax with ocular lobes almost obsolete ; elytra with scaling pale green	<i>tenuirostris</i> Marshall	

- Rostrum comparatively short and stout ;
prothorax with ocular lobes distinct ;
elytra with scaling grey or brown *suspensus* sp. nov.
14. Elytra with setae sparse and forming
single row on each interval, with green
stripe behind scutellum *chlorohumeralis* sp. nov.
—Elytra with setae much denser and mostly
forming two rows on each interval, with-
out green markings .15
15. Rostrum with dorsal area narrowing from
base to beyond middle ; each elytron with
ill-defined whitish band between striae 3
and 6 at one fourth from base *delusus* sp. nov.
—Rostrum with dorsal area parallel-sided in
basal half ; elytra without whitish band *signatus* sp. nov.
16. Rostrum with projecting tooth on lower
surface .17
—Rostrum with lower surface simple, with-
out vertical tooth .20
17. Elytra with stripes of green scales ;
pronotum granulated .18
—Elytra without green stripes ; pronotum
without granules .19
18. Elytra with alternate stripes of piceous and
green scales ; pronotum with granules
large and irregular in middle *fractiviragatus* Marshall
—Elytra with a greenish stripe on suture and
broad green stripes on lateral intervals ;
pronotum with granules rounded and
scattered all over surface ; rostrum with
ventral tooth not projecting *chlorolateralus* sp. nov.
19. Elytra with scales scarce, surface covered
with dirty white secretion *limis* sp. nov.
—Elytra densely covered with appressed ovate
scales, surface not marked with any secretion *liratirostris* sp. nov.
20. Pronotum with alternate stripes of fuscus
and green scales *fuscofasciatus* sp. nov.
—Pronotum covered with unicolourous scales .21
21. Surface of pronotum and elytra covered
uniformly with pale-green to green scales .22

- Surface of pronotum and elytra not covered with pale-green or green scales, with at most a few scattered greenish scales on elytra .23
22. Surface of rostrum with dense pale-greenish scales ; pronotum with granules much coarser and distinct *kaulbacki* sp. nov.
- Surface of rostrum densely covered with pale-white setae, except few green scales in the fovea ; pronotum which punctures minute and indistinct *marshalli* Pajni & Chibba
23. Frons not broader than an eye ; funicle with joint 2 somewhat longer than 1 ; pronotum with numerous small granules on disc ; elytra shortly dehiscent at apices *chloroticus* Boheman
- Frons broader than an eye ; funicle with joint 2 not longer than 1 ; pronotum without granules on disc ; elytra jointly rounded at apex *vegenotatus* sp. nov.

115. *Phytoscaphus triangularis* (Olivier)
(Figs. 86, 220)

1807. *Curculio triangularis* Olivier, Ent. 5, t26, f380 : 420.
1834. *Phytoscaphus lixabundus* : Boheman in Schonh. Gen. Spec. Curc., II : 642.
1843. *Phytoscaphus triangularis* : Schonherr, Gen. Curc. VII, 1 : 415.
1885. *Phytoscaphus erro* : Pascoe, Ann. Mus. Genova (2) II (XXII) : 317.
1895. *Phytoscaphus triangularis* : Faust, Ann. Mus. Genova (2) XIV (XXXIV) : 213.
1931. *Phytoscaphus triangularis* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 24, 39.

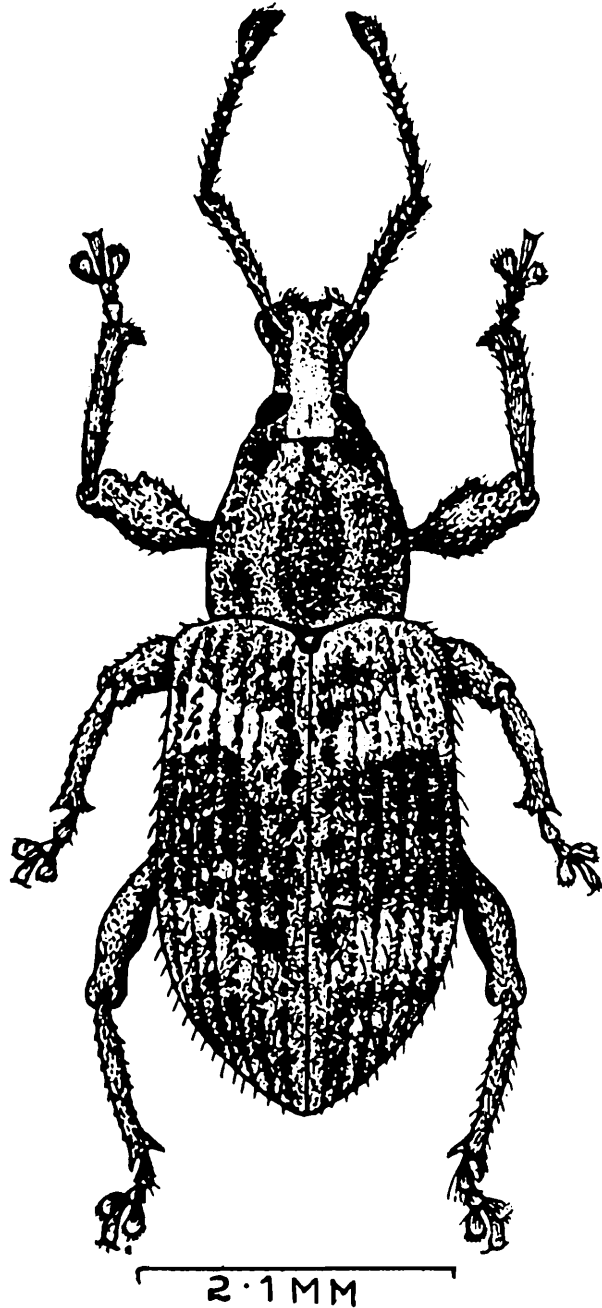
Frons red-brown, almost as broad as dorsal area of rostrum, lying only a little above upper margins of eyes, flat, completely covered with overlapping pale-brown scales and a row of 2 or 3 sub-erect spathulate setae along inner margin of each eye, with a deep central fovea somewhat visible through scales ; eyes piceous, large, oval and flattened. Rostrum red-brown, twice as long as broadened tip, running almost parallel from base to scrobes and then strongly dilated at apex ; dorsal area narrow, furrowed in middle, with inter-antennal area bifoveate and fovea sparsely squamose, densely covered with pale-brown scales and a few spathulate recumbent setae ; central carina fine, running only in apical

one-third of rostrum ; dorso-lateral carinae fine, hidden by scales, parallel, diverging apically ; lateral areas each with a broad sparsely squamose costa running from scrobe to eye and a deep squamose stria above and below it ; epistome short, forming behind an obtuse angle not extending beyond line of insertion of antennae ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae, posteriorly with short broad tooth. Antennae comparatively short, red-brown ; scape slightly curved, cylindrical, gradually clavate, passing anterior margin of prothorax, densely clothed with brown scales and pale-brown sub-recumbent setae ; funicle with joint 1 and 2 sub-equal, 3 to 6 slightly diminishing progressively in length, 7 as long as 4, all joints densely covered with narrow pale-brown scales and some recumbent setae, each joint with a distinct whorl of long sub-erect setae ; club short, as long as three apical funicular joints, almost oval, acuminate at apex, finely and uniformly pubescent.

Prothorax red-brown, transverse, broadest at middle ; anterior margin straight, with less developed ocular lobes and short fine vibrissae ; surface longitudinally and transversely convex, densely covered with pale-brown scales, densely punctate with deep and large punctures and each puncture containing a short sub-erect seta, with a transverse impression before middle and a shallow rounded impression behind middle on each side ; lateral sides rounded, of equal width at apex and base. Scutellum fuscus, small, sparsely setose, rectangular with anterior margin rounded.

Elytra red-brown, oblong-ovate, parallel-sided from shoulders to beyond middle in male and slightly widened behind in female, narrowing towards apex, with apices shortly acuminate, much wider at rectangular shoulders than base of prothorax ; striae narrow, with deep strial punctures visible through scales and each puncture containing a fine recumbent seta, stria 9 with shallow fovea at level with hind coxa and distinguished by some green scales in this area ; intervals broad, completely covered with circular brownish and greyish scales, with white scales forming an oblique transverse band near base and an irregular transverse band behind middle along with scattered patches, each interval with a row of brownish sub-erect setae. Legs dark-brown, densely covered with pale-brown scales and short setae, with fore-coxae contiguous

and placed in middle of prosternum ; femora clavate, front femora comparatively thicker, each femur with a short tooth ; tibiae slender, anterior tibia with a sharp tooth on inner margin near middle, apical end of each tibia with a fringe of brown bristles and



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a mucro ; corbels of hind tibiae enclosed, each with an internal row of long bristles ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint-shorter than second and spongy beneath ; claws free, moderately long. Thoracic sterna

dark-brown, covered with dense pale-brown scales laterally and with narrow pale scales in middle, punctate and each puncture with a small pale seta. Abdominal sternites densely covered with pale narrow scales, punctate and each puncture with a pale sub-recumbent seta, with punctures deeper and larger in apical sternite.

Aedeagus straight, sub-truncate at apex, with a narrow exophallic valve, with apical end and lateral sides highly sclerotized ; phallosome subapical, without orificial plates ; aedeagal apodemes more than twice as long as aedeagus, curved at apex ; phallobase ring-shaped, with phallobasic apodeme a little longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of tubercles and papillae, having a pair of curved plates at apex. Bursa copulatrix moderately developed, with a pair of sclerotized plates near apex ; ventral spiculum thick and long, spatulate at apex. Spermatheca with cornu pointed at apex, collum globular, lying sub-parallel to ramus.

Measurements.—

Length

Male body : 6.1 to 6.4 mm ; rostrum : 1.2 to 1.3 mm.

Female body : 6.4 to 6.8 mm ; rostrum : 1.2 to 1.3 mm.

Breadth

Male body : 2.0 to 2.2 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 2.3 to 2.5 mm ; rostrum : 0.6 to 0.7 mm.

Range.—INDIA : Pusa, Sikkim, Gopaldhara, Nilgiri Hills, Bangalore, Khasi Hills, Dehra Dun, Shillong ; BURMA : Meiktila, Karen Hills, Tharawaddy ; MALAYSIA : Perak, Penang, INDO-CHINA : Tongking ; LAOS ; CAMBODIA ; SUMATRA ; JAVA.

Holotype in Paris Museum, (France).

116. *Phytoscaphus egregius* Faust

1897. *Phytoscaphus egregius* Faust, Deut. ent. Zeits., : 385.

Frons reddish brown, much narrower than length of an eye, covered with dense broadly ovate brown and pale scales, with

central fovea elongated and not concealed by scales ; eyes black, broadly ovate, slightly convex. Rostrum ferrugineous, much longer than broad, with sides parallel upto antennal insertions ; dorsal area slightly depressed behind antennae, covered with dense broadly ovate brown scales, its area behind epistome impressed, with central carina lower than dorso-laterals and sparsely covered with pale scales ; dorso lateral carinae parallel upto scrobes and divergent thereafter ; lateral areas shining, covered sparsely with pale scales, each with a sulcus running from upper angle of scrobe to middle of eye, with lower sulcus less prominent ; ventral surface of rostrum with a broad basal depression, without a definite tooth. Antennae fuscus, long, with pale recumbent and sub-recumbent seta-like scales ; scape long, cylindrical, slightly curved, gradually clavate, funicle with joints 1 and 2 equal, 3 to 7 somewhat longer than broad ; club fusiform, finely pubescent.

Prothorax transverse, with moderately developed ocular lobes and short vibrissae. Pronotum ferrugineous, transversely and longitudinally convex, parallel from a little before middle to near base, with apex sub-truncate and base shallowly bisinuate, with base of each sub-lateral side longitudinally carinate ; vestiture of broadly ovate pale scales, with a large patch of brown scales in middle near base and two brown patches near apex, with a small patch of brown scales surrounded by pale scales on each side, scaling of recumbent clavate setae. Scutellum nearly rounded, densely covered with scales and setae.

Elytra fuscus, oblong, parallel upto two third length, wider at shoulders than base of prothorax, with shoulders obliquely rounded, with area around scutellum shallowly depressed, with apices slightly separately rounded ; striae narrow, with shallow closely set punctures ; intervals broad, with intervals 3 and 4 strongly convex near base ; vestiture consisting of broadly ovate pale scales, with 4 patches of brown scales on each elytron, with a row of spatulate setae on each interval. Legs fuscus, densely covered with broadly ovate pale scales mixed with seta-like scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate each with a short tooth ; tibiae with their apices beset with dense brunneous bristles ; tarsi squamose ; hind tarsus with first joint longer than second, third bilobed joint spongy beneath. Thoracic sterna pice-

ous, covered with brownish scales and sub-erect setae. Abdominal sternites piceous, covered with brownish scales.

Male and female genitalia not studied.

Measurements.—

Length

Body : 8.1 mm ; rostrum : 0.6 mm.

Breadth

Body : 3.4 mm ; rostrum : 0.4 mm.

Range.—India : Bombay, Belgaum, Nilgiri Hills, Tippukadu, Cochin.

Holotype in Dresden Museum, (Germany).

117. *Phytoscaphus burmica* sp. nov.

Frons piceous, much wider than length of an eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate and few spathulate whitish scales ; central fovea small and circular, concealed by dense scales ; eyes black, broadly ovate, slightly bulging. Rostrum brunneus, a little longer than broad, with sides parallel upto antennal insertion ; dorsal area depressed behind antennae, covered with scales as on frons, with area behind epistome impressed, its central carina lower than dorso-laterals ; dorso-lateral carinae parallel upto antennal insertion and divergent thereafter ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with dense white scales, each with sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long, with dense white scales, with few sub-erect brunneus scales on scape ; scape long, cylindrical, strongly curved, gradually clavate ; funicle with joint 1 as long as 2, 3 to 7 longer than broad and barrel-shaped ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderately developed ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at base, laterally rounded, with apex

truncate and base bisinuate ; with a shallow rounded depression at base of each sub-lateral side. Vestiture consisting of uniform dense scaling of broadly-ovate whitish scales and few spatulate whitish scales, with three distinct longitudinal stripes of fuscus scales—one on middle of dorsum and one each on sub-lateral sides. Scutellum small, sub-circular, pubescent.

Elytra ferrugineous, oblong, parallel upto two-third length, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders ; vestiture consisting of broadly-ovate whitish and fuscus scales, with fuscus scales irregularly distributed in small transverse patches throughout middle, with a row of closely set spatulate whitish scales on each interval. Legs brunneus, densely covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with short spiny tooth ; tibiae with their apices beset with dense brunneus bristles ; corbels of hind tibiae open ; tarsi squamose ; hind tarsus with first joint shorter than 2 and 3 together. Thoracic sterna brunneus, punctate and each puncture with a whitish scale. Abdominal sternites piceous, punctate, covered with dense broadly-ovate and few spatulate whitish scales.

Male genitalia not studied. Bursa copulatrix moderately developed ; ventral spiculum long and thick. Spermatheca with cornu long, curved and pointed at apex ; collum and ramus lying parallel to each other.

Measurements.—

Length

Body : 6.3 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.5 mm ; rostrum : 0.4 mm.

Holotype.—Female : Burma ; Karen Hills ; 1950, Marshall.

Holotype in British Museum (N.H.), London.

118. **Phytoscaphus lineatus** Faust
(Fig. 221)

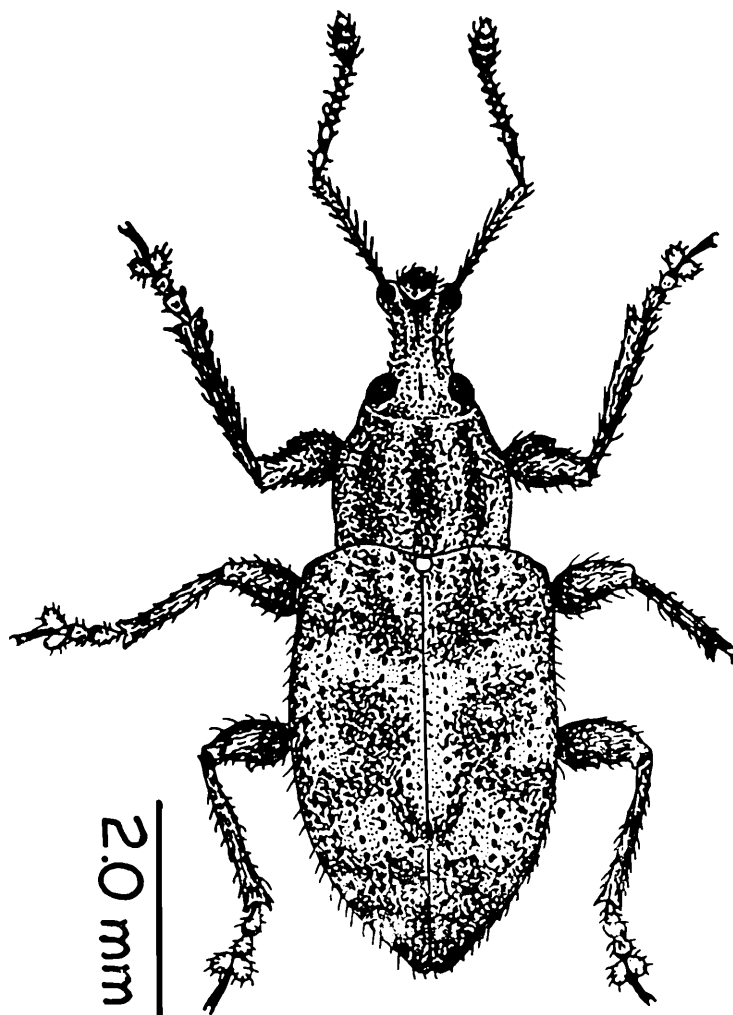
1891. *Phytoscaphus lineatus* Faust, Stett., ent. Zeit., 2 : 274.

Frons fuscus, its width equal to length of an eye, slightly elevated than upper margins of eyes, covered with broadly-ovate white and pale-brown scales, with central fovea small and elongated but concealed by scales ; eyes black, broadly ovate, almost flat. Rostrum piceous, longer than its apical width, running parallel from base to antennal insertion and then dilated at apex ; dorsal area depressed behind antennae, covered with brownish scales and few pale sub-recumbent setae ; central carina lower than dorso-laterals ; dorso-lateral carinae divergent ; epistome small, steeply declivous anteriorly ; lateral areas dull, covered with brown scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, with dense narrow white scales ; scape long, cylindrical, gradually clavate ; funicle with joint 1 equal to 2, 3 to 7 much longer than broad ; club fusiform and finely pubescent.

Prothorax transverse, with well-developed ocular lobes and long vibrissae, rounded laterally and widest behind middle, with apex much narrower than shallowly bisinuate base ; vestiture consisting of broadly-ovate brown and pale scales, with pale scales dense on lateral sides and forming two distinct sub-parallel longitudinal stripes at middle of pronotum. Scutellum piceous, small, beset with few brown recumbent scales.

Elytra piceous, oblong, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded ; striae narrow, with deeply and closely set punctures ; intervals broad ; vestiture consisting of mixture of brown and yellowish scales and few whitish spathulate scales, with white scales densely placed on lateral intervals and joined through a transverse patch at middle of apical half, with minute seta-like whitish scales filling strial punctures. Legs piceous, densely covered with white scales ; fore-coxae contiguous, placed in middle of prosternum ; femur clavate, each with short spiny tooth ; tibiae with their apices beset with dense brunneous bristles, corbels of hind tibiae open ; tarsi squamose ; hind tarsus with

joint 1 as long as 2 and 3, third bilobed joint spongy beneath. Thoracic sterna piceous, punctate and each puncture with a white scale, with punctation concealed by dense scales. Abdominal sternites piceous, covered with dense broadly-ovate white scales, punctate and each puncture beset with a white spatulate scale.



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Male genitalia not studied. Bursa copulatrix well-developed, with pair of plates at apex ; ventral spiculum long and thick, somewhat curved and broad at apex. Spermatheca long, curved and pointed at apex ; collum lying parallel to ramus.

Measurements.—

Length

Body : 7.5 mm ; rostrum : 0.5 mm.

Breadth

Body : 3.5 mm ; rostrum : 0.3 mm.

Range.—India : Uttar Pradesh, Allahabad ; Sikkim, Gopaldhara.

Holotype in Dresden Museum, (Germany).

***Phytoscaphus lineatus plagiatus* sub-species nov.**

This sub-species differs from the typical form in the colouring of elytra which are dark brown upto striae six, with the following greenish or pale fawn markings ; sutural stripe from base to near middle, but there it suddenly widening as far as stria 2 and forming a large subquadrate common median patch ; transverse band near base extending inwards from pale lateral area as far as stria 2 ; immediately behind this small patch extending inwards upto stria 5 ; at the top of the declivity a broad transverse band reaching suture, being concave in front and convex behind.

Range.—India : Khasi Hills, Shillong, Meghalaya ; Assam, Silonibari, Sadiya.

119. *Phytoscaphus aversus* sp. nov.

(Figs. 87a, 87b)

Frons piceous, narrower than length of an eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate and few spathulate whitish scales, with central fovea small and circular but concealed by dense scales ; eyes black, broadly-ovate, slightly convex. Rostrum black, much longer than broad, with sides gradually divergent ; dorsal area depressed behind antennae, covered with dense broadly-ovate whitish scales, with area behind epistome strongly impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae divergent ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with dense broadly-ovate whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long with fairly dense whitish scales and few sub-erect white scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 a little longer than 2, 3 to 7 longer than broad and barrel-shaped ; club fusiform, finely pubescent.

Prothorax longer than wide, with moderately developed ocular lobes and vibrissae short and few. Pronotum piceous, transversely and longitudinally convex, widest at base, laterally rounded, with apex truncate and base bisinuate ; vestiture consisting of dense short and few spathulate whitish scales without forming any distinct pattern. Scutellum small, sub-circular, covered with short white scales.

Elytra brunneus, oblong, parallel upto two-third length, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders ; elytral vestiture consisting of small whitish scales, a large sub-circular patch of fuscus scales in middle, a row of whitish spathulate scales on each interval, narrow white seta-like scales filling strial punctures. Legs brunneus, densely covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with brunneus bristles, corbels of hind tibiae open ; tarsi squamose, hind tarsus with first joint shorter than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture with a whitish scale. Abdominal sternites piceous, punctate, covered with dense broadly-ovate and few spathulate whitish scales.

Aedeagus striaght, tubular and pointed at apex, lateral and apical sides sclerotized ; phallotreme sub-median without orificial plates ; aedeagal apodemes 2 times as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae and tubercles, with pair of plates at apex. Gastral spiculum thick ; lateral arms short, each with a long process ; median arm curved and broad at apex. Female genitalia not studied.

Measurements.—

Length

Body : 5.5 mm ; rostrum : 0.4 mm.

Breadth

Body : 1.8 mm ; rostrum : 0.2 mm.

Holotype.—Male ; Burma, Mergrii ; xii. 1924 ; R.N. Parker. Holotype in British Museum (N.H.), London.

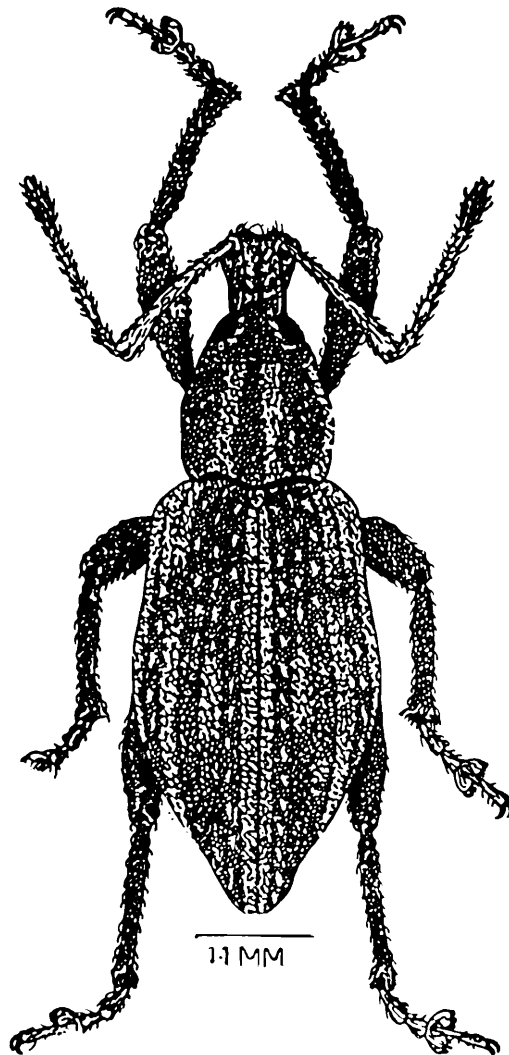
120. **Phytoscaphus decorus** sp. nov.
(Figs. 88a, 88b, 222)

Frons piceous, narrower than length of an eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate fulvus scales, with central fovea small and circular but concealed by dense scales ; eyes black, broadly-ovate, slightly bulging. Rostrum piceous, much longer than broad, with sides parallel upto antennal insertion ; dorsal area depressed behind antennae covered with dense broadly-ovate fulvus scales, with area behind epistome impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae parallel upto antennal insertion and divergent thereafter ; lateral areas shining, covered sparsely with whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, long, with dense whitish scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 almost as long as 2, 3 to 7 much longer than broad, club fusiform, finely pubescent.

Prothorax longer than broad, with moderately developed ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at little before middle, laterally rounded, with apex truncate, with base slightly bisinuate, with base of each sub-lateral side longitudinally carinulate ; vestiture consisting of dense broadly-ovate yellow-pinkish and fuscus scales in longitudinal stripes, yellow stripes surrounding median broader fuscus stripe, with a broad fuscus sub-lateral stripe followed by a narrower yellow stripe. Scutellum small, sub-circular, covered with narrow whitish scales.

Elytra piceous, oblong, parallel upto two-third length, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly

acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 7 to 9 impressed at shoulders ; vestiture consisting of scales and setae arranged in the following pattern : interval 1 completely covered with whitish scales, intervals 5 to 7 beset with dense pinkish scales in basal half, similar scales in apical half of intervals



Phytoscaphus decorus sp. nov.

3 and 5, remaining parts covered with dense fuscus scales, lateral intervals beset with greenish scales, striae punctures beset with narrow whitish seta-like scales. Legs piceous, densely covered with mixed pinkish and whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense brunneus bristles, corbels of hind tibiae open ; tarsi squamose, hind tarsus

with first joint longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a greenish or whitish scale. Abdominal sternites piceous, punctate, covered with dense broadly-ovate greenish scales and few whitish scales.

Aedeagus straight, sub-truncate at apex, exophallic valve small ; phallotreme sub-apical without any orificial plates ; aedeagal apodemes 2 times as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of setae, tubercles and papillae, with pair of plates at apex ; gastral spiculum long, lateral arms short and dentate on outer margin, median arm curved and pointed at apex. Bursa copulatrix moderately developed, with moderately sclerotized plates at apex ; spiculum ventrale long and thick ; spermatheca with cornu pointed at apex, collum lying parallel to ramus.

Measurements.—

Length

Male : 7.4 mm ; rostrum : 0.6 mm.

Female : 7.2 mm ; rostrum : 0.5 mm.

Breadth

Male : 3.0 mm ; rostrum : 0.3 mm.

Female : 2.9 mm ; rostrum : 0.3 mm.

Holotype.—Female ; India : Darjeeling, Gopaldhra ; 2. IX. 1916 ; H. Stevens.

Paratypes.—Male 1, Females 6 ; H. Stevens ; Male ; 1, X. 1908 ; H.M. Lefroy ; Male 1, Female 1, Maghalaya viii. 1917 ; Male 1, Female 1, Cherrapunji ; x. 1914 ; S.W. Kemp ; Male 1, iii. 1935 ; Miss M. Steele ; Males 5, Females 2 ; N. Burma ; vii 1938 ; R. Kaulback. Material in British Museum (N.H.), London.

121. ***Phytoscaphus tamarixus* sp. nov.**

(Fig. 223)

Frons fuscus, flat, somewhat higher than upper margins of eyes ; covered with yellowish scales and spathulate setae ; central

fovea deep, circular and concealed by scales ; eyes fuscus, broadly ovate. Rostrum fuscus, much longer than broad, running parallel from base to scrobes and dilated at apex ; dorsal area depressed behind antennae, covered with yellowish scales ; central carina lower than dorso-lateral carinae ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with whitish scales, each with a sulcus running from upper side of scrobe to upper margin of eye. Antennae piceous, long ; scape long, gradually clavate, covered with yellow scales and spathulate setae ; funicle with joint 1 as long as 2, 3 to 7 subequal, all joints covered with long setae ; club fusiform and pubescent.

Prothorax fuscus, longer than broad, with well developed ocular lobes and vibrissae, punctate, transversely and longitudinally convex, widest at base and laterally rounded, with apex truncate and base, bisinuate, surface covered with greyish and yellowish scales punctures beset with sub-recumbent spathulate yellow setae. Scutellum small, sub-circular, covered with appressed greyish scales.

Elytra piceous, oblong, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded ; striae narrow, elongated, with shallow punctures ; intervals somewhat broad ; vestiture consisting of mixture of greyish and yellow setae, a few patches of orange scales in apical half, with minute setae in strial punctures, with yellowish spathulate seta-like scales on intervals. Legs piceous, densely covered with cupreus scales ; femora clavate, each with a short spiny tooth ; tibiae compressed clavate, covered with yellow scales and sub-recumbent setae ; tarsi densely setose ; hind tarsus with joint 1 as long as 2 and 3 together, third bilobed joint spongy beneath. Thoracic sternum fuscus, covered with fuscus and greyish scales and few sub-erect dull-white setae. Abdominal sternites fuscus, covered with fuscus and greyish scales and sub-recumbent pale setae.

Male genitalia not studied. Bursa copulatrix moderately developed, with sclerotized plates at apex ; ventral spiculum long and thick, spathulate at apex. Spermatheca with cornu long and curved and pointed at apex ; collum lying parallel to ramus.

Measurements.—

Female :

Length

Body : 6.3 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.5 mm ; rostrum : 0.3 mm.

Holotype.—Female ; India ; 20. ix. 1978 ; M.L. Cox. Holotype in British Museum (N.H.), London.

122. *Phytoscaphus orthideres* sp. nov.

Frons piceous, a little narrower than length of eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate and few spathulate whitish scales, with central fovea small and circular and concealed by dense scales ; eyes black, broadly-ovate, slightly bulging. Rostrum piceous, much longer than broad, with sides parallel upto antennal insertion ; dorsal area depressed behind antennae, covered with dense broadly-ovate whitish and fuscus scales, with area behind epistome impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae convergent upto antennal insertion and divergent thereafter ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with dense whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long, with dense white scales and few sub-erect brunneus scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 shorter than 2, 3 to 7 longer than broad ; club fusiform, finely pubescent.

Prothorax longer than broad, with well-developed ocular lobes and many short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at base, laterally rounded, with apex truncate and base strongly bisinuate, with a shallow rounded depression at each sub-lateral side near base, with each base of sub-lateral side longitudinally carinulate, with middle of base

longitudinally elevated ; vestiture consisting of dense broadly-ovate whitish and fuscus scales and few spathulate whitish scales without forming any distinct pattern. Scutellum small, a little longer than broad, pubescent.

Elytra piceous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders sub-rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders ; vestiture consisting of broadly-ovate brownish-fuscus and whitish scales distributed irregularly, with small patches of fuscus scales at middle and large transverse patches in apical half, a row of closely set spathulate whitish or fuscus scales on each interval, with narrow white seta-like scales filling striae punctures. Legs piceous, densely covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with dense brunneous bristles, corbels of hind tibiae open ; tarsi squamose, hind tarsus with first joint a little shorter than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture with a whitish scale. Abdominal sternites piceous, punctate, covered with dense broadly ovate and few spathulate whitish scales.

Aedeagus straight, deeply bisinuate at apex, exophallic valve long ; phallosome sub-median, with moderately developed orificial plates ; aedeagal apodemes as long as aedeagus ; phallosome ring-shaped, phallosomic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with papillae and tubercles, with pair of plates at apex. Gastral spiculum thin ; lateral arms quite short ; median arm thin, curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Body : 5.3 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.3 mm ; rostrum : 0.3 mm.

Holotype.—Female ; India ; E. Himalayas, Darjeeling ; 26. v. 1916 ; I.H. Gravery. Holotype in British Museum (N.H.), London.

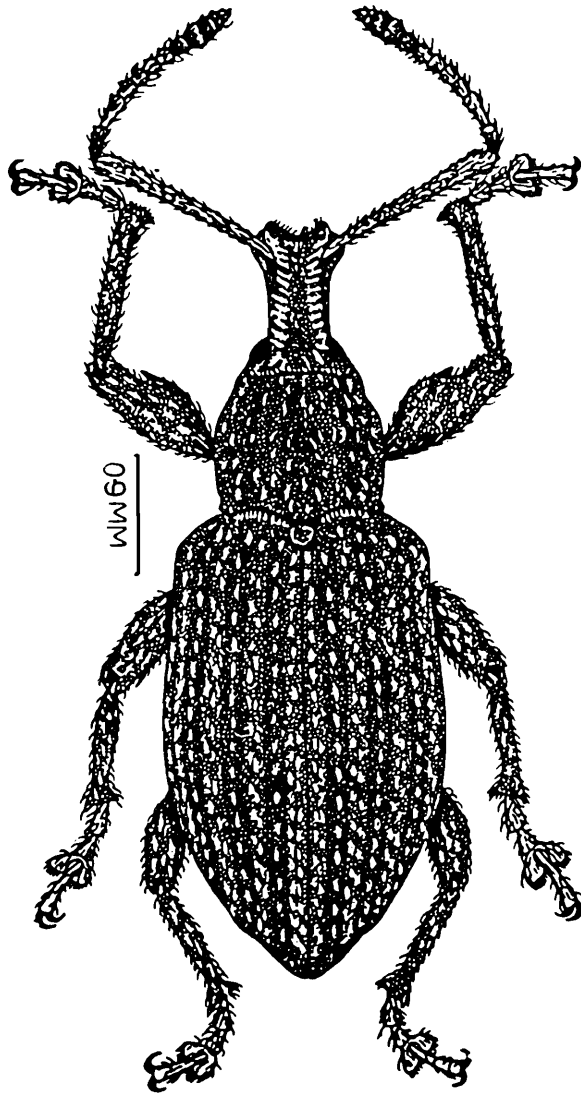
123. *Phytoscaphus virgatus* sp. nov.
(Figs. 89a, 89b)

Frons piceous, wider than length of an eye, moderately elevated than upper margins of eyes, covered with dense broadly-ovate and few spathulate whitish scales, with central fovea small and circular but concealed by dense scales ; eyes black, broadly-ovate, slightly convex. Rostrum piceous, much longer than broad, with sides divergent towards apex ; dorsal area depressed behind antennae, covered with dense scales as on frons, with area behind epistome impressed, with central carina lower than dorso-laterals, dorso-lateral carinae convergent upto antennal insertion and divergent thereafter ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with dense broadly-ovate whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous-ferrugineous, long, with dense white scales and sub-erect brunneous scales on scape ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 almost as long as 2, 3 to 7 transverse and barrel-shaped ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderately developed ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at base, laterally rounded, with apex truncate and base strongly bisinuate, with a shallow rounded depression at each sub-lateral side near base ; vestiture consisting of dense broadly-ovate whitish and fuscus scales, with an ovate patch of fuscus scales in middle surrounded by white longitudinal but inwardly curved stripes, with dense mixed whitish and fuscus scales on lateral sides. Scutellum small, sub-circular, pubescent.

Elytra piceous, oblong, sub-parallel upto two-third length, much wider at shoulders than base of prothorax, with shoulders sub-rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders and intervals 1, 3, 5,

7, 9 slightly elevated than others ; elytral vestiture consisting of dense broadly-ovate greenish-fuscus and whitish scales in general, with odd intervals densely covered with white scales, with a row of closely set spathulate whitish scales on each interval, narrow white seta-like scales filling striae punctures. Legs piceous, densely covered with white scales; fore-coxae contiguous, placed in middle



Phytoscaphus virgatus sp. nov.

of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with dense brunneous bristles, corbels of hind tibiae open ; tarsi squamose ; hind tarsus with first joint shorter than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture with a whitish or greenish-fuscus scale, with punctation almost concealed by dense scales. Abdominal sternites

piceous, punctate, covered with dense broadly-ovate and few spatulate white and greenish-fuscus scales.

Aedeagus straight, lateral sides weakly sclerotized ; phallotreme sub-apical without orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae and tubercles, with a pair of plates at apex. Gastral spiculum thick ; lateral arms weakly developed ; median arm curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 7.3 mm ; rostrum : 0.7 mm.

Female body : 7.0 mm ; rostrum : 0.7 mm.

Breadth

Male body : 2.6 mm ; rostrum : 0.3 mm.

Female body : 3.1 mm ; rostrum : 0.4 mm.

Holotype.—Male, India : Uttar Pradesh, Kumaon, Almora, Khaula ; V 1910 ; H. G. Champion.

Paratypes.—Males 3, Female 1, same data as for holotype. Material in British Museum (N.H.), London.

124. *Phytoscaphus crispus* sp. nov.
(Figs. 90a, 90b)

Frons piceous, flat, in width equal to length of an eye, covered with yellowish recumbent scales and few whitish sub-erect seta-like scales ; central fovea deep, small, almost concealed by scales ; eyes fuscus, broadly ovate and almost flat. Rostrum fuscus, running parallel from base to antennal insertion and then dilated at apex ; dorsal area depressed behind antennae, covered with dense yellowish scales, with central carina moderately developed ; dorso-lateral carinae convergent upto antennal insertion and divergent

thereafter ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae long, piceous, with greyish scales ; scape long, moderately curved, gradually clavate ; funicle with joint 1 equal to 2, 3 to 6 sub-equal, joint 7 much broader than long ; club fusiform and pubescent.

Prothorax piceous, longer than broad, with well-developed ocular lobes and many short vibrissae ; pronotum transversely and longitudinally convex, widest at base, laterally rounded, with apex truncate and base bisinuate ; vestiture consisting of yellow and brown scales and pale sub-recumbent setae. Scutellum piceous, oblong, covered with appressed yellowish scales.

Elytra piceous, oblong, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded ; striae narrow, with shallow closely set punctures ; intervals broad ; vestiture consisting of mixture of brown and yellowish appressed scales, minute sub-recumbent whitish setae in strial punctures, rows of sub-erect spathulate yellowish setose on intervals. Legs piceous, densely setose ; fore-coxae contiguous ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with brown bristles ; corbels of hind tibiae open ; tarsi squamose ; hind tarsus with joint 1 as long as 2 and 3, third bilobed joint spongy beneath. Thoracic sterna piceous, shining, punctate and each puncture with yellow spathulate seta, covered with yellowish and greyish scales. Abdominal sternites piceous, punctate and each puncture with yellow spathulate seta, covered with yellow setae.

Aedeagus straight, pointed and tubular at apex, lateral and apical sides sclerotized ; phallotreme sub-apical ; aedeagal apodemes 1.5 times as long as aedeagus, curved at apex ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of tubercles and papillae, with horse-shoe shaped group of papillae near apex, with pair of plates at apex. Gastral spiculum thick ; lateral arms weakly developed ; median arm curved and pointed at apex. Female genitalia not studied.

Measurements.—*Length*

Body : 5.5 mm ; rostrum : 0.4 mm.

Breadth

Body : 2.1 mm ; rostrum : 0.2 mm.

Holotype.—Male; India ; Assam, Mangaldai ; 11. X. 1910 ; Kemp. Holotype in British Museum (N.H.), London.

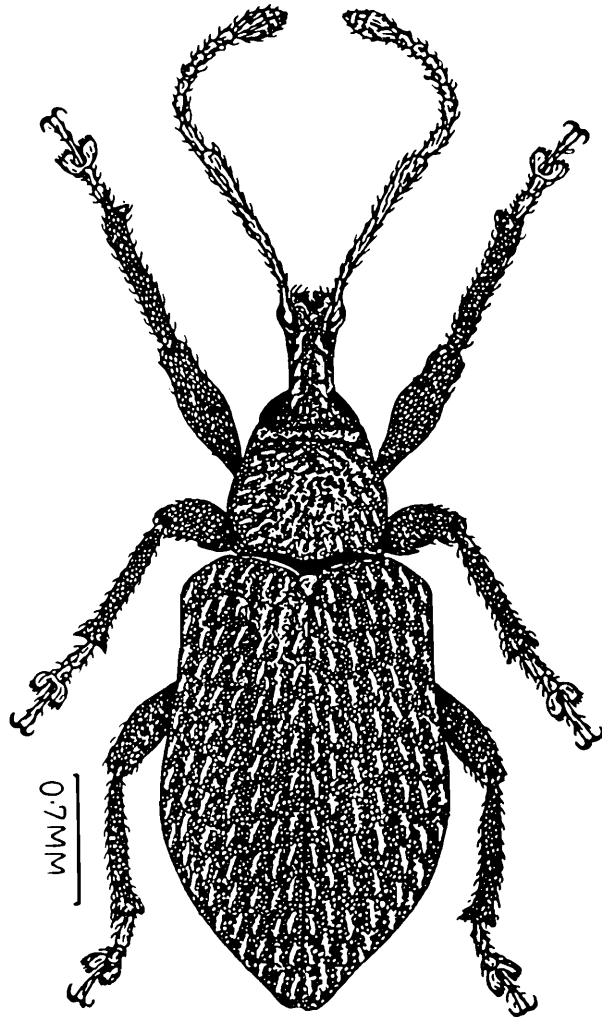
125. ***Phytoscaphus tenuirostris* Marshall**
(Figs. 91, 224)

1923. *Phytoscaphus tenuirostris* Marshall, Ann. Mag. nat. Hist., (9) 12 : 285.
1931. *Phytoscaphus tenuirostris* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 24, 39.

Frons red-brown, a little broader than dorsal area of rostrum, lying a little above upper margins of eyes, flat in front and slightly convex behind, completely covered with overlapping pale and green scales and a row of three or four sub-erect spathulate pale setae along inner edge of each eye, with fine shallow central stria visible through scales ; eyes piceous, large, oval, flattened. Rostrum red-brown, slender, very long, almost as long as front tibiae, running parallel from base to scrobes and then strongly dilated at apex ; dorsal area narrow, flat, gradually narrowing in front, with inter antennal area impressed but not excavated, covered with pale-green scales and a row of sub-erect spathulate setae along inner margin of each dorso-lateral carina, with central carina fine and hidden by scales ; dorso-lateral carinae fine, gradually converging from base to near apex and then divergent ; epistome terminal, almost indistinct, not passing even anterior margins of scrobes ; lateral areas with their usual two striae shallow and indistinct ; scrobes broad, curving inwards, open, almost visible from above ; mentum with two setae. Antennae red-brown, slender ; scape long, longer than funicle and club together, slightly curved in apical half, clavate, passing anterior margin of prothorax, clothed with narrow pale-green scales and setae ; funicle with joint 1 as long as 2, 2 nearly twice as long as 3, 3 to 6 subequal and about as long as broad, 7 a little longer than 3, each joint clothed with hair-like

scales and a distinct whorl of sub-erect setae ; club as long as four apical funicular joints, almost oval, finely pubescent.

Prothorax red-brown, almost as long as broad, broadest behind middle ; anterior margin straight, with less developed ocular lobes and short vibrissae ; surface slightly convex longitudinally, densely covered with pale-green scales, with remote setigerous punctures throughout and a small lateral fovea on each side behind middle, each puncture with a broad sub-erect greenish seta ; lateral sides rounded, narrower at apex than feebly arcuate base. Scutellum red-brown, small, rectangular with anterior margin rounded, densely squamose and sparsely setose.



Phytoscaphus tenuirostris Marshall

Elytra red-brown, oblong-ovate, parallel-sided from shoulders to beyond middle in male, widening behind middle in female,

narrowing towards apex, with apices jointly rounded and shoulders prominent and roundly rectangular ; striae narrow, with stria punctures close and shallow and each with a minute recumbent seta ; stria 9 with a large deep fovea at a level with hind coxae in female only ; intervals broad, almost flat, with interval 1 somewhat raised in posterior half, densely covered with pale-green and slightly overlapping scales, with a row of spatulate sub-erect setae on each interval. Legs testaceous, densely squamose ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior tibiae bisinuate internally in both sexes, each tibia with a row of spines on its inner apical half, and a fringe of reddish-brown bristles along with mucro at apex, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.3 times longer than second, third bilobed joint a little shorter than second and spongy beneath ; claws free and long. Thoracic sterna red-brown, densely covered with pale-green scales and short setae, middle of each sternum with narrow streak of pale scales. Abdominal sternites covered with pale-green scales, with a narrow streak of pale scales in middle, punctate and each puncture with a seta, with punctures deeper and setae comparatively longer in apical sternite.

Aedeagus somewhat curved, trapezoidal at apex, with a very small exophallic valve, with apical end and lateral sides more sclerotized ; phallosome subapical, without orificial plates ; aedeagal apodemes twice as long as aedeagus, curved at apex ; phallobase ring-shaped ; with phallobasic apodeme nearly as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with very dense rows of setae and papillae, having a triangular plate at apex. Bursa copulatrix moderately developed ; spiculum ventrale thin and long. Spermatheca with cornu pointed at apex, collum and ramus lying at right angle to each other.

Measurements.—

Length

Male body : 4.2 to 4.6 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 4.2 to 4.6 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 1.5 to 1.6 mm ; rostrum : 0.3 to 0.4 mm.

Female body : 1.5 to 1.6 mm ; rostrum : 0.3 to 0.4 mm.

Range.—India : Assam ; Punjab, Sohana (Ex. *Sorgham vulgare*).

Holotype in British Museum (N.H.), London.

126. ***Phytoscaphus suspensus*** sp. nov.
(Figs. 92a, 92b)

Frons piceous, narrower than length of an eye, slightly elevated than upper margin of eye, covered with dense broadly-ovate fulvus scales, with central fovea small and circular but concealed by dense scales ; eyes black, broadly-ovate, slightly bulging. Rostrum piceous, much longer than broad, with sides convergent upto antennae, covered with broadly-ovate dense fulvus and whitish scales, with area behind epistome impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae convergent upto antennal insertion and divergent anteriorly, lateral areas shining, covered with dense scales as on frons, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, with dense white scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 almost as long as 2, 3 to 7 transverse and beaded ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderately developed ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at little before middle, laterally rounded, with apex constricted and base bisinuate ; vestiture consisting of dense broadly-ovate and few spathulate fulvus and whitish scales. Scutellum small, circular, covered with small fuscus scales.

Elytra piceous, oblong parallel upto two-third length, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ,

intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders ; vestiture consisting of broadly-ovate and spathulate whitish, fulvus and fuscus scales in general, with two distinct white stripes — one obliquely-transverse near base and other transverse in apical half, with several stripes of fuscus and whitish scales present irregularly, a row of spathulate whitish or fuscus scales on each interval, narrow whitish seta-like scales filling striae punctures. Legs piceous, densely covered with whitish and fulvus scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with short spiny tooth ; tibiae with apices beset with dense brunneous bristles ; corbels of hind tibiae open ; tarsi squamose, hind tarsus with first joint longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a whitish scale. Abdominal sternites piceous, punctate, covered with dense broadly-ovate and few spathulate white scales.

Aedeagus straight, tubular ; lateral sides well sclerotized ; phallosome sub-apical, without orificial plates ; aedeagal apodemes 2 times as long as aedeagus, curved and broad at apex ; phallobase ring-shaped, phallobasic apodeme somewhat longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with groups of papillae and tubercles. Gastral spiculum with lateral arms short ; median arm curved and pointed at apex.

Measurements.—

Length

Body : 5.3 mm ; rostrum : 0.5 mm.

Breadth

Body : 2.2 mm ; rostrum : 0.2 mm.

Holotype.—Male ; Burma ; Tenasserim, Tavoy. Holotype in British Museum (N.H.), London.

127. *Phytoscaphus chlorohumeralis* sp. nov.

(Figs. 93a, 93b)

Frons piceous, much narrower than length of an eye, flat, covered with ovate light brownish scales and a few sub-erect thick setae.

Rostrum piceous, much longer than broad, with sides almost parallel upto scrobes and dilated at apex ; dorsal area forming a pair of foveae behind epistome, covered with scarce broadly ovate dull white to light-brownish scales, with central carina obsolescent in apical half and lower than dorso-laterals in basal half ; dorso-lateral carinae gradually converging upto antennal insertion, divergent thereafter ; epistome small, with posterior margins lowly carinate and forming a broad angle ; lateral areas shining, sparsely covered with appressed whitish scales, each with a broad sulcus from upper angle of scrobe to upper margin of eye. Antennae brunneus, moderately long ; scape rather long and surpassing anterior margin of prothorax, gradually clavate, covered with short whitish appressed scales and with sub-erect spathulate brownish setae ; funicle with joints 1 and 2 sub-equal, 3-7 slightly longer than broad ; club fusiform, finely pubescent.

Prothorax transverse, with moderately developed ocular lobes and fine vibrissae. Pronotum piceous, transversely convex, widest at middle, laterally rounded with apex truncate and less wide than slightly bisinuate base ; vestiture consisting of dense light brownish ovate scales interspersed with sub-recumbent short spathulate setae, with dense light greenish and light brownish appressed scales on lateral sides. Scutellum more or less circular, densely covered with overlapping dull white and light greenish scales.

Elytra piceous, oblong, with sides gradually convergent posteriorly, much wider at shoulders than base of prothorax, with shoulders projecting, strongly declivous behind middle, with apices jointly rounded ; striae moderate, with shallow distantly placed punctures ; intervals broad, somewhat convex in middle ; vestiture consisting of dull white light brownish and dark brownish scales, with whitish scales aggregated before and after middle in broad irregular bands and enclosing a band of dark scales, with a few light greenish scales at each shoulder and at suture behind scutellum, with a row of scarce sub-erect setae on each interval. Legs brunneus, densely covered with light brownish scales ; fore-coxae contiguous, lying slightly towards anterior margin of prosternum ; femora clavate, each with a short spiny tooth ; tibiae beset with dense appressed scales and sub-recumbent setae ; tarsi

setose ; hind tarsus with first joint shorter than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture with a whitish scale, with appressed scales densely scattered on surface. Abdominal sternites piceous, punctate, covered with dense minute ovate scales and fine sub-recumbent setae.

Aedeagus short, truncate at apex ; aedeagal apodemes long and curved, each dilated near apex and about 2.5 times as long as aedeagus ; phallotreme sub-apical, without apparent orificial plates ; phallobase ring-shaped, with phallobasic apodeme about half as long as aedeagal apodemes. Endophallus moderately long, not surpassing aedeagal apodemes, its surface densely beset with tubercles and papillae, with a few chitinised plates near apex. Gastral spiculum thick, with median arm thick and sharply bent near apex, with each basal arm deeply serrate along outer margin.

Measurements.—

Length

Male body : 6.8 mm ; rostrum : 1.0 mm.

Breadth

Male body : 2.5 mm ; rostrum : 1.0 mm.

Holotype.—Male ; Burma, Nam Tamai Valley ; 25.viii. 1938 ; R. Kaulback, Holotype in British Museum (Natural History), London.

128. *Phytoscaphus delusus* sp. nov.

(Fig. 225)

Frons black, slightly narrower than length of an eye, slightly elevated than upper margins of eyes, covered with dense broadly ovate greyish scales, with central fovea shallow and elongated ; eyes black, large, broadly ovate, slightly convex. Rostrum black, 1.5 times as long as broad, with sides parallel upto scrobes and diverging thereafter ; dorsal area near base in level with dorso-lateral carinae and depressed behind antennal insertion, covered with broadly ovate overlapping pale scales with metallic lustre, with area behind epistome impressed, with central carina much

lower than dorso-lateral carinae ; dorso-lateral carinae parallel up to scrobes, diverging thereafter ; lateral areas shining, sparsely covered with pale spathulate sub-recumbent setae, each with a deep narrow sulcus running from upper angle of scrobe to upper margin of eye, with lower sulcus less prominent. Antennae black, moderately long ; scape long, cylindrical, curved, gradually clavate, moderately covered with pale recumbent and sub-recumbent setae ; funicle with joints 1 and 2 equal, 3 to 6 sub-equal and longer than broad, 7 longer than 6 and shorter than 1 and 2, all joints densely clothed with short recumbent and long erect white setae ; club fusiform, finely and uniformly pubescent.

Prothorax transverse, with moderately developed ocular lobes and short vibrissae. Pronotum black, transversely and longitudinally convex, with apex slightly sinuate and base bisinuate, with sides rounded and widest behind middle, surface with shallow depressions one on each side near base ; vestiture consisting of greyish scales, with a patch of light brown scales in middle, punctate and each puncture with a suberect spathulate seta.

Elytra black, oblong, parallel from base to behind middle, narrowing towards apex, with apices separately rounded, wider at shoulders than base of prothorax, with shoulders roundly rectangular ; striae narrow, formed by enlogated punctures and each puncture with a fine recumbent seta, intervals broad, convex ; surface covered with a large common brownish patch extending laterally as far as striae 6 and uniting anteriorly with a faint whitish band, with 2 to 3 rows of setae on each interval. Legs piceous, covered with narrow whitish scales and sub-erect setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short femoral tooth ; tibiae slender, apical end of each tibia having a fringe of red-brown bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times longer than 2nd ; claws free and moderately long. Thoracic sterna black, densely covered with whitish recumbent setae and ovate scales. Abdominal sternite with sub-recumbent setae and ovate scales.

Male genitalia not studied. Bursa copulatrix moderately developed, with groups of sclerotized plates ; ventral spiculum long

and narrow, curved and broad at apex. Spermatheca with cornu long, curved ; collum and ramus lying parallel to each other.

Measurements.—

Length

Female Body : 7.1 mm ; rostrum : 0.8 mm.

Breadth

Female Body : 2.4 mm ; rostrum ; 0.5 mm.

Holotype.—Female ; Burma ; Rangoon ; 1936 ; F J. Meggitt. Holotype in British Museum (N.H.), London.

129. *Phytoscaphus signatus* sp. nov.

Frons narrower than length of an eye, on level with upper margins of eyes, covered with dense broadly-ovate pale scales, with central fovea small and circular and concealed by scales ; eyes black, large, broadly ovate, convex. Rostrum black, 1.5 times longer than broad, with sides slightly converging upto $\frac{2}{3}$ length and diverging thereafter ; dorsal area depressed behind antennae, covered with broadly ovate pale scales, with area behind epistome impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae converging upto scrobes and diverging thereafter ; lateral areas shining, sparsely covered with long pale scales, each with a narrow sulcus running from upper angle of scrobe to upper margin of eye, with lower sulcus less prominent. Antennae black, moderately long, covered with pale recumbent and sub-recumbent setae ; scape long, cylindrical, slightly curved towards apex, gradually clavate, moderately covered with pale recumbent and sub-recumbent setae.

Prothorax transverse, with moderately developed ocular lobes, with vibrissae short and many. Pronotum black, transversely and longitudinally convex, with apex truncate and base slightly bisinuate, with a shallow longitudinal impression on each side near base ; vestiture consisting of pale broadly ovate scales and sub-erect spathulate setae. Scutellum small, elongated, densely covered with whitish recumbent setae.

Elytra black, oblong, gradually widening from shoulders to behind middle, narrowing towards apex, with apices separately acuminate, much wider at shoulders than base of prothorax, with shoulders roundly rectangular; striae narrow, formed by deep and elliptical punctures and each puncture with a fine recumbent seta, with punctures visible through scaling; intervals broad, convex, with intervals 1 and 5 and basal $\frac{1}{4}$ of intervals 6 and 7 covered with convex and overlapping white scales, remaining covered with light brown and pale scales, each interval with 1 to 2 rows of erect pointed setae arising from a small granule each. Legs piceous, densely covered with ovate pale scales and sub-recumbent setae; fore-coxae contiguous, placed a little behind middle of prosternum; femora clavate, each with a short tooth; tibiae slender, apical end of each tibia with a fringe of red-brown bristles, corbels of hind tibiae open; tarsi densely setose, hind tarsus with first joint longer than 2 and 3 together, claws free and moderately long. Thoracic sterna black, densely covered with broadly ovate pale scales and spathulate setae. Abdominal sternites with pale narrow scales and sub-erect setae. Genitalia not studied.

Measurements.—

Length

Body : 7.6 mm ; rostrum : 0.7 mm.

Breadth

Body : 3.0 mm ; rostrum : 0.4 mm.

Holotype.—Male : Burma ; 1905 ; Fry.

Holotype in British Museum (N.H.), London.

130. ***Phytoscaphus fractivirgatus* Marshall**
(Fig. 94)

1923. *Phytoscaphus fractivirgatus* Marshall, Ann. Mag. nat. Hist., (9) 12 : 283.

1931. *Phytoscaphus fractivirgatus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 24, 35.

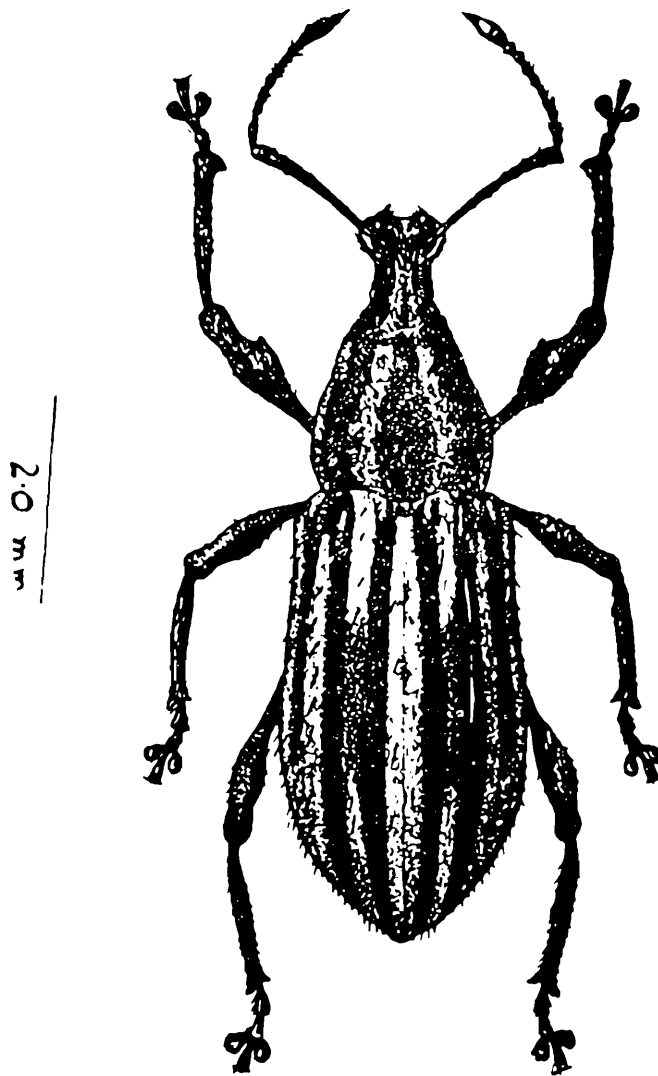
Frons red-brown, narrower than dorsal area of rostrum, lying only a little above upper margins of eyes, flat, completely covered

with overlapping pink and some green scales with a few pinkish erect setae along inner margin of each eye ; central fovea deep and elongated, almost concealed by scales ; eyes piceous, large, sub-ovate and flattened. Rostrum red brown, much longer than broad, running parallel from base to scrobes and then strongly dilated at apex ; dorsal area narrow, slightly convex in basal half, shallowly impressed in distal half, with inter-antennal area bifoveate, covered with pink scales and green setae ; central carina faint, concealed by scales in posterior half ; dorso-lateral carinae indistinct but distinct in anterior half, running parallel in basal half and then diverging towards apex ; lateral areas each with a broad bare costa running from scrobe straight to eye and a deep squamose stria above and below it ; epistome short, sloping anteriorly, with margins carinate and forming behind a narrow angle not extending beyond level of insertion of antennae ; scrobes narrow, curving inwards, almost visible from above ; mentum with two setae, with a short median tooth posteriorly. Antennae moderately long, red-brown ; scape slightly curved in apical half, clavate, passing anterior margin of prothorax, densely clothed with narrow pale scales and short recumbent setae ; funicle with joints 1 and 2 equal, 3 to 6 slightly diminishing progressively in length and all longer than broad, 7 as long as 4, all joints densely clothed with narrow pale scales and a few recumbent setae, each joint with a whorl of long erect setae ; club fusiform, finely and uniformly pubescent.

Prothorax red-brown, transverse, widest at little behind middle ; anterior margin straight, with strongly developed ocular lobes and distinct vibrissae ; dorsal surface longitudinally and transversely convex, coarsely and closely punctate with punctures mostly concealed by scales, with small granules on interspaces and each granule bearing a short spathulate seta, covered with alternate longitudinal stripes of brown and pale-green scales with median brown stripe narrow at apex ; lateral sides rounded, shallowly constricted near apex, narrower at apex than at gently bisinuate base. Scutellum red-brown, small, trapezoidal, broadest at apex, sparsely squamose.

Elytra red-brown, oblong ovate, parallel sided from shoulders to beyond middle in male, slightly widened behind in female, narrowing towards apex, with apices separately rounded, much

wider at rectangular shoulders than base of prothorax ; striae narrow, formed by deep and elongated visible punctures becoming shallower towards apex and each puncture with a fine recumbent seta, stria 9 bearing a deep fovea on level with hind coxa ; intervals broad, convex ; vestiture consisting of pale-green scales covering whole of interval 1, basal one-fifth of interval 3, whole of interval 5



Phytoscaphus fractivirgatus Marshall

except basal one-fifth, apex of interval 6, whole of interval 7, basal one-fourth and apices of intervals 8 and 9, apex and a small median area on interval 10 and whole of external margin, dark-brown scales on remainder surface, a row of erect pale setae on each interval. Legs red-brown, densely covered with pale-green scales and short setae ; fore-coxae contiguous, placed a little towards anterior

margin of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior tibiae obtusely angulated on their inner edge, middle and hind tibiae progressively less so, fore and middle tibiae with a row of spines on their inner apical halves, apical end of each tibia with a fringe of red-brown bristles and a mucro ; corbels of hind tibiae enclosed, each having an internal row of bristles ; tarsi densely setose, hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free and moderately long. Thoracic sterna reddish-brown, covered with dense shining green scales laterally and with narrow pale scales in middle, punctate and each puncture with a small pale seta. Abdominal sternites with pale narrow scales in middle and shining green scales laterally, punctate and each puncture with a narrow sub-recumbent seta.

Aedeagus straight, subtruncate at apex, with a very long exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme sub-median, without orificial plates ; aedeagal apodemes nearly twice as long as aedeagus, curved near apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with very dense rows of tubercles and papillae, having a pair of curved plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.8 to 7.4 mm ; rostrum : 1.3 to 1.4 mm.

Breadth

Male body : 2.5 to 2.7 mm ; rostrum : 0.6 to 0.7 mm.

Range.—Assam ; Meghalaya, Shillong.

Holotype in British Museum (N.H.), London.

131. ***Phytoscaphus chlorolateralus*** sp. nov.

(Fig. 95)

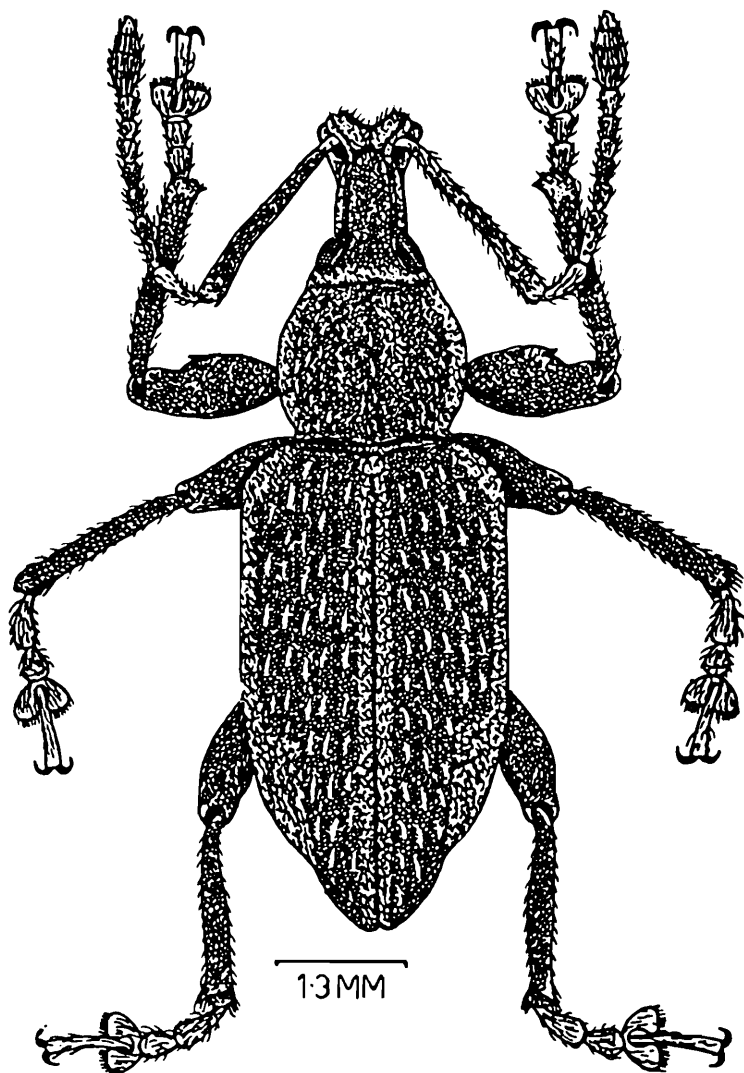
Frons red-brown, almost as broad as dorsal area of rostrum, lying above upper margins of eyes, flat, completely covered with

overlapping brown scales, with margins furnished with green scales and 3 to 4 pale sub-recumbent setae ; central fovea deep, elongated, almost concealed by scales ; eyes piceous, large, circular and almost flattened. Rostrum red-brown, more than twice as long as its apical width, running parallel from base to scrobes and then strongly dilated at apex ; dorsal area narrow, broadly impressed throughout, densely covered with brown scales, with interantennal area bifoveate and having short lateral processes ; central carina very fine, running only in bifoveate area ; dorso-lateral carinae very gradually converging from base to scrobes then strongly diverging apically ; lateral areas each with broad sparsely squamose costa running from scrobe straight to eye, with a deep squamose stria below and a shallow one above it ; epistome short, steeply sloping anteriorly ; with margins sharply carinate, forming behind a wide angle not extending beyond insertion of antennae ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae. Antennae long, fuscous ; scape almost straight, cylindrical, clavate, passing anterior margin of prothorax, clothed with narrow greenish and brownish scales and short subrecumbent brown setae ; funicle with joints 1 and 2 sub-equal, 3 and 7 sub-equal but much shorter than first two, 4 to 6 sub-equal and shortest, all joints clothed with narrow green scales but first and seventh sparsely so, each joint having subrecumbent greenish scales and distinct whorl of sub-erect setae ; club fusiform, finely and uniformly pubescent.

Prothorax red-brown, transverse, widest at middle ; anterior margin straight, with well-developed ocular lobes and short vibrissae laterally ; surface longitudinally and transversely convex, closely and coarsely punctate with small granules on interspaces and each granule bearing a spatulate pale seta, completely covered with dense brown scales and two indistinct dorsal stripes of brownish-pale scales ; constricted near apex, narrower at apex than at gently bisinuate base, Scutellum red-brown, small, placed high above elytra, rectangular with anterior margin rounded, densely clothed with green scales.

Elytra red-brown, oblong-ovate, very gradually narrowing from shoulders to beyond middle and then strongly narrowed at apex, with apices separately rounded and shortly acuminate, wider at shoulders than base of prothorax ; striae narrower than interval,

formed by large deep punctures and each puncture with a fine sub-recumbent seta, punctures concealed by scales; intervals broad and almost flat; apical half of interval 1, intervals 2 to 4 and basal three-fourth of intervals 5 and 6 clothed with brown scales with a few scattered small patches of greenish scales, remaining surface covered with shining-green scales with a row of sub-erect brown



Phytoscaphus chlorolateralus sp. nov.

setae on each interval, setae becoming short and recumbent laterally and apically. Legs reddish-brown, densely covered with brownish-green scales and short setae; fore-coxae contiguous, placed a little towards posterior margin of prosternum; femora clavate, each with a short tooth; tibiae slender, each tibia obtusely angulated on its inner edge, fore and middle tibiae each with a row of spines on their inner apical half, apical end of each tibia with a

fringe of fuscus bristles and a mucro, corbels of hind tibiae enclosed with an internal row of long bristles ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free and moderately long. Thoracic sterna reddish-brown, furnished with narrow pale scales in middle and dense shining green scales laterally, punctate and each puncture with a very short recumbent seta. Abdominal sternites with pale narrow scales in middle and shining green scales laterally, punctate and each puncture with a short pale seta, with setae dense and long and punctures large and close in apical sternite.

Aedeagus straight, sub-truncate, with a long exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme subapical, with orificial plates ; aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of papillae and tubercles, having a pair of curved plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 8.5 mm ; rostrum : 1.5 mm.

Breadth

Male body : 3.4 mm ; rostrum : 0.7 mm.

Holotype.—Male ; Assam, Lakhimpur ; 17. v. 1938 ; N. C. Chatterjee. Holotype in Zoology Department, P.U., Chandigarh.

132. *Phytoscaphus limis* sp. nov.
(Figs. 96a, 96b)

Frons piceous, narrower than length of an eye, slightly elevated than upper margins of eyes, covered with few small whitish scales, with central fovea small and circular ; eyes black, broadly-ovate, slightly bulging. Rostrum piceous, a little longer than broad, with sides divergent ; dorsal area depressed behind antennae, covered

with few broadly-ovate whitish scales, with area behind epistome impressed, with central carina almost at level with dorso-laterals ; dorso-lateral carinae convergent upto antennal insertion and divergent thereafter ; epistome small, steeply declivous anteriorly ; lateral areas shining, sparsely covered with small whitish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long, with dense whitish scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 much shorter than 2, 3 to 7 longer than broad and barrel-shaped ; club fusiform, finely pubescent.

Prothorax longer than broad, with moderately developed ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at middle, laterally rounded, with apex truncate and base bisinuate, with a shallow rounded depression at each sub-lateral side near base ; vestiture consisting of dense broadly ovate whitish and fuscus scales, with an ovate patch of fuscus scales in middle of dorsum, with lateral sides densely covered with whitish scales. Scutellum small, sub-circular, almost denuded.

Elytra piceous, oblong, parallel upto two-third length, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 6 and 7 impressed at shoulders ; vestiture consisting of broadly ovate whitish and fuscus scales and irregular transverse stripes, with a broad oblique-transverse stripe of white scales at little beyond middle and a similar smaller one at middle of apical half, a row of closely set spathulate whitish scales in each interval, with narrow white setalike scales filling strial punctures. Legs brunneus, densely covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with dense brunneus bristles ; corbels of hind tibiae enclosed ; tarsi squamose ; hind tarsus with first joint shorter than 2 and 3 together. Thoacic sterna piceous, punctate and each puncture with a whitish scale. Abdominal sternites piceous, punctate, covered with dense broadly-ovate and few spathulate whitish scales.

Aedeagus straight, sub-truncate at apex, lateral sides sclerotized ; phallotreme sub-apical, with orificial plates ; aedeagal apodomes 1.5 times as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae and tubercles, with pair of plates at apex. Gastral spiculum thick, lateral arms short, median arm curved and blunt at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.6 mm ; rostrum : 0.6 mm.

Breadth

Male body : 1.9 mm ; rostrum : 0.3 mm.

Holotype.—Male ; Burma, Kawkarcik ; 1950 ; J. H. Gravely.

Holotype in British Museum (N.H.), London.

133. *Phytoscapus liratirostris* sp. nov.

(Fig. 226)

Frons piceous, narrower than length of any eye, level with upper margins of eyes, covered with dense broadly ovate fulvus scales, with central fovea small, circular and concealed by scales ; eyes black, large, broadly-ovate, flat. Rostrum piceous, twice as long as broad, with sides parallel upto antennal insertion ; dorsal area depressed behind antennae, covered with broadly ovate shining fulvus scales, with area behind epistome impressed, with central carina higher than dorso-laterals ; dorso-lateral carinae parallel upto antennal insertion and divergent thereafter ; lateral areas shining, sparsely covered with pale scales, each with a deep narrow sulcus running from upper angle of scrobe to upper margin of eye, with lower sulcus less prominent ; ventral side of rostrum with a strong median tooth. Antennae piceous, moderately long, covered with pale setae ; scape long, cylindrical, straight, gradually clavate, covered sparsely with pale recumbent and sub-erect setae ;

funicle with joint 2 much longer than 1, 3 to 7 subequal and longer than broad ; club fusiform, finely pubescent.

Prothorax transverse, with moderately developed ocular lobes and short vibrissae. Pronotum black, transversely convex, widest at middle, laterally rounded, with apex slightly sinuate and base bisinuate ; vestiture consisting of yellow broadly ovate scales, with a spathulate sub-erect seta-like scale in each puncture. Scutellum small, sub-circular, covered with pale scales.

Elytra black, oblong, gradually widening from base to behind middle, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately acuminate ; striae narrow, with shallow punctures set apart from each other ; intervals broad, slightly convex in apical half ; vestiture of broadly ovate yellow scales with sub-erect spathulate seta-like scales. Legs piceous, densely covered with yellow seta-like scales mixed with pinkish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with their apices beset with dense brunneous bristles, corbels of hind tibiae enclosed ; tarsi squamose, hind tarsus with first joint longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture with a pale whitish seta-like scale. Abdominal sternites piceous, punctate, covered with dense broadly ovate yellow scales and few whitish scales.

Male genitalia not studied. Bursa copulatrix moderately developed, with group of well-sclerotized plates ; ventral spiculum long and thick, broad at apex. Spermatheca with cornu long, curved and pointed at apex ; collum and ramus lying parallel to each other.

Measurements.—

Length

Body : 8.3 mm ; rostrum : 1.2 mm.

Breadth

Body : 3.4 mm ; rostrum : 0.6 mm.

Holotype.—Female ; India ; Meghalaya, Shillong. Holotype in British Museum (N.H.), London.

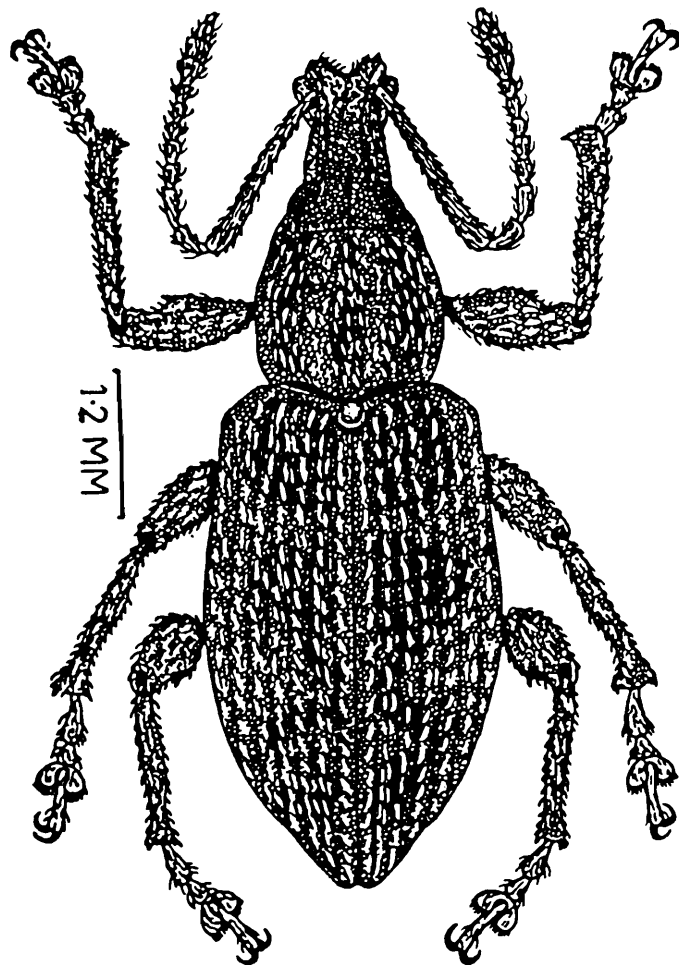
134. *Phytoscaphus fuscofasciatus* sp. nov.

(Fig. 97)

Frons red-brown, a little broader than dorsal area of rostrum, lying above upper margins of eyes, flat, completely covered with overlapping green scales interspersed with brownish scales and a few spathulate recumbent setae, with a narrow and elongated central fovea not concealed by scales ; eyes piceous, large, sub-ovate and flattened. Rostrum red-brown, much longer than broad, running parallel from base to scrobes and then dilated at apex ; dorsal area narrow, broadly impressed throughout, flat at base, densely covered with pale-green scales, with inter-antennal area deeply and steeply impressed anteriorly and covered with sparse green scales ; central carina fine, complete ; dorso-lateral carinae distinct, covered with scales, strongly diverging apically and parallel behind, lateral areas each with a broad squamose costa running from scrobe straight to eye and a deep squamose stria above and below it ; epistome short, steeply sloping anteriorly, with margins sharply carinate and forming behind a wide angle not extending beyond level of insertion of antennae ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae, its posterior surface with a broad median tooth. Antennae long, fuscus ; scape slightly curved in apical half, gradually clavate, reaching middle of prothorax, densely clothed with narrow pale-green scales and short dark brown setae ; funicle with joints 1 and 2 equal, 3 and 7 equal but distinctly shorter than first two, 4 to 6 subequal and shortest, all joints furnished with narrow green scales and pale setae and a whorl of sub-recumbent pale setae ; club fusiform, finely and uniformly pubescent.

Prothorax red-brown, transverse, widest near middle ; anterior margin straight, with strongly developed ocular lobes and short vibrissae laterally ; surface longitudinally and transversely convex, closely punctate, with small granules on interspaces and each bearing a short recumbent pale seta, clothed with alternate stripes of brownish and pale-green scales with central brown stripe narrower than lateral stripes at least at apex and base ; lateral sides rounded, shallowly constricted near apex, narrower at apex than at gently bisinuate base. Scutellum testaceous, placed high above elytra, almost pentagonal, with sparse narrow scales.

Elytra testaceous, oblong-ovate, parallel sided from shoulders to beyond middle, narrowing towards apex, with apices separately rounded, much wider at shoulders than base of prothorax, with shoulders roundly rectangular ; striae narrow, formed by deep and rounded punctures and each puncture with a fine recumbent seta ; intervals broad, almost flat, with basal halves of intervals



Phytoscaphus fuscofasciatus sp. nov.

2 to 6 bearing an irregular longitudinal patch of brownish scales, similar scales forming a spot on declivity, remaining surface covered with pale-green scales, each interval furnished with sub-erect pale and brownish setae becoming shorter and recumbent on lateral intervals. Legs testaceous, densely covered with pale green scales and short setae ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short tooth ; tibiae slender and obtusely angulated on inner edges, fore and middle tibiae with a row of spines on their inner apical two-third, apical

end of each tibia with a fringe of blackish bristles and a mucro, corbels of hind tibiae enclosed with an internal row of longer bristles ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free and moderately long. Thoracic sterna testaceous, furnished with dense pale-green scales laterally and narrow pale scales in middle, punctate and each puncture with a short seta. Abdominal sternites with pale narrow scales in middle and shining pale-green scales laterally, punctate and each puncture with a short pale recumbent seta.

Aedeagus straight, slightly sinuate at apex, with a thin exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme subapical, without orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of setae, tubercles and papillae, having a pair of curved plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 7.1 mm ; rostrum : 1.2 mm.

Breadth

Male body : 2.9 mm ; rostrum : 0.6 mm.

Holotype.—Male ; India : Assam, Lakhimpur ; H.R. Pajni. Holotype in Zoology Deptt. P.U., Chandigarh.

135. **Phytoscaphus kaulbacki** sp. nov.
(Figs. 98a, 98b, 227)

Frons fuscus, much narrower than length of an eye, somewhat higher than upper margins of eyes, covered with yellow and greenish scales ; central fovea small, slightly elongated ; eyes fuscus, slightly convex. Rostrum piceous, much longer than broad, running

parallel from base to antennal insertion and dilated at apex ; central carina lower than dorso-laterals ; dorso-lateral carinae parallel upto antennal insertion, divergent thereafter ; lateral areas shining, each with a sulcus running from upper angle of scrobe to upper margin of eye ; epistome small. Antennae testaceous, long ; scape compressed, covered with greenish scales and fine brown setae ; funicle with joint 2 longer than 1, 3 to 7 sub-equal ; club fusiform and finely pubescent.

Prothorax longer than broad, with well-developed ocular lobes and long vibrissae ; pronotum piceous, transversely and longitudinally convex, punctate, widest behind middle and laterally rounded, with apex truncate and base shallowly bisinuate ; vestiture consisting of orange-coloured and greenish scales, with greyish scales in middle, with fine yellow setae in punctures. Scutellum broad, covered with appressed greenish scales.

Elytra testaceous, oblong, much wider at shoulders than base of prothorax, with shoulders rectangular, declivous posteriorly ; striae narrow, with shallow closely set punctures ; intervals somewhat broad ; vestiture consisting of yellowish and green scales, brown sub-recumbent fine setae filling strial punctures, with broadly-ovate brownish sub-recumbent scales on intervals. Legs piceous, densely covered with greenish scales ; fore-coxae contiguous ; femora clavate, each with a short spiny tooth ; tibiae somewhat compressed, corbels of hind tibiae enclosed ; tarsi squamose ; hind tarsus with joint 1 longer than 2 and 3 together. Thoracic sterna piceous, covered with recumbent fuscus and brown scales and sub-recumbent brown setae. Abdominal sternites piceous, densely covered with fuscus and brown scales and fine long sub-recumbent setae.

Aedeagus straight, truncate at apex, with exophallic valve moderate, with lateral and apical sides sclerotized ; phallosomes sub-apical, without orificial plates ; aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae and tubercles, with pair of plates at apex. Gastral spiculum thick, lateral arms thick and curved at apex. Bursa copulatrix moderately developed ; ventral spiculum long and thick,

curved at apex. Spermatheca with cornu long and pointed at apex ; collum bent at right angle at middle ; ramus weakly developed.

Measurements.—

Length

Male body : 9.0 mm to 9.3 mm ; rostrum : 1.4 to 0.9 mm.

Female body : 10.9 mm to 12.5 mm ; rostrum : 1.4 to 1.6 mm.

Breadth

Male body : 3.1 to 3.4 mm ; rostrum : 0.2 to 0.4 mm.

Female body : 4.2 to 4.4 mm ; rostrum : 0.5 to 0.7 mm.

Holotype.—Male ; Upper Burma, Nam Tamai Valley ; 14. viii. 1938 ; R. Kaulback. *Paratypes* : Males 3 ; Upper Burma ; 12. ix. 1938 : Females 4 ; upper Burma ; 12. ix. 1938 ; R. Kaulback. Material in British Museum (N.H.), London.

136. ***Phytoscaphus marshalli*** (Pajni and Chhibba)
(Figs. 99, 228)

1972. *Diatropus marshalli* Pajni & Chhibba, J. nat. Hist., 6 : 695.

Frons fuscus, somewhat broader than dorsal area of rostrum, lying above upper margins of eyes, flat, completely covered with pink shining scales having a slight green lusture, surrounded by distant punctures each having a spathulate sub-erect seta ; central fovea deep, circular, sub-depressed, almost flattened. Rostrum fuscus, almost twice as long as at dilated tip, running parallel from base to scrobes and dilated at genae ; dorsal area narrow, broadly impressed throughout, with inter-antennal area broadly bifoveate and having shining green scales, remaining area densely covered with pink shining scales having slight green reflection, with row of 4 to 5 short sub-erect setae in large punctures along inner margin of each dorso-lateral carina ; central carina fine and short, present only in bifoveate area ; dorso-lateral carinae distinct, squamose, strongly diverging at apex and converging at base ; epistome short,

with margins sharply carinate and forming an obtuse angle behind, not exceeding level of insertion of antennae ; lateral areas each with a broad squamose costa running from scrobe straight to eye and a deep squamose stria above and below it ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae. Antennae moderately long, fuscus ; scape slightly curved near apex, cylindrical, clavate, passing anterior margin of prothorax, clothed with narrow greenish scales and short sub-recumbent setae having pink lusture ; funicle with joint 2 a little longer than 1, 3 to 5 and 6 subequal, 7 a little longer than 3, 4 shortest, all joints clothed with progressively narrowing greenish scales and each with one or more whorls of sub-erect setae having pink reflection ; club dark-brown, fusiform, finely and uniformly pubescent.

Prothorax fuscus, transverse, broadest at middle ; anterior margin truncate, with strongly developed ocular lobes and fine vibrissae laterally ; surface longitudinally and transversely convex, with small granules and each granule having a short pale seta, densely covered with uniform metallic green scales ; lateral sides rounded, shallowly constricted near apex, narrower at apex than at gently bisinuate base, covered with metallic green scales. Scutellum fuscus, small, almost rounded, densely covered with shining green scales.

Elytra fuscus, oblong ovate, parallel sided from shoulders to beyond middle and narrowing towards apex, with apices shortly acuminate, wider at weak shoulders than base of prothorax ; striae narrow, deep, punctate, with punctures visible through scales and each puncture with a fine recumbent seta ; intervals broad, somewhat convex, covered with convex uniform shining green scales, each interval with a row of spathulate sub-recumbent setae. Legs fuscus, densely covered with pink scales as well as short setae ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora stout, thick, clavate, each with a short tooth ; tibiae slender, bisinuate internally, anterior and middle tibiae with a row of spines on their inner apical half, apical end of each with a fringe of brown spines and a mucro, corbels of hind tibiae enclosed and having an internal row of bristles ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free

and long. Thoracic sterna fuscus, covered with narrow pale scales in middle and shining green scales laterally, punctate and each puncture with a short seta. Abdominal sternites fuscus, with pale narrow scales in middle and a few metallic-green laterally, punctate and each puncture with a short spatulate seta.

Aedeagus straight, slightly bilobed at apex, with exophallic valve small, with apical end and lateral sides more sclerotized, phallosome sub-apical, without orificial plates; aedeagal apodemes 1.5 times as long as aedeagus; phallobase ring-shaped, with phallobasic apodeme nearly as long as aedeagus; endophallus lying between aedeagal apodemes, beset with dense rows of tubercles and papillae, having two pairs of plates at apex. Bursa copulatrix very well-developed, beset with rows of setae and papillae, with a pair of curved plates at base and less sclerotized plates at apex; spiculum ventrale long, thick, curved at apex and spatulate. Spermatheca with cornu pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 6.2 to 6.6 mm; rostrum : 1.0 to 1.2 mm.

Female body : 8.3 to 9.5 mm; rostrum : 1.3 to 1.5 mm.

Breadth

Male body : 2.6 to 2.8 mm; rostrum : 0.5 to 0.6 mm.

Female body : 3.3 to 3.6 mm; rostrum : 0.7 to 0.8 mm.

Range.—India : Chandigarh; Punjab, Sohana,

137. *Phytoscaphus chloroticus* Boheman

(Figs 100, 229)

1843. *Phytoscaphus chloroticus* Boheman, in Schonh. Gen. Spec. Curc., (1) 7 : 413.

1891. *Phytoscaphus cuprescens* Aurivillius, Nouv. Arch. Mus. Paris (3) III : 215.

1931. *Phytoscaphus chloroticus*: Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 23, 34.

Frons fuscus, almost as broad as dorsal area of rostrum, lying a little above upper margins of eyes, flat, completely covered with

overlapping pinkish shining scales and a few spathulate sub-recumbent setae, with an elongated deep central fovea ; eyes fuscus, large, somewhat oval and flattened. Rostrum fuscus, much longer than broad, running parallel from base to scrobes and then strongly dilated at apex ; dorsal area narrow, broadly impressed throughout, with interantennal area bifoveate and covered with some shining green scales and some greenish setae, with remaining area densely covered with overlapping pinkish scales and 4 to 5 spathulate subrecumbent setae along inner margin of each dorso-lateral carina ; central carina very fine and small, only present in bifoveate area ; dorso-lateral carinae distinct, covered with scales, strongly diverging at apex, gradually converging near base ; lateral areas each with a broad smooth squamose costa running from scrobe straight to eye and a deep squamose stria above and below it ; epistome short, with margins sharply carinate, forming behind an obtuse angle not exceeding a line of insertion of antennae ; scrobes broad, curving inwards, almost visible from above ; mentum with two setae. Antennae moderately long, fuscus ; scape slightly curved near apex, cylindrical, clavate, passing anterior margin of prothorax, clothed with narrow greenish scales and short sub-recumbent setae having pinkish lusture ; funicle with joint 2 a little longer than 1, 3 and 5 to 7 subequal but much shorter than 1, 4 shortest, all joints covered with progressively narrowing greenish scales having pinkish reflection, joints 1 and 2 with three to four whorls and remaining joints with one whorl of sub-erect setae ; club brown, fusiform, finely and uniformly pubescent.

Prothorax fuscus, transverse, broadest at middle ; anterior margin truncate, with well-developed ocular lobes and fine vibrissae laterally ; surface longitudinally and transversely convex, densely marked with small granules and each granule bearing a short pale seta, bearing two longitudinal bands of shining green with pinkish lusture, in male remaining surface clothed with pink lustured scales ; lateral sides rounded, shallowly constricted near apex, narrower at apex than at gently bisinuate base, clothed with shining green scales. Scutellum fuscus, very small, almost rounded, densely covered with shining green scales.

Elytra fuscus, oblong-ovate, parallel sided from shoulders to beyond middle, narrowing towards apex, with apices shortly scumi-

nate, wider at shoulders than base of prothorax, with shoulders not prominent, oblique ; striae narrow, with deep and elongated striaal punctures almost concealed with scales and each puncture with a fine recumbent seta ; intervals broad, somewhat convex, covered with overlapping shining-green scales in male and such scales with pinkish lusture on dorsal intervals in female, each interval with one to two rows of spathulate recumbent setae. Legs fuscus, densely covered with pinkish and shining green scales as well as short setae ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora stout, thick, clavate, each with a sharp tooth ; tibiae slender, bisinuate internally, anterior and middle tibiae with a row of spines on their inner apical half, apical end of each tibia with a fringe of brown bristles and a mucro, corbels of hind tibiae enclosed by an internal row of bristles ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free and long. Thoracic sterna fuscus, covered with narrow pale scales in middle and shining green scales laterally, punctate and each puncture with a small seta. Abdominal sternites fuscus, with pale narrow scales in middle and shining green scales laterally, punctate and each puncture with a short recumbent seta, with punctures larger and deeper in apical segment.

Aedeagus straight, tubular, slightly bilobed at apex, with a thin exophallic valve, with apical end and lateral sides strongly sclerotized, its ventral surface projecting beyond dorsal surface ; phallosome sub-apical, without orificial plates ; aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, with phallobasic apodeme somewhat shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with dense rows of papillae and tubercles, having a pair of curved plates at apex. Bursa copulatrix moderately developed, with a pair of moderately sclerotized plates at apex ; ventral spiculum long, thick, spathulate at apex. Spermatheca with cornu pointed at apex, collum and ramus lying at right angle to each other.

Measurements.—

Length

Male body : 7.9 mm ; rostrum : 1.4 mm.

Female body : 8.5 mm ; rostrum : 1.5 mm.

Breadth

Male body : 2.8 mm ; rostrum : 0.6 mm.

Female body : 3.1 mm ; rostrum : 0.7 mm.

Range.—India : Uttar Pradesh, Kanpur, Dehradun ; Bengal, Damnkdia ; Meghalaya, Shillong ; Burma.

Holotype in Stockholm Museum (Sweden).

138. ***Phytoscaphus vagenotatus* sp. nov.**
(Fig. 230)

Frons piceous, wider than length of an eye, slightly elevated than upper margins of eyes, covered with dense broadly-ovate placid and whitish scales, with central fovea small and circular but concealed by dense scales ; eyes black, broadly-ovate, moderately bulging. Rostrum piceous, a little longer than broad, with sides parallel upto antennal insertion ; dorsal area depressed behind antennae, covered with dense broadly-ovate placid and whitish scales, with area behind epistome impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae convergent up to antennal insertion and divergent thereafter ; epistome small, steeply declivous anteriorly ; lateral areas shining, covered with dense scales as on frons, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, long, with dense brownish and few sub-erect whitish scales ; scape long, cylindrical, moderately curved, gradually clavate ; funicle with joint 1 as long as 2, 3 to 7 longer than broad ; club fusiform, finely pubescent.

Prothrox longer than broad, with moderately developed ocular lobes and long vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at little before middle, laterally rounded, with apex constricted and base bisinuate ; vestiture consisting of dense uniform scaling of broadly-ovate and spathulate fulvus and whitish scales, fuscus scales forming three distinct stripes, one broad longitudinal in middle and one oblique and narrower on each sub-lateral side. Scutellum small, sub-circular, densely covered with small placid scales.

Elytra piceous, oblong, parallel upto little before middle, much wider at shoulders than base of prothorax, with shoulders rounded, declivous posteriorly, with apices separately rounded and shortly acuminate ; striae narrow, with shallow closely set punctures ; intervals broad, somewhat convex in apical half, with intervals 5 and 7 impressed at shoulders ; vestiture consisting of dense broadly-ovate variously-coloured scales, brownish scales present in dense patches on dorsal intervals, mixture of whitish, greenish, fulvus and brownish scales on other intervals, one or two rows of spathulate whitish scales on each interval. Legs brunneus, densely covered with whitish and brownish scales ; fore-coxae contiguous, placid in middle of pro terna ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense brunneus bristles, fore-tibiae with their anterior one third beset with short spines, corbels of hind tibiae enclosed ; tarsi squamose ; hind tarsus with first-joint a little shorter than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a whitish or fulvus or brownish scale. Abdominal sternites piceous, punctate, covered with dense mixed whitish, fulvus and brownish scales.

Male genitalia not studied. Bursa copulatrix moderately developed ; ventral spiculum long and thick, spathulate at apex. Spermatheca with cornu long and curved at apex ; collum lying parallel to ramus.

Measurements.—

Length

Body : 5.5 mm ; rostrum : 0.7 mm.

Breadth

Body : 2.3 mm ; rostrum : 0.4 mm.

Holotype.—Female : Burma ; Tharrawaddy, Corbatt. In British Museum (N.H.), London.

Genus 31. *Tanyscapus* Marshall

1944. *Tanyscapus* Marshall, Ann. Mag. nat, Hist., (11) 11 : 450.

Frons continuous with rostrum, very broad ; eyes broadly ovate and strongly convex. Rostrum transverse, very broad, its sides

forming continuous lines with those of head, not dilated at genae ; dorso-lateral carinae indistinct in basal half ; epistome with carinate margin forming a narrow angle extending behind a line between insertion of antennae ; mentum with 2 setae. Antennae elongate, setose ; scape curved. Prothorax transverse, its base sub-truncate, with weak ocular lobes. Elytra much wider at roundly rectangular shoulders than prothorax. Femora shortly toothed ; front tibiae not sinuate at base ; corbels of hind tibiae open.

Type species.—*Tanyscapus compressus* Marshall

Distribution.—INDIA.

139. *Tanyscapus compressus* Marshall
(Fig. 231)

1944. *Tanyscapus compressus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 450.

Frons fuscus, its width much greater than length of an eye, covered with cupreus and greenish scales and sub-recumbent spathulate setae, with central fovea deep and concealed by scales ; eyes fuscus, broadly ovate and strongly convex. Rostrum transverse, gradually narrowing from base to genae ; dorso-lateral carinae indistinct in basal half, strongly curved outwards at apex ; lateral area with a weak oblique costa from inner edge of scrobe to middle of eye, covered with greenish and cupreus scales and pale spathulate setae ; epistome large, with carinate margin forming a narrow angle extending behind a line between antennae ; mentum with two setae. Antennae elongate, setose ; scape curved, reaching base of pronotum ; funicle with joint 1 nearly as long as 2 and 3, 4 to 7 elongate and sub-equal ; club fusiform and finely pubescent.

Prothorax fuscus, transverse, with obsolete ocular lobes and fine vibrissae, with sides almost straight and parallel ; pronotum with two transverse impressions on either side, one before and other behind middle ; its base sub-truncate ; vestiture consisting of recumbent cupreus and greenish scales and pale sub-recumbent setae. Scutellum piceous, oblong, covered with few recumbent brownish setae.

Elytra fuscus, much wider at shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow, with closely not punctures ; intervals broad, somewhat convex ; vestiture consisting of cupreous and greenish scales and pale spathulate setae with minute sub-recumbent setae filling strial punctures. Legs piceous, densely setose, covered with greenish scales and white setae ; fore-coxae contiguous ; femora clavate, each with a sharp tooth, covered with greenish and pale scales and pale sub-recumbent setae ; tibiae compressed, gradually clavate ; corbels of hind tibiae open ; tarsi setose ; hind tarsus with joint 1 longer than 2 and 3, third bilobed joint spongy beneath ; claws free. Thoracic sterna fuscus, covered with greenish scales. Abdominal sternites fuscus, covered with few whitish sub-erect setae and recumbent greenish scales.

Male genitalia not studied. Bursa copulatrix well-developed ; ventrale spiculum long and thick, narrow and curved at apex. Spermatheca with cornu pointed, curved at apex ; collum somewhat broad ; ramus slightly curved and lying very close to collum.

Measurements.—

Length

Body : 5.4 mm ; rostrum : 0.4 mm.

Breadth

Body : 1.8 mm ; rostrum : 0.6 mm.

Range.—India ; Kalimpong ; Buxars Duars ; Jannsaie.

Holotype in British Museum (N.H.), London.

Genus 32. **Cnaphoscapus** Marshall

1944. *Cnaphoscapus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 451.

Frons twice as broad as length of an eye ; eyes oval and nearly flat. Rostrum nearly as long as its apical width, dilated at genae ; dorso-lateral carinae diverging apically ; epistome with its carinate hind margin forming a sharp acute angle ; depressions on sides

of epistome densely squamose ; lateral area with a curved oblique carina from inner edge of scrobe towards middle of eye ; rostrum narrowed ventrally, with a tubercle in middle of lower surface ; mentum with two setae. Antennae squamose throughout ; scape broad, curved, gradually widening from base to apex ; funicle with joints 1 and 2 equal. Prothorax moderately bisinuate at base, with ocular lobes distinct. Femora toothed ; corbels of hind tibiae open.

Type species.—*Cnaphoscapus bisignatus* Marshall.

Distribution.—INDIA, CHINA, BURMA, MALAYS, JAWA.

Key to the species of the genus **Cnaphoscapus** Marshall.

1. Rostrum with depression behind epistome densely squamose ; elytra with shoulders somewhat projecting, each with a dark brown band behind middle *decoratus* (Faust)
- Rostrum with depression behind epistome bare ; elytra with shoulders not projecting laterally *albohumeralis* sp. nov.

140. **Cnaphoscapus decoratus** (Faust)

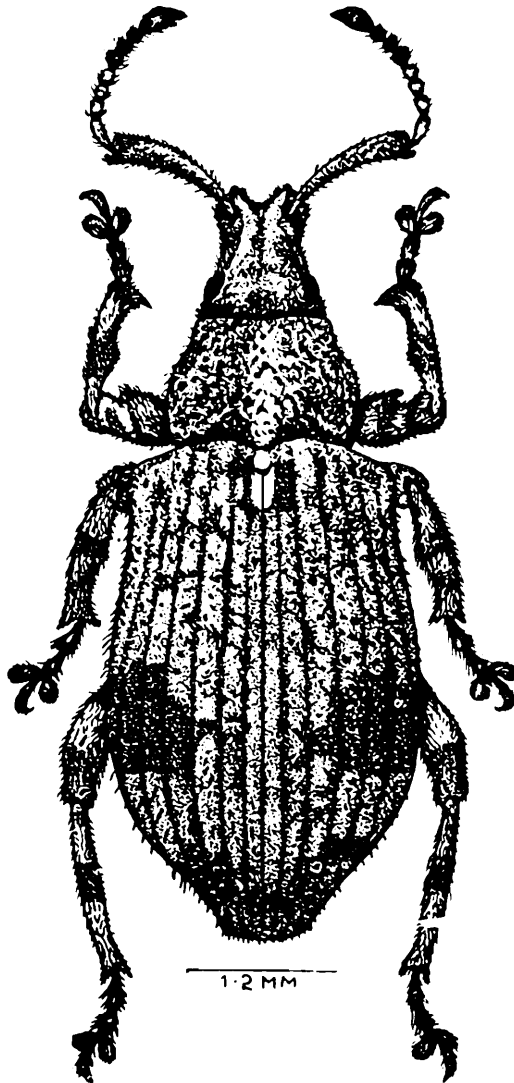
1890. *Cyphicerus decoratus* Faust, Stett. Ent. Zeit., **51** : 69.

1891. *Canoixus nigroclavatus* Aurivillius, Nouv. Arch. Mus., Paris, (3) **III** : 214.

1944. *Cnaphoscapus decoratus* : Marshall, Ann. Mag. nat. Hist., (11) **II** : 452.

Frons fuscus, its width much greater than length of an eye, densely covered with brown and pale scales and few erect brown seta-like scales ; central fovea almost concealed by scales ; eyes fuscus, lying a little lower than frons, moderately convex. Rostrum fuscus, as long as its apical width, parallel from base to scrobes and dilated at genae ; dorsal area impressed at base, densely covered with brown and pale scales and few erect pale seta-like scales ; dorso-lateral carinae not distinct after middle, divergent apically ; lateral areas each with a broad squamose band from scrobe towards eye, densely covered with pale scales with coppery reflection ; epistome long, its hind margin raised and forming an acute angle

behind ; mentum with two setae. Antennae fuscus, long ; scape cylindrical, stout, clavate, densely covered with pale recumbent scales and few brown seta-like scales ; funicle with joint 1 much longer than 2, 3 and 4 sub-equal but shorter than 2, joints 1 to 4 covered with pale scales and 5 to 7 with dark brown scales ; club small, fusiform and finely pubescent.



Cnaphoscapus decoratus Faust

Prothorax fuscus, transverse, with well-developed ocular lobes and short vibrissae, wider at base than at apex, rounded laterally, widest in middle, with a deep depression behind middle on each sub-lateral part, rugosely punctate ; vestiture consisting of pale recumbent scales, with a median stripe of erect pale-brown setae. Scutellum small, rounded, covered with whitish recumbent scales.

Elytra piceous, much wider at shoulders than base of prothorax, with shoulders roundly rectangular, parallel sided from base to middle, declivous posteriorly, with apices shortly acuminate and separately rounded ; striae broad, punctate with punctures closely set and almost concealed by scales ; intervals somewhat broad ; vestiture consisting of mixture of coppery and grey scales, white scales behind scutellum, median one third stripe covered with coppery scales, pale scales on shoulders, brown scales on declivity between intervals 2 to 6, grey scales on rest of the parts, with sub-erect brown setae on intervals. Legs piceous, densely squamose, with alternate patches of white and brown scales ; femora clavate, each with a sharp tooth ; tibiae slender and clavate ; tarsi squamose ; hind tarsus with joint 1 about 1.5 times as long as 2, third bilobed joint spongy beneath. Thoracic sterna piceous, punctate, covered with brown and greyish scales. Abdominal sternites piceous, covered with coppery and greyish scales and few brown sub-erect seta-like scales.

Male and female genitalia not studied.

Measurements.—

Length

Body : 7.1 mm ; rostrum : 0.8 mm.

Breadth

Body : 3.0 mm ; rostrum : 0.5 mm.

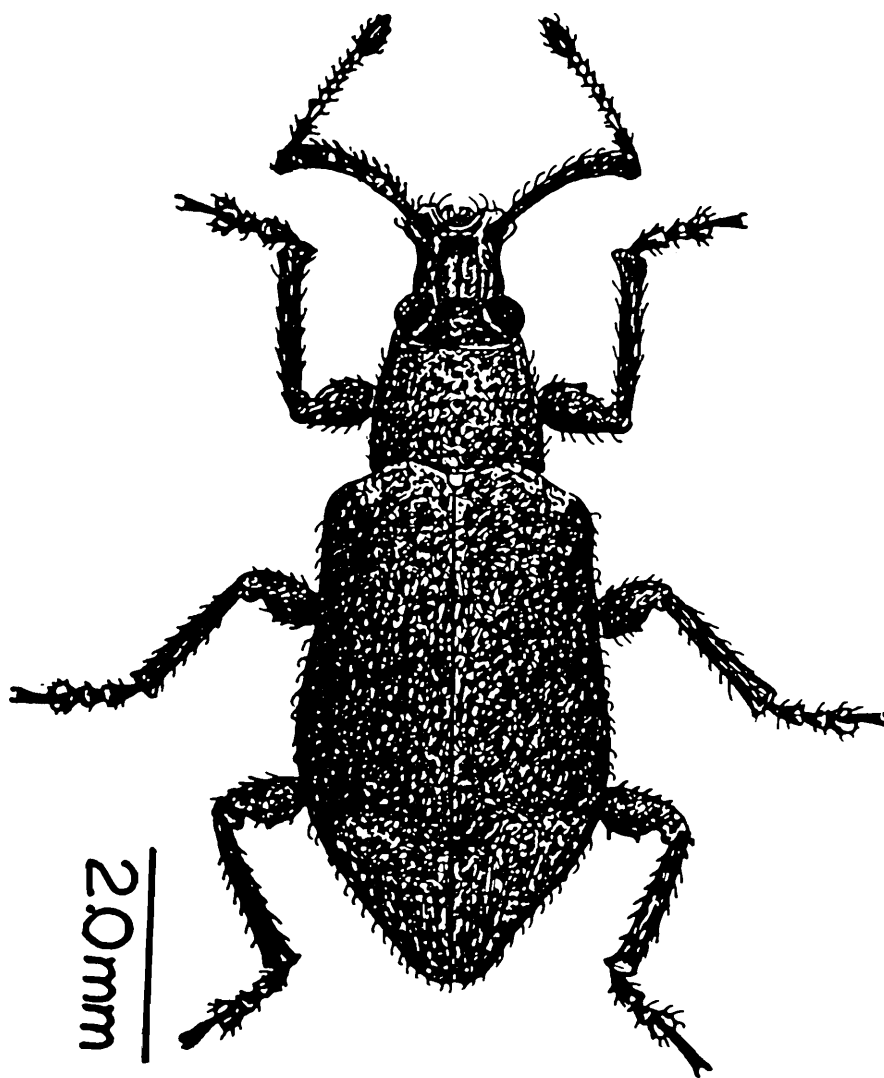
Range.—Burma : Sham States, Maymyo, Rangoon, Insein, Taug-ngu ; Indo-China : Tonkin ; Thailand : Huatlin ; Malaya : Panaug ; Singapore ; China.

Holotype in Dresden Museum, (Germany).

141. **Cnaphoscopus albohumeralis** sp. nov.

Frons piceous, its width equal to length of an eye, covered with brown scales and few pale scales in middle and near eyes ; central fovea small, concealed by scales ; eyes fuscus, large, flat, lying

below level of frons. Rostrum fuscus, as long as its apical width, running parallel from base to scrobes and divergent thereafter ; dorsal area impressed behind epistome ; median carina lower than dorso-laterals, posteriorly covered with dense scales ; dorso-lateral carinae parallel from base to scrobes and divergent thereafter ; epistome small, sharply declivous anteriorly ; lateral areas each with a broad curved band from scrobe to middle of eye, with pale-brown scales and few erect seta-like scales. Antennae small ; scape stout, short, clavate, covered densely with erect black seta-like scales ; funicle with joint 1 longer than 2, 3 to 7 transverse and sub-equal ; club fusiform and uniformly pubescent.



Cnaphoscapus albohumeralis sp. nov.

Prothorax fuscus, with well-developed ocular lobes and long vibrissae, narrower at apex than at base, rounded laterally, widest

behind middle, narrowly constricted near base and basal angles projecting obliquely outwards, with apical margin truncate and basal margin deeply bisinuate, rugosly punctate ; vestiture consisting of brown and yellow scales forming two lateral stripes and a median stripe, with brown erect seta-like scales filling strial punctures. Scutellum small, covered with dense pale scales.

Elytra piceous, much wider at shoulders than base of prothorax, with shoulders roundly rectangular, parallel sided upto middle and declivous posteriorly, with apices jointly rounded ; striae narrow, closely punctate ; intervals broad, slightly convex ; vestiture of dense brown and yellow scales on shoulders and on apical and basal one third of median striae, with a few spots between intervals 3 and 7, an oblique curved band from interval 3 to 7 on declivity. Legs piceous ; fore-coxae contiguous ; femora clavate, each with short spiny tooth, covered with pale ovate scales and whitish erect seta-like scales ; tibiae long ; fore-tibiae dentate internally at apical one-third ; all tibiae covered with recumbent and erect seta-like scales ; tarsi squamose ; hind tarsus with joint 1 about 1.5 times as long as 2, third bilobed joint spongy beneath. Thoracic sterna piceous, punctate and each puncture with pale sub-erect setae, covered with dense pale-brown scales, with mesosternum bare in centre. Abdominal sternites piceous, punctate and each puncture with erect pale seta-like scales, covered with pale-brown scales.

Male and female genitalia not studied.

Measurements.—

Length

Body : 7.6 mm ; rostrum : 0.6 mm.

Breadth

Body : 3.0 mm ; rostrum : 0.5 mm.

Holotype.—Male ; Burma : Tavoy, Tenasserim. Material in British Museum (N.H.), London.

Genus 33. **Hirsutopes** Gen. nov.

Frons narrower than length of an eye ; eyes large, oval and convex. Rostrum somewhat longer than broad, slightly broadened

at apex ; lateral areas each with an oblique curved carina from inner edge of scrobe towards middle of eye ; epistome long, strongly carinate ; scrobes narrow, almost dorsal ; mentum with two setae. Antennae long, slender, with joints 1 and 2 of funicle sub-equal. Prothorax transverse, with ocular lobes obsolete and vibrissae fine, its basal margin gently bisinuate. Elytra more than twice as long as broad, parallel sided. Legs with pro-coxae placed towards anterior margin of prosternum ; femora in males furnished with long curly hairs ventrally ; corbels of hind tibiae open ; claws free. Male genitalia with aedeagus broadly triangular at apex, without orificial plates ; phallobasic apodeme distinctly shorter than aedeagus ; endophallus with two pairs of plates at apex. Female genitalia with bursa moderately developed ; spermatheca with collum directed towards ramus.

Type species.—*Hirsutopes andamanensis* sp. nov.

Distribution.—INDIA.

Remarks.—This new genus refers to a group of genera characterised by the presence of a strong curved carina running from the inner edge of the scrobe towards the middle of the eye. However, it is different from all such described genera and is rather unique in showing the very significant feature of the presence of long whitish and curly hairs on entire ventral surface of the femora of males, which has not been observed in any genus of the group.

Key to the species of genus *Hirsutopes* Gen. Nov.

1. Ground colour reddish-brown ; body covered with longitudinal stripes of pale-green scales ; prothorax strongly rounded	<i>andamanensis</i> sp. nov.
—Ground colour dark-brown, body covered with bluish-green scales not arranged in any pattern ; prothorax feebly rounded	<i>megaoculatus</i> sp. nov.

142. *Hirsutopes andamanensis* sp. nov. (Figs. 101, 232)

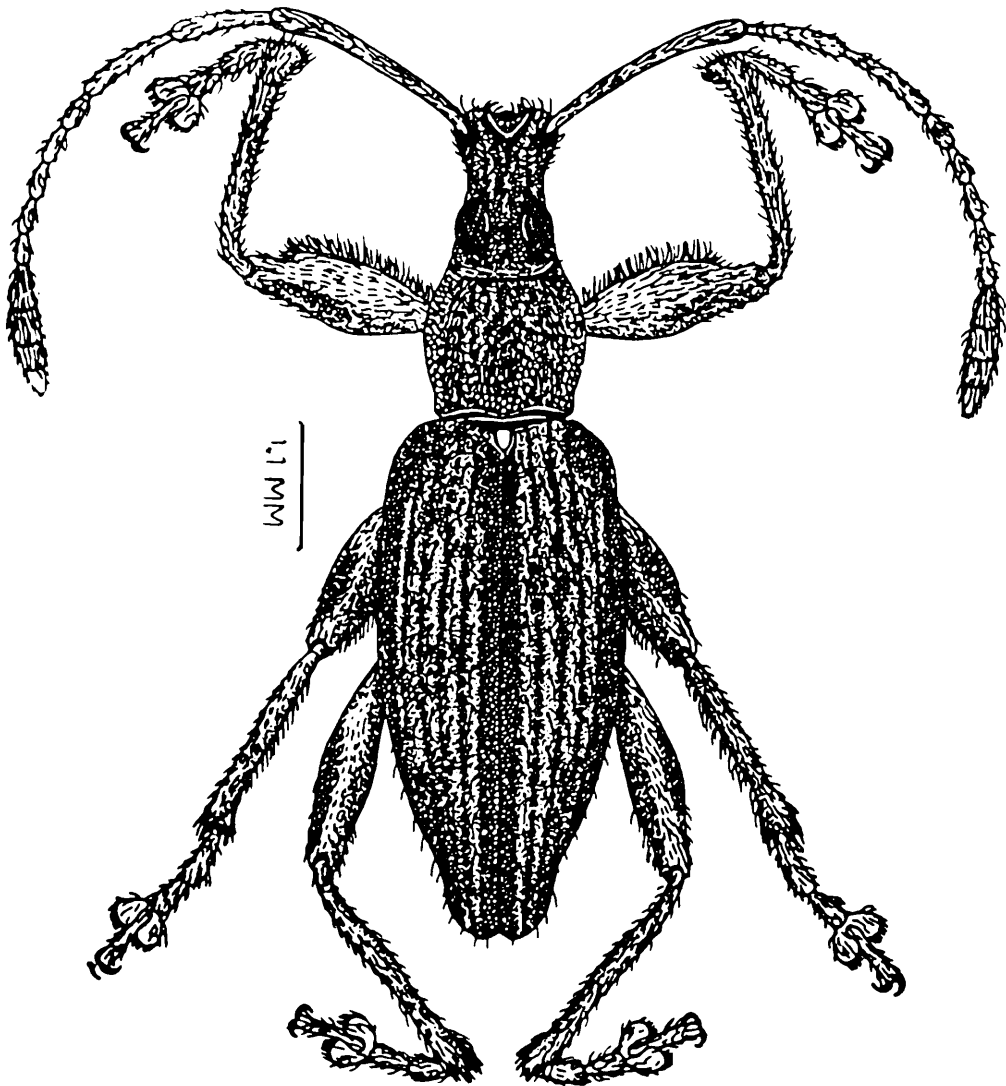
Frons reddish-brown, narrow, about half as broad as the length of an eye, lying in level with upper margins of eyes, anteriorly flat,

posteriorly shallowly concave and containing deep and elongated central fovea, covered with blue-green scales and greenish sub-erect sparse setae ; eyes black, large, oval and convex. Rostrum reddish brown, somewhat longer than broad, running parallel from base to scrobes and then slightly divergent at apex ; dorsal area broadly impressed, almost flat at base, furnished with distantly placed pale-green scales and a few scattered greenish erect setae ; central carina sharp and distinct anteriorly, becoming obsolete posteriorly ; dorso-lateral carinae weak, gradually converging from apex to base ; epistome long, lying high above level of rostrum, sloping anteriorly, with margins carinate and forming behind a narrow angle extending far beyond line of insertion of antennae ; lateral areas each with an oblique curved carina running from inner edge of scrobe towards middle of eye, with area interior to curved carina deeply impressed, surface covered with shining-green scales and recumbent greenish setae ; scrobes narrow, almost dorsal, curving inwards, entirely visible from above, partly enclosed behind, shorter than space between their bases and eyes ; mentum with two setae. Antennae long, slender, reddish brown ; scape gently curved, neither compressed nor cylindrical but gradually widening from base to apex, reaching middle of prothorax, sparsely beset with sub-recumbent greenish setae ; funicle with joints 1 and 2 sub-equal, 3 to 7 sub-equal and their total length less than 1 and 2 together, all joints sparsely setose ; club elongated, somewhat fusiform, finely and uniformly pubescent.

Prothorax reddish-brown, transverse, widest at middle ; anterior margin very broadly and much shallowly sinuate in middle, with obsolete ocular lobes and a few short and fine vibrissae ; dorsal surface of pronotum transversely and longitudinally convex, much rugosely and densely punctate, with punctures large and each containing erect peripheral seta, with shining blue-green scales in middle forming an irregular band, its remaining area almost bare ; lateral sides rounded, narrower at apex than at base, densely covered with shining yellowish-green scales and punctate as dorsally ; basal margin slightly bisinuate. Scutellum reddish-brown, bare, small, rectangular with anterior margin rounded.

Elytra reddish-brown, more than twice as long as broad, parallel-sided from base to behind middle, then narrowing towards apex,

with apices separately rounded ; dorsal outline almost flat, much wider at shoulders than base of prothorax, with shoulders roundly rectangular ; striae narrow, with strial punctures circular and moderately deep and each puncture with a peripheral seta ; intervals broad, somewhat convex, with basal one-sixth of 3rd and 4th intervals somewhat bulged, sutural intervals covered with pale-green scales throughout, 2nd and 3rd intervals bare, 4th and 5th



Hirsutopes andamanensis sp. nov.

intervals furnished with pale-green scales near bases and on apical one-third and 6th only a little away from base, remaining intervals densely covered with pale-green scales, bare intervals sometimes with two or three irregular spots of few pale-green scales, each interval with a row of fine setae, with setae on bare areas stiff

and erect and those on squamose areas sub-erect and soft. Legs testaceous, with coxae covered by narrow pale scales and pale setae ; fore-coxae contiguous, placed towards anterior margin of prosternum ; femora clavate, each with a short tooth and furnished on ventral surface with a tuft of long and dense setae in male, with remaining surface covered with scattered shining-green scales and green recumbent setae ; tibiae slender, furnished densely with long greenish setae throughout, apical end of each with a fringe of short brown bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna reddish-brown, not squamose in middle, with dense shining-green scales laterally, punctate and each puncture with a seta, with setae in middle of meta sternum longer and erect. Abdominal sternites not squamose in middle, with dense shining-green scales laterally, punctate and each puncture with a long sub-erect seta.

Aedeagus straight, broadly triangular and pointed at apex, without exophallic valve, with apical end and lateral sides more-sclerotized ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes somewhat shorter than aedeagus ; phallobase ring-shaped, with phallobasic apodeme distinctly shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with very small tubercles and papillae, having two pairs of plates at apex. Bursa copulatrix moderately developed ; ventral spiculum long and thin ; spermatheca with cornu pointed at apex, ramus directed towards collum.

Measurements.—

Length

Male body : 6.9 to 7.2 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 7.3 to 7.6 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.3 to 2.4 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.5 to 2.6 mm ; rostrum : 0.7 to 0.8 mm.

Holotype.—Male ; India : North Andaman ; 10. iii. 1930 ; C.F.C. Beeson.

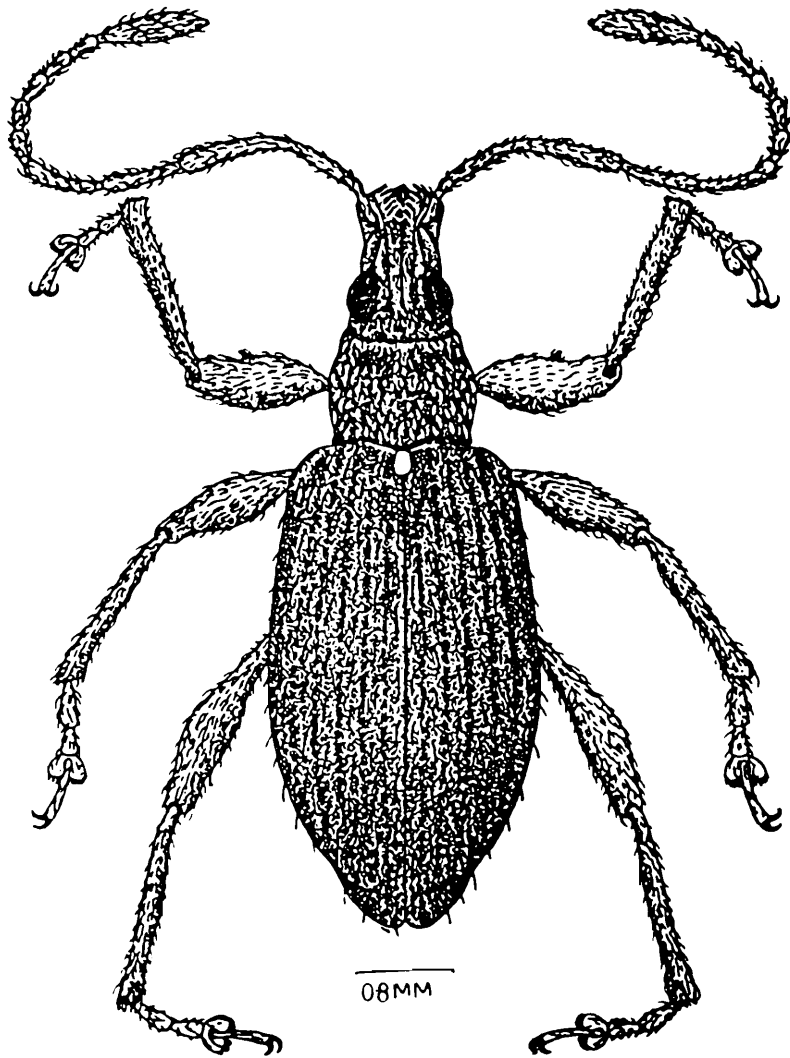
Holotype in F.R.I., Dehradun.

143. *Hirsutopes magaoculatus* sp. nov.
(Figs. 102, 233)

Frons fuscus, as broad as dorsal area of rostrum and about three-fourth length of an eye, lying in level with upper margins of eyes, flat, with an elongated central fovea, covered with some shining blue-green scales and pale sub-erect setae ; eyes black, large, oval and somewhat convex. Rostrum fuscus, somewhat longer than broad, running parallel from base to scrobes and then dilated at genae ; dorsal area broadly and deeply impressed throughout, furnished with some shining blue-green scales and few greenish erect setae ; central carina strong, running from epistome to central fovea of frons ; dorso-lateral carinae distinct, gradually converging from apex to base ; epistome long, lying high above level of rostrum, sloping anteriorly, with margins sharply carinate and forming behind a narrow angle extending far beyond line of insertion of antennae ; lateral areas each with an oblique curved costa running from inner edge of scrobe to middle of eye, with area interior to curved costa deeply impressed, its surface covered with shining blue-green scales and pale fine setae ; scrobes narrow, almost dorsal, curving inwards, entirely visible from above, enclosed behind, much shorter than space between their bases and eyes ; mentum with two setae. Antennae long, slender, dark-brown ; scape gently curved, sub-cylindrical, gradually clavate, passing middle of prothorax, sparsely beset with recumbent greenish setae ; funicle with joints 1 and 2 sub-equal, 3 to 7 finely and sparsely setose ; club elongated, thin, finely and uniformly pubescent.

Prothorax fuscus, transverse, widest at middle ; anterior margin straight with almost obsolete ocular lobes and a few short vibrissae ; dorsal surface of pronotum almost flat, much rugosely and densely punctate, with punctures large and each puncture containing a fine sub-recumbent peripheral seta, with central area bare and dorso-lateral areas with sparse blue-green scales ; lateral sides

narrowly rounded, narrower at apex than at base, densely covered with shining blue-green scales and punctate as dorsally, with basal margin slightly bisinuate. Scutellum dark-brown, bare, small, rectangular with anterior margin rounded.



Hirsutopes megaoculatus sp. nov.

Elytra dark-brown, nearly thrice as long as broad, parallel sided from base to behind middle and then narrowing towards apex, with apices separately rounded ; dorsal outline flat, much wider at shoulders than base of prothorax, with shoulders roundly rectangular ; striae narrow, formed by deep and rounded punctures and each puncture with a minute peripheral seta ; intervals broad, somewhat convex, with basal one-sixth of intervals 3 and 4 somewhat bulged, with dorsal intervals almost bare except a few specks of blue-green scales close to striae, with lateral intervals

covered with blue-green scales, each interval with a row of greenish erect setae, with setae on lateral intervals short and recumbent. Legs dark-brown, with coxae covered with narrow blue-green scales and pale setae ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, each with a sharp tooth and furnished on lower margin with a tuft of long and dense setae in male, their surface furnished with sparse blue-green scales and fine pale setae ; tibiae slender, furnished with dense pale sub-erect setae and sparse blue-green scales, apical end of each tibiae with a fringe of short dark-brown bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint about twice as long as second, third bilobed joint shorter than second and spongy beneath ; claws free. Thoracic sterna dark-brown, not squamose in middle, with dense blue-green scales laterally, punctate and each puncture with a seta, with setae in middle of metasternum longer and erect. Abdominal sternites not squamose in middle, with dense blue-green scales laterally, punctate and each puncture with a long sub-erect seta.

Aedeagus straight, broadly triangular at apex, without an exophallic valve, its apical end and lateral sides more sclerotized ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, beset with tubercles and papillae, having two pairs of plates at apex. Bursa copulatrix moderately developed ; ventral spiculum long and thin. Spermatheca with cornu pointed at apex, collum bent towards ramus.

Measurements.—

Length

Male body : 6.3 to 6.6 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 6.7 to 7.0 mm ; rostrum : 0.8 to 0.9 mm.

Breadth

Male body : 2.1 to 2.2 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.3 to 2.5 mm ; rostrum : 0.7 to 0.8 mm.

Holotype.—Male ; India : North Andaman ; 10. iii. 1930 ; B.M. Bhatia. *Paratype* : Female 1, same data as for holotype.

Holotype in F.R.I., Dehradun.

Genus 34. *Deiradolcus* Marshall

1941. *Deiradolcus* Marshall, Ann. Mag. nat. Hist., (11) 8 : 371.

1944. *Deiradolcus* : Marshall, Ann. Mag. nat. Hist., (11) 11 : 437.

Head with width of frons equal to or greater than length of eye moderately convex to nearly flat. Rostrum with dorsolateral carinae normally diverging strongly towards apex, but rarely straight and parallel from base to apex ; dorsal area with a distinct transverse carina behind epistome, epistome with posterior carinate margin forming acute angle or sometime a right angle extending slightly behind insertion of antennae ; lateral areas each with an oblique carina partly enclosing scrobe and curving backwards towards middle of eye ; mentum with two setae. Antennae with scape stout, strongly curved, more or less compressed, gradually widening distally or parallel sided in apical half, funicle with two basal joints variable in length. Prothorax transverse, deeply bisinuate at base, broader at base than at apex, without ocular lobes, with vibrissae distinct. Elytra dehiscent at apex. Legs with a small sharp femoral tooth each, front tibiae sinuate internally, hind tibiae with corbels open. Spermatheca with collum lying parallel to ramus.

Type species.—*Corigetus moratus* Faust

Distribution.—INDIA, MALAYA, LAOS, BURMA.

Key to the species of genus *Deiradolcus* Marshall.

1. Funicle with joint 2 longer than 1	2
Funicle with joint 2 not longer than 1	4
2. Prosternum with a short blunt vertical spine behind and between front coxae ; elytra devoid of appressed scales	<i>spinipectus</i> sp. nov.
—Prosternum without any spine, elytra with appressed scales	3

3. Prothorax trapezoidal, much narrower at apex than at base ; scape strongly compressed ; elytra with numerous minute scales on each interval .. *moratus* Fst.
 —Prothorax sub-quadrate, only slightly wider at base than at apex ; scape weakly compressed, sub-cylindrical ; elytra with one or two rows of sub erect setae on each interval *rectirostris* sp. nov.
4. Pronotum with deep saddle-like depression across its basal half ; elytra entirely or partly green 5
 —Pronotum without any depression 6
5. Elytra with single row of erect setae on each interval ; prothorax with median stripe and pleural areas green ; elytra with a common green sutural stripe *virgaticollis* sp. nov.
 —Elytra with numerous sub-recumbent scales ; prothorax with narrow lateral green stripe on either side ; elytra with a common basal green band *atkinsoni* sp. nov.
6. Elytra with erect or sub-erect setae 7
 —Elytra with recumbent scales .10
7. Elytra with appressed pubescence and erect setae *pubescens* sp. nov.
 —Elytra without pubescence, with normal appressed scales 8
8. Funicle with joints 1 and 2 equal ; rostrum with dorso-lateral carinae diverging towards base ; scape broad and compressed ; fore tibia with a row of minute spines *inaptus* sp. nov.
 —Funicle with joint 1 longer than 2 ; rostrum with dorso-lateral carinae parallel at base ; scape cylindrical 9
9. Rostrum with dorso-lateral carinae feeble : body colouration dominantly ferrugineous ; elytra with non-appressed setae short and thick ; front tibia angulate and finely denticulate internally *laticollis* sp. nov.
 —Rostrum with dorso-lateral carinae distinct ; body colouration dominantly piceous ; elytra with non-appressed setae

longer and thinner ; fore tibia spinose
internally

incultus sp. nov.

10. Elytra widest beyond middle in both sexes,
with intervals broad, with appressed scales
quite narrow and non appressed scales
numerous on each interval

dohertyi sp. nov.

—Elytra parallel up to beyond middle, with
intervals relatively narrow, with appressed
scales in single row on each interval

canus sp. nov.

144. ***Deiradolcus spinipectus* sp. nov.**

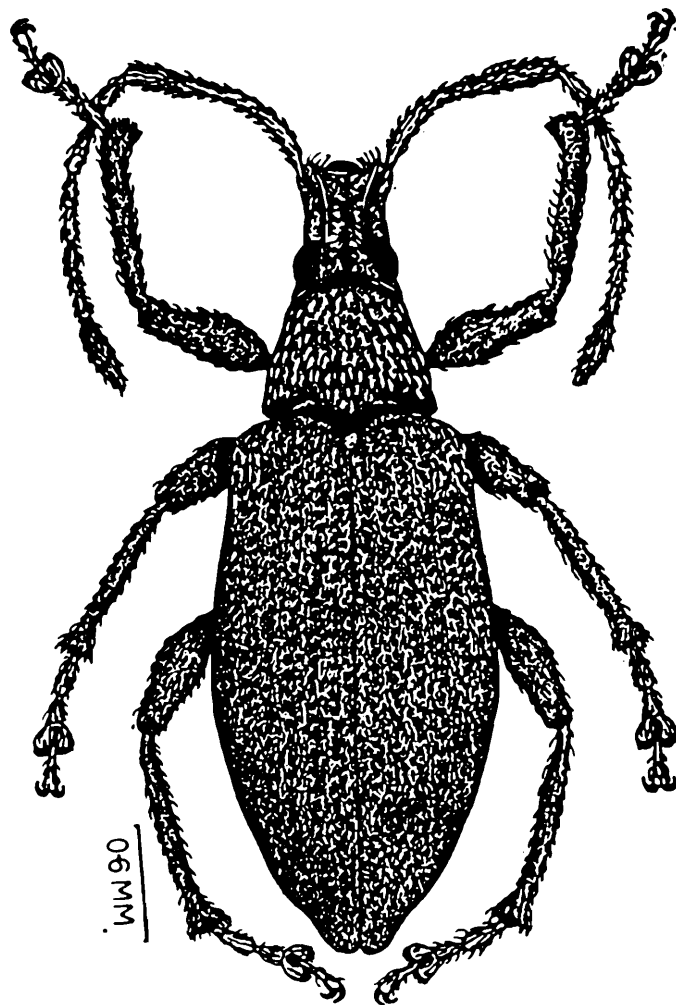
(Figs. 103a, 103b, 234)

Frons black, flat, as wide as length of eye, moderately covered with sub-erect setae, with central fovea very small ; eyes black, convex. Rostrum black, as long as its apical width, parallel sided in basal half, slightly dilated at apex ; dorsal area depressed in middle, as wide at base as frons, covered with recumbent setae, with a fine median carina ; dorso-lateral carinae almost parallel ; epistome long, with lateral margins impressed ; lateral areas densely covered with setae. Antennae piceous, covered with setae ; scape broad, sub-compressed, rugulose, strongly curved in middle and parallel sided beyond curve, covered with sub-recumbent setae ; funicle with joint 2 much longer than 1, 3 and 4 sub-equal and shorter than 1, 5-7 sub-equal and shortest ; club narrow, fusiform, acuminate, uniformly pubescent.

Prothorax widest at base, narrowing towards apex, with obsolete ocular lobes and long vibrissae. Pronotum black, transverse, trapezoidal, its basal margin deeply bisinuate and basal angles acute, with a transversely depressed area along basal margin, its anterior margin truncate and with a shallow collar like constriction near it, punctate ; vestiture consisting of sparse recumbent and sub-recumbent setae. Scutellum small, rounded, black, covered with few small recumbent setae.

Elytra black, oblong, parallel from shoulders to beyond middle, narrowing towards apices, wider at obliquely rounded shoulders than base of prothorax, gradually declivous posteriorly, with apices separately and shortly acuminate ; striae narrow with punctures closely set and each with a minute recumbent

seta ; intervals narrow, with intervals 3, 4 and 5 convex near base ; vestiture consisting of uniform recumbent pale setae. Legs piceous with fine recumbent setae ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; fore tibiae sinuate internally with a row of spines on inner margin of apical two third ; tarsi squamose ; hind tarsus with first joint nearly 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate ; prosternum with a blunt vertical spine behind coxae in middle. Abdominal sternites black, punctate with punctures large on apical segment.



Deiradolcus spinipectus sp. nov.

Aedeagus straight, bisinuate at apex ; phallotreme apical with moderately developed orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme slightly longer than aedeagus ; endophallus lying between aedeagal apodemes and not surpassing them anteriorly ;

endophallic armature consisting of rows of setae, papillae and a pair of long curved plates at apex. Gastral spiculum moderately long, with basal arms well developed, its median arm thick and curved at apex. Bursa copulatrix poorly developed, with a pair of small plates each having a hook-like spine ; ventral spiculum long, slender, obliquely truncate at apex ; spermatheca with cornu curved, collum long and lying parallel to ramus.

Measurements.—

Body : length, 4.5 mm ; breadth, 1.6 mm.

Rostrum : length, 0.5 mm ; breadth, 0.5 mm.

Holotype.—Male ; India, Meghalaya, Shillong ; on Mulberry leaves ; Fletcher Coll. ; 1921. *Paratypes* : Male 1, Females 2, same data as for holotype. Material in British Museum (N.H.), London.

Remarks.—This species can be easily distinguished from all other species as the body is devoid of appressed scales and the prosternum bears a short vertical spine behind and between the front coxae.

145. *Deiradolcus moratus* (Faust)

(Figs. 104,235)

1892. *Corigetus moratus* Faust, Stett. Ent. Zeit., 53 : 190.

1931. *Corigetus moratus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 8, 37.

1941. *Deiradolcus moratus* : Marshall, Ann. Mag. nat. Hist., (11) 8 : 371.

Frons black, shining, almost flat transversely, broader than length of an eye, lying on level with upper margins of eyes, covered with sparse green scales and a few sub-erect pale setae, with central fovea deep and rounded ; eyes piceous, large, rounded and strongly convex. Rostrum black, shining, almost as long as broad, running almost parallel from base to scrobes and then slightly divergent at genae ; dorsal area broadly impressed throughout, with a transverse carina behind epistome and space between two concave and marked by a longitudinal carina, surface covered with sparse greenish scales and pale sub-erect setae ; central carina very sharp

and continuing upto central fovea of frons ; dorso-lateral carinae sharp, slightly diverging towards apex and almost parallel behind ; epistome long, steeply sloping anteriorly, with margins carinate, forming behind an acute angle, extending beyond line of insertion of antennae ; lateral areas each with a curved strong carina from behind scrobe and curving backwards towards eye, remaining area longitudinally and obliquely striolate, sparsely squamose and setose ; scrobes very broad, almost dorsal, slightly curving inwards, entirely visible from above, partly enclosed behind, as long as space between their bases and eyes ; mentum with two setae. Antennae long, piceous ; scape stout, very strongly curved, compressed, almost parallel-sided throughout except near base, reaching middle of prothorax, its surface marked with many furrows and covered with sparse sub-recumbent brownish setae ; funicle with joint 2 distinctly longer than 1, 3 to 7 sub-equal but shorter than 1, all joints covered with recumbent and sub-recumbent greenish setae ; club fuscus, long, narrow, acuminate at apex, finely and uniformly pubescent.

Prothorax piceous, transverse, widest at base, gradually widening from apex to base, almost trapezoidal ; anterior margin straight, with almost obsolete ocular lobes and distinct virbrissae ; surface of pronotum transversely convex, with large dense punctures and each puncture containing a pale sub-recumbent seta, with a shallow transverse impression before middle and a deep rounded fovea behind middle on each side, with scales sparse and green, its basal margin deeply bisinuate. Scutellum piceous, small, rectangular with anterior margin rounded, sparsely setose.

Elytra piceous, parallel-sided from base to behind middle and then narrowing towards apex, with apices separately rounded, convex and steeply declivous near apex, distinctly wider at shoulders than base of prothorax, with shoulders roundly rectangular and prominent ; striae broad, with large punctures near base and becoming shallower towards apex ; intervals nearly as broad as striae, almost flat, with basal one fourth of 3rd and 4th intervals somewhat bulged, all intervals sparsely squamose and densely covered with whitish recumbent setae. Legs piceous, with coxae covered by recumbent pale setae ; fore-coxae contiguous and placed a little towards anterior margin of

prosternum ; femora clavate, each with a sharp tooth, surface covered with whitish recumbent setae ; tibiae slender, sinuate internally near their bases, fore and middle tibiae with a row of spines on their inner spical halves, apical end of each tibia with a fringe of brownish spines and a small mucro ; corbels of hind tibiae enclosed, each with an internal bare carina ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free and long. Thoracic sterna piceous, densely setose and very sparsely squamose, covered with whitish powdery material. Abdominal sternites piceous, marked with punctures and each puncture with a pale sub-recumbent seta, with punctures larger and denser and setae longer in apical sternite, their surface covered with whitish powdery material.

Aedeagus straight, strongly bilobed at apex, with a small exophallic valve, with apical end and lateral sides more sclerotized ; phallotreme sub-apical, with orificial plates ; aedeagal apodemes almost twice as long as aedeagus, each curved near apex ; phallobase ring-shaped, with phallobasic apodeme nearly as long as aedeagus, curved at apex ; endophallus lying between aedeagal apodemes, beset with clusters of papillae and tubercles, having a pair of long curved plates at apex. Bursa copulatrix well developed, beset with a pair of sclerotized plates and rows of tubercles and papillae ; ventral spiculum thick and long, spatulate at apex. Spermatheca with cornu pointed, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 4.6 to 5.1 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 5.7 to 6.3 mm ; rostrum : 0.7 to 0.8 mm.

Breadth

Male body : 1.8 to 2.0 mm ; rostrum : 0.6 to 0.7 mm.

Female body : 2.5 to 2.8 mm ; rostrum : 0.7 to 0.8 mm.

Range.—India : West Bengal, Darjeeling ; Assam, Bogapani, Monubum, Lakhimpur, Jaldapara forest ; Nagaland, Dimapur.

Holotype in Dresden Museum, (Germany).

146. *Deiradolcus rectirostris* sp. nov.
(Fig. 236)

Frons piceous, slightly elevated posteriorly and almost flat anteriorly, its width greater than length of eye, covered with green scales and numerous setae, with central fovea elongated ; eyes moderately large, circular and convex. Rostrum piceous, as long as its apical width, narrowing from base to scrobes and slightly dilated at genae ; dorsal area shallowly depressed, narrower at base than frons, sparsely covered with light green scales and greenish setae, with a fine median carina, transverse carina behind epistome strong ; dorso-lateral carinae almost parallel up to scrobes and divergent towards apex ; epistome long, its posterior angle elevated and touching transverse carina behind, with lateral margins impressed ; lateral areas shining, covered with scanty green scales and whitish sub-recumbent setae. Antennae piceous, long, slender, clavate at apex, strongly curved, covered with white recumbent setae ; funicle with joint 2 longer than 1, 3 longer than 4 and shorter than 1, 4-7 equal and shortest ; club narrow, fusiform, dark brown, uniformly pubescent.

Prothorax widest at base, with obsolete ocular lobes and 2-3 fine vibrissae. Pronotum piceous, its basal margin deeply bisinuate and basal angles acute, with apex truncate, strongly depressed behind middle and with a rounded raised area on each side in middle, rugosely punctate ; vestiture consisting of uniform light green scales with dense recumbent and erect setae. Scutellum small, with a few setae.

Elytra piceous, oblong, widened behind middle, narrowing towards apices, wider at obliquely rounded shoulders than base of prothorax, strongly declivous posteriorly, with apices jointly rounded ; striae narrow ; striae punctures very small and closely set and each puncture with a minute recumbent seta-like scale ; intervals very broad ; vestiture consisting of uniform green scales, with brownish recumbent and greenish sub-erect setae on each interval. Legs piceous, with sparse recumbent setae ; femora clavate, each with a small pre-apical tooth on lower surface, covered with greenish recumbent and sub-recumbent setae ; tibiae straight ; fore tibia shallowly sinuate internally ; tarsi squamose ; hind

tarsus with first joint nearly 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate, Abdominal sternites piceous, punctate.

Male genitalia not studied. Bursa copulatrix moderately developed, with a pair of weakly sclerotized plates ; ventral spiculum moderately long, slender, flattened at apex. Spermatheca with cornu rounded at apex, collum thick and bent towards ramus.

Measurements.—

Female Body : length : 4.5 mm ; breadth : 1.5 mm.

Rostrum : length : 0.5 mm ; breadth : 0.5 mm.

Holotype.—Female ; India : West Bengal ; U.P. : W. Almora Divn. Kumaon, Champion Coll. ; 1917. *Paratypes* : Females 2, same data as for holotype. Material in British Museum (N.H.), London.

Remarks.—This species is characteristic in having joint 2 of the funicle longer than 1 in which respect it agrees with *moratus* and *spinipectus*. However, it differs from *moratus* Mshl. in having each interval of elytra furnished with a row of erect setae as compared to many scales on each interval of elytra in *moratus*.

147. *Deiradolcus virgaticollis* sp. nov.

(Fig. 237)

Frons black, flat, its width equal to length of eye, sparsely covered with green scales and few pale setae, with central fovea elongated ; eyes large, circular and strongly convex. Rostrum black, slightly longer than its apical width, parallel sided from base to scrobes and dilated at genae ; dorsal area deeply depressed in middle, as wide at base as frons, sparsely covered with green scales, with a fine median carina, with area behind epistome impressed and naked and transverse carina strong ; dorso-lateral carinae almost parallel up to scrobes and divergent towards apex ; epistome long, with lateral margins impressed ; lateral areas sparsely covered with brownish seta-like scales, each with a curved carina. Antennae piceous, moderately long ; scape stout, strongly curved, covered

with sub-recumbent brown setae ; funicle with two basal joints sub-equal, 3-4 equal, 5, 6, 7 shortest and sub-equal; club fusiform and uniformly pubescent.

Prothorax gently rounded laterally, widest at base, with obsolete ocular lobes and distinct vibrissae. Pronotum piceous, transverse, its basal margin bisinuate, with apex truncate, with a crescent impression behind middle on each side, rugosely punctate with punctures fully exposed ; vestiture consisting of median stripe and pleura covered with green scales and two admedian areas of brown setae. Scutellum small, with a few setae.

Elytra piceous, oblong, gradually widening up to middle, wider at obliquely prominent shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow, with punctures closely set and fully visible, each puncture with a minute recumbent seta ; vestiture of green scales on sides and suture, brown appressed setae mottled with green spots on other parts, single row of erect setae on each interval. Legs piceous, with sparse recumbent setae ; femora clavate, each with a small preapical tooth on lower surface ; tibiae straight ; fore tibia slightly sinuate internally ; tarsi squamose ; hind tarsus with first joint longer than second. Thoracic sterna black, punctate, covered with green scales and short setae. Abdominal sternites piceous, punctate and with a seta in each puncture.

Male genitalia not studied. Bursa copulatrix well developed, with a group of dense setae ; ventral spiculum moderately long, slender, cylindrical. Spermatheca with cornu tapering and curved at apex, ramus well developed, collum elongated and curved in middle.

Measurements.—

Female Body : length : 5 mm ; breadth : 2 mm.

Rostrum : length : 0.5 mm ; breadth : 0.5 mm.

Holotype.—Female ; Burma : Jaroy ; Fry Coll. ; 1905. Holotype in British Museum (N.H.), London.

Remarks.—This species differs from the allied *atkinsoni* in having a common green sutural stripe on elytra and in the prothorax having a median stripe of green scales in addition to greenish lateral areas. In the case of *atkinsoni*, the elytra have a broad green basal band, and the prothorax in this species carries a pair of lateral green stripes. The number and shape of non appressed scales on the elytral intervals is also different in the two species.

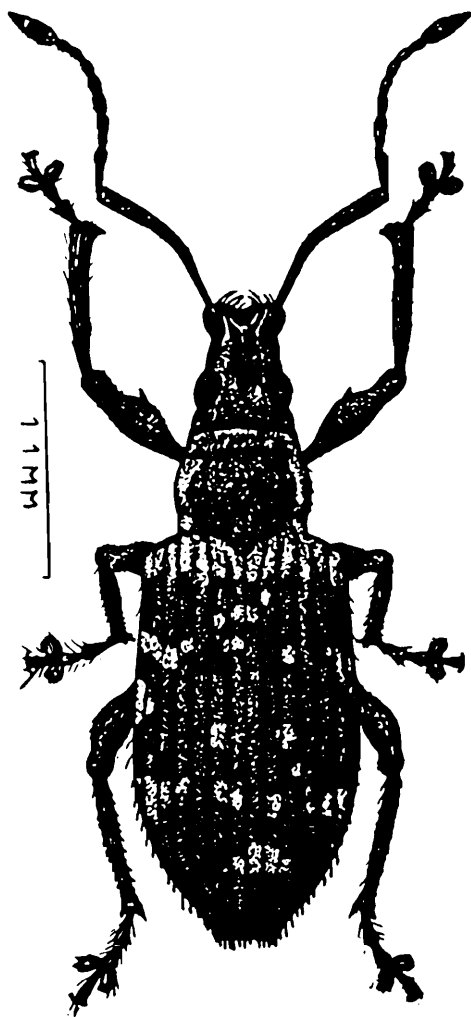
148. ***Deiradolcus atkinsoni*** sp. nov.
(Fig. 238)

Frons piceous, slightly depressed, its width equal to length of eye, sparsely covered with green scales and a few pale setae, with central fovea long ; eyes large and convex. Rostrum piceous, as long as its apical width, narrowing from base to scrobes and strongly dilated at genae ; dorsal area shallowly depressed in middle, as wide at base as frons, sparsely covered with few green scales, with median carina fine, with area behind epistome impressed and bare ; dorso-lateral carinae almost parallel up to middle and strongly divergent apically ; epistome long, with lateral margins shallowly impressed ; lateral areas with a curved carina each. Antennae piceous, moderately long ; scape slender, clavate, strongly curved, with brown recumbent setae ; funicle with joints 1 and 2 equal, 5, to 7 sub-equal and shortest ; club uniformly pubescent.

Prothorax gently rounded laterally, widest at middle, with obsolete ocular lobes and a few distinct vibrissae. Pronotum piceous, transverse, slightly broader at base than at apex, its basal margin deeply bisinuate and apex truncate, with a deep transverse depression across basal fourth, rugosely punctate with coarse sub-confluent punctures ; vestiture consisting of general brown scales with a lateral green stripe on either side widening from base to apex. Scutellum small, covered with a few brown scales.

Elytra piceous, oblong, gradually widening up to behind middle, much wider at obliquely prominent shoulders than base of prothorax ; declivous posteriorly, with apices separately and shortly acuminate ; striae narrow, with punctures closely set ; intervals broad ; vestiture consisting of general brown scales, broad basal green band, irregular green scales on intervals 6-8, numerous

recumbent brown setae on each interval. Legs piceous, with sparse pale setae ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; fore tibia shallowly sinuate internally with a row of spines in apical half ; tarsi squamose ; hind tarsus with first joint nearly twice as long as second, third



Deiradolcus atkinsoni sp. nov.

bilobed joint as long as second and spongy beneath. Thoracic sterna piceous, punctate and each puncture with a short seta. Abdominal sternites punctate, with a pale seta in each puncture.

Male genitalia not studied. Bursa copulatrix poorly developed ; ventral spiculum long, flattened at apex. Spermatheca with cornu curved and rounded at apex, collum comparatively thicker and curved in middle towards ramus.

Measurements.—

Female Body : length : 4.5 mm ; breadth : 1.7 mm.
Rostrum : length : 0.5 mm ; breadth : 0.45 mm.

Holotype.—Female ; Burma : Tharrawaddy ; on defolating leaves of *Dalbergia formis* ; D.J. Akinson, 1928. *Paratype* : Female 1, same data as for holotype. Material in British Museum (N.H.), London.

149. *Deiradolcus pubescens* sp. nov.
(Fig. 239)

Frons black, flat, its width greater than length of eye, sparsely covered with pale recumbent and suberect seta-like scales, with central fovea elongated ; eyes black, oval and strongly convex. Rostrum black, slightly longer than its apical width, parallel sided from base to scrobes and dilated at genae ; dorsal area depressed throughout its length, narrower at base than frons, sparsely covered with acuminate pale setae, with a fine median carina, with area behind epistome impressed and transverse carina distinct ; dorso-lateral carinae strong, parallel up to middle and divergent towards apex : epistome long, with lateral margins strongly impressed ; lateral areas shining, covered with sub-recumbent setae. Antennae long, piceous ; scape stout, moderately curved in middle, its surface rugulose, covered with recumbent and sub-recumbent setae ; funicle with joints 1 and 2 equal, 3-7 sub-equal and shorter, all joints covered with recumbent setae ; club long, acuminate at apex, finely pubescent.

Prothorax transverse, widest at base, with obsolete ocular lobes and distinct vibrissae. Pronotum black, convex, its basal margin deeply bisinuate and basal angles acute, with apex truncate, with a shallow median depression near base and shallow sub-lateral impression on each side behind middle, punctate ; vestiture consisting of erect pale acuminate setae. Scutellum black, small, rectangular, setose.

Elytra black, oblong, parallel sided from base to middle, broadest behind middle, narrowing towards apices, wider at oblique

shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow with stria punctures circular and closely set and each with a minute seta-like scale ; intervals broad, almost flat ; vestiture consisting of uniform recumbent setae and rows of erect setae on each interval. Legs piceous, with sparse recumbent setae ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; tarsi densely setose ; hind tarsus with first joint longer than second. Thoracic sterna piceous, punctate, covered with recumbent setae. Abdominal sternites piceous, punctate with punctures large on apical segment.

Male genitalia not studied. Bursa copulatrix poorly developed, without any plates ; ventral spiculum long, slender, clavate at apex. Spermatheca with cornu curved and tapering towards apex, collum well developed and strongly bent towards ramus.

Measurements.—

Female Body : length : 5.0 mm ; breadth : 2.0 mm.

Rostrum : length : 0.7 mm ; breadth : 0.7 mm.

Holotype.—Female ; India : Bihar : Chhapra district ; M. Bose ; 1927. Holotype in British Museum (N.H.), London.

Remarks.—This species is different from all other species of genus *Deiradolcus* in having a fine appressed pubescence and very erect setae on the entire body.

150. *Deiradolcus inaptus* sp. nov.
(Figs. 105a, 105b)

Frons black, flat, its width much greater than length of eyes moderately covered with pale ovoid scales and some pale and fawn seta-like scales, with central fovea elongate ; eyes large, rounded. Rostrum black, as long as its apical width, parallel sided from base to scrobes and slightly dilated at genae ; dorsal area depressed in middle, narrower at base than frons, sparsely covered with fawn ovoid scales and a few seta-like scales, with a fine median

carina, with area behind epistome shallowly impressed and transverse carina blunt ; dorso-lateral carinae almost parallel up to middle and diverging towards apex ; epistome moderately long, with lateral margins impressed ; lateral areas sparsely covered with fine recumbent seta-like scales, each with a curved ridge. Antennae piceous, moderately long ; scape stout, strongly curved in middle, with surface rugulose and covered with narrow brown recumbent and sub-recumbent seta-like scales ; funicle with two basal joints equal, 3-7 equal and shortest ; covered with fine recumbent and a few sub-erect white setae ; club fusiform, acuminate and pubescent.

Prothorax gently rounded laterally and widest at base, with obsolete ocular lobes and long vibrissae. Pronotum piceous, transverse, its basal margin bisinuate, with apex truncate, with a shallowly depressed transverse area near base, rugosely punctate ; vestiture consisting of pale ovoid scales and short spathulate seta-like scales. Scutellum small, with a few fine setae on its surface.

Elytra piceous, oblong, gradually widening from shoulders to behind middle, wider at obliquely rounded shoulders than base of prothorax, declivous posteriorly, with apices separately and shortly acuminate ; striae narrow with strial punctures closely set ; intervals broad ; vestiture consisting of fawn scales and long erect narrow setae. Legs piceous, with sparse pale scales and sub-erect seta-like scales ; fore-coxae towards apex of prosternum ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae short, straight ; tarsi squamose ; hind tarsus with first joint equal to 2nd and 3rd together. Thoracic sterna black, punctate. Abdominal sternites piceous, punctate and each puncture with a long seta-like scale.

Aedeagus straight, rounded at apex, with exophallic valve lying partly out of it, with apical and lateral sides more sclerotized ; phallotreme sub-apical, enclosed by orificial plates ; aedeagal apodemes slightly longer than aedeagus, each rounded at apex ; phallobase ring shaped, with phallobasic apodeme almost as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of tubercles and papillae and a pair of long curved plates at apex. Female genitalia not studied.

Measurements.—

Male Body : length ; 5.3 mm ; breadth : 2.1 mm.
Rostrum : length ; 0.6 mm ; breadth : 0.6 mm.

Holotype.—Male ; India : Meghalaya, Shillong ; Fletcher ; 1918. Holotype in British Museum (N.H.), London.

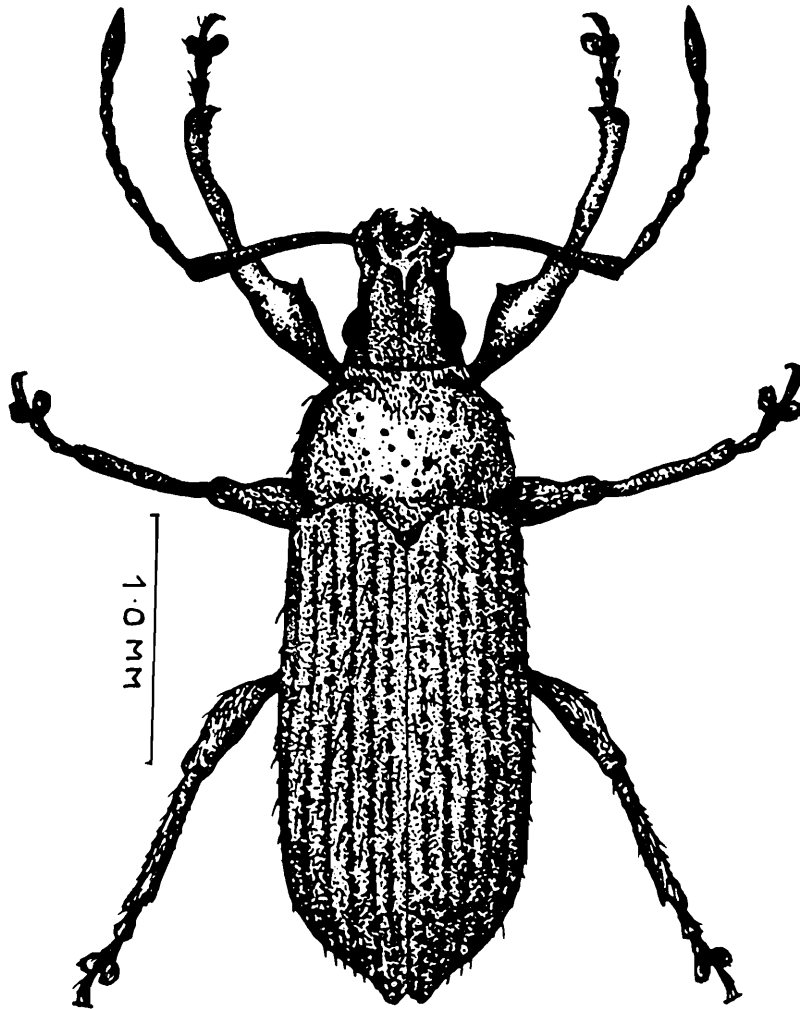
Remarks.—The present species resembles *laticollis* in general appearance but is separable from the latter in having joints 1 and 2 of funicle equal and in the scape being broad and compressed, as compared to the cylindrical scape in *laticollis*.

151. ***Deiradolcus laticollis* sp. nov.**
(Figs. 106a, 106b, 240)

Frons ferrugineous, flat, its width greater than length of eye, sparsely covered with pale ovoid scales and pale seta-like scales, with central fovea small and oval ; eyes medium sized, rounded. Rostrum ferrugineous, as long as its apical width, parallel sided from base to scrobes, dilated at genae ; dorsal area depressed near transverse ridge, narrower at base than frons, sparsely covered with pale ovoid scales and few erect seta-like scales, with a fine median carina, with area behind epistome impressed and sparsely covered with scales ; dorso-lateral carinae more or less parallel up to middle and diverging towards apex ; epistome long, with lateral margins strongly impressed ; lateral areas shining, covered with sparse pale scales and few seta-like scales, each with a pair of carinae—one starting from upper margin of eye and running along dorso-lateral carina and the other from middle of eye towards upper margin of scrobe. Antennae dark brown, moderately long ; scape slender, strongly clavate at apex, strongly curved in middle, its surface having longitudinal ridges and covered with sparse recumbent setiform scales ; funicle with segment 1 slightly longer than 2, 3-7 sub-equal and shorter than 1 ; club fusiform, acuminate and pubescent.

Prothorax strongly rounded laterally and widest at middle, with obsolete ocular lobes and distinct vibrissae. Pronotum piceous, transverse, broader at base than at apex, its basal margin

bisinate and sides curving inwards at basal angles, with apex truncate, with a slightly depressed area along apical margin, punctate with punctures set wide apart ; vestiture consisting of pale ovoid scales and a few erect setae, brown scales in middle. Scutellum small, trapezoidal, with few setae.



Deiradolcus laticollis sp. nov.

Elytra piceous, oblong, parallel up to middle, narrowing towards apices, slightly wider at obliquely rounded shoulders than base of prothorax, its surface more or less flat and gradually declivous posteriorly, with apices separately and shortly acuminate ; striae broad ; striae punctures circular, large, closely set, each with a minute recumbent seta-like scale ; intervals narrow ; vestiture consisting of pale and brown ovoid scales and a single row of sub-erect acuminate setae on each interval. Legs piceous, with sparse recumbent and sub-recumbent scales ; fore-coxae in middle of prosternum ; femora clavate, each with a small pre-apical tooth

on lower surface ; tibiae slightly curved ; fore tibia deeply sinuate internally with a row of pegs on inner margin ; middle tibia also with similar but smaller pegs ; tarsi squamose, hind tarsus with first joint slightly longer than second. Thoracic sterna dark brown, covered with sub-recumbent scales. Abdominal sternites punctate, with a seta-like scale in each puncture.

Aedeagus straight, bisinuate at apex, with sub-apical phallotreme enclosed by feeble orificial plates ; aedeagal apodemes twice as long as aedeagus, each clavate at apex ; phallobase ringshaped, with phallobasic apodeme longer than aedeagus and clavate at apex ; endophallus lying between aedeagal apodemes ; endophallic armature comprising short denticles, tubercles and a pair of long curved plates at apex. Gastral spiculum with lateral arms strong, its median arm thick and curved at apex. Bursa copulatrix poorly developed ; ventral spiculum moderately long, slender, spindle-shaped. Spermatheca with cornu tapering at apex, collum lying parallel to ramus.

Measurements.—

Male Body : length : 4.0 to 4.5 mm ; breadth : 1.4 to 1.6 mm.
Rostrum : length : 0.5 mm ; breadth : 0.5 mm.

Female Body : length : 4.5 to 5.0 mm ; breadth : 1.5 to 1.6 mm.
Rostrum : length : 0.5 mm ; breadth : 0.5 mm.

Holotype.—Male ; Burma : Thayetmyo ; Marshall Coll. ; 1950. *Paratypes* : Male 1, Females 2, same data as for Holotype. Material in British Museum (N.H.), London.

Remarks.—This species agrees with the following species, *incultus*. The body colouration of *laticollis* is however dominantly ferrugineous as compared to piceous body colour of *incultus*. Also, non-appressed setae on the elytra of *laticollis* are relatively shorter and thicker. Moreover, tibiae are angulate and finely denticulate internally in *laticollis* but not so in the other species. The male and female of *laticollis* can be separated from the sides of the prothorax which are rounded in male and divergent towards base in female.

152. **Deiradolcus incultus** sp. nov.

(Figs. 107a, 107b, 241)

Frons black, flat, its width much greater than length of eye, covered with pale ovoid scales and a few spathulate scales, with central fovea deep and elongated ; eyes large, elliptical and convex. Rostrum black, longer than its apical width, parallel from base to scrobes, slightly dilated at genae ; dorsal area strongly depressed in middle, narrower at base than frons, covered with pale ovoid scales, with a fine median carina, with area behind epistome impressed and transverse carina low ; dorso-lateral carinae almost parallel up to scrobes and divergent apically ; epistome long, its lateral margins impressed ; lateral areas covered with pale ovoid scales. Antennae piceous, moderately long ; scape slender, clavate at apex, strongly curved in middle, covered with brown sub-recumbent scales ; funicle with joint 1 longer than 2, 3 and 4 sub-equal and shorter than 1, 5 and 6 shortest ; club with two basal joints dark brown and apical lighter, uniformly pubescent.

Prothorax widest at base, with obsolete ocular lobes and distinct vibrissae. Pronotum black, transverse, with its base deeply bisinuate and apex truncate, with a shallow transverse depression on each side near base, punctate with punctures closely set ; vestiture consisting of pale ovoid scales with a few setae. Scutellum small, pentagonal, covered with a few brown recumbent scales.

Elytra black, oblong, widened behind middle, slightly wider at obliquely rounded shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow ; striae punctures closely set, shallow ; intervals broad ; elytral vestiture consisting of pale brownish ovate scales and long sub-erect setae. Legs black, with sparse whitish setiform scales ; femora clavate, each with a small pre-apical tooth on its lower surface ; tibiae straight ; fore tibia slightly sinuate internally, with a row of small spines on apical half of inner margin ; tarsi squamose ; hind tarsus with first joint nearly twice as long as second, third bilobed joint as long as second. Thoracic sterna black, punctate, covered with broadly ovate scales and pale setae. Abdominal sternites punctate and each puncture with a pale seta-like scale.

Aedeagus straight, shallowly bisinuate at apex, with subapical phallotreme enclosed by feeble orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus and rounded apically ; endophallus lying between aedeagal apodemes ; endophallic armature comprising a group of large papillae in middle, rows of small setae and tubercles and a pair of long curved plates at apex. Bursa copulatrix well developed ; ventral spiculum long, clavate apically. Spermatheca with cornu tapering at apex, collum bent towards ramus.

Measurements.—

Length

Male body : 4.2 mm ; rostrum : 0.5 mm.

Female body : 4.5 mm ; rostrum : 8.5 mm.

Breadth

Male body : 1.6 mm ; rostrum : 0.5 mm.

Female body : 1.8 mm ; rostrum : 0.5 mm.

Holotype.—Male ; India : Meghalaya, Shillong, A. K. W. Dowining. *Paratypes* : Male 1, Female 1, same data as for holotype. Material in British Museum (N.H.), London.

153. *Deiradolcus dohertyi* sp. nov.

(Fig. 242)

Frons black, flat, its width greater than length of eye, covered with brown setiform scales giving a slight coppery reflection, with central fovea small and elongated ; eyes black, moderately convex. Rostrum black, about as long as broad, parallel sided in basal half and dilated apically ; dorsal area depressed throughout, narrower at base than frons, covered with sparse brown and grey scales with metallic lustre and a few short erect scales, with a strong median carina, with transverse carina strong and area behind epistome bare ; dorso-lateral carinae strong, parallel upto scrobes and divergent towards apex ; epistome long, with lateral margins impressed ; lateral areas covered with dense brown and grey scales, each with a pair of carinae—one starting from upper

margin of eye and running along dorso-lateral carina and other from middle of eye towards upper margin of scrobe. Antennae piceous, moderately long, with dense seta-like scales ; scape slender, clavate at apex, strongly curved in middle, covered with recumbent and sub-erect scales ; funicle with 2 basal segments equal, 3 and 4 equal and shorter than 1, 5 and 7 equal and shortest ; club fusiform, finely and uniformly pubescent.

Prothorax widest at base, with obsolete ocular lobes and distinct vibrissae. Pronotum black, transverse, trapezoidal, its basal margin bisinuate, slightly rounded laterally, shallowly constricted near truncate apical margin, punctate and punctures set apart ; vestiture consisting of general grey and brown scales and a pair of a median stripes of grey scales. Scutellum small, flat, with a few seta-like scales.

Elytra black, oblong, widest beyond middle, wider at roundly rectangular shoulders than base of prothorax, declivous posteriorly, with apices separately and shortly acuminate ; striae narrow with striaal punctures closely set ; intervals broad, somewhat convex in apical half ; vestiture consisting of narrow appressed scales and numerous brown recumbent and sub-recumbent setae on intervals. Legs piceous ; femora clavate, covered with grey seta-like scales, each with a small pre-apical tooth on lower surface ; fore tibia slightly sinuate internally, with a row of spines in apical half ; tarsi squamose ; hind tarsus with first joint nearly 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate and each puncture with a small setiform scale. Abdominal sternites punctate and punctures large on apical segment, with sparse grey seta-like scales.

Male genitalia not studied. Bursa copulatrix well developed, with two small plates each having a hook like tooth, with rows of tubercles and papillae ; ventral spiculum moderately long, slender, rounded at apex. Spermatheca with cornu slightly tapering at apex ; collum thick and lying parallel to ramus.

Measurements.—

Female Body : length, 5.1 mm ; breadth : 2.0 mm.

Rostrum : length, 0.5 mm ; breadth : 0.5 mm.

Holotype.—Female ; India : Assam, Sadiya ; Fry Coll. B.M., 1905. Holotype in British Museum (N.H.), London.

Remarks.—The elytra of the present species carry recumbent setae as in *canus*. But the appressed scales are narrow in this as compared to broad and almost rounded scales in *canus*. Moreover, the elytra are widest beyond middle in *dohertyi* in contrast to parallel elytra of *canus*.

154. *Deiradolcus canus* sp. nov.
(Figs. 108a, 108b)

Frons black, depressed anteriorly, its width equal to length of eye, covered with grey broadly ovate scales and some sub-erect spathulate scales, with central fovea small and elongated ; eyes large, rounded and convex. Rostrum black, as long as its apical width, parallel sided from base to scrobes, dilated at genae ; dorsal area depressed in front, as wide at base as frons, sparsely covered with appressed greyish scales and sub-erect spathulate scales along with minute recumbent scales, with a prominent median carina, with area behind epistome impressed and transverse carina prominent ; dorso-lateral carinae parallel upto scrobes and divergent towards apex ; epistome long, with lateral margins strongly impressed ; lateral areas, covered with minute brown recumbent scales and a few sub-erect spathulate scales, each with a pair of carinae—one starting from upper margin of eye and running along dorso-lateral carina and other from middle of eye towards upper margin of scrobe. Antennae piceous, moderately long, slender, covered with recumbent and sub-recumbent scales ; scape slender, strongly clavate at apex, curved in middle, its surface covered with brownish recumbent and sub-recumbent seta-like scales ; funicle with segments 1 and 2 equal, 3-7 shorter than 1 and equal ; club fusiform, acuminate and pubescent.

Prothorax gently rounded laterally and widest behind middle, with feebly developed ocular lobes and distinct vibrissae. Pronotum black, transverse, more or less rectangular, with base slightly broader than apex, its basal margin bisinuate and apex truncate, punctate and punctures closely set ; vestiture consisting of grey ovoid scales, brown scales and sub-recumbent spathulate scales. Scutellum small, pentagonal, with a few recumbent scales.

Elytra piceous, oblong, parallel sided up to behind middle, narrowing towards apices, much wider at obliquely rounded shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow ; strial punctures circular, closely set ; intervals broad ; vestiture consisting of greyish scales and sub-recumbent spathulate seta-like scales. Legs piceous, with sparse recumbent and sub-recumbent scales ; femora clavate, each with a small pre-apical tooth on lower surface ; tibiae straight ; fore tibia deeply sinuate internally, with a row of spines on apical half of inner margin ; hind tibia covered with sparse scales ; tarsi squamose ; hind tarsus with first joint twice as long as second. Thoracic sterna black, covered with appressed grey scales and sub-recumbent scales. Abdominal sternites black, punctate, with a seta-like scale in each puncture.

Aedeagus straight, deeply bisinuate at apex, with sub apical phallotreme enclosed by a pair of orificial plates ; aedeagal apodemes twice as long as aedeagus, each rounded at apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus and rounded at apex ; endophallus lying between aedeagal apodemes ; endophallic armature comprising short denticles and tubercles, sparse setae in middle and pair of curved plates at apex. Gastral spiculum with lateral arms thick, its median arm stout and tapering to apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.0 mm ; rostrum : 0.5 mm.

Breadth

Male body : 1.6 mm ; rostrum : 0.5 mm.

Holotype.—Male ; Burma : Mergui ; R. N. Parker ; 1927.

Holotype in British Museum (N.H.), London.

Genus 35. *Drymophoetus* Marshall

1944. *Drymophoetus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 455.

Frons in level with eyes, with carinae ascending from rostrum, eyes very large, about as long as space between eye and antenna.

Rostrum slightly broader than long, distinctly narrower at its base than head, strongly dilated at genae ; dorso-lateral carinae parallel in basal half, curving strongly outwards at apex ; lateral areas each with an oblique curved carina delimiting scrobe and running towards middle of eye ; epistome with carinate margin forming sharp acute angle extending behind antennae ; mentum with 2 setae. Antennae with scape regularly curved, cylindrical, gradually widening from base to apex, with recumbent setae ; funicle with joint 2 longer than 1. Prothorax transverse, parallel-sided in basal half, broadly constricted at apex, with base deeply bisinuate. Elytra much wider at shoulders than base of prothorax, jointly rounded at apex. Legs with femora sharply toothed ; corbels of hind tibiae enclosed, each with a bare inner carina.

Type species—*Corigetus saturatevirens* (Boheman).

Distribution.—INDIA, BURMA, JAVA, SUMATRA.

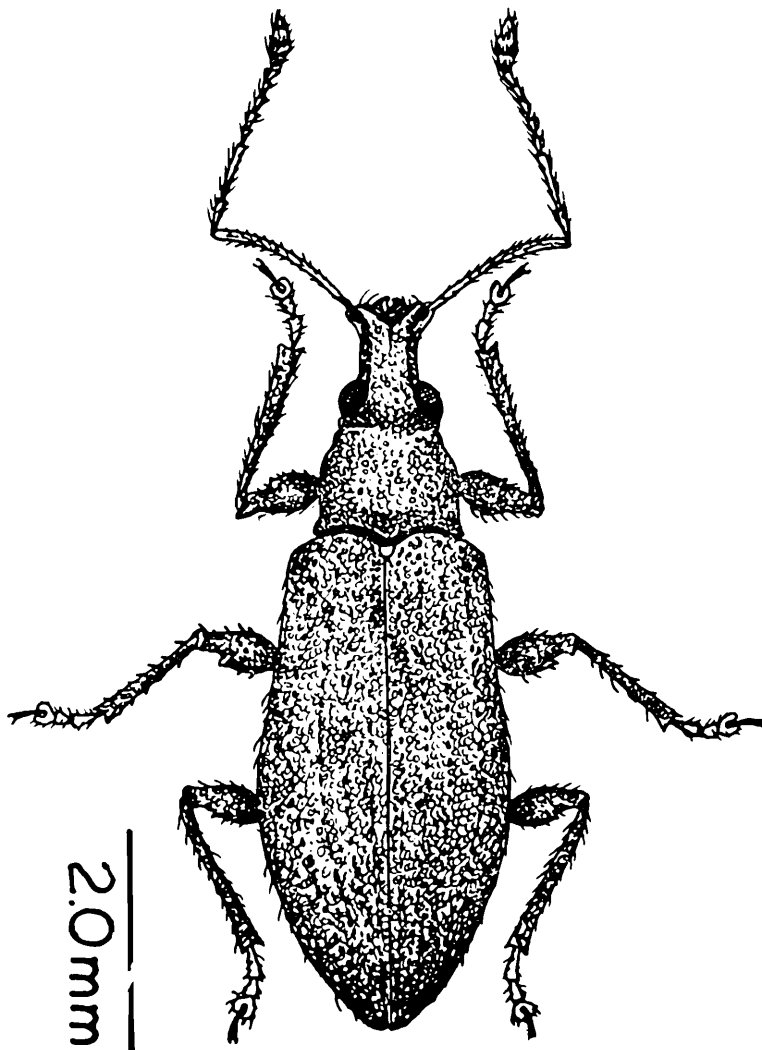
Key to the species of genus **Drymophoetus** Marshall.

1. Prosternum with a short vertical spine behind coxae ; eyes strongly convex ; margin of epistome forming right angle.	<i>pectoralis</i> sp. nov.
—Prosternum without a vertical spine ; eyes feebly convex or flat ; margin of epistome forming an acute angle	2
2. Elytra with erect setae ; prothorax rather shallowly bisinuate at base, femora with a dense fringe beneath in male	<i>multicostatus</i> (Chevrolat)
—Elytra with recumbent setae ; prothorax deeply bisinuate at base ; femora without fringe	<i>modestus</i> (Redtenbacher)

155. **Drymophoetus pectoralis** sp. nov.
(Fig. 243)

Frons piceous, narrower than length of an eye, lower than upper margins of eyes, covered with broadly-ovate greenish and spatulate whitish scales, with central fovea small and circular ; eyes black, ovate, bulging. Rostrum piceous, much longer than broad, sub-parallel sided ; dorsal area slightly depressed behind antennae,

covered with greenish and white scales, with area behind epistome deeply impressed, with central carina little lower than dorso-laterals ; dorso-lateral carinae divergent from base to apex ; epistome small, gradually declivous anteriorly, with hind margins carinate and shortly acuminate ; lateral areas dull, with greenish and whitish scales ; each with a curved broad sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, long, squamose ; scape stout, strongly curved, gradually clavate covered with recumbent narrow whitish scales ; funicle with joint 1 as long as 3 and 4, joint 2 twice as long as 1, 3 to 7 much longer than broad, with joints profusely covered with narrow whitish scales ; club fusiform, finely pubescent.



Drymophoetus pectoralis sp. nov.

Prothorax wider than long, with moderate ocular lobes and very long vibrissae. Pronotum piceous, transversely and longitudinally

convex, widest at base, with base deeply bisinuate and apex almost truncate, laterally rounded ; vestiture consisting of broadly ovate dense greenish and few fulvus scales, few spathulate whitish scales scattered throughout, some dark denuded spots near apical end. Scutellum oblong, covered with dense greenish and few fulvus scales.

Elytra piceous, oblong, sub-parallel upto middle, little wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with apices separately and shortly acuminate; striae narrow, with shallowly rounded closely set punctures , interval broad, convex ; vestiture consisting of broadly-ovate dense greenish scales, sparse spathulate fulvus scales on intervals, with few sub-denuded spots in apical half, few narrow whitish scales filling strial punctures. Legs piceous, densely squamose, with sub-ovate greenish and narrow whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a small triangular tooth, with a broad elongated dark patch on outer surface of each mid-femur ; tibiae with apices beset with dense dark-brown bristles ; tarsi squamose ; hind tarsus with first joint much longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a shiny whitish scale, with an enlarged patch of broad silvery white scales. Abdominal sternites piceous, punctate, covered with dense broadly-ovate greenish and fulvus scales and few narrow whitish scales.

Male genitalia not studied. Bursa copulatrix well-developed, with few folds in middle ; ventral spiculum long and thick and spathulate at apex. Spermatheca with cornu curved at apex ; collum broad and swollen ; ramus strongly curved and lying very close to collum.

Measurements.—

Length

Body : 6.5 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.5 mm , rostrum : 0.4 mm.

Holotype.—Female, Burma : Tenasserim, C. T. Bingham. *Paratype* : Female 1, Shwegu-myo ; L. Fea. Material in British Museum (N.H.), London.

156. ***Drymophoetus multicostatus*** (Chevrolat)
(Figs. 109a, 109b)

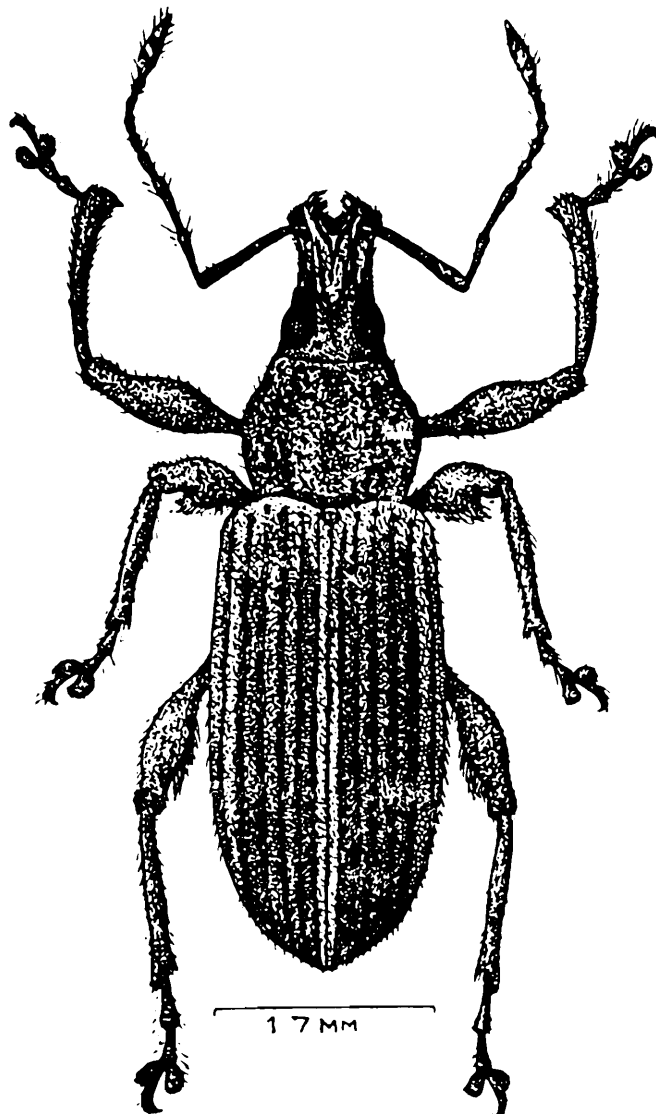
1882. *Mylocerus multicostatus* Chevrolat, Naturaliste, 2 : 94.

Frons piceous, much narrower than length of an eye, slightly elevated than upper margins of eyes, densely covered with broadly-ovate bluish-green scales and few sub-erect whitish scales, with central fovea small and circular ; eyes piceous, ovate, strongly bulging. Rostrum piceous, much longer than broad, with sides almost parallel ; dorsal area deeply depressed behind antennae, moderately covered with scales as on frons, with area behind epistome slightly depressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae gradually divergent ; epistome small, gradually declivous anteriorly, with hind margin carinate and sharply acuminate ; lateral areas shining, moderately covered with broadly-ovate bluish-green scales, each with a broad curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, moderately squamose ; scape elongated, cylindrical, moderately curved, gradually clavate, covered sparsely with sub-erect narrow whitish scales ; funicle with joint 1 much longer than 2, 3 to 7 elongated, with all joints moderately covered with narrow sub-erect whitish scales ; club fusiform, elongated, finely pubescent.

Prothorax a little wider than long, with ocular lobes poorly developed and vibrissae long and few. Pronotum black, transversely and longitudinally convex, widest at little before middle, with base deeply bisinuate and apex shallowly constricted, laterally rounded, with lateral angles of base slightly impressed, its surface rugulose with punctures quite large ; vestiture consisting of uniformly distributed broadly-ovate bluish green scales and few sub-erect whitish scales without forming any distinct pattern. Scutellum small, sub-circular, almost denuded.

Elytra piceous, oblong, with sides almost parallel upto middle, much wider at shoulders than base of prothorax, with shoulders

rounded, gradually declivous posteriorly, with lateral sides before apices slightly impressed and each apex shortly acuminate ; striae narrow, with shallowly rounded closely set punctures ; intervals broad and convex ; vestiture consisting of broadly-ovate bluish-green scales and sub-erect spathulate fulvus scales, bluish green scales arranged in longitudinal patches on intervals and striae, a



Drymophoetus multicostatus Chevrolat

row of sub-erect scales on each interval. Legs brunneus, moderately covered with narrow white scales ; fore-coxae contiguous ; placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense brunneus bristles ; tarsi squamose ; hind tarsus with first joint much longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture

beset with a whitish scale, covered with mixed broadly-ovate and narrow whitish scales. Abdominal sternites piceous, punctate, moderately covered with sub-erect narrow whitish scales.

Aedeagus straight, triangular at apex, exophallic valve moderately long ; phallotreme apical, with well-developed orificial plates ; aedeagal apodeme as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae, with pair of plates at apex. Gastral spiculum thick ; lateral arms short, with inner and outer margins dentate ; median arm strongly curved and somewhat blunt at apex.

Measurements.—

Length

Body : 5.5 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.0 mm ; rostrum : 0.3 mm.

Range.—India : Nicobar Island, Andaman Island.

Holotype in Stockholm Museum, (Sweden).

157. ***Drymophoetus modestus*** (Redtenbacher)
(Fig. 244)

1868. *Mylocerus modestus* Redtenbacher, *Reise Novara*, 2 : 148.

Frons piceous, much narrower than length of an eye, slightly elevated than upper margins of eyes, densely covered with broadly-ovate pale-greenish scales, with central fovea small and circular , eyes piceous, ovate, moderately bulging. Rostrum piceous, much longer than broad, with sides convergent ; dorsal area deeply depressed behind antennae, moderately covered with broadly-ovate and few narrow pale-greenish scales, with area behind epistome deeply depressed, with central carina a little lower than dorso-laterals ; dorso-lateral carinae gradually divergent ; epistome small,

gradually declivous anteriorly, with hind margins carinate and sharply acuminate, lateral areas dull, moderately covered with broadly-ovate and few narrow pale-greenish scales, each with a broad curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae brunneus, moderately squamose; scape elongated, cylindrical, moderately curved, gradually clavate, covered with recumbent narrow whitish scales; funicle with joint 1 a little longer than 2, 3 to 7 much longer than broad, with all joints sparsely covered with narrow sub-erect whitish scales, club fusiform, elongated, finely pubescent.

Prothorax a little wider than long, with ocular lobes not well developed and vibrissae long and few. Pronotum black, transversely and longitudinally convex, widest at middle, with base moderately bisinuate and apex shallowly constricted, laterally rounded, with lateral angles of base sub-cuneiform; surface strongly rugulose, with a shallow circular depression at base of each sub-lateral side; vestiture consisting of uniformly distributed dense broadly-ovate pale greenish scales and few narrow whitish scales. Scutellum small, circular, almost denuded.

Elytra piceous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices slightly impressed and each apex shortly acuminate; striae narrow, with shallowly rounded closely set punctures; intervals broad and convex, vestiture consisting of broadly ovate dense pale-greenish scales distributed irregularly in longitudinal patches, a row of elongated testaceous scales on each interval, with short seta-like whitish scales filling striae punctures. Legs brunneus, moderately covered with whitish and few pale-greenish scales; fore-coxae contiguous, placed in middle of prosternum; femora clavate, each with a short spiny tooth, tibiae with their apices beset with dense brunneus bristles, anterior tibiae with apical $\frac{1}{3}$ spinose; tarsi squamose; hind tarsus with first joint almost as long as 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a broadly ovate scale, with punctures almost concealed by dense scales. Abdominal sternites piceous, punctate, densely covered with broadly-ovate pale greenish scales and few sub-erect whitish scales.

Male genitalia not studied. Bursa copulatrix well-developed, ventral spiculum long, curved and blunt at apex, spermatheca with cornu somewhat pointed; ramus somewhat broad and curved, collum lying very close to ramus.

Measurements.—

Length

Body 5.0 mm, rostrum 0.7 mm.

Breadth

Body 2.5 mm; rostrum : 0.4 mm.

Range.—India : Andaman island; Nicobar island.

Holotype in Vienna Museum, (Austria).

Genus 36. **Cyphicerus** Schonherr

1826. *Cyphicerus* Schonherr, Curc. Disp. meth., : 182.

1858. *Ptochidius* : Motschulsky, Etud. Ent., 7 : 87.

1918. *Cyphicerus* : Marshall, Ann. Mag. nat. Hist., (9) 1 : 216.

Frons usually flat, with a central fovea; eyes large, nearly flat, rarely slightly convex. Rostrum short and broad, never longer than its apical width and often shorter, more or less dilated at genae, dorsal area tricarinate; dorso-lateral carinae not extending on to frons behind, diverging apically to form upper margins of scrobes; epistome defined behind by a sharp carina forming an acute angle or at most right angle extending behind insertion of antennae. Scape exceeding front margin of prothorax; funicle with distal joints longer than broad; club fusiform and uniformly pubescent. Prothorax transverse, truncate or feebly bisinuate at base, with ocular lobes moderate to feeble or replaced by vibrissae. Scutellum distinct. Elytra much wider at roundly rectangular shoulders than base of prothorax, jointly or separately rounded at apices, each with ten complete punctate striae. Wings functional. Legs slender, femora clavate, each with a single sharp tooth (a second small one in *bidentipes* sp. nov. only); tibiae straight, corbels of hind tibiae closed; tarsi with claws free. Aedeagus somewhat curved; phallobase ring shaped, phallobasic apodeme shorter than aedeagus;

endophallus with two pair of endophallic plates at apex. Female genitalia with coxites greatly elongated, bursa copulatrix with U-shaped plate at base ; spermatheca with collum lying near base of ramus.

Types Species.—*Curculio novemlineatus* Ol.

Distribution.—INDIA, BURMA, BANGLADESH, CHINA, PHILIPPINES, SUMATRA, JAVA, JAPAN, THAILAND, LAOS, AUSTRALIA.

Key to the species of the genus *Cyphicerus* Schonherr

1. Elytra with striae 5 and 6 diverging at base, leaving interval 6 there much wider than 5 2
 —Elytra with striae 5 and 6 not diverging at base 5
2. Elytra with longitudinal bands of brown and greenish scales *emarginatus* Faust
 —Elytra without any longitudinal bands of scales 3
3. Elytra with short erect setae; rostrum with anterior transverse ridge distinct *necopinus* Faust
 —Elytra with recumbent setae; rostrum without anterior transverse ridge 4
4. Elytra with shoulders obtusely projecting laterally; rostrum with dorsal area narrower than frons *humeralis* Marshall
 —Elytra with shoulders not projecting; rostrum with dorsal area as wide as frons *zizyphi* sp. nov.
5. Scape broad, flattened dorsally, with a distinct apical process; funicle with joint 1 much shorter than 2; frons much wider than length of eye 6
 —Scape not broad, subcylindrical, its apex not produced; frons not or only slightly wider than length of eye 10
6. Hind tarsus with joint 2 transverse *passerinus* Olivier
 —Hind tarsus with joint 2 longer than broad 7
7. Funicle with segment 1 half as long as 2 or less, only slightly longer than 3 *pardalis* sp. nov.

- Funicle with segment 1 more than half as long as second, equal to 3 and 4 8
8. Elytra with alternate longitudinal light and dark stripes *novemlineatus* Olivier
—Elytra without alternate longitudinal stripes 9
9. Rostrum longer than broad ; elytra with apices jointly rounded *longicornis* Motchulsky
—Rostrum as long as broad ; elytra with apices separately rounded *lineatus* Motchulsky
10. Rostrum with bare impunctate ridge on each side from antenna to eye 11
—Rostrum without such bare ridges 12
11. Elytra with basal margin somewhat raised between striae 1 and 3 and set with shiny granules *nudimalis* sp. nov.
—Elytra with base not raised *bombacis* sp. nov.
12. Elytra with recumbent setae .13
—Elytra with erect setae 15
13. Elytra bearing flattened granules, covered with rather long and narrow scales ; rostrum shorter than its apical width *graniger* sp. nov.
—Elytra not granulate, covered with short and nearly rounded scales ; rostrum as long as or longer than broad .. 14
14. Funicle with joint 2 not longer than 1 ; ocular lobes distinct *surdus* sp. nov.
—Funicle with joint 2 longer than 1 ; ocular lobes not developed *alsus* sp. nov.
15. Scutellum raised much above level of elytra *faustus* sp. nov.
—Scutellum normal, flat .16
16. Elytra with complete or incomplete transverse bands of light green scales. .17
—Elytra without transverse green bands 18
17. Femora with a second smaller tooth each ; funicle with joint 3 longer than 4 ; pronotum with lateral green stripe having its inner edge strongly curved *hidentipes* sp. nov.

- Femora with a single tooth each ; funicle with joints 3 and 4 equal ; pronotum with lateral green stripe having its inner edge straight *trifasciatus* sp. nov.
18. Rostrum parallel-sided, slightly wider at genae, much broader than long, with dorso-lateral carinae disappearing half-way to eyes *brevirostris* sp. nov.
 —Rostrum distinctly dilated at genae, not or moderately transverse, with dorso-lateral carinae almost reaching eyes .19
19. Antennal club elongate and of irregular outline ; funicle with joint 3 much narrower than 2, cylindrical *ornatus* Faust
 —Antennal club regularly ovate or fusiform. .20
20. Elytra with longitudinal alternate light and dark stripes .21
 —Elytra not striped .22
21. Prothorax without ocular lobes ; funicle with two basal joints equal ; elytron with interval 3 green or coppery ; length 4.20—4.31 mm *alternans* sp. nov.
 —Prothorax with ocular lobes ; funicle with joint 2 longer than 1 ; elytron with interval 3 brown ; length 6.12—6.14 mm *sesquilineis* sp. nov.
22. Elytra without band of green scales across base .23
 —Elytra with a continuous band of green scales across base .24
23. Pronotum beset with short recumbent setae ; elytral setae not or slightly longer than width of interval *labifer* sp. nov.
 —Pronotum with dense erect setae ; elytral setae much longer than width of interval *longipilis* sp. nov.
24. Rostrum longer than its apical width ; frons narrower than length of eye *sticticus* sp. nov.
 —Rostrum not longer than its apical width ; frons as wide as or greater than length of eye *juavis* sp. nov.

158. **Cyphicerus emarginatus** Faust
(Figs. 110a, 110b, 245)

1897. *Cyphicerus emarginatus* Faust, Deut. Eng. Zeit., : 373.

1931. *Cyphicerus emarginatus* : Schenkling and Marshall, Coleopterorum Catalogus, pars 114 : 4.

Frons black, flat, its width greater than length of an eye, covered with shining green and brown scales and some spathulate recumbent setae, with central fovea small and rounded. Rostrum black, as long as its apical width, gradually narrowing from base to scrobes and dilated at apex ; dorsal surface impressed, narrower than frons, densely covered with shining green and brown scales and small spathulate setae, with transverse ridge behind epistome distinct ; dorso-lateral carinae bare, parallel upto middle and divergent to apex ; epistome long, with lateral margins impressed, its hind margin carinate ; lateral areas shining, covered with scanty green and brownish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye and a curved squamose sulcus from below lower angle of scrobe towards eye. Antennae black, densely squamose ; scape stout, strongly curved, clavate, with a short triangular apical process, covered with recumbent setae ; funicle with joint 2 longer than 1, 3-7 sub-equal, all joints covered with narrow green scales ; club fusiform, finely and uniformly pubescent.

Prothorax with well-developed ocular lobes and long vibrissae. Pronotum black, punctate, convex, transverse, rounded laterally, shallowly constricted at apex, with apical margin sinuate in middle, with base truncate and wider than apex ; vestiture consisting of alternate stripes of green and dark-brown scales with central green stripe narrowest. Scutellum small, black, flat, completely covered with shining green scales.

Elytra black, much wider at shoulders than base of prothorax, with shoulders rectangular, narrowing towards apex, with apices separately and shortly acuminate ; striae narrow, with punctures closely set and elongated and septa between them bare, striae 5 and 6 diverging at base ; intervals broad, somewhat convex ; vestiture consisting of alternate stripes of green and dark-brown scales, with shining green scales at base, with a row of brownish erect setae on

each interval. Legs black ; coxae covered by pale narrow scales, with shining green scales near apex ; fore-coxae contiguous, placed towards anterior margin of prosternum ; femora clavate, each with a small tooth, covered densely with green and bluish scales ; anterior tibiae shallowly bisinuate internally ; anterior and middle tibiae with a row of spines each in apical half ; tarsi squamose. Thoracic sterna black, punctate and each puncture with small setae. Abdominal sternites punctate, covered with green and pale scales, scales denser and longer on apical segment.



Cyphicerus emarginatus Faust

Aedeagus curved, broadly triangular at apex, highly sclerotized throughout ; phallotreme sub-apical, with orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with apodeme somewhat shorter than aedeagus ; endophallus

lying between aedeagal apodemes, beset with rows and clusters of denticles and two pairs of plates at apex. Ovipositor long and weakly sclerotized ; coxites with one or two setae ; bursa copulatrix well developed ; ventral spiculum long and thick, broadened at apex. Spermatheca with cornu rounded at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 9.6 to 10.0 mm ; rostrum : 1.4 to 1.5 mm.

Female body : 10.2 to 10.9 mm ; rostrum : 1.4 to 1.5 mm.

Breadth

Male body : 3.0 to 3.1 mm ; rostrum : 1.4 to 1.5 mm.

Female body : 3.2 to 3.5 mm ; rostrum : 1.4 to 1.5 mm.

Distribution.—INDIA : Karnataka, Tithimatti.

Holotype in Dresden Museum (Germany).

159. **Cyphicerus necopinus** (Faust)
(Fig. 246)

1897. *Corigetus necopinus* Faust, Deutsche Ent. Zeit., : 375.

1913. *Cyrtepistomus necopinus* : Marshall, Ann. Mag. nat. Hist., (8) 12 : 186.

Frons black, flat, its width almost equal to length of eye, covered with dense pale-brown scales. Rostrum black, as long as broad, narrowing from base to scrobes and rather strongly dilated at genae ; dorsal area nearly flat, narrower than frons, covered with dense pale-brown scales and few spathulate sub-recumbent setae, with median carina strong and as high as dorso-laterals, with transverse ridge behind epistome distinct ; dorsal-lateral carinae well-developed, partly squamose, almost parallel upto middle and divergent to apex ; epistome moderately long, with margins carinate ; lateral areas densely covered with pale-brown scales, each with a shallow sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, rather sparsely squamose ; scape slender, gently covered, gradually clavate, with sub-recumbent seta-like scales ; funicle with joints 1 and 2 sub-equal, 3

longer than 4 ; club with two apical joints much narrower than basal joints, uniformly pubescent.

Prothorax with well-developed ocular lobes and short vibrissae. Pronotum black, with coarse punctation almost hidden by scales, rounded laterally, widest behind middle, its apex as wide as truncate base ; vestiture consisting of general pale-brown scales and short setae filling punctures. Scutellum small, flat, with greenish scales.

Elytra black, oblong, with shoulders roundly rectangular, parallel from shoulders to beyond middle, declivous posteriorly, with apices jointly rounded ; striae narrow, with punctures nearly hidden by scales, with striae 5 and 6 divergent at base ; intervals broad, somewhat convex ; elytral vestiture consisting of pale-brown scales, some indefinite darker spots on apical half, a row of broad erect setae on each interval. Legs piceous ; coxae covered with narrow grey scales, fore-coxae contiguous ; femora clavate, each with small tooth ; anterior tibiae shallowly bisinuate internally, anterior and middle tibiae with a row of spines in their apical halves ; tarsi squamose, first joint of hind tarsus nearly 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna brown, punctate and each puncture with setae, with coppery scales on the sides of metasternum. Abdominal sternites punctate, covered with grey scales.

Male genitalia not studied. Bursa copulatrix well-developed, with one U-shaped plate at base and one rounded sclerotized plate in middle ; ventral spiculum long, broadened at apex. Spermatheca with cornu pointed at apex ; collum lying near base of ramus.

Measurements.—

Length

Female body : 6.0 mm ; rostrum : 0.63 mm.

Breadth

Female body : 2.5 mm ; rostrum 0.72 mm.

Distribution.—INDIA : Bombay.

Holotype in Dresden Museum (Germany).

160. *Cyphicerus humeralis* Marshall

1928. *Cyphicerus humeralis* Marshall, Ann. Mag. nat. Hist., (10) **11** : 537.

1931. *Cyphicerus humeralis* : Schenkling & Marshall, Coleopterorum Catalogus, pars **114** : 4, 36.

Frons piceous, flat, its width much greater than length of eye, covered with light-greenish and brownish scales and setae. Rostrum piceous, as long as broad, almost parallel from base to scrobes, dilated at apex ; dorsal area impressed, much narrower than frons, densely covered with greenish scales and short spathulate setae, with area behind epistome squamose ; dorso-lateral carinae strong, parallel upto middle and divergent to apex ; epistome long, with hind margins carinate ; lateral areas bare, each with a deep sulcus adjoining dorso-lateral carina. Antennae piceous, densely squamose ; scape stout, somewhat compressed, with a very short apical process and recumbent setae ; funicle with joint 2 about 1.3 times as long as 1, joint 4-7 equal ; club fusiform, pubescent.

Prothorax with well-developed ocular lobes and short vibrissae. Pronotum piceous, punctate, gently rounded laterally, widest at middle, with sinuate apex as wide as sub-truncate base ; vestiture consisting of brown scales in middle and green scales laterally, punctate and each puncture with short recumbent setae. Scutellum small, flat, completely covered with green scales.

Elytra piceous, with shoulders rounded but distinctly and obtusely projecting laterally, parallel-sided upto middle and narrowing towards apex, with apices separately rounded ; striae narrow, deeper towards base, with punctures partly hidden by scales, striae 5 and 6 strongly divergent at base ; intervals broad, raised at top of declivity ; elytral vestiture consisting of irregular spots of green and dark-brown scales to form characteristic pattern, a row of short recumbent setae on each interval. Legs piceous ; coxae covered with green scales and pale setae ; fore-coxae contiguous, placed almost in middle of pro-sternum ; femora clavate, each with a small tooth ; fore and middle tibiae having a row of spines internally ; tarsi densely squamose, first joint of hind tarsus longer than second. Thoracic sterna piceous, covered with green scales and pale setae. Abdominal sternites piceous, covered with greenish scales and pale erect setae.

Genitalia not studied.

Measurements.—

Length

Female body : 8.0 mm ; rostrum : 1.1 mm.

Breadth

Female body : 2.5 mm ; rostrum : 1.0 mm.

Distribution.—INDIA : Tamil Nadu, Nilambur, Nilgiri Hills.

Holotype in British Museum (N.H.), London.

161. *Cyphicerus zizyphi* sp. nov.
(Figs. 111a, 111b, 247)

Frons piceous, shallowly depressed, its width much greater than length of eye, covered with greenish grey scales giving coppery reflection and spathulate recumbent setae, eyes piceous, almost flat. Rostrum dark-brown, about as long as its apical width, gradually narrowing from base to scrobes and dilated at apex ; dorsal area as broad as frons, shallowly depressed, densely covered with greenish grey scales and few short spathulate setae, with fine bare median carina ; dorso-lateral carinae squamose, divergent towards apex and almost parallel behind upto middle, with area behind epistome squamose. Antennae piceous, densely squamose throughout ; scape clavate, with short apical process, bearing seta-like appressed scales ; funicle with joint 1 and 2 equal, 3 shorter than 1 ; club fusiform and pubescent.

Prothorax with feeble ocular lobes and short vibrissae. Pronotum piceous, with large isolated punctures entirely concealed by scales, transverse, gently rounded laterally, widest at about middle, narrower at apex than at shallowly bisinuate base ; vestiture consisting of general greenish grey scales and some with coppery reflection. Scutellum flat, with pale greenish scales.

Elytra piceous, oblong, with shoulders rounded, narrowing towards apex, apices separately rounded ; striae narrow, with

small bare punctures showing through scales, striae 5 and 6 diverging at base, intervals broad, somewhat convex; elytral vestiture consisting of green scales variegated with irregular patches of dark brown scales, a row of appressed setae on each interval. Legs piceous; fore-coxae contiguous, placed at middle of prosternum; femora clavate, each with a small tooth, covered with green and pale scales; tarsi densely squamose, first joint of hind tarsus nearly 1.5 times as long as second; third bilobed joint little shorter than second and spongy beneath. Thoracic sterna punctate and covered with pale-green scales, each puncture with fine setae. Abdominal sternites punctate, covered with pale scales in middle and light green scales laterally.

Aedeagus somewhat curved, sub-truncate with median projection at apex; phallotreme sub-apical, with well-developed orificial plates; aedeagal apodemes 1.5 times as long as aedeagus; phallobase ring-shaped, its apodeme somewhat shorter than aedeagus, endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with two groups of papillae at base and rows of setae and denticles all over, with two pairs of plates at apex. Gastral spiculum short, with lateral arms poorly developed, its median arm strong and curved at apex. Bursa copulatrix well-developed, more sclerotized at base and apex, with U-shaped sclerotized plate at base; ventral spiculum thick, curved at apex. Spermatheca with cornu rounded at apex, collum lying near base of ramus and gently curved at apex.

Measurements.—

Length

Female body : 6.64 to 6.91 mm ; rostrum : 0.71 to 0.74 mm.

Male body : 4.52 to 5.11 mm , rostrum : 0.52 to 0.54 mm.

Breadth

Female body : 2.52 to 2.61 mm ; rostrum : 0.92 to 0.96 mm.

Male body : 2.0 to 2.41 mm ; rostrum : 0.64 to 0.66 mm.

Holotype.—Male, India : Ganjam Dist. ; Satarapur, 3. VIII. 1949 ; on *Zizyphus jujuba* ; E.P. Stebbing. *Allotype* : Female, same data as for holotype. *Paratypes* : 4, Bengal : Chota Nagpur, same

collector and host as for holotype. Material in British Museum (N.H.), London.

This species belongs to the group of species in which the striae 5 and 6 are divergent at their bases and out of them it has the nearest resemblance with *C. humeralis*. However, segment 1 of the funicle is equal to segment 2 in the present species and the brownish and greenish scales on elytra are faint as compared to *C. humeralis* in which the segment 1 of funicle is shorter than 2 and the patches of brownish and greenish scales are quite bright.

162. *Cyphicerus passerinus* (Olivier)
(Figs. 112a, 112b, 248)

1807. *Curculio passerinus* Olivier, Ent. V, : 419.

1834. *Cyphicerus passerinus* : Schoenherr, Gen. Spec. Curc. II : 467.

1931. *Cyphicerus passerinus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 5, 36.

Frons piceous, flat, its width much greater than length of eye, covered with coppery brown scales and some recumbent scales, with pale rings around eyes ; eyes black, nearly flat, lying below level of frons. Rostrum piceous, a little shorter than its apical width, very, slightly narrowed from base to scrobes, then dilated at genae ; dorsal area much narrower than frons, depressed, covered with coppery brown scales and few spathulate sub-recumbent scales, with transverse carina behind epistome distinct ; epistome long, with lateral margins impressed ; lateral areas covered with dense coppery brown scales ; scrobes small, dorso-lateral. Antennae piceous, densely squamose throughout ; scape stout, broad, curved, clavate with short obtuse apical process, flattened dorsally, with setae appressed ; funicle with joint 1 much shorter than 2, 7th shortest ; club fusiform, finely and uniformly pubescent.

Prothorax with broadly rounded ocular lobes and short vibrissae. Pronotum brown, punctate, transverse, widest at middle, rounded laterally, narrower at apex than at base, with anterior margin shallowly sinuate and basal margin sub-truncate ; vestiture consisting of general pale green scales, small pale setae filling punctures, a narrow green median stripe and faint pale one on each side. Scutellum small, flat, with pale green scales.

Elytra dark-brown, parallel-sided, much wider at shoulders than base of prothorax and slightly wider behind middle in both sexes, declivous posteriorly, with apices separately and shortly acuminate ; striae shallow, each with small bare punctures showing through dense scales and each puncture with minute recumbent scale, with striae 5 and 6 not diverging at base ; intervals broad, somewhat convex ; vestiture of dark brown with irregular markings of pale-brown scales, with a row of sub-erect setae on each dorsal interval. Legs piceous ; coxae covered with pale-green scales, fore-coxae contiguous ; femora clavate, each with a small tooth, covered with coppery grey scales and few short sub-recumbent setae ; anterior tibiae shallowly bisinuate internally, anterior and middle tibiae with a row of spines in their apical halves ; tarsi squamose and densely setose ; first joint of hind tarsus nearly 1.5 times as long as second, second transverse. Thoracic sterna dark-brown, punctate and each puncture with a short seta. Abdominal sternites punctate, covered with coppery grey scales.

Aedeagus slightly curved, truncate at apex ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes and not surpassing them anteriorly, beset with rows of setae and papillae and two pairs of plates at apex. Bursa copulatrix well-developed, with U-shaped plate at base ; ventral spiculum moderately long, thin, broadened at apex. Spermatheca with cornu pointed at apex, collum lying near base of ramus and gently curved at apex.

Measurements.—

Length

Female body : 6.7 to 7.5 mm ; rostrum : 0.72 to 0.76 mm.

Male body : 5.2 mm ; rostrum : 0.61 mm.

Breadth

Female body : 2.6 to 3.5 mm ; rostrum : 0.83 to 0.91 mm.

Male body : 2.2 mm ; rostrum : 0.66 mm.

Distribution.—INDIA : West Bengal, Calcutta.

Holotype in Paris Museum, (France).

163. *Cyphicerus pardalis* sp. nov.
(Figs. 113a, 113b, 249)

Frons dark-brown, declivous anteriorly, much broader than length of eye, completely covered with brown and fawn scales, eyes piceous, large, oval, somewhat convex, lying little below level of frons. Rostrum dark-brown, somewhat shorter than its apical width, gradually narrowing from base to scrobes and then strongly dilated at apex; dorsal area much narrower than frons, shallowly impressed, densely covered with brown and fawn scales and spathulate recumbent setae, with area behind epistome bare and transverse ridge behind epistome distinct, with median carina lower than dorso-laterals; dorso-lateral carinae feeble, parallel upto middle and then divergent at apex; epistome moderately long, with margins sharply carinate, lateral areas densely covered with scales, each with oblique curved costa behind scrobe, with a shallow squamose sulcus running from upper angle of scrobe to upper margin of eye and deep curved squamose sulcus from below lower angle of scrobe towards eye. Antennae piceous, densely squamose; scape very broad, compressed, clavate, with a strong apical spur, with appressed setae; funicle with joint 1 unusually short, about half as long as 2, 3 and 4 sub-equal, 5-7 sub-equal and shortest, club brown, fusiform, its two apical joints narrower and much shorter than 2 basal joints, finely and uniformly pubescent.

Prothorax with well-developed ocular lobes and short vibrissae. Pronotum brown, punctate, transverse, somewhat convex transversely, gently rounded laterally, widest at about middle, its anterior margin sinuate in middle and narrower than its truncate base, vestiture consisting of alternate stripes of brown and fawn scales with middle central fawn stripe narrowest, brownish sub-recumbent setae filling punctures. Scutellum small, flat, with pale scales.

Elytra dark-brown, oblong, much wider at shoulders than base of prothorax, with shoulders roundly rectangular, parallel-sided, slightly wider behind middle, narrowing towards apex, with apices separately and shortly acuminate; striae narrow, punctate with septa between punctures mostly bare, striae 5 and 6 parallel at base; intervals broad, somewhat convex; vestiture of dark-brown and fawn scales, with dark-black patches dominating on dorsal

surface and lateral sides more so with fawn, with a row of erect pale setae on each interval. Legs dark-brown ; coxae covered with pale scales, fore-coxae antiguous and placed in middle of prosternum , femora clavate, each with a small tooth, covered densely with pale scales having pink reflection and short sub-erect setae ; fore and middle tibiae with a row of spines on apical one-third internally, anterior tibiae much shallowly bisinuate internally ; first joint of hind tarsus nearly 1.5 times as long as second. Thoracic sterna dark-brown, punctate, with scales narrow in middle of pro-and meso-sterna. Abdominal sternites covered with fawn narrow scales, punctate and each puncture with a pale seta.

Aedeagus slightly curved, broadly triangular at apex, moderately sclerotized throughout ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus, each gently thick at apex ; phallobase ring-shaped, with apodeme as long as aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae throughout and two pairs of plates at apex. Gastral spiculum moderately long, with lateral arms weakly developed, with median arm strong and curved at apex. Bursa copulatrix well-developed ; ventral spiculum long and thick, broadened at apex. Spermatheca with cornu pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Female body : 6.75 to 7.12 mm , rostrum : 0.98 to 1.10 mm.

Male body 4.5 to 4.81 mm , rostrum : 0.80 to 0.87 mm.

Breadth

Female body : 1.21 to 1.23 mm ; rostrum : 1.22 to 1.31 mm.

Male body : 1.12 to 1.14 mm ; rostrum : 1.12 to 1.14 mm.

Holotype.—Male ; India : H.P. : Kangra Valley ; 6. V 1949 , G.C. Dudgeon. *Allotype* : Female , Bengal : Chota Nagpur,

11. VIII. 1950, G.D. Bhasin. *Paratypes* : 5, same data as for holotype. Holotype in British Museum (N.H.), London.

The species under reference is somewhat similar to *C. humeralis* Mshl. but differs from the same in having the body mottles of greenish and brown scales in brownish and fawn as compared to the other species. Moreover, the second joint of funicle is more than twice as long as first joint but it is only slightly longer than first in *C. humeralis* Mshl.

164. ***Cyphicerus novemlineatus*** (Olivier)
(Figs. 114a, 114b, 250)

1807. *Curculio novemlineatus* Olivier, Ent., 5 : 417.

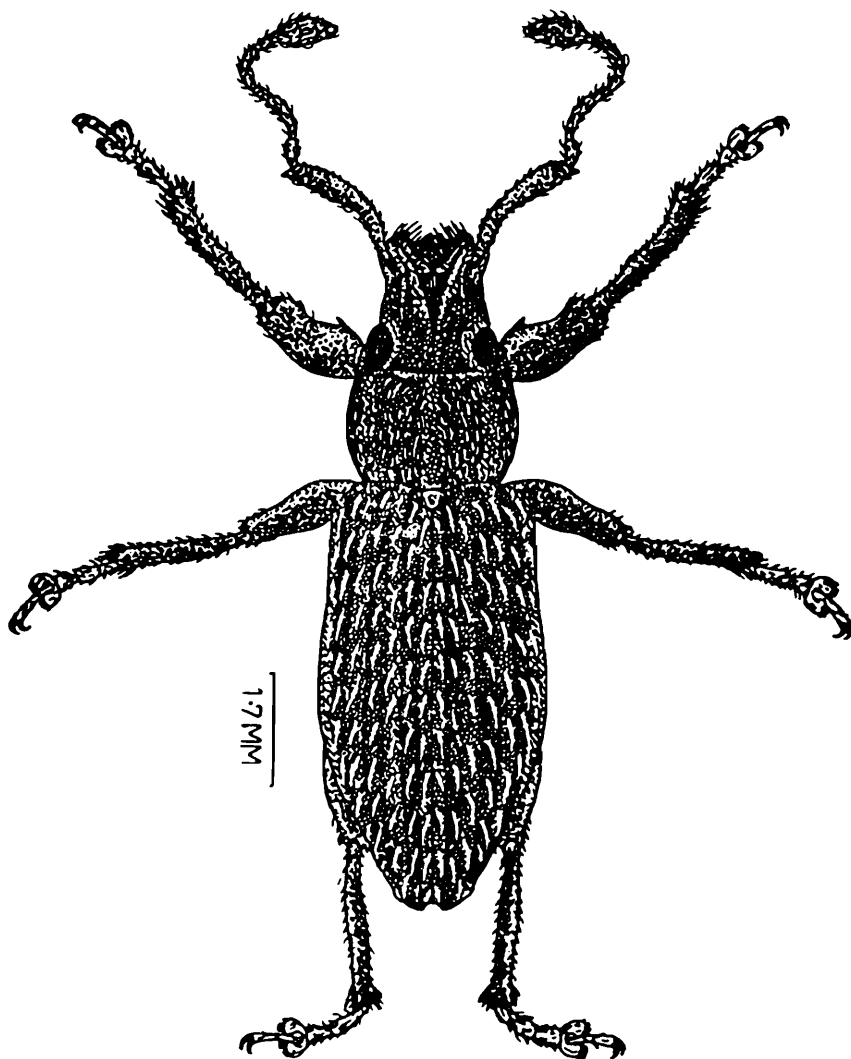
1834. *Cyphicerus novemlineatus* : Schoenherr, Gen. Spec. Curc., 2 : 462.

1931. *Cyphicerus novemlineatus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 5, 36.

Frons piceous, flat, with striolation hidden by scales, its width much greater than length of eye, covered with dense brown scales and pale median stripe, with rings around eyes, with central fovea small and elongated ; eyes black, nearly flat, lying little below level of frons. Rostrum piceous, little shorter than its apical width, slightly narrowed from base to scrobes, dilated at genae, dorsal area much narrower than frons, broadly impressed, with median pale stripe and few spatulate sub-recumbent setae, with median carina lower than parallel dorso-laterals and transverse carina behind epistome distinct ; epistome long, with lateral margins shallowly impressed, its hind margin carinate ; lateral areas covered with dense brown and pale scales, each with sulcus running from upper angle of scrobe to upper margin of eye and another curved squamose sulcus from below lower angle of scrobe towards eye ; scrobes small. Antennae piceous, moderately long, densely squamose throughout ; scape sub-cylindrical, stout, strongly curved, clavate, with slightly longer apical process, flattened dorsally, with setae ; funicle with joint 1 slightly more than half as long as 2 but equal to 3 and 4 together, 7th shortest club fusiform, finely and uniformly pubescent.

Prothorax with ocular lobes well-developed and vibrissae short. Pronotum brown, punctate, transverse, widest at middle, rounded

laterally, little narrower at apex than at base, with anterior margin shallowly sinuate and basal margin sub-truncate ; vestiture consisting of three pale coppery stripes and brown scales, with short setae filling punctures. Scutellum small, flat, with dense pale green scales.



Cyphicerus novemlineatus Olivier

Elytra dark-brown, oblong, almost parallel sided, broader at shoulders and slightly wider behind middle, declivous posteriorly, narrowing towards apex, with apices separately and shortly acuminate ; striae narrow, with small bare punctures showing through dense scales, striae 5 and 6 not diverging at base ; intervals broad, somewhat convex ; vestiture of pale-coppery and brown scales, with even-numbered intervals brown (becoming greenish grey laterally) and others pale-coppery, with a row of sub-erect setae on

each interval. Legs piceous ; coxae covered with narrow pale scales, fore-coxae contiguous ; femora clavate, each with a small tooth, covered with coppery-brown scales ; tibiae slender, anterior tibiae shallowly bisinuate internally, anterior and middle tibiae with row of spines in their apical halves ; tarsi squamose and densely setose ; 2nd joint of hind tarsus narrower and not transverse, third bilobed joint as long as second and spongy beneath. Thoracic sterna brown, punctate and each puncture with short seta ; abdominal sternites punctate, with greenish grey scales.

Aedeagus straight, sub-truncate at apex, highly sclerotized at apex and on lateral sides ; phallotreme sub-apical, with orificial plates well-developed ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with apodemes shorter than aedeagus ; endophallus lying between aedeagal apodemes and surpassing them anteriorly, beset with dense rows of elongated papillae and denticles in apical half, with two pairs of plates at apex. Bursa copulatrix well-developed, with U-shaped plate at basal end ; ventral spiculum moderately long, straight, thick and flattened at apex and base. Spermatheca with cornu pointed at apex, collum lying near base of ramus and strongly curved at apex.

Measurements.—

Length

Female body : 6.74 mm ; rostrum 0.73 mm.

Male body : 5.89 mm ; rostrum : 0.68 mm.

Breadth

Female body : 2.83 mm ; rostrum : 0.81 mm.

Male body : 2.48 mm ; rostrum : 0.71 mm.

Distribution.—INDIA : Bombay , Assam.

Holotype in Edinburg Museum, (U.K.).

165. **Cypicerus longicornis** (Motschulsky)
(Fig. 251)

1858. *Ptochidius longicornis* Motschulsky, Etud. Ent., 7 : 88.

1931. *Cyphicerus longicornis* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 5, 36.

Frons black, flat, completely covered with bluish green scales and spathulate brownish setae ; eyes piceous, large, oval, somewhat convex and lying on level with frons. Rostrum black, longer than its apical width, gradually narrowing from base to scrobes and strongly dilated at apex ; dorsal area impressed, covered with bluish-green scales and erect pale setae, with area behind epistome bare, with transverse carina obliterated, with median carina bare and running only in its apical half ; dorso-lateral carinae feeble, covered with scales, almost parallel behind and divergent to apex, lateral areas bare, shining, each with a narrow sulcus running from upper angle of scrobe to upper margin of eye and a broad squamose sulcus from below lower angle of scrobe towards eye ; epistome moderately long, with margins sharply carinate. Antennae fuscus ; scape strongly curved, sub-cylindrical, gradually clavate, covered with bluish-green narrow scales ; funicle with joint 2 longer than 1, 3 and 4 sub-equal but shorter than 1, 5-7 sub-equal and shortest, all joints covered with narrow bluish-green scales and scales gradually narrowing from basal to apical joint ; club fusiform, with two apical joints narrower and shorter than 2 basal joints, finely and uniformly pubescent.

Prothorax with ocular lobes weak and vibrissae short. Pronotum black, punctate, transverse, widest at middle, as wide at apex as at base, shallowly constricted near base, with basal margin shallowly bisinuate ; vestiture consisting of alternate stripes of bluish-green and black scales, with central green stripe running in basal two-third and narrower than dorso-lateral black stripes, spathulate seta in each puncture. Scutellum small, black, flat, covered with bluish-green scales.

Elytra black, wider at shoulders than base of prothorax, oblong, parallel-sided, narrowing towards apex, with apices jointly rounded ; striae narrow, with punctures rounded, with striae 5 and 6 not diverging at base intervals broad, somewhat convex ; vestiture

consisting of irregular patches of piceous and bluish-green scales, bluish-green scales on lateral sides, a row of distantly placed sub-erect brownish setae on each interval. Legs piceous ; coxae covered by pale scales and few pale and greenish setae near apices, fore-coxae contiguous and placed little towards anterior margin of prosternum ; femora clavate, each with a small tooth, covered with greenish-blue scales and short pale setae ; fore and middle tibiae with row of spines on apical one-third internally and former bisinuate internally ; tarsi squamose ; first joint of hind tarsus twice as long as second, third bilobed joint shorter than second and spongy beneath. Thoracic sterna piceous, punctate and each puncture with a pale seta-like scale, with greenish blue scales. Abdominal sternites punctate, covered with pale and greenish-blue scales, each puncture with a pale seta.

Male genitalia not studied. Bursa copulatrix well-developed ; ventral spiculum long and thick, broadened at apex. Spermatheca with cornu pointed at apex, collum lying near base of ramus.

Measurements.—

Length

Female body : 4.8 mm ; rostrum : 0.8 mm.

Breadth

Female body : 1.6 mm ; rostrum : 0.6 mm.

Distribution.—INDIA : Assam.

Holotype in Moscow Museum, (Russia).

166. **Cyphicerus lineatus** (Motschulsky)
(Figs. 115a, 115b, 252)

1858. *Ptochidius lineatus* Motschulsky, Etud. ent., 7 : 87.

1931. *Cyphicerus lineatus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 4, 36.

Frons black, finely striolate, covered with brownish-green and blue scales, impressed between eyes, with central fovea elongated ; eyes piceous, large, rounded, lying on level with frons. Rostrum black, as long as its apical width, narrowing from base to scrobes

and strongly dilated at genae, dorsal area impressed, covered with brownish-green and blue scales and spathulate recumbent setae, with median carina strong and bare; dorso-lateral carinae squamose, parallel upto middle and divergent towards apex; epistome long, with lateral margins feebly carinate, forming an acute angle behind; lateral areas covered with blue and brownish-green scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae dark-brown, moderately long, scape sub-cylindrical and strongly curved, gradually clavate, reaching close to middle of prothorax, covered with sparse green scales and brown recumbent setae; funicle with joint 2 longer than 1, 3 and 4 sub-equal but shorter than 1, 5-7 sub-equal and shortest club fusiform, finely and uniformly pubescent.

Prothorax with well-developed ocular lobes and long vibrissae. Pronotum black, punctate, transverse, widest at middle, a little narrower at base than at apex, with anterior margin broadly and shallowly sinuate in middle, its basal margin shallowly bisinuate, vestiture consisting of alternate stripes of green and brownish scales with central green stripe narrowest and incomplete, a short, spathulate recumbent seta in each puncture. Scutellum small, black, oblong, covered with greenish-blue scales.

Elytra black, wider at shoulders than base of prothorax, oblong, parallel-sided, narrowing towards apex, separately and shortly acuminate at apices; striae narrow, with punctures large and each puncture with short spathulate seta; intervals somewhat convex; elytral vestiture of irregular patches of dark-brown and bluish-green scales, only greenish-blue scales laterally, with numerous spathulate brown setae on each interval. Legs fuscus; coxae covered with narrow pale scales and few bluish scales near apices; fore-coxae contiguous and placed in middle of prosternum; femora clavate, each with a small tooth, covered with bluish and green scales; fore and middle tibiae with row of spines on the apical one-third internally and former shallowly bisinuate internally; tarsi squamose; first joint of hind tarsus twice as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna piceous, punctate and each puncture with short seta. Abdominal sternites covered with pale and some blue scales, punctate and each puncture with pale seta.

Aedeagus slightly curved, sinuate at apex ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus ; phallobase ring-shaped, with apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes and surpassing them anteriorly, beset with rows of setae and papillae, with two pairs of plates at apex. Bursa copulatrix well-developed ; ventral spiculum long, broadened at apex. Spermatheca with cornu pointed at apex, collum lying near base of ramus.

Measurements.—

Length

Male body : 6.3 to 6.7 mm , rostrum : 0.9 to 1.0 mm.

Female body : 6.8 to 7.3 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.0 to 2.1 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.3 to 2.5 mm ; rostrum : 0.9 to 1.0 mm.

Distribution.—INDIA : Meghalaya.

Holotype in Moscow Museum, Russia.

167. **Cyphicerus nudimalis** sp. nov.

(Fig. 253)

Frons black, flat, slightly wider than length of eye, covered with metallic green and few pale scales, with central fovea elongated ; eyes black, large, nearly flat. Rostrum black, as long as its apical width, rapidly narrowing from base to scrobes ; dorsal area deeply depressed in front, narrower than frons, densely covered with metallic green scales and few short setae ; median carina as high posteriorly as dorso-laterals , dorso-lateral carinae well-developed, squamose, almost parallel upto middle and divergent to apex ; epistome long, with lateral margins impressed and hind margins carinate ; lateral areas each with broad impunctate ridge from scrobe to eye. Antennae black, moderately long, squamose ; scape sub-cylindrical, clavate, with apex somewhat compressed, moderately curved, with sub-recumbent setae ; funicle

with joint 2 slightly longer than 1, 3-7 sub-equal, all joints covered with narrow green scales ; club finely and uniformly pubescent.

Prothorax with well-developed ocular lobes and short vibrissae. Pronotum black, with rugose punctures almost concealed with scales, rounded laterally, widest at middle, with feebly bisinuate base wider than truncate apex ; vestiture of general green and dark-brown scales, two close admedian brown stripes and a lateral one on either side, short brown scale filling each puncture. Scutellum small, black, flat, covered with brown scales.

Elytra black, broad, wider at shoulders than base of prothorax, with shoulders roundly rectangular and with few small granules, parallel sided, slightly wider behind middle, narrowing towards apex, with apices jointly rounded ; striae shallow, with punctures mostly concealed by green scales, with striae 5 and 6 not divergent at base ; intervals broad, somewhat convex specially in apical half, intervals 2 and 3 somewhat raised at base and there closely set with small shiny granules ; elytral vestiture of general metallic green scales, with numerous confluent black spots, a row of very short broad recumbent setae on each interval, with a minute recumbent scale in each striaal puncture. Legs black ; coxae covered with few metallic green scales, fore-coxae contiguous ; femora clavate, each with a small tooth, covered densely with green narrow scales and few short sub-erect setae ; tibiae slender, apical end of anterior and middle tibia with row of spines ; tarsi squamose, first joint of hind tarsus about twice as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate and each puncture with small seta-like scale. Abdominal sternites punctate and each puncture with a pale seta, covered with green scales.

Male genitalia not studied. Bursa copulatrix weakly developed, with broad U-shaped plate having wavy margin ; spiculum ventrale moderately long, gently thick at apex. Spermatheca with cornu pointed at apex, collum curved towards ramus.

Measurements.—

Length

Female body : 7.23 to 7.71 mm rostrum : 0.72 to 0.74 mm.

Breadth

Female body 3.13 to 3.52 mm ; rostrum : 1.0 to 1.13 mm.

Holotype—Female ; India : Assam, Sibsagar ; 17. x. 1949 ; on wild vegetation ; E.T Atkinson. *Paratype* : Female, same data as for holotype. Material in British Museum (N.H.), London.

This is a distinctive species as its body is almost uniformly beset with rounded metallic green scales and the bases of elytra carry shiny granules between striae 1 and 3.

168. **Cyphicerus bombacis** sp. nov.

(Fig. 254)

Frons piceous, flat, depressed, little below level of eyes, its width equal to length of eye, with shallow punctation hidden by scales, densely covered with green scales mostly tinged with copper, with central fovea small and rounded ; eyes black, large, slightly convex. Rostrum piceous, as long as broad, rapidly narrowing from base to scrobes and strongly dilated at genae ; dorsal area narrower than frons, depressed, covered with green scales and few short spathulate setae, with fine median carina nearly as high as dorso-laterals and almost concealed by scales, with transverse ridge behind epistome higher than usual ; dorso-lateral carinae feeble, squamose, almost parallel upto middle and divergent to apex ; epistome long, with hind margins sharply carinate ; lateral areas each with a broad bare smooth impunctate ridge from scrobe to eye. Antennae red-brown, squamose ; scape subcylindrical, clavate, gently curved, with sub-recumbent to sub-erect setae, with small apical process ; funicle with joint 2 equal or slightly longer than 1, 3 and 4 sub-equal and shorter than 1 ; club fusiform, finely and uniformly pubescent.

Prothorax with well-developed ocular lobes and short vibrissae. Pronotum brown, with rugose punctation distinctly evident in dark-brown stripes, rounded laterally, widest at middle, with truncate base and apex of equal width ; vestiture of green and brown scales, two broad admedian brown stripes, one narrow green stripe in middle, small brown sub-recumbent setae filling punctures. Scutellum small, brown, flat, with green scales.

Elytra piceous, oblong, wider at shoulders than base of prothorax, widened behind middle, declivous posteriorly, narrowing towards apex, apices separately rounded ; striae narrow, punctures clearly visible through scales and septa between punctures bare, with striae 5 and 6 not diverging at base ; intervals broad, somewhat convex ; elytral vestiture consisting of general brown and green scales, partly or wholly brown scales on intervals 2-4, a row of short erect setae on each interval. Legs brown ; coxae covered with pale narrow scales ; fore-coxae contiguous, placed little towards anterior margin of prosternum ; femora clavate, each with a small tooth ; anterior and middle tibiae with row of small spines in their apical halves internally ; tarsi squamose ; hind tarsus with first joint longer than 2, third bilobed joint as long as second and spongy beneath. Thoracic sterna light-brown in middle, green laterally, punctate and each puncture with a short seta. Abdominal sternites punctate, covered with green scales, scales comparatively longer and denser on apical sternite.

Male genitalia not studied. Bursa copulatrix moderately developed and sclerotized, with well developed U-shaped plate at base ; ventral spiculum moderately long, spathulate at apex. Spermatheca with cornu pointed at apex, collum curved towards ramus.

Measurements.—

Body : length 5.83 to 7.36 mm ; breadth 2.13 to 3.10 mm.

Rostrum : length 0.61 to 1.12 mm ; breadth 0.67 to 1.12 mm.

Holotype.—Female ; Bangladesh : Sylhet, Chand Kira ; 6. VIII. 1949 ; on defoliating *Bombax insigne* ; J.L. Sherwill. *Paratypes* : Females 2 ; Burma ; Thrawaddy, 1948, D.J. Atkinson. Material in British Museum (N.H.), London.

This species is characteristic in showing a bare impunctate ridge running between eye and scrobe in which respect it agrees with *C. nudimalis*. However, the pattern of scales in these two species is very different and the two can be differentiated without any difficulty.

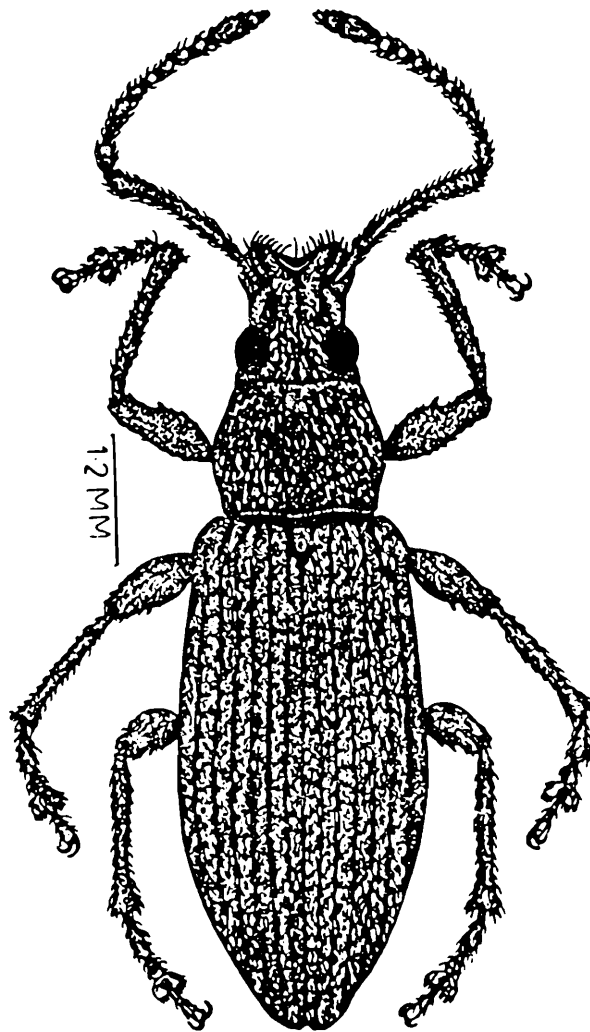
169. *Cyphicerus graniger* sp. nov.
(Figs. 116a, 116b, 255)

Frons black, closely carinulate with carinae visible through scales, depressed, a little below level of eyes, its width almost equal to length of eye, sparsely covered with bluish-green scales and few yellow spathulate setae ; eyes black, large, moderately convex. Rostrum black, stout, shorter than its apical width, narrowing gradually from base to scrobes and dilated at apex ; dorsal area not sharply defined, narrower than frons, shallowly impressed, sparsely covered with ovate bluish-green scales and few sub-erect short setae, with median carina fine and usually lower than indistinct but higher dorso-laterals ; epistome moderately long, with lateral margins impressed and hind margin carinate ; lateral areas somewhat tumid. Antennae red-brown, sparsely clothed with setiform green scales ; scape stout, curved, clavate, very coarsely punctate, with sub-erect stiff setiform scales, its apical process short ; funicle with joint 2 much longer than 1, 5-7 sub-equal and shortest ; club with joints 3 and 4 narrower than 2, pubescent.

Prothorax without ocular lobes, with vibrissae long and many. Pronotum black, with coarse punctation visible through scales, transverse, widest at middle, gently rounded laterally, with feebly bisinuate base distinctly wider than truncate apex ; vestiture of ovate bluish-green scales and short pale setae filling punctures. Scutellum black, flat, triangular, with few green scales.

Elytra black, oblong, parallel-sided, much wider at shoulders than base of prothorax, declivous posteriorly, with apices separately rounded ; striae narrow, with punctures deep and close, with striae 5 and 6 not diverging at base ; intervals broad, convex, each with row of flattened granules, with interval 1 raised more at top of declivity ; vestiture of narrow bluish-green scales becoming denser along suture, a row of short sub-recumbent setae on each interval. Legs piceous ; coxae covered with ovate green scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with sharp tooth, sparsely covered with green scales ; anterior tibiae shallowly bisinuate internally ; tarsi densely setose and squamose ; first joint of hind tarsus nearly twice as long as second, third bilobed joint little shorter than second and spongy beneath.

Thoracic sterna punctate, covered with green scales, with a sub-erect seta in each puncture. Abdominal sternites punctate, with punctures large and deep on apical segment and each puncture with a pale sub-erect setiform scale.



Cyphicerus graniger sp. nov.

Aedeagus straight, deeply sinuate at apex ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus ; phallobase ring-shaped, with apodeme shorter than aedeagus ; endophallus lying outside the aedeagal apodemes, not surpassing them anteriorly, beset with rows of setae and papillae throughout and two pairs of plates at apex. Gastral spiculum moderately long, with median arm thick and lateral arms curved and irregularly flattened. Bursa copulatrix weakly developed, with a broad U-shaped plate with wavy margin at its base ; ventral spiculum long and gradually thickened to apex.

Spermatheca with cornu pointed at apex ; collum curved towards ramus.

Measurements.—

Length

Male body : 5.13 to 6.51 mm ; rostrum : 0.62 to 0.63 mm.

Female body : 7.44 to 7.96 mm ; rostrum : 0.73 to 0.76 mm.

Breadth

Male body : 2.33 to 2.47 mm ; rostrum : 0.67 to 0.69 mm.

Female body : 2.83 to 2.92 mm ; rostrum : 0.92 to 0.98 mm.

Holotype.—Male ; India : Meghalaya, Shillong ; 2. VI, 1949 ; J. Ramachandra. *Allotype* : Female, same data as for holotype. *Paratypes* : 4, same data as for holotype. Material in British Museum (N.H.), London.

The species has been named as above on the basis of the presence of minute granules on the surface of the pronotum and the intervals of elytra. The body is covered uniformly with narrow and elongated sub-erect setae.

170. *Cyphicerus surdus* sp. nov.
(Figs. 117a, 117b, 256)

Frons piceous, flat, its width slightly greater than length of eye, covered with dense grey scales, with central fovea small and rounded ; eyes piceous, large, somewhat convex. Rostrum piceous, as long as its apical width, narrowing from base to scrobes and dilated at apex ; dorsal area much narrower than frons, nearly flat, sparsely covered with grey scales and a few small recumbent setae, with median carina about as high as dorso-laterals ; dorso-lateral carinae irregular, squamose, diverging towards apex and running almost parallel behind close to inner margins of eyes ; lateral areas covered with scanty grey scales, each with a curved sulcus running from upper angle of scrobe to upper margin of eye and curved squamose sulcus from below lower angle of scrobe towards eye. Antennae dark-red, moderately long, sparsely squamose ; scape sub-cylindrical, gently curved, gradually clavate,

with recumbent setiform scales ; funicle with joint 2 slightly shorter than 1, 3-7 sub-equal ; club fusiform and uniformly pubescent.

Prothorax with short but distinct ocular lobes and short vibrissae. Pronotum piceous, marked with coarse punctures almost hidden by scales, gently rounded laterally, widest at middle, with feebly bisinuate base little wider than truncate apex ; vestiture of general grey scales and a brown setae filling each puncture. Scutellum small, flat, covered with few grey scales.

Elytra piceous, oblong, parallel-sided, much wider at shoulders than base of prothorax, widened behind middle, narrowing towards apex, with apices separately rounded ; striae narrow, with punctures partly hidden by scales, with striae 5 and 6 not diverging at base ; intervals broad, somewhat convex ; vestiture of general grey scales mottled with brown scales, a row of recumbent setae on each interval. Legs piceous ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a small tooth, covered with grey scales ; anterior and middle tibiae with row of spines in apical halves ; tarsi squamose ; first joint of hind tarsus twice as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna piceous, punctate, with scales narrow in middle of mesosternum. Abdominal sternites punctate, covered with grey and green scales, with pale setae filling punctures.

Aedeagus slightly curved, sinuate at apex ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus ; endophallus lying outside aedeagal apodemes and surpassing them anteriorly, beset with rows of setae at apical end. Gastral spiculum moderately long, with basal arms well-developed and median arm curved at right angle at apex. Bursa copulatrix weakly developed, with V-shaped plate having spiny margins lying at basal end ; ventral spiculum long and gently curved at apex. Spermatheca with cornu pointed at apex ; collum globular and lying perpendicular to ramus.

Measurements.—

Length

Male body : 5.82 mm ; rostrum : 0.54 mm.

Female body : 6.38 mm ; rostrum : 0.58 mm.

Breadth

Male body : 2.23 mm ; rostrum : 0.68 mm.

Female body : 2.36 mm ; rostrum : 0.76 mm.

Holotype.—Male ; India : Bengal ; 26. VIII. 1949 ; on wild vegetation ; H. Stevens. *Allotype* : Female : Darjeeling, Gopaldhara, data same as for holotype. Material in British Museum (N.H.), London.

This species shows general resemblance with *pardalis* and *alsus* and the pattern of scales is quite similar in all the three species. The present species, however, can be made out from *pardalis* from its sub-cylindrical scape as compared to the broad and flattened scape of *pardalis*. This species can also be separated from *alsus* from the length of the joint 2 of the funicle which is not longer than joint 1 but it is longer than 1 in *alsus*. Moreover, the ocular lobes in *surdus* are distinct while the same are poorly developed in *alsus*.

171. *Cyphicerus alsus* sp. nov.
(Figs. 118a, 118b, 257)

Frons black, shallowly depressed, its width slightly greater than length of an eye, covered with dense green and brown scales and few sub-recumbent setae ; eyes black, large, almost flat. Rostrum black, as long as its apical width, gradually narrowing from base to scrobes and dilated at apex ; dorsal area shallowly impressed, as wide at base as frons, densely covered with shining greyish green scales and few spathulate sub-recumbent setae, with median carina strong ; dorso-lateral carinae squamose, almost parallel upto middle and divergent to apex ; epistome long, its lateral margins shallowly impressed, with hind margin carinate ; lateral areas shining, covered with scanty greyish green scales, each with a sulcus running from upper angle of scrobe to upper margin of eye ; scrobes small and shallow. Antennae red-brown, long, with fairly dense narrow scales ; scape sub-cylindrical, moderately curved, gradually clavate, covered with narrow scales ; funicle covered with pale-white and few white long scales, joint 2 longer than 1, 3 and 4 each shorter than 1, 5 and 6 equal and shortest ; club fusiform, finely and uniformly pubescent.

Prothorax without ocular lobes and long vibrissae. Pronotum black, punctate, transversely and longitudinally convex, widest at middle, a little narrower at apex than at base, with lateral sides moderately rounded, shallowly constricted near base and broadly so at apex, with anterior and basal margins sub-truncate ; vestiture consisting of general greyish green and brown scales, pale seta-like scales filling punctures, one pair of admedian stripes of dark brown scales, a narrow pale median line. Scutellum small, flat, with few grey scales.

Elytra piceous, oblong, parallel-sided, much wider at base than base of prothorax, with shoulders roundly rectangular, declivous posteriorly, with apices separately and shortly acuminate ; striae narrow, with punctures closely set and elongated and partly hidden by scales, with striae 5 and 6 not diverging at base ; intervals broad, somewhat convex in apical half ; elytral vestiture consisting of dull greyish green scales mottled with dark-brown scales, a row of recumbent setae on each interval. Legs piceous ; coxae covered with pale green scales, fore-coxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, each with a small tooth, covered with greyish green scales giving coppery reflection and few short sub-recumbent setae ; anterior tibiae shallowly bisinuate internally, anterior and middle tibiae with a row of spines in apical halves ; tarsi squamose ; hind tarsus with first joint nearly 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate, and each puncture with a small seta. Abdominal sternites punctate with punctures large on apical segment, each puncture with a pale seta.

Aedeagus straight, deeply sinuate at apex ; phallotreme sub-apical, elongated, with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus ; phallobase ring-shaped, with apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes and not surpassing them anteriorly, beset with rows of setae and papillae, with two pairs of plates at apex. Gastral spiculum moderately long, its lateral arms well-developed, with median arm thick and curved at apex. Bursa copulatrix weakly developed, with U-shaped plate at base ; ventral spiculum moderately long, gently curved at apex. Spermatheca with cornu

pointed at apex ; collum small, globular, lying perpendicular to ramus.

Measurements.—

Length

Male body : 4.90 to 5.10 mm ; rostrum : 0.61 to 0.63 mm.

Female body : 6.0 to 6.3 mm ; rostrum : 0.81 to 0.86 mm.

Breadth

Male body : 1.74 to 1.81 mm ; rostrum : 0.72 to 0.73 mm.

Female body : 2.21 to 2.24 mm ; rostrum : 0.86 to 0.91 mm.

Holotype.—Male, India : West Bengal ; Rugbond Valley ; 1944 ; R. W. G. Hingston. *Allotype* : Female, same data as for holotype. *Paratypes* : 2, same data as for holotype ; West Bengal ; Gopaldhara. Material in British Museum (N.H.), London.

172. *Cyphicerus faustus* sp. nov.
(Figs. 119a, 119b)

Frons piceous, flat, its width less than length of eye, covered with dark-brown and light-green scales and few spathulate setae, with central fovea small and elongated ; eyes black, large, flat, lying at level with frons. Rostrum piceous, as long as its apical width, almost parallel-sided in basal half and dilated at genae ; dorsal area as wide as frons, depressed, covered with brown and green scales and few spathulate sub-recumbent setae, with narrow green stripe ascending frons, with median carina lower than dorso-laterals ; dorso-lateral carinae well-developed, parallel upto middle and divergent to apex ; epistome short, its hind margins sharply carinate ; lateral areas covered with brown and light-green scales. Antennae piceous, with rather sparse narrow scales ; scape sub-cylindrical, strongly curved, gradually clavate, with recumbent setae ; funicle with joint 2 slightly longer than 1, 3-5 subequal, 6 shortest ; club fusiform, finely and uniformly pubescent.

Prothorax without ocular lobes, with vibrissae long and many. Pronotum piceous, punctate and coarse punctures fully visible through sparse brown scales, transverse, strongly rounded laterally,

widest at a little behind middle, truncate at base and apex ; vestiture of general brown scales, narrow interrupted median green stripe, subquadrate spot at each posterior angle, a broad green stripe above the coxa extending along front margin to as high as top of eye, recumbent setae filling punctures. Scutellum ovate, convex but not tuberculate, raised well above elytra, with a few sparse brown scales.

Elytra brown, much wider at shoulders than base of prothorax, with shoulders roundely rectangular, parallel from shoulders to behind middle, narrowing towards apex, with apices jointly rounded ; striae narrow, with punctures clearly visible through brown scales ; intervals broad, somewhat convex ; vestiture consisting of general dark-brown and light-green scales and following green markings : a short sutural stripe behind scutellum and another on apical declivity, a small subquadrate patch on each shoulder between striae 4 and 6, an irregular band in middle between stria 1 and lateral margin, another broad curved one at top of declivity between intervals 1 and 9, numerous irregular spots in front of median band and two or three behind it, a row of erect setae on each interval. Legs testaceous ; coxae covered with sparse pale scales, fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, each with a small tooth, front femora with a fine carina beyond tooth ; fore and middle tibiae with a row of spines on apical one-third internally ; tarsi squamose ; first joint of hind tarsus twice as long as second, third bilobed joint shorter than second and spongy beneath. Thoracic sterna piceous, punctate and punctures not concealed by green scales. Abdominal sternites punctate, covered with pale and few green scales, with pale seta filling each puncture.

Aedeagus slightly curved, sinuate at apex, moderately sclerotized throughout ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes nearly 1.5 times as long as aedeagus, gently curved and narrow at apex ; phallobase ring-shaped, with apodeme slightly shorter than aedeagus ; endophallus lying outside aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae at apical one-third, with two pairs of plates at apex. Gastral spiculum with lateral arms weak, median arm strong and flattened at apex. Female genitalia not studied.

Measurements.—

Male body : length 5.21 mm ; breadth : 2.11 mm.

Rostrum : length 0.71 mm ; breadth : 0.70 mm.

Holotype.—Male ; Burma : Shan States, Kalaw ; 6. VI. 1942 ; on foliage of a forest tree ; F. J. Meggitt. Holotype in British Museum (N.H.), London.

The scutellum in the present species is strongly convex behind but it does not form a lamina or tubercle as in the case of *laminifer* and *scutellatus*, two allied species.

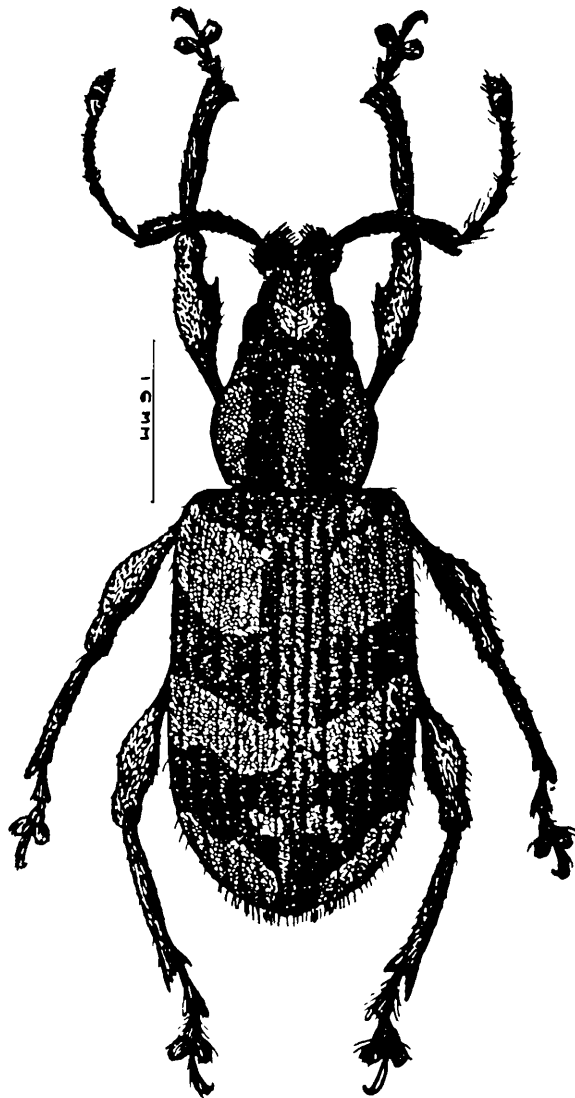
173. **Cyphicerus bidentipes** sp. nov.

(Fig. 258)

Frons black, carinulate, slightly concave, its width less than length of eye, covered with dark-brown and silvery green scales, with central fovea small and rounded ; eyes black, large, almost flat. Rostrum black, slightly shorter than its apical width, nearly parallel-sided in basal half and much dilated at genae ; dorsal surface as wide at its base as frons, rather deeply depressed, with a broad dorsal green stripe ascending on vertex, with a few small spathulate setae, with median carina well-developed and lower than dorso-laterals and transverse carina distinct ; dorso-lateral carinae bare, running almost parallel behind and divergent towards apex ; epistome moderately long, with hind margin carinate, lateral areas shining, covered with scanty green and brownish scales, with sulcus running from upper angle of scrobe to upper margin of eye. Antennae red-brown, moderately long ; scape stout, broad, dorso-ventrally compressed, abruptly widened close to base and from there nearly parallel sided to apex, strongly curved, coarsely punctate, with recumbent dark seta-like scales ; funicle with rather dense setiform pale scales, joint 2 much longer than 1, joint 3 longer than 4, 5-7 sub-equal ; club with two apical joints much narrower than basal joints, uniformly pubescent.

Prothorax with moderately developed ocular lobes and short vibrissae. Pronotum black, with coarse punctures fully visible through brown areas, strongly rounded laterally, widest at middle,

with feebly bisinuate base wider than truncate apex ; vestiture consisting of general brown and green scales, a complete median green stripe, a broad lateral stripe which narrowly reaches apical margin, another lateral green stripe with its inner edge curved, short brown setae filling punctures. Scutellum small, black, flat with a few pale scales.



Cyphicerus bidentipes sp. nov.

Elytra black, oblong, much wider at shoulders than base of prothorax, with shoulders roundly rectangular, parallel from shoulders to beyond middle, narrowing towards apex, with apices jointly rounded ; striae narrow, punctate with punctures deep and closely set but obscured by green scales ; striae 5 and 6 not divergent at base ; intervals broad, somewhat convex specially in

apical half ; vestiture consisting of general dark-brown and silvery green scales, three oblique green bands — a broad sub-basal one from shoulder to stria 2, a narrower median one from stria 8 to 1, a broad one on the declivity from stria 9 or 8 to 2 or 1, a short sutural stripe at apex, some variable spots between two bands on striae 1 and 2, a row of long erect setae on each interval. Legs red-brown, with sparse pale scales ; coxae covered with pale-green scales, fore-coxae contiguous ; femora clavate, each with a small tooth beyond normal one ; anterior tibiae shallowly bisinuate internally, anterior and middle tibiae with a row of spines in their apical halves, hind tibiae subangulate on lower edge at one-third from base ; tarsi squamose ; first joint of hind tarsus nearly 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate and punctures not covered by scales. Abdominal sternites covered with silvery green scales, punctate with setae filling punctures.

Male genitalia not studied. Bursa copulatrix moderately developed and weakly sclerotized, with well-developed V-shaped plate at base ; ventral spiculum long, thin, gently curved and spatulate at apex. Spermatheca with cornu pointed at apex, collum small and directed towards ramus.

Measurements.—

Female Body : length 6.5 to 7.4 mm ; breadth : 2.4 to 2.9 mm.

Rostrum : length 0.63 to 0.71 mm ; breadth : 0.91 to 1.1 mm.

Holotype.—Female ; India : West Bengal, Darjeeling ; 23.II.1949 ; H. Stevens. *Paratypes* : 2, same data as for holotype. Material in British Museum (N.H.), London.

This species is characteristic in carrying an additional shorter tooth near the larger tooth on each femur.

174. *Cyphicerus trifasciatus* sp. nov.
(Figs. 120a, 120b)

Frons black, carinulate, its width less than length of eye, covered with silvery green scales, with central fovea small and rounded

eyes black, large, somewhat convex. Rostrum black, slightly shorter than its apical width, nearly parallel-sided in basal half and much dilated at genae ; dorsal area as wide at its base as frons, deeply depressed, with a broad dorsal green stripe reaching vertex of head, with transverse ridge distinct and median carina lower than dorso-laterals ; dorso-lateral carinae partly squamose, almost parallel upto middle and divergent to apex ; epistome moderately long, with hind margins carinate ; lateral areas covered with scanty green and brownish scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous ; scape broad, dorso-ventrally compressed, abruptly widened close to base and from there nearly parallel-sided to apex, strongly curved, coarsely punctate, with recumbent stiff dark setae ; funicle with dense setiform pale scales, joint 2 much longer than 1, joint 3 and 4 sub-equal, 6 shortest ; club elongated, fusiform, finely and uniformly pubescent.

Prothorax with moderately developed ocular lobes and long vibrissae. Pronotum black, punctate with coarse punctures fully visible on brown areas, transverse, strongly rounded laterally, widest at middle, with feebly bisinuate base wider than truncate apex ; vestiture consisting of alternate stripes of green and brown scales, broad curved lateral stripe meeting anterior margin on a wide front, a brown stripe below former followed by a green stripe adjoining coxae, short recumbent setae filling punctures. Scutellum small, flat, rectangular, with dense bright green scales.

Elytra black, oblong, much wider at shoulders than base of prothorax, with shoulders roundly rectangular, parallel-sided from shoulders to beyond middle, narrowing towards apex, with apices jointly rounded ; striae narrow, with punctures closely set and clearly visible through brown areas but obscured by green scales ; intervals broad, somewhat convex apically ; vestiture consisting of general green and brown scales, three green bands with hind band produced backwards to apex of interval 9, a short sutural stripe at apex, some variable spots between two bands on striae 1 and 2, a row of long erect setae on each interval. Legs piceous ; coxae covered with sparse pale scales, fore-coxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, each with a small tooth and a small carina beyond it ;

anterior tibiae shallowly bisinuate internally, anterior and middle tibiae with a row of spines in their apical halves ; tarsi squamose , first joint of hind tarsus nearly twice as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna black, punctate, with silvery-green scales, scales narrow in middle of pro- and meso-sternum. Abdominal sternites covered with silvery-green scales, punctate and punctures filled with pale setae.

Aedeagus straight, sinuate at apex, moderately sclerotized throughout ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes twice as long as aedeagus, each gently thick at apex ; phallobase ring-shaped, with phallobasic apodeme as long as aedeagus and rounded at apex ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, with some denticles at apical end, with two pairs of plates at apex. Gastral spiculum with basal arms strong, median arm thick and flattened at apex. Female genitalia not studied.

Measurements.—

Body : length 5.31 to 6.12 mm ; breadth : 1.83 to 2.36 mm.

Rostrum : length 0.61 to 0.72 mm ; breadth : 0.70 to 0.82 mm.

Holotype.—Male ; Burma : Ruby Mines ; 1950 ; on wild vegetation. *Paratype* : 1, same data as for holotype. Material in the British Museum (N.H.), London.

This species shows general resemblance with *bellus* in as far as the colour and the pattern of greenish scales is concerned. However, the completely setose scutellum and much longer setae on the elytra separate this species from the other in which the scutellum is bare and the elytral setae are relatively much shorter and thicker.

175. *Cyphicerus brevirostris* sp. nov.

Frons piceous, striolate, flat, its width greater than length of eye, covered with grey scales and brown short setae ; eyes piceous, slightly convex, lying on level with frons. Rostrum piceous, much

broader than long, parallel-sided but slightly dilated at genae ; dorsal area flat, much narrower than frons, undefined towards base, covered with grey scales, with median carina weakly developed and running only in apical half ; lateral areas densely covered with grey scales ; epistome moderately long, its carinate margins indistinct and far below level of carinae adjoining scrobes. Antennae piceous, with sparse setiform pale scales ; scape sub-cylindrical, moderately curved, gradually clavate, with short sub-recumbent seta-like scales ; funicle with joint 2 somewhat longer than 1, 3 and 4 sub-equal but shorter than 1 ; club with two apical joints much narrower than basal joints, uniformly pubescent.

Prothorax without ocular lobes, with short vibrissae. Pronotum piceous, punctate, transverse, feebly rounded laterally, widest at middle, constricted at truncate base ; vestiture consisting of brown scales, a complete median greenish stripe, greenish scales on pleura upto level of stria 4. Scutellum small, rectangular, flat, with dense grey scales.

Elytra piceous, oblong, much wider at shoulders than base of prothorax, widened behind middle, narrowing towards apex, with apices jointly rounded ; striae narrow, shallow, with punctures fully visible through scales ; intervals broad, each with a row of short erect setae ; vestiture consisting of general brown scales with various grey markings, a broad area from about stria 4 to lateral margin and extending from base to middle, a broad irregular band across declivity, a V-shaped mark at apex, numerous small irregular spots on disk, minute recumbent setae filling punctures. Legs piceous ; coxae covered with grey scales ; femora clavate, each with short tooth, covered with sparse green scales and small pale setae ; tarsi squamose ; first joint of hind tarsus twice as long as second, third as long as second and spongy beneath. Thoracic sterna piceous, punctate, covered with grey scales becoming narrow in middle of each sternum. Abdominal sternites punctate, covered with pale and grey scales. Male and female genitalia not studied.

Measurements.—

Female body : length 5.72 mm ; breadth 2.36 mm.

Rostrum : length 0.56 mm ; breadth 1.14 mm.

Holotype.—Female ; Burma : Tharrawaddy ; on wild vegetation. Holotype in British Museum (N.H.), London.

This is a unique species in which the rostrum is relatively short and very broad. It has some resemblance in outer appearance with *longipilis*. However, the latter species, as its name indicates, has very long setae on elytra as compared to rather short and thick setae in the case of *brevirostris*.

176. *Cyphicerus ornatus* Faust
(Figs. 121a, 121b)

1891. *Cyphicerus ornatus* Faust, Stett., Ent. Zeit., **52** : 272.

1931. *Cyphicerus ornatus* : Schenkling & Marshall, Coleopterorum Catalogus, pars **114** : 5, 36.

Frons black, finely striolate, slightly concave, its width equal to length of eye, covered with shining green scales with some having coppery reflection, with central fovea small ; eyes piceous, large, rounded, somewhat convex, lying at level with frons. Rostrum black, about as long as its apical width, gradually narrowing from base to scrobes, with genae rather less dilated than usual ; dorsal area about as wide basally as frons, somewhat depressed, covered with shining green scales and few greenish sub-recumbent setae, with area behind epistome carrying sparse scales and median carina almost as high as dorso-laterals ; dorso-lateral carinae covered with scales, almost parallel upto middle and divergent to apex ; epistome long ; lateral areas covered with shining green scales, with a sulcus running from upper angle of scrobe to upper margin of eye and a curved squamose sulcus from below lower angle of scrobe towards eye. Antennae piceous, with fairly dense narrow green scales ; scape rather slender, subcylindrical, gradually clavate, with short sub-recumbent seta-like scales ; funicle with joint 2 a little longer than 1, joint 3 narrower than 2, 3 and 4 sub-equal but shorter than 1, 5-7 sub-equal and shortest ; club longer than usual and of irregular outline, finely and uniformly pubescent.

Prothorax with ocular lobes weakly developed, with vibrissae few and short. Pronotum black, punctate, transverse, rounded laterally in middle, with feebly bisinuate base as wide as apex, with

apical margin sinuate in middle ; vestiture consisting of general green scales with, two broad brown stripes, spathulate brownish seta in each puncture. Scutellum small, black, flat, with green scales.

Elytra black, wider at rectangular shoulders than base of prothorax, oblong, parallel-sided, narrowing towards apex, with apices separately rounded ; striae narrow, with punctures large and partly hidden by scales ; intervals broad, somewhat convex ; vestiture consisting of irregular patches of piceous and shining green scale, shining green scales on lateral sides, a row of distantly placed erect setae on each interval. Legs piceous ; coxae covered by greenish scales, fore-coxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, each with a small tooth, covered with bluish green scales and recumbent pale seta-like scales ; fore and middle tibiae with a row of spines on apical one-third internally, anterior tibiae shallowly bisinuate internally ; tarsi squamose ; first joint of hind tarsus twice as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna piceous, punctate and each puncture with short seta-like scale. Abdominal sternites punctate and each puncture with greenish seta-like scale becoming longer and denser on apical sternites.

Aedeagus straight, deeply sinuate at apex ; phallotreme apical, with small orificial plates ; aedeagal apodemes 1.6 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, with two pairs of plates at apex. Female genitalia not studied.

Measurements.—

Male body : length : 5.5 to 6.1 mm ; breadth : 1.5 to 1.6 mm.

Rostrum : length : 1.0 to 1.1 mm ; breadth : 1.0 to 1.1 mm.

Distribution.—INDIA : Meghalaya, Shillong.

Holotype in Dresden Museum (Germany).

177. **Cyphicerus alternans** sp. nov.
(Figs. 122a, 122b, 259)

Frons piceous, flat, its width equal to length of eye, covered with dense green scales and some erect setae, with central fovea small and rounded ; eyes piceous, large, rounded, lying a little below level of frons. Rostrum brown, as long as broad, narrowing from base to scrobes and dilated at apex ; dorsal area slightly narrower than frons, flat at base and depressed in front, covered with green scales and a few short spathulate setae, with fine median carina running upto central fovea of frons, with transverse ridge distinct ; dorso-lateral carinae feeble, covered with scales, diverging towards apex and running almost parallel behind ; lateral areas shining, covered with scanty green scales, each with a sulcus running from upper angle of scrobe to upper margin of eye and a curved squamose sulcus from below lower angle of scrobe towards eye ; epistome long, with hind margin carinate. Antennae brown, moderately squamose ; scape subcylindrical, curved, gradually clavate, with sub-erect stiff seta-like scales ; funicle with joint 2 equal to 1, 3 longer than 4 but shorter than 1, 5 -7 sub-equal and shortest, all joints covered with green narrow scales, with scales gradually narrowing from basal to apical joint ; club fusiform, finely and uniformly pubescent.

Prothorax without ocular lobes, with vibrissae long and many. Pronotum brown, almost flat, as long as broad, gently rounded laterally, widest at middle, with sub-truncate base equal to truncate apex, marked with large punctures and punctures not covered by scales ; vestiture consisting of general green and brown scales arranged in alternate stripes with central green stripe narrower than brown stripes, a spathulate recumbent seta in each puncture. Scutellum small, flat, with dense grey and green scales.

Elytra brown, oblong, much wider at rectangular shoulders than base of prothorax, almost parallel-sided, narrowing towards apex, with apices separately and shortly acuminate ; striae narrow, with punctures large and visible through scales ; intervals broad, somewhat convex ; vestiture consisting of general brown scales, green scales on intervals 1, 3, 5 and lateral areas beyond stria 6, brown scales on intervals 2, 4 and 6, a row of short erect setae on each

interval. Legs brown ; coxae covered with pale narrow scales, fore-coxae contiguous and places a little towards anterior margin of prosternum ; femora clavate, each with a small tooth, covered with green scales and sub-recumbent seta-like scales ; anterior tibiae very shallowly bisinuate internally, anterior and middle tibiae with a row of small spines in apical one-third internally ; tarsi squamose ; first joint of hind tarsus about 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath. Thoracic sterna brown, punctate and each puncture with short seta-like scale. Abdominal sternites covered with green scales, punctate and each puncture with green setiform scale.

Aedeagus somewhat curved, triangular at apex, highly sclerotized at apex and on lateral sides ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme some what shorter than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, with two pairs of plates at apex. Gastral spiculum short, with lateral arms well-developed, its median arm thick and flattened at apex. Bursa copulatrix well-developed ; ventral spiculum long, thick, curved at apex. Spermatheca with cornu pointed at apex, collum lying near base of ramus.

Measurements.—

Length

Male body : 4.20 to 4.31 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 4.6 to 4.9 mm ; rostrum : 0.5 to 0.6 mm.

Breadth

Male body : 1.5 to 1.6 mm ; rostrum : 0.5 to 0.6 mm.

Female body : 1.7 to 1.8 mm ; rostrum : 0.5 to 0.6 mm.

Holotype.—Male ; Bangladesh : Sylhet ; 24. V 1978 ; on wild vegetation ; C. S. Sidhu. *Paratypes* : 4, same data as for holotype. Holotype in Entomology Section, Department of Zoology, Panjab University, Chandigarh.

The species under reference is very different from all the described congeneric species in its much smaller size. It is also characterized

by a sutural and a pair of dorso-lateral longitudinal stripes of greenish scales on the elytra. The prothorax is also broadly striped by similar scales. These features make the species quite distinctive among the known Indian species of this genus.

178. *Cyphicerus sesquilineis* sp. nov.
(Fig. 260)

Frons piceous, flat, its width slightly greater than the length of eye, covered with dark-brown and grey scales and few spathulate sub-erect setae, with central fovea small and rounded ; eyes black, almost flat. Rostrum piceous, as long as its apical width, narrowing from base to antennae ; dorsal area about as wide as frons, flat on basal half and depressed in front, densely covered with light brown scales and short spathulate setae, with median carina as high as dorso-laterals ; dorso-lateral carinae squamose, almost parallel upto middle and divergent to apex ; epistome moderately long, with lateral margins impressed and hind margins carinate ; lateral areas densely covered with pale and brown scales ; each with a sulcus running from upper angle of scrobe to upper margin of eye and a squamose sulcus from below lower angle of scrobe towards eye ; scrobes small, almost visible from above. Antennae red-brown, sparsely squamose ; scape rather slender, sub-cylindrical, moderately curved, gradually clavate, with suberect scales ; funicle with joint 2 longer than 1, 3 and 4 sub-equal but shorter than 1, 7 shortest, all joints covered with green narrow scales gradually narrowing from basal to apical joint ; club fusiform, finely and uniformly pubescent.

Prothorax with ocular lobes short and vibrissae long. Pronotum brown, punctate with punctures large and visible through scales, sub-cylindrical, gently rounded in middle, with truncate base and apex of equal width ; vestiture consisting of general brown and green scales, short spathulate setae filling punctures, a pair of admedian stripes of dark-brown scales, a narrow green median stripe. Scutellum small, flat, with dense green scales.

Elytra dark-brown, oblong, parallel-sided, much wider at rectangular shoulders than base of prothorax, declivous posteriorly, with apices separately and shortly acuminate ; striae narrow, with

strial punctures fully visible and septa between them bare and shiny, each puncture with minute recumbent seta; intervals broad, somewhat convex apically; elytral vestiture consisting of dark-brown scales, with green scales on odd intervals except 3 and basal third of 5, green scales also on basal third of 8, a row of erect setae on each interval. Legs brown; coxae covered with narrow pale scales with few bluish scales near apices, fore-coxae contiguous and placed in middle of prosternum; femore clavate, each with a small tooth, covered with bluish-green scales and a few sub-recumbent seta-like scales; anterior tibiae/shallowly bisinuate internally, anterior and middle tibiae with a row of spines in apical halves; tarsi squamose; hind tarsus with first joint nearly twice as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna piceous, punctate, covered with grey scales. Abdominal sternites punctate, covered with dense grey scales, scales longer and denser on apical sternite.

Male genitalia not studied. Bursa copulatrix well-developed, with U-shaped plate having smooth margin lying at its base; ventral spiculum moderately long, gradually thickened to apex; spermatheca with cornu pointed at apex; collum small and curved towards ramus.

Measurements.—

Length

Female body : 6.12 to 6.34 mm; rostrum : 0.86 to 0.89 mm.

Breadth

Female body : 2.60 to 2.74 mm; rostrum : 1.0 to 1.1 mm.

Holotype.—Female; India: Assam, Cachar; 6.VIII.1949; J. W. Mason. *Paratype*: 1, same date as for holotype. Type in British Museum (N.H.), London.

179. **Cyphicerus labifer** sp. nov.
(Figs. 123a, 123b)

Frons fuscus, finely carinulate, flat, its width slightly greater than the length of eye, covered densely with pale-brown scales

and few sub-recumbent setae, with central favea small and elongated ; eyes piceous, large, rounded, almost flat, lying a little below level of frons. Rostrum fuscus, as long as its apical width, narrowed from base to antennae ; genae strongly dilated ; dorsal area narrower than frons, shallowly depressed behind and deeply so in front, densely covered with pale-brown scales and few setae, with transverse ridge distinct and median carina lower than dorso-laterals ; epistome moderately long, with hind margins carinate ; lateral areas shining, covered with scanty pale-brown scales, each with a sulcus running from upper angle of scrobe towards eye ; scrobes small. Antennae red-brown, with dense scales ; scape rather stout, sub-cylindrical, moderately curved, clavate, with recumbent seta-like scales ; funicle with two basal joints equal ; club uniformly pubescent and fusiform.

Prothorax with ocular lobes well-developed and vibrissae short. Pronotum pale-brown, punctate, widest at middle, a little narrower at apex than at base, with lateral sides moderately rounded ; vestiture consisting of general brown scales, with median pale stripe, brown recumbent setae filling punctures. Scutellum small, flat, completely covered with pale-green scales.

Elytra brown, oblong, parallel sided, widest behind middle, much wider at shoulders than base of prothorax, with shoulders roundly rectangular, declivous posteriorly, their apices separately and shortly acuminate ; striae narrow, with strial punctures closely set and each with minute seta ; intervals broad, somewhat convex specially in apical half ; vestiture consisting of dark-brown scales with following pale-brown marks ; a humeral patch, one patch along suture, an irregular oblique band starting from lateral stripe before middle and reaching suture behind middle, a large irregular patch on declivity from lateral stripe to stria 2, a row of short erect setae on each interval. Legs brown ; coxae covered with brown scales, fore-coxae contiguous ; femora clavate, each with a small tooth, covered with scanty pale-brown scales ; anterior and middle tibiae deeply bisinuate internally and each with a row of small spines in apical one-third ; tarsi squamose and densely setose ; first joint of hind tarsus about 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath. Thoracic sterna brown, punctate and each puncture with a seta-like scale,

scales dense on pro-and meso-sterna. Abdominal sternites punctate, covered with green scales.

Aedeagus straight, deeply sinuate at apex, more sclerotized on lateral sides ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes nearly twice as long as aedeagus, each curved and narrow at apical end ; phallobase ring-shaped, with phallobasic apodeme nearly as long as aedeagus and rounded at apex ; endophallus lying between aedeagal apodemes, not surpassing them anteriorly, beset with rows of setae and papillae throughout, curved at apical end. Gastral spiculum long, with basal arms well-developed, its median arm strong and flattened at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.72 mm ; rostrum : 0.73 mm.

Breadth

Male body : 2.74 mm ; rostrum : 0.84 mm.

Holotype.—Male ; India ; 27.VII.1950 ; on wild vegetation ; H. Stevens. Holotype in British Museum (N.H.), London.

This species is closer to *longipilis* than *brevirostris* because the rostrum in these two species is quite similar. However, the long and fine setae of the *longipilis* separate it from the present species.

180. **Cyphicerus longipilis** sp. nov.
(Figs. 124a, 124b)

Frons black, carinulate, flat, its width slightly greater than length of eye, covered with grey scales and few erect setae, with central fovea very small ; eyes piceous, large, flat. Rostrum black, about as long as its apical width, narrowing slightly from base to scrobes and then dilated at apex ; dorsal area depressed, much narrower than frons, densely covered with grey scales and few short erect setae, with median carina lower than dorso-laterals and transverse ridge distinct ; dorso-lateral carinae squamose, parallel upto middle

and divergent at apex ; epistome moderately long, with lateral margins carinate and lower than edge of scrobe ; lateral areas shining, with few grey scales, each with a sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, with rather sparse narrow scales on scape and much denser ones on funicle ; scape rapidly widened near base and parallel-sided nearly to apex, rather strongly curved, with erect seta-like scales ; funicle with joint 2 much longer than 1, 3-7 sub-equal ; club fusiform, finely and uniformly pubescent.

Prothorax with well-developed ocular lobes and long vibrissae. Pronotum piceous, punctate and dense punctures partly obscured by scales, transverse, widest at middle, somewhat constricted at apex with constriction extending shallowly across disk, with truncate apex as wide as subtruncate base, its anterior margin with a projecting fringe of recumbent scales ; vestiture consisting of grey scales except for an elliptical brown band across base, erect pale setae scattered densely on entire surface. Scutellum small, rectangular, flat, with dense grey scales.

Elytra piceous, oblong, much wider at rectangular shoulders than base of prothorax, parallel from shoulders to beyond middle, narrowed towards apex, with apices jointly rounded ; striae shallow, with punctures largely concealed by scales ; intervals broad, somewhat convex ; elytral vestiture consisting of brown scales with following grey markings : a broad indefinite stripe along suture becoming sharply restricted to interval 1 on declivity, a large humeral patch between striae 4 and 7 enclosing a brown spot on interval 6 and its posterior third expanding laterally from stria 3 to 8 ; an irregular curved band in middle from suture to side margin, a large sub-triangular area on the declivity between striae 2 and 9, with a row of long erect setae on each interval. Legs dark-brown ; coxae covered with pale scales, with a few shining green scales near apex, fore-coxae contiguous ; femora clavate, each with short tooth, beset with grey scales ; anterior tibiae shallowly bisinuate internally, anterior and middle tibiae with a row of spines in their apical halves ; tarsi densely squamose ; hind tarsus with first joint nearly 1.5 times as long as second, third bilobed joint as long as second and spongy beneath. Thoracic sterna brown, punctate and each puncture with a seta-like scale. Abdominal sternites covered

with grey scales, punctate and pale seta-like scales filling punctures.

Aedeagus short, straight, moderately sinuate at apex, more sclerotized on lateral sides ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes nearly twice as long as aedeagus, each curved and thickened at apex ; phallobase ring-shaped ; phallobasic apodemes as long as aedeagus ; endophallus lying outside aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, with short denticles at apical end. Gastral spiculum long, with lateral arms well-developed, median arm strong and broad at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.92 mm ; rostrum : 0.74 mm.

Breadth

Male body : 2.71 mm ; rostrum : 0.90 mm.

Holotype.—Male ; India : Assam ; 16.IV.1948 ; on tea plant ; E.A. Andrewes. Holotype in British Museum (N.H.), London.

This species shows some resemblance with *brevirostris* but the two can be easily separated from the presence of long and fine setae on the elytra of the present species.

181. *Cyphicerus sticticus* sp. nov.
(Figs. 125a, 125b, 261)

Frons piceous, flat, its width less than length of eye, covered with metallic green scales and few seta-like scales ; eyes black, large, convex. Rostrum piceous, longer than its apical width, narrowing slightly from base to scrobes and rather strongly dilated at genae ; dorsal area nearly as wide as frons, almost flat, densely covered with metallic green scales, with median carina as high as dorso-laterals, with transverse ridge distinct and area behind epistome squamose ; dorso-lateral carinae squamose, almost

parallel upto middle and divergent to apex ; epistome short, with lateral margins impressed and hind margin carinate ; lateral areas shining, with scanty green scales, each with a sulcus running from upper angle of scrobe to upper margin of eye and a curved squamose sulcus from below lower angle of scrobe towards eye. Antennae piceous, with very sparse setiform scales ; scape rather slender, moderately curved, gradually clavate apically, with short erect seta-like scales ; funicle with joint 2 very slightly longer than 1, 3 slightly longer than 4 but shorter than 1, 4-7 sub-equal and shortest ; club fusiform, finely and uniformly pubescent.

Prothorax with feebly developed ocular lobes and short vibrissae. Pronotum piceous, punctate and punctures fully visible through dark-brown scales, gently rounded laterally, widest at middle, with subtruncate base a little wider than truncate apex, with a shallow transverse impression before middle and a rounded impression behind middle on each side ; vestiture consisting of green and brown scales, green scales on sides from coxa upto level of stria 4, brown scales on disc divided in middle by a narrow green stripe, a small seta-like scale filling each puncture. Scutellum small, flat, sparsely squamose.

Elytra piceous, oblong, much wider at shoulders than base of prothorax, with shoulders roundly rectangular, declivous posteriorly, narrowing towards apex, with apices separately and shortly acuminate ; striae narrow, punctate with punctures fully visible in brown areas and septa between them bare ; intervals broad, somewhat convex in apical half ; elytral vestiture consisting of green scales on lateral areas upto stria 7 or 6, a green narrow band along base, green scales on most of declivity, dark-brown with numerous small irregular variable spots of green in median parts, a row of long erect setae on each interval. Legs piceous ; coxae covered with greyish narrow scales, fore-coxae contiguous and placed a little towards anterior margin of prosternum ; femora clavate, each with a small tooth, covered with grey scales and few sub-erect seta-like scales ; anterior and middle tibiae with a row of small spines in apical one-third internally ; tarsi squamose ; hind tarsus with first joint nearly 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath. Thoracic sterna brown, punctate and each puncture with small seta-like

scale. Abdominal sternites punctate, with grey scales in centre and metallic green on sides.

Aedeagus straight, broadly triangular and produced in middle at apex, moderately sclerotized throughout ; phallotreme sub-apical, with weakly developed orificial plates ; aedeagal apodemes nearly 1.5 times as long as aedeagus, each abruptly curved at apex ; phallobase ring-shaped, with phallobasic apodeme shorter than aedeagus ; endophallus lying outside aedeagal apodemes, not surpassing them anteriorly, beset with rows of setae and denticles at apical part. Gastral spiculum with weak lateral arms, its median arm thick and curved at apex. Bursa copulatrix well-developed, with U-shaped plate ; ventral spiculum short, spatulate at apex. Spermatheca with cornu pointed at apex, collum curved and lying almost at right angle to ramus.

Measurements.—

Length

Male body : 5.83 to 5.91 mm ; rostrum : 0.68 to 0.69 mm.

Female body : 6.24 mm ; rostrum : 0.67 mm.

Breadth

Male body : 2.12 to 2.17 mm ; rostrum : 0.78 to 0.81 mm.

Female body : 2.63 mm ; rostrum : 0.88 mm.

Holotype.—India : Assam : Khasi hills, 21. VII. 1950, on foliage of forest tree, H. Stevens. *Allotype* : Female, same data as for holotype. *Paratypes* : 2, same data as for holotype. Material in British Museum (N.H.), London.

This species and the following species, *juavis*, show some resemblance in general appearance and in the dispersal of bluish-green scales on the body. However, the rostrum is longer than its apical width and the frons is narrower than the length of an eye in *sticticus* whereas the rostrum is not longer than its apical width and the frons is wider than the length of an eye in *juavis*.

182. *Cyphicerus juavis* sp. nov.

(Figs. 126a, 126b, 262)

Frons piceous, flat, its width greater than length of an eye, covered with green scales tending to form concentric rings around

central fovea ; eyes piceous, large, somewhat convex, lying a little below level of frons. Rostrum piceous, somewhat broader at apex than long, slightly narrowed from base to scrobes and dilated at apex ; dorsal area a little narrower than frons, almost flat, densely covered with green scales, with median and dorso-lateral carinae hidden by dense scales, with transverse ridge distinct and area behind epistome bare ; epistome moderately long, with hind margins carinate ; lateral areas covered with dense green scales, each with a sulcus running from upper angle of scrobe to upper margin of eye and a curved squamose sulcus from below lower angle of scrobe towards eye. Antennae piceous, densely squamose ; scape sub-cylindrical, moderately curved, gradually clavate, with stiff sub-recumbent seta-like scales ; funicle with joint 2 longer than 1 ; joints 3 and 4 sub-equal but shorter than 1, 5-7 shortest ; club fusiform and uniformly pubescent.

Prothorax with well-developed ocular lobes and short vibrissae. Pronotum piceous, punctate and punctures almost concealed by scales, gently rounded laterally, widest at middle, with truncate base and apex of equal width ; vestiture consisting of green scales from coxae upto striae 4 or 3, brown scales in middle with a median green stripe. Scutellum small, flat, covered with brown scales and few seta-like scales.

Elytra oblong, wider at shoulders than base of prothorax, with shoulders roundly rectangular, parallel from shoulders to beyond middle and narrowing towards apex, with apices separately and shortly acuminate ; striae narrow, punctate and punctures almost concealed with scales ; intervals broad, somewhat convex ; elytral vestiture consisting of green scales from lateral margin to stria 5, variably marked with green and brown in middle part, a broad green band across base, a green sutural stripe from base to middle, a row of short erect seta-like scales on each interval. Legs brown ; coxae covered with pale green scales, each with few shining scales near apex ; fore-coxae contiguous ; femora clavate, each with a small tooth ; anterior and middle tibiae with a row of spines in apical halves ; tarsi densely squamose, hind tarsus with first joint nearly 1.5 times as long as second and spongy beneath. Thoracic sterna piceous, punctate and each puncture with seta-like scale. Abdominal sternites punctate, covered with pale-green scales.

Aedeagus straight, broadly triangular towards apex ; phallosome sub-apical, without orificial plates ; aedeagal apodemes as long as aedeagus ; phallobase ring-shaped, with phallobasic apodeme distinctly shorter than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of spines and papillae. Gastral spiculum with lateral arms well-developed, its median arm strong and flattened at apex. Ovipositor short, weakly sclerotized ; bursa copulatrix moderately developed, weakly sclerotized ; ventral spiculum short, thick, gently curved at apex. Spermatheca with cornu pointed at apex, collum lying perpendicular to ramus.

Measurements.—

Length

Male body : 4.61 to 5.23 ; rostrum : 0.52 to 0.64 mm.

Breadth

Male body : 1.72 to 1.76 ; rostrum : 0.72 to 0.78 mm.

Holotype,—Male ; Burma : Momeit ; 2. VII. 1949 ; on wild vegetation ; L. Fea. *Allotype* : Female, same data as for holotype. *Paratypes* : 2, same data as for holotype. Material in the British Museum (N.H.), London.

Genus 37. *Thalponomus* Marshall

1944. *Thalponomus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 457.

Frons continuous with rostrum, in level with upper margins of eyes, its width less than length of an eye ; eyes large, nearly circular, only slightly convex. Rostrum about as long as broad, narrower at base than head, strongly dilated at genae, its lower surface nearly parallel with upper one ; dorso-lateral carinae parallel in basal half, curving outwards apically ; lateral areas without curved carinae ; epistome with carinate margin forming a blunt acute angle and raised above level of dorsal area ; mentum with two setae. Antennae with scape gradually clavate ; funicle with joint 2 longer than 1. Prothorax transverse, narrower at apex than at deeply bisinuate base. Elytra broader at obliquely

rounded shoulders than base of prothorax, jointly rounded at apex. Legs with femora toothed ; corbels of hind tibiae enclosed, each with a bare inner carina.

Type species.—*Thalponomus subvittatus* Marshall

Distribution.—INDIA, CHINA, SUMATRA.

Key to the species of genus **Thalponomus** Marshall

1. Rostrum with dorsal area as wide as frons, flat, with a strong median carina ; elytra not widened behind middle, without any green sutural stripe, with short recumbent scales like setae

theae sp. nov.

- Rostrum with dorsal area narrower than frons, elevated, sloping down to frons, with a broad median sulcus ; elytra much widened behind middle, with green sutural stripe at declivity

ornatus sp. nov.

183. **Thalponomus theae** sp. nov.
(Figs. 127a, 127b, 263)

Frons piceous, narrower than length of an eye, a little lower than upper margins of eyes, covered sparsely with broadly-ovate greenish and fulvus scales, with central fovea small and circular ; eyes piceous, ovate, convex. Rostrum piceous, much longer than broad, parallel-sided ; dorsal area slightly depressed behind antennal insertion, covered with scales as on frons, with area behind epistome deeply impressed, with central carina a little higher than dorso-laterals ; dorso-lateral carinae parallel-sided upto little before antennal insertion and divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and acuminate ; lateral areas shining, sparsely covered with greenish and white scales, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, densely squamose ; scape cylindrical, elongated, slightly curved, gradually clavate, covered with recumbent brownish and greenish scales ; funicle with joint 2 twice as long as 1, 3 to 7 longer than broad and almost of same length, all joints profusely

covered with white scales ; club fusiform, elongated, finely pubescent.

Prothorax wider than long, with moderate ocular lobes and short vibrissae. Pronotum black, transversely and longitudinally convex, widest at middle, with base deeply bisinuate and apex almost truncate, laterally rounded ; vestiture consisting of dense broadly-ovate greenish and brownish scales and few brownish spathulate scales, with middle of central pentagonal dark patch beset with a longitudinal stripe of greenish scales, dense greenish scales on lateral sides. Scutellum small, circular, covered with greenish scales.

Elytra black, oblong, parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral areas near apices slightly impressed and each apex shortly acuminate ; striae narrow, with shallowly rounded closely set punctures ; intervals broad and convex ; vestiture consisting of general broadly-ovate greenish and brownish scales forming alternate light and dark irregular stripes, with shoulders and apices pubescent with greenish scales, with striae punctures filled with short whitish scales. Legs ferrugineous ; densely covered with broadly ovate greenish and spathulate whitish scales ; fore-coxae contiguous, placed a little behind middle of prosternum ; femora clavate, each with a short cuneiform tooth ; tibiae with apices densely beset with dark brown bristles ; tarsi squamose ; hind tarsus with first joint twice as long as 2 and 3 together. Thoracic sterna black, punctate and each puncture beset with a broadly-ovate greenish or whitish scale, with punctures almost concealed by scales. Abdominal sternites black, punctate, densely covered with broadly-ovate greenish scales and spathulate whitish scales.

Aedeagus straight, sinuate at apex ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes 2 times as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of tubercles and papillae, with pair of plates at apex. Gastral spiculum long ; lateral arms short ; median arm long, curved and blunt at apex. Bursa copulatrix well-developed ; ventral spiculum long and narrow, with blunt apex ;

spermatheca with cornu pointed and curved at apex, collum swollen, ramus curved and lying parallel to collum.

Measurements.—

Length

Male body : 6.1 mm ; rostrum : 0.8 mm.

Female body : 5.1 mm ; rostrum : 0.5 mm.

Breadth

Male body : 2.4 mm ; rostrum : 0.5 mm.

Female body : 2.0 mm ; rostrum : 0.4 mm.

Holotype.—Male ; India : Assam, Doom Doom ; IV 1922 ; E.A. Andrewes. *Paratypes* : Females 2, same data as for holotype. Material in British Museum (N.H.), London.

184. ***Thalponomus ornatus*** sp. nov.
(Figs. 128a, 128b, 264)

Frons piceous, narrower than length of an eye, much lower than upper margins of eyes, sparsely covered with pale-greenish and golden broadly-ovate scales and few spathulate whitish scales, with central fovea large and circular ; eyes piceous, ovate, bulging. Rostrum piceous, much longer than broad, with sides parallel upto antennal insertion and dilated thereafter ; dorsal area depressed in middle behind antennae, sparsely covered with similar scales as on frons, with area behind epistome strongly impressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae parallel upto upper angle of scrobe and divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and acuminate ; lateral areas shining, scarcely covered with pale-greenish and golden broadly-ovate scales and few spathulate whitish scales, each with a narrow shallow curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous long, densely squamose ; scape cylindrical, elongated, moderately curved, gradually clavate, covered with small whitish and dark-brown spathulate scales ; funicle with joint 1 much shorter than 2, 3 to 7 longer than broad and gradually

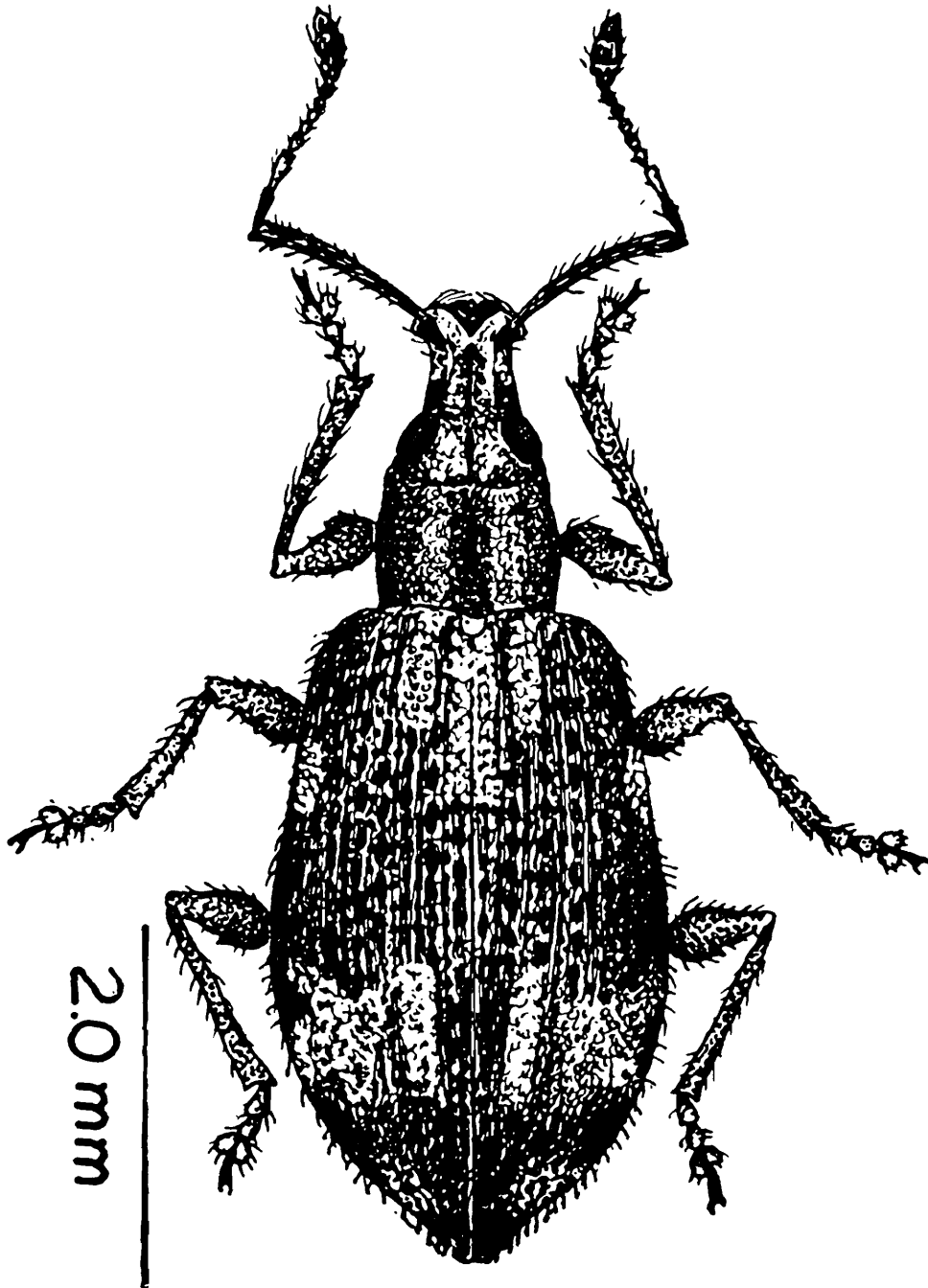
decreasing in length, all joints densely squamose with white scales ; club fusiform, finely pubescent.

Prothorax wider than long, with moderate ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at little before middle, base deeply bisinuate and lateral angles of base sub-cuneiform and impressed, with apex shallowly constricted, laterally rounded, its surface roughly granulated ; vestiture consisting of 2 longitudinal stripes of broadly ovate white scales one on either side, median broad longitudinal patch of spathulate fuscus scales, dense whitish scales covering lateral sides. Scutellum small, oblong, sparsely covered with recumbent whitish scales.

Elytra piceous, oblong, divergent upto little beyond middle and convergent thereafter, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral areas near apices not impressed and each apex shortly acuminate ; striae narrow, with deep circular closely set punctures ; intervals broad and convex ; vestiture consisting of whitish scales scattered in patches and elongated needle-like fuscus scales, narrow whitish scales filling striae punctures. Legs ferrugineous, moderately covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora gradually clavate, each with a short spiny tooth ; tibiae with apices beset with dark brown bristles ; fore-tibiae with their inner margins beset with short brown spines in apical half ; tarsi squamose ; hind tarsus with first joint much longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a whitish or fulvus scale. Abdominal sternites piceous, punctate, densely covered with broadly-ovate and few spathulate whitish and fulvus scales.

Aedeagus straight, somewhat bilobed at apex ; phallotreme sub-apical, with well-developed orificial plates ; aedeagal apodemes 2 times as long as aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus beset with rows of papillae and tubercles, tubercles dense on the margins, with pair of plates at apex. Gastral spiculum thick ; lateral arms short ; median arm long, curved and pointed at apex. Bursa copulatrix

well-developed, with sclerotized plates at apex ; ventral spiculum long and thick, spathulate at apex ; spermatheca with cornu pointed and curved at apex, collum swollen, ramus narrow and curved and lying parallel to collum.



Thalponouus ornatus sp. nov.

Measurements.—

Length

Male body : 5.0 mm ; rostrum : 0.5 mm.

Female body : 6.2 mm ; rostrum : 0.6 mm

Breadth

Male body : 2.0 mm ; rostrum : 0.3 mm.

Female body : 2.4 mm ; rostrum : 0.4 mm.

Holotype.—Female ; Indo-China : Tonkin, Chapa ; V 1916 ; R. Vitalis. *Paratype* : Male 1, same data as for holotype. Material in British Museum (N.H.), London.

Genus 38. *Hypenephorus* Marshall

1944. *Hypenephorus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 437, 457.

Frons very broad, strongly convex transversely ; eyes small, moderately convex. Rostrum somewhat transverse, its sides forming continuous lines with those of head ; epistome strongly carinate, forming an acute angle behind ; mentum with two setae. Antennae with scape almost straight and cylindrical. Prothorax transverse, widest at or near base (there being sometimes a sharp projecting tooth close to base), rapidly narrowing to apex with a slight curve, with strong ocular lobes, its base deeply bisinuate. Elytra with shoulders sloping. Front tibiae angulate behind middle on lower edge ; corbels of hind tibiae enclosed, each with an inner bare carina. Aedeagus sinuate at apex, with a small exophallic valve, orificial plates not present ; phallobasic apodeme nearly as long as aedeagus ; endophallus having two pairs of endophallic plates at apex. Female genitalia with bursa copulatrix well-developed ; spermatheca with collum and ramus lying at right angle to each other.

Type species.—*Acanthotrachelus albus* Pascoe

Distribution.—INDIA.

Key to the species of genus *Hypenephorus* Marshall

1. Prothorax with stout spine in front of each basal angle ; funicle with two basal joints equal

albus (Pascoe)

- Prothorax without any sub-basal lateral spines

2. Sides of rostrum sloping outwards ; eyes dorsal ; prothorax widest at base and narrowing anteriorly

inermis sp. nov.

- Sides of rostrum nearly vertical; eyes lateral; prothorax less wide at base, almost parallel-sided

cylindricollis sp. nov.

185. *Hypenephorus albus* (Pascoe)

(Figs. 129, 265, 266)

1872. *Acanthotrachelus albus* Pascoe, Journ. Linn. Soc., Lond., 11 : 447.

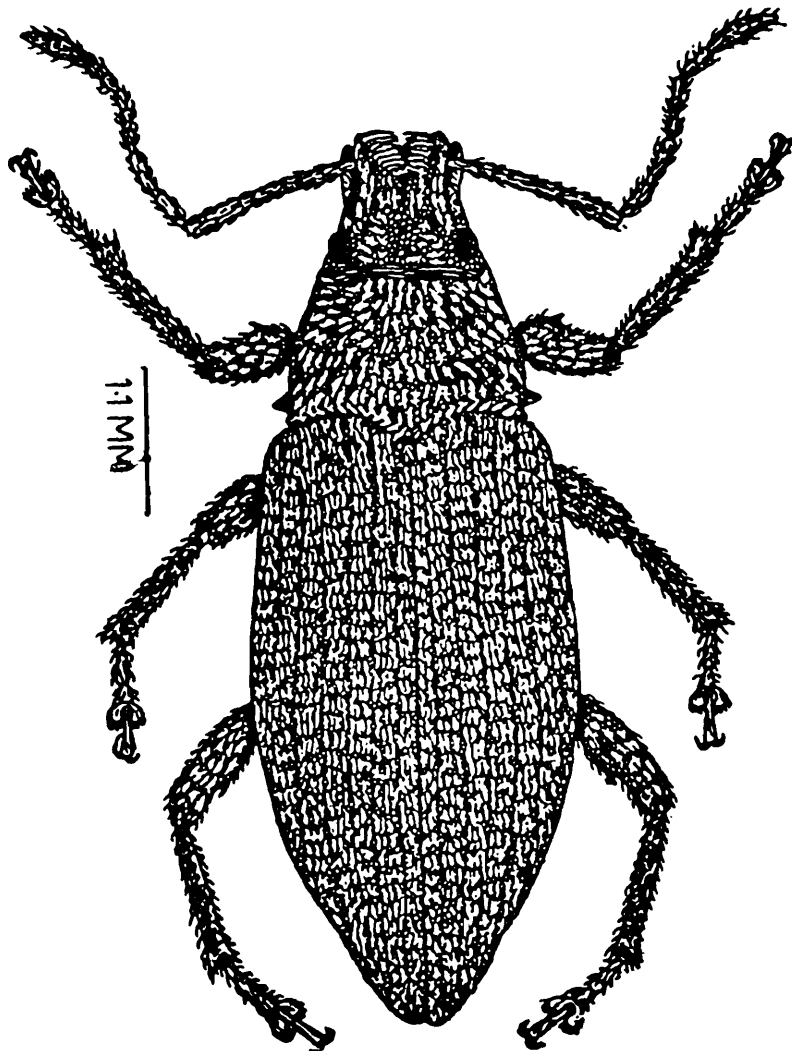
1917. *Peltotrachelus albus* : Marshall, Ann. Mag. nat. Hist., (8) 19 : 189.

1944. *Hypenephorus albus* : Marshall, Ann. Mag. nat. Hist., (11) 11 : 458.

Frons piceous, transversely convex, very broad, its width more than twice the length of eye, lying above upper margins of eyes, completely covered with whitish scales, punctate and each puncture with a whitish spathulate seta ; eyes piceous, small, broadly ovate, almost flat. Rostrum piceous, almost as long as broad or somewhat transverse, gradually narrowing from base to scrobes and then slightly dilated at apex ; dorsal surface broadly impressed, completely covered with whitish scales suffused with brownish, with punctures visible through scaling and each puncture with a spathulate whitish seta, with central carina sharp and running throughout its length ; dorso-lateral carinae covered with scales, diverging from base to apex ; epistome long, strongly carinate, forming behind an acute angle extending far behind the line of insertion of antennae, with overhanging setae stiff and dense lateral areas squamose, each with a curved fine sulcus from lower angle of scrobe towards eye ; scrobes moderate, becoming lateral, a little curving inwards, open behind, somewhat visible from above ; mentum with two setae. Antennae moderately long, fuscus ; scape almost straight, slender, cylindrical feebly clavate, reaching middle of prothorax, covered with narrow greenish-yellow scales and spathulate recumbent setae ; funicle with joints 1 and 2 sub-equal, 3 to 7 sub-equal but shorter than first two, covered with greenish recumbent scales and whorls of greenish-yellow truncate setae ; club fusiform, elongated, finely and uniformly pubescent.

Prothorax piceous, transverse, widest at or near base, with a sharp projecting tooth close to base anterior margin shallowly

sinuate in middle, with well-developed ocular lobes and vibrissae ; surface of pronotum transversely convex, declivous posteriorly, with a broad shallow transverse impression before middle one on each side and a shallow transverse impression near base terminating in a rounded impression on each side behind middle, covered with dense whitish scales, with punctures visible through scaling and each puncture with a short spathulate whitish seta ; lateral sides straight, rapidly narrowing from base to apex, with basal margin deeply bisinuate and each lateral angle extending upto 6th stria of elytron. Scutellum piceous, very small, quadrangular, broader at apex than at base, covered with whitish scales.



Hypenephorus albus Pascoe

Elytra piceous, oblong, parallel-sided from base to beyond middle, narrowing towards apex, with apices separately rounded

and shoulders sloping ; striae narrow, with punctures narrow and visible through scaling (in some specimens hardly visible) and each puncture with a fine recumbent seta ; intervals flat, densely covered with overlapping whitish scales, each interval with numerous spathulate whitish setae. Legs piceous, densely covered with whitish scales and setae ; pro-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a sharp tooth ; tibiae slender, sinuate in basal half internally, fore-tibiae with a row of spines in apical half internally, apical end of each tibia with a fringe of fuscus bristles and a mucro in anterior tibiae ; corbels of hind tibiae enclosed, with an inner bare carina ; tarsi setose , hind tarsus with first joint 1.5 times as long as second, third bilobed joint a little shorter than second and spongy beneath , claws free and small. Thoracic sterna piceous, densely covered with whitish scales and short setae, with scales in middle of metasternum much narrower. Abdominal sternites covered with whitish scales, with a continuous broad stripe of narrower scales in middle, marked with punctures and each puncture with a whitish seta, with punctures larger and setae longer in apical sternite.

Aedeagus straight, sinuate at apex, with a small exophallic valve, sclerotized at apex and lateral sides ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes 1.3 times as long as aedeagus, each curved near apex ; phallobase ring-shaped, with phallobasic apodeme nearly as long as aedeagus and curved at apex ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, having two pairs of plates at apex. Bursa copulatrix well-developed ; ventral spiculum thick and very long, spathulate at apex. Spermatheca with cornu curved and pointed at apex, collum and ramus lying at right angle to each other.

Measurements.—

Length

Male body : 7.0 to 7.5 mm ; rostrum : 1.1 to 1.3 mm.

Female body : 7.7 to 8.8 mm ; rostrum : 1.1 to 1.3 mm.

Breadth

Male body : 2.3 to 2.5 mm ; rostrum : 1.2 to 1.4 mm.

Female body : 2.8 to 3.5 mm ; rostrum : 1.2 to 1.4 mm.

Range.—India Tamil Nadu, North Salem ; Karnataka, Tithimatti.

Holotype in British Museum (N.H.), London.

186. **Hypenephorus inermis** sp. nov.
(Fig. 267)

Frons piceous, much wider than length of an eye, a little lower than upper margins of eyes, covered with broadly ovate and spathulate snowy-white scales with golden tinge, with central fovea circular and deep ; eyes piceous, broadly ovate, strongly bulging. Rostrum piceous, much longer than broad, parallel-sided ; dorsal area moderately depressed behind antennal insertion, covered with dense scales as on frons, with area behind epistome deeply impressed, with central carina almost on level with dorso-laterals ; dorso-lateral carinae divergent ; epistome small, gradually declivous anteriorly, with hind margin carinate and sharply acuminate ; lateral areas shining, with dense broadly-ovate snowy-white scales, each with narrow curved sulcus almost concealed by scales and running from upper angle of scrobe to upper margin of eye. Antennae ferruginous, long, densely squamose ; scape elongated, cylindrical, slightly curved, gradually clavate, covered with recumbent narrow and sub-erect spathulate white scales ; funicle with joint two 2.5 times longer than 1, 3 to 7 much longer than broad and roughly funnel-shaped, with all joints profusely covered with narrow white scales ; club fusiform, elongated, finely pubescent.

Prothorax much wider than long, with well-developed ocular lobes and long vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at middle, with base impressed and deeply bisinuate and apex shallowly constricted, laterally rounded ; surface with 4 shallow circular depressions in sublateral position, one pair each in basal and apical halves ; vestiture consisting of broadly-ovate and spathulate snowywhite scales scattered densely and uniformly. Scutellum small, circular, densely covered with snowy-white scales.

Elytra piceous, oblong, parallel sided upto well-beyond middle, a little wider at shoulders than base of prothorax, with shoulders

rounded, gradually declivous posteriorly, with lateral sides near apices strongly impressed and each apex acuminate ; striae narrow with shallowly rounded closely set punctures ; intervals broad, convex, with intervals 5 and 6 shallowly depressed at base near shoulders ; vestiture without any distinct pattern, consisting of a dense covering of broadly-ovate and sub-erect spathulate snowy-white scales, narrow white scales filling strial punctures. Legs piceous, densely covered with snowy-white scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense white and brownish bristles ; tarsi squamose, hind tarsus with first joint twice as long as 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a snowy-white scale, with punctures concealed by snowy white scales. Abdominal sternites piceous, punctate, densely covered with broadly-ovate and spathulate snowy-white scales.

Male genitalia not studied. Bursa copulatrix well-developed , ventrale spiculum long and thick, spathulate at apex. Spermatheca with cornu curved and pointed at apex ; collum somewhat swollen ; ramus curved and lying parallel to collum.

Measurements.—

Length

Male body : 7.9 mm ; rostrum 1.0 mm.

Female body : 8.3 mm ; rostrum : 1.2 mm.

Breadth

Male body : 2.8 mm ; rostrum : 0.7 mm

Female body : 2.9 mm ; rostrum : 0.6 mm.

Holotype.—Male ; South India : Gudalur, Nilgiri Hills , 14.IV 1917 ; Y. R. Rao. *Paratypes* : Male 1 ; Coimbatore ; Females 5, Belgaun ; 1922 ; H. E. Andrewes ; Males 2, Female 1, same data as for holotype. Material in British Museum (N.H.), London.

187. *Hypenephorus cylindricollis* sp. nov.

Frons piceous, much wider than length of an eye, elevated than upper margins of eyes, covered with dense broadly-ovate snowy-white and fulvus scales and few sub-erect spathulate whitish scales,

with central fovea small and circular ; eyes piceous, broadly-ovate, convex. Rostrum piceous, a little longer than broad, with sides convergent ; dorsal area moderately depressed behind antennae, covered with dense scales as on frons, with area behind epistome deeply impressed, with central carina lower than dorso-laterals ; dorso-lateral carinae divergent ; epistome small, gradually declivous anteriorly, with hind margin carinate and acuminate ; lateral areas shining, sparsely covered with broadly-ovate and narrow whitish scales, each with a narrow curved sulcus almost concealed by scales and running from upper angle of scrobe to upper margin of eye. Antennae ferrugineous, long, densely squamose ; scape elongated, cylindrical, slightly curved, gradually clavate, covered with recumbent narrow white scales ; funicle with joint 1 a little shorter than 2, 3 to 7 much longer than broad, all joints profusely covered with narrow and spathulate white scales ; club fusiform, elongated, finely pubescent.

Prothorax much wider than long, with well-developed ocular lobes and short vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at base, with basal half slightly impressed, its base deeply bisinuate and apex shallowly constricted, laterally sub-rounded with lateral angles of base sub-cuneiform vestiture consisting of general broadly-ovate and spathulate snowy-white scales densely and uniformly disposed all over pronotum and without any distinct pattern. Scutellum small, circular, moderately covered with white scales.

Elytra piceous, oblong, sub-parallel upto little before middle, slightly wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides behind apices slightly impressed and each apex shortly acuminate ; striae narrow with shallowly rounded and closely set punctures ; intervals broad, slightly convex, with intervals 2, 3 and 5 to 6 shallowly depressed at base ; vestiture consisting of dense recumbent and spathulate snowy-white scales, with small narrow white scales filling strial punctures. Legs piceous, densely covered with snowy white scales ; fore-coxae contiguous, each with a short spiny tooth ; tibiae with apices beset with dense brunneous bristles, fore-tibiae each with apical half beset with elongated spines and a triangular tooth near base, tarsi squamose, hind tarsus with first

joint slightly longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a white scale. Abdominal sternites piceous, punctate, densely covered with broadly-ovate and spathulate snowy-white scales, with middle of sternites 1 and 2 bare.

Aedeagus straight, sinuate at apex, with small exophallic valve ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus not surpassing aedeagal apodemes, beset with rows of setae and papillae, with pair of plates at apex. Gastral spiculum thick ; lateral arms short ; median arm somewhat thick, curved and pointed at apex.

Measurements.—

Length

Body : 6.3 mm ; rostrum : 0.6 mm.

Breadth

Body : 2.3 mm ; rostrum : 0.8 mm.

Holotype.—Male ; India : Bombay, Kanara ; 1950 ; T R. D. Bell. In British Museum (N.H.), London.

Genus 39. **Peltotrachelus** Marshall

1917. *Peltotrachelus* Marshall, Ann. Mag. nat. Hist., (8) 19 : 188.

1931. *Peltotrachelus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 10, 33.

Frons continuous with rostrum ; eyes comparatively smaller and widely separated. Rostrum about as long as prothorax, its sides sloping outwards from dorso-lateral carinae ; epistome elongate ; scrobes apical and short ; lateral areas impressed and with two furrows each, one running just below dorso-lateral carina and other passing from lower corner of scrobe to lower margin of eye ; mentum with two setae. Scape slightly curved, sub-cylindrical, a little thickened towards apex. Prothorax transverse, with base deeply bisinuate, with ocular lobes variable but vibrissae always

present. Elytra with shoulders obliquely rounded and not prominent. Legs with corbels of hind tibiae open ; claws free and short. Aedeagus sinuate at apex, having an exophallic valve, without orificial plates ; phallobasic apodeme longer than aedeagus ; endophallus with a pair of endophallic plates at apex. Female genitalia with bursa copulatrix moderately developed ; spermatheca with cornu long and pointed at apex, with collum variable and ramus less developed.

Type species.—*Platytrachelus pubes* Faust.

Distribution.—INDIA, SRI LANKA, PAKISTAN, JAWA.

Key to the species of genus **Peltotrachelus** Marshall.

1. First and second joints of funicle sub-equal	2	
—Joint second of funicle longer than first	3	
2. Body covered with brownish scales ; scutellum squarish ; striae formed by narrow punctures		<i>juvencus</i> (Faust)
—Body covered with greyish scales ; scutellum bell-shaped ; striae formed by large punctures		<i>propinquus</i> Faust
3. Ground colour testaceous to fuscus	4	
—Ground colour black	5	
4. Elytra and pronotum uniformly covered with light brown ovate scales and minute recumbent setae of same colour		<i>pubes</i> Faust
—Elytra and pronotum uniformly covered with silvery-white ovate scales and minute setae of same colour.		<i>albopubes</i> sp. nov.
5. Scaling on body whitish or greenish-white	6	
—Scaling on body pale	7	
6. Elytra with greenish-white scales, largely aggregated in patches, with striae punctures large and deep		<i>maculosus</i> sp. nov.
—Elytra each with whitish scales arranged in 3 transverse irregular bands, with striae punctures relatively smaller and less deeper		<i>cognatus</i> Marshall

7. Rostrum strongly depressed in middle ; central-carina complete, bare and surrounded by dense pale scales ; elytra strongly declivous, gradually widening from base to beyond middle

horridus sp. nov.

- Rostrum shallowly depressed in middle, with central carina distinct behind epistome and obsolescent behind ; elytra only moderately declivous and slightly widened behind middle

.rugipennis Marshall

188. ***Peltotrachelus juvenus*** (Faust)
(Figs. 130, 268)

1891. *Cyphicerus juvenus* Faust, Stett. ent. Zeit., 52 : 271
1917. *Peltotrachelus juvenus* : Marshall, Ann. Mag. nat. Hist., (8) 19 : 189.
1931. *Peltotrachelus juvenus* : Schenkling ; Marshall, Coleopterorum Catalogus, pars 114 : 11, 36.

Frons piceous, flat, as broad as base of rostrum and continuing with it anteriorly, lying above upper margins of eyes, completely covered with brownish scales concealing central fovea, punctate with punctures visible through scales and each puncture with a short spathulate pale seta ; eyes piceous, small, apparently sunken, almost flat, somewhat oval. Rostrum piceous, somewhat longer than its basal width, running parallel from base to scrobes and then dilated at apex ; dorsal area flat, covered with brownish scales and sub-erect spathulate setae, with a deep sulcus in basal half continuing upto central fovea of frons ; central carina fine, continuing into sulcus, almost concealed by scales ; dorso-lateral carinae covered with scales, diverging and turning upward towards apex, overhanging lateral areas ; epistome long, sharply carinate, forming an acute angle behind, extending far behind line of insertion of antennae ; lateral areas almost bare, each with a deep sulcus running just below dorso-lateral carina and a curved squamose sulcus from lower angle of scrobe to eye ; scrobes long, broad, curving and open behind, almost visible from above ; mentum with two setae. Antennae short, piceous ; scape somewhat curved, sub-cylindrical, gradually clavate, passing anterior margin of prothorax, covered with greenish narrow scales and brownish sub-recumbent setae ; funicle with joints 1 and 2 sub-equal, 3 to 7 sub-equal but a little longer than broad, covered with fine recumbent and broad

sub-erect pale-green setae ; club fusiform, compact, finely and uniformly pubescent.

Prothorax piceous, transverse, much wider at base than at apex, with anterior margin narrowly sinuate in middle, with very well-developed ocular lobes and vibrissae ; surface of pronotum transversely convex, declivous posteriorly, covered with brownish scales, marked with small punctures visible through scales and each puncture with a short sub-recumbent pale seta ; lateral sides shallowly constricted in apical one-third and gradually widening behind ; basal margin deeply bisinuate with median lobe rounded, lateral angles extending upto 6th stria of each elytron. Scutellum piceous, very small, squarish, bare.

Elytra piceous, oblong, weakly convex, almost parallel-sided, narrowing towards apex, with apices separately rounded and shoulders obliquely rounded ; striae narrow, with punctures shallow and visible through scales and each puncture with a fine recumbent seta, with interspaces squamose ; intervals flat, uniformly studded with brownish scales, with numerous spathulate pale setae on each interval. Legs piceous, with coxae covered with greenish and brownish scales and pale setae ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, each with a short tooth, covered with brownish scales and spathulate pale setae ; tibiae slender, covered with greenish and brownish scales and subrecumbent pale setae, fore-and middle tibiae with a row of spines internally in their apical halves, apical end of each tibia with a fringe of piceous bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.3 times as long as second, third bilobed joint shorter than second and spongy beneath ; claws free and small. Thoracic sterna piceous, densely covered with brown scales, with pro- and meso-sternum having a broad stripe of grey scales in middle, marked with punctures and each puncture with a short seta. Abdominal sternites covered with brown scales, with a continuous broad stripe of grey scales in middle, marked with punctures and each puncture with a short seta. Abdominal sternites covered with brown scales, with a continuous broad stripe of grey scales in middle, marked with punctures and each puncture with a pale seta, with punctures becoming larger and denser and setae longer towards apex.

Aedeagus straight, sinuate at apex, with an exophallic valve, highly sclerotized towards apex, remainder weakly sclerotized ; phallotreme sub-apical ; aedeagal apodemes 1.3 times as long as aedeagus, each curved near apex ; phallobase ring shaped, with phallobasic apodeme longer than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, having a pair of plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 6.6 to 7.1 mm ; rostrum : 1.0 to 1.1 mm.

Breadth

Male body : 2.4 to 2.6 mm ; rostrum : 0.8 to 0.9 mm.

Source.—*Zizyphus* sp.

Range.—India : Chandigarh, Bilaspur, Una, Nagpur.

Holotype in Dresden Museum (Germany).

***Peltotrachelus juvencus collinus* sub-sp. nov.**

This sub species differs from the typical form in the shape of the prothorax, which is much less widened at the base and is there almost parallel sided for short distance. The basal angles of the pronotum are thus less acute.

Range.—India : Uttar Pradesh ; Kheri Div. Bankatti, Dehra Dun. Pakistan : Musree Hills.

189. *Peltotrachelus propinquus* (Faust)
(Figs. 131, 269)

1886. *Platytrachelus propinquus* Faust, Stett. ent. Zeit., **47** : 147.

1917. *Peltotrachelus propinquus* : Marshall, Ann. Mag. nat. Hist., (8) **19** : 189.

1931. *Peltotrachelus propinquus* : Schenkling & Marshall, Coleopterorum Catalogus, pars **114** : 11, 38.

Frons shining black, as broad as dorsal area of rostrum and continuing with it anteriorly, lying high above upper margins of eyes, covered with dense greyish white scales, punctate and each puncture with a recumbent whitish seta, with deep central fovea

concealed by scales ; eyes small, shining, black, lateral, circular and slightly convex. Rostrum shining black, almost as long as its basal width, gradually narrowing from base to scrobes, then dilated at apex ; dorsal area sulcate in middle with sulcus continuing upto central fovea of frons, furnished with scales and setae as on frons ; central carina small, continuing into middle sulcus ; dorso-lateral carinae concealed by scales, diverging and turning upwards towards apex, over hanging lateral areas ; epistome long, its lateral margins carinate and forming an acute angle behind ; lateral areas sparsely squamose and densely setose, each with a deep sulcus running just below dorso-lateral carina and a curved squamose sulcus running just below from lower angle of scrobe to eye ; scrobes long, broad, open, curving inwards, visible from above ; mentum with two setae and sub-mentum broadly elevated. Antennae short, fusco-piceous ; scape slightly curved, stout, gradually clavate, just passing anterior margin of prothorax, densely furnished with greyish green scales and recumbent setae ; funicle with first two joints equal, 3 to 7 sub-equal and almost as long as broad, all joints densely squamose and setose ; club fusi-form, densely and finely pubescent.

Prothorax black, somewhat broader than long, widest before middle ; anterior margin slightly sinuate in middle, with strongly developed ocular lobes and a few vibrissae ; surface of pronotum completely covered with greyish scales and sub-recumbent setae, with punctures hardly visible through scales ; lateral sides sub-parallel in basal half and narrowed in front, with basal margin deeply bisinuate. Scutellum shining-black, small, almost bare, bell-shaped.

Elytra piceous, oblong, somewhat convex, very gradually widening from base to behind middle ; shoulders obliquely sloping, not prominent, each slightly produced outwards ; striae a little narrower than intervals, formed by shallow and rounded punctures ; intervals moderately broad, covered with greyish scales and short recumbent setae. Legs fusco-piceous, densely squamose and setose ; fore-coxae contiguous, placed a little towards anterior margin of prosternum ; femora clavate, each with a short tooth ; tibiae slender, anterior and middle tibiae with a few spines in apical half internally, apical end of each tibia with a fringe of black bristles and a short mucro, corbels of hind tibiae open ; tarsi densely setose ;

hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna piceous, densely covered with greyish and brownish scales and recumbent greyish setae. Abdominal sternites piceous, densely covered with greyish and brownish scales and recumbent greyish setae.

Aedeagus straight, sinuate at apex, with a small exophallic valve, highly sclerotized towards apex, with phallotreme sub-apical , aedeagal apodemes 1.4 times as long as aedeagus, each curved near apex , phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, having a pair of plates at apex. Bursa copulatrix moderately developed ; ventral spiculum long and curved. Spermatheca with cornu pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 5.0 to 5.4 mm , rostrum : 0.7 to 0.8 mm.

Female body : 5.0 to 5.4 mm ; rostrum : 0.7 to 0.8 mm.

Breadth

Male body : 1.8 to 1.9 mm , rostrum : 0.7 to 0.8 mm.

Female body : 2.0 to 2.2 mm ; rostrum : 0.7 to 0.8 mm.

Source.—*Dalbergia sissoo*

Range.—India : Chandigarh, Haryana, Pinjore ; Himachal Pradesh, Hamirpur.

Holotype in Dresden Museum (Germany).

190. *Peltotrachelus pubes* (Faust)
(Figs. 132, 270)

1886. *Platytrachelus pubes* Faust, Deut. ent. Zeit., 30 : 357.

1917. *Peltotrachelus pubes* : Marshall, Ann. Mag. nat. Hist., (8) 19 : 188.

1931. *Peltotrachelus pubes* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 11, 38.

Frons fuscus, flat, as broad as base of rostrum and continuing with it anteriorly, lying above upper margins of eyes, completely

covered with whitish scales and pale erect setae concealing central fovea, punctate and punctures visible through scales ; eyes piceous, small, apparently sunken, almost flat, circular. Rostrum fuscus, somewhat longer than its basal width, running parallel from base to scrobes and then dilated at genae ; dorsal area broadly impressed, covered with whitish scales and pale erect setae ; central carina sharp and continuing into central fovea ; dorso-lateral carinae covered with scales and setae, diverging and turning upwards towards apex, overhanging lateral areas ; lateral areas sparsely squamose and setose, each with a deep sulcus running just below dorso-lateral carina and a curved squamose sulcus from lower angle of scrobe to eye ; epistome long, its margins sharply carinate and forming behind an acute angle extending well behind level of insertion of antennae ; scrobes long, broad, curving inwards and open behind, almost visible from above ; mentum with two setae. Antennae moderately long, fuscus ; scape somewhat curved, sub-cylindrical, gradually clavate, passing anterior margin of prothorax, covered with pale recumbent setae ; funicle with joint 2 about 1.5 times as long as 1, 3 to 7 sub-equal, all joints densely setose ; club elongate, fusiform, finely and uniformly pubescent.

Prothorax brown, transverse, wider at base than at apex, with anterior margin truncate, with very well-developed ocular lobes and vibrissae ; surface of pronotum declivous posteriorly, covered with whitish scales, marked with small dense punctures and each puncture with a peripheral seta ; lateral sides shallowly constricted in its apical one-third and then gradually widening behind, with basal margin deeply bisinuate and its median lobe rounded, with lateral angles extending upto sixth striae of elytra. Scutellum fuscus, bare, squarish.

Elytra brown, oblong, slightly convex, widening gradually from base to behind middle, narrowing towards apex, with apices separately rounded, declivous near apex, a little wider at shoulders than base of prothorax ; shoulders oblique, not prominent ; striae narrower than intervals, with deep striae punctures distinctly placed and visible through scales, with interspaces squamose ; intervals flat, uniformly studded with whitish scales except some denuded areas, each interval with numerous sub-recumbent pale setae. Legs fuscus ; pro-coxae contiguous, placed a little towards anterior

margin of prosternum ; femora clavate, each with a short tooth, covered with whitish scattered scales and short recumbent setae ; tibiae slender, anterior and middle tibiae with a row of spines internally, apical end of each tibia with a fringe of piceous bristles and a small mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free and small. Thoracic sterna fuscus, densely covered with whitish scales and setae. Abdominal sternites fuscus, covered with whitish erect setae.

Aedeagus straight, sinuate at apex, with a small exophallic valve, uniformly and moderately sclerotized throughout, with phallosome sub-apical ; aedeagal apodemes 1.3 times as long as aedeagus, each curved near apex ; phallobase ring-shaped, with phallobasic apodeme somewhat longer than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, having a pair of plates at apex. Bursa copulatrix not well-developed ; ventral spiculum long and curved, broadened at apex. Spermatheca with cornu long and pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 7.0 to 7.5 mm ; rostrum : 1.0 to 1.1 mm.

Female body : 7.6 to 8.2 mm ; rostrum : 1.1 to 1.2 mm.

Breadth

Male body : 2.2 to 2.3 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 2.4 to 2.7 mm ; rostrum : 0.9 to 1.0 mm.

Range.—India : Karnataka, Tithimatti, South Coorg, Bangalore.

Holotype in Dresden Museum (Germany).

191. *Peltotrachelus albopubes* sp. nov.

(Figs. 133, 271)

Frons brown, as broad as dorsal area of rostrum and continuing with it anteriorly, lying high above upper margins of eyes, covered

with dense greyish scales and whitish recumbent setae anteriorly, pubescent posteriorly, with a round central fovea ; eyes shining black, small, somewhat convex. Rostrum black, about as long as its basal width, gradually narrowing from base to scrobes, then slightly dilated at apex ; dorsal area broadly impressed, finely striolate, furnished with scales and setae as on frons, with a fine transverse carina behind epistome, central carina sharp, running from epistome to near base of rostrum ; dorso-lateral carinae concealed by scales, diverging and turning upwards towards apex, overhanging lateral areas ; epistome long, with margins sharply carinate and forming an acute angle behind ; lateral areas plane, squamose, setose, each with a deep sulcus running just below dorso-lateral carina and a curved deep sulcus from near lower angle of scrobe to below eye ; scrobes small, narrow, curving inwards, almost visible from above ; mentum with two setae ; sub-mentum broadly elevated in female and toothed in male. Antennae brown, moderately long ; scape stout, slightly curved, gradually clavate, reaching one-third of prothorax, furnished with greyish sub-recumbent setae ; funicle with joint 2 about 1.5 times as long as 1, 3 and 4 sub-equal but shorter than 1, 5 to 7 sub-equal and shortest, all joints covered with greyish recumbent setae, with a whorl of sub-recumbent setae on each joint, club elongated, fusiform, finely and uniformly pubescent.

Prothorax brown, transverse, widest at base, gradually narrowing from base to apex ; with anterior margin straight, with strongly developed ocular lobes and vibrissae ; surface of pronotum coarsely and closely punctate with punctures not visible through greyish scales, with interspaces granulated and each granule bearing a recumbent greyish seta, with a very shallow transverse impression near apex and a shallow fovea behind middle on each side ; basal margin deeply bisinuate. Scutellum brown, small, bare, rectangular with anterior margin broader.

Elytra brown, oblong, flat, gradually widening from base to behind middle, narrowing at apex, with apices jointly sinuate ; shoulders obliquely rounded, not prominent ; striae as broad as intervals, formed by rectangular punctures concealed by scales and setae ; intervals flat, with intervals 1 to 4 rugose near base, covered with greyish scales and fine sub-recumbent setae, with some areas

irregularly denuded. Legs fuscus, sparsely squamose and densely setose, with fore-coxae contiguous and placed towards anterior margin of prosternum ; femora clavate, each with a sharp tooth , tibiae slender, anterior and middle tibiae with a row of very short spines internally, apical end of each tibia with a fringe of black bristles and a short mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath, claws free. Thoracic sterna black, densely squamose and setose laterally, pubescent in middle, metasternum with a deep middle fovea near base. Abdominal sternites black, punctate, densely pubescent with narrow scales.

Aedeagus straight, sinuate at apex, with a small exophallic valve, highly sclerotized towards apex, with phallotreme sub-apical aedeagal apodemes 1.7 times as long as aedeagus, each curved near apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, having a pair of plates at apex. Bursa copulatrix moderately developed ; ventral spiculum long and slightly curved. Spermatheca with cornu long and pointed at apex, with collum oval and ramus short.

Measurements.—

Length

Male body : 6.8 to 7.2 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 7.2 to 7.7 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.5 to 2.7 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 2.9 to 3.2 mm rostrum : 0.9 to 1.0 mm.

Source.—*Dalbergia sissoo* ; *Eugenia jambolina*.

Holotype.—Male ; India : Kansal (Chandigarh) ; 18 V. 1979 ; C. S. Sidhu, *Paratypes* : Females 3, Kansal, 23. X. 1979 ; C. S. Sidhu ; Male 1, Chandigarh ; 25. IV 1978 ; Male 1, Pinjore (Haryana) ; H. R. Pajni.

Holotype in Zoology Department, Panjab University, Chandigarh.

192. **Peltotrachelus maculosus** sp. nov.

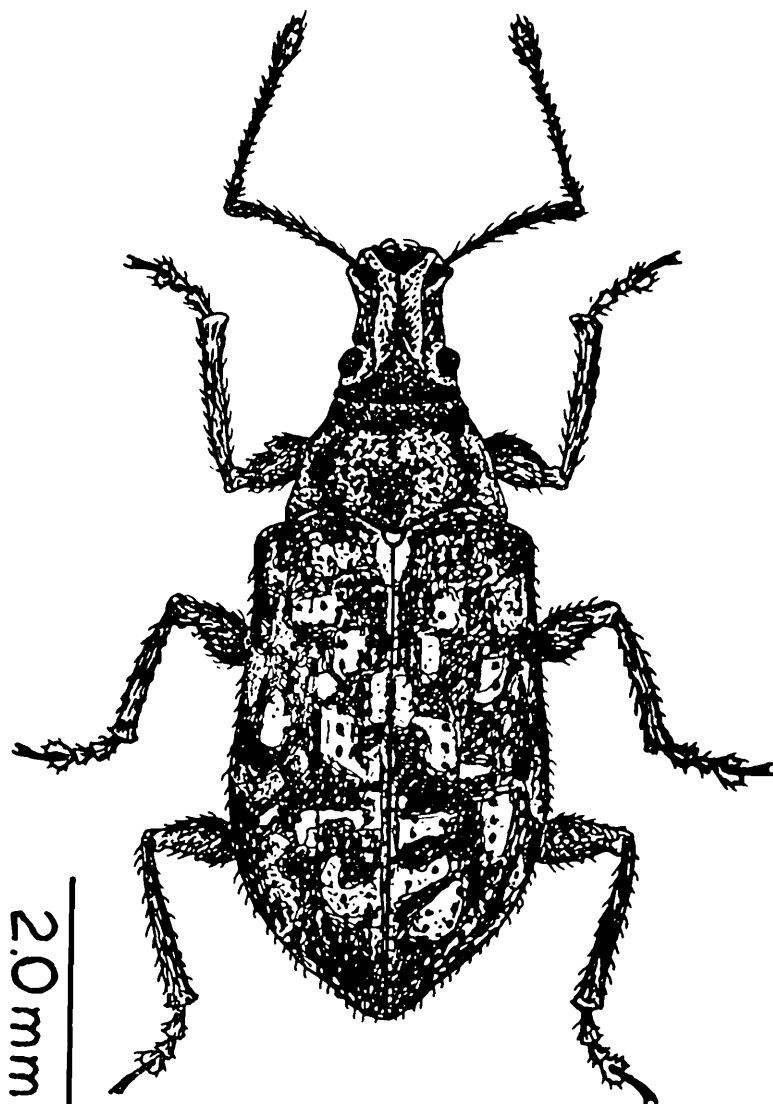
(Figs. 134a, 134b, 272)

Frons black, much wider than length of an eye, slightly elevated than upper margins of eyes, sparsely covered with narrow white scales ; central fovea small, circular ; eyes black, broadly-ovate, moderately bulging. Rostrum black, much longer than broad, with sides convergent ; dorsal area slightly depressed behind antennae, covered sparsely with narrow white scales, with area behind epistome moderately impressed into long ovate depressions lying obliquely one on each side of central carina and filled with pale greenish scales, with central carina almost on level with dorso-laterals ; dorso-lateral carinae slightly convergent upto middle and gradually divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and acuminate ; lateral areas dull, scarcely covered with narrow white scales, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye, with a similar lower sulcus running from lower angle of scrobe to lower margin of eye. Antennae piceous, long, moderately squamose ; scape elongated, cylindrical, moderately curved, gradually clavate, covered with recumbent narrow whitish scales ; funicle with joint 1 much shorter than 2, 3 to 7 longer than broad, all joints covered with dense white scales and few brunneus scales ; club fusiform, finely pubescent.

Prothorax wider than long, with ocular lobes well-developed and vibrissae long. Pronotum black ; transversely and longitudinally convex, widest at base, with base deeply bisinuate and apex almost truncated, laterally rounded, with 2 small shallow depressions placed sub-laterally one after other on either side, with lateral angles bulging, with a distinct semi-circular carina almost in middle ; vestiture consisting of narrow white scales, with broadly-ovate pale-greenish scales forming dense patches in corners and covering lateral sides. Scutellum small, circular, covered with narrow white scales.

Elytra black, oblong, sub-parallel upto beyond middle, slightly wider at shoulders than base of prothorax, with shoulders rounded,

gradually declivous posteriorly, with lateral sides near apices slightly impressed and each apex shortly acuminate ; striae almost as broad as intervals, with shallowly rounded and closely set large punctures ; intervals broad, convex, with strong elevated wrinkles forming septa joining striae in between punctures and giving elytral surface a rugged appearance ; vestiture consisting of narrow



Peltotrachelus maculosus sp. nov.

white and broadly-ovate pale-greenish scales and latter scattered in irregular dense patches, small narrow whitish scales filling striae punctures. Legs black, moderately covered with white scales fore-coxae slightly separated, placed a little before middle of prosternum ; femora clavate, each with a short spiny tooth , tibiae with apices beset with dense brunneous bristles ; tarsi squamose ; hind

tarsus with first joint almost as long as 2 and 3 together. Thoracic sterna black, punctate and each puncture beset with a snowy-white scale, with punctures almost concealed by scales. Abdominal sternites black, punctate, densely covered with narrow snowy-white scales.

Aedeagus straight, sinuate at apex, with exophallic valve ; phallosome sub-apical, without orificial plates ; aedeagal apodemes 1.5 times as long as aedeagus, curved near apex , phallobase ring-shaped, phallobasic apodeme somewhat longer than aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of tubercles and papillae, with pair of plates at apex. Gastral spiculum thick ; lateral arms short ; median arm thick, swollen and curved at apex. Bursa copulatrix moderately developed , ventral spiculum long, thin but broad and curved at apex. Spermatheca with cornu long and pointed ; collum broad ; ramus pointed and lying parallel to collum.

Measurements.—

Length

Male body : 6.9 mm ; rostrum : 1.0 mm.

Female body : 7.7 mm ; rostrum : 0.9 mm.

Breadth

Male body : 2.7 mm ; rostrum 0.6 mm.

Female body : 3.0 mm ; rostrum : 0.5 mm.

Holotype.—Female ; South India : Salem ; 9.IX.1934 ; P. S. Nathan. *Paratypes* : Female 1, Males 2, South India : Salem ; X. 1913. Material in British Museum (N.H.), London.

193. *Peltotrachelus cognatus* Marshall
(Figs. 135, 273)

1917. *Peltotrachelus cognatus* Marshall, Ann. Mag. nat. Hist., (8) 19 : 189.

1931. *Peltotrachelus cognatus* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 11, 35.

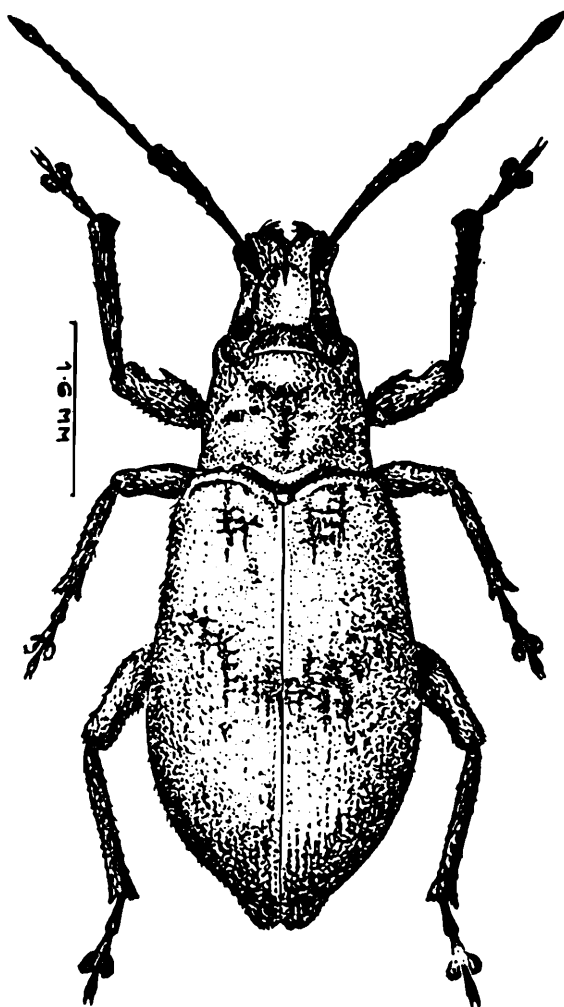
Frons black, as broad as dorsal area of rostrum and continuing with it anteriorly, lying high above upper margins of eyes, covered

with dense greyish scales, punctate with punctures visible through scales and each puncture with a yellowish sub-recumbent seta, with central fovea deep and concealed by scales ; eyes shining black, small, circular, only slightly convex. Rostrum black, a little longer than its basal width, gradually narrowing from base to scrobes and then dilated at apex ; dorsal area flat, furnished with scales and setae as on frons ; central carina sharp, running from epistome to before middle of rostrum ; dorso-lateral carinae concealed by scales, diverging and turning upwards towards apex, overhanging lateral areas ; epistome long, with margins sharply carinate and forming an acute angle behind ; lateral areas plane, squamose, setose, each with a deep sulcus running just below dorso-lateral carina and an oblique sulcus from lower angle of scrobe to lower angle of eye ; scrobes small, broad, curving inwards, almost visible from above ; mentum with two setae, sub-mentum broadly elevated in female and toothed in male. Antennae black, moderately long ; scape stout, almost straight, gradually clavate, passing anterior margin of prothorax, densely covered with narrow greenish scales and greyish recumbent setae ; funicle with joint 2 distinctly longer than 1, 3 to 7 sub-equal but shorter than 1, all joints covered with greyish sub-recumbent setae and each with a distinct whorl of sub-erect setae ; club fusiform, finely and uniformly pubescent.

Prothorax black, transverse, widest at base, sub-parallel in basal half and constricted near apex ; anterior margin slightly rounded, with strongly developed ocular lobes and vibrissae ; surface of pronotum closely punctate with punctures not visible through yellowish-grey scales, with interspaces bearing inconspicuous granules and each granule bearing a fine sub-recumbent seta, with a shallow transverse impression before middle and a fovea behind middle on each side ; basal margin deeply bisinuate, with middle lobe broad and impressed. Scutellum piceous, small, sparsely setose, rectangular with anterior margin broader.

Elytra black, oblong, almost flat, gradually widening behind middle in female and parallel sided in male, with apices jointly sinuate ; shoulders obliquely sloping, not prominent ; striae narrower than intervals, formed by deep rounded punctures concealed by scales ; intervals broad, flat, covered with yellowish-grey scales and short fine setae, with three denuded areas, a

transverse spot just behind scutellum extending to about 4th stria ; a dentate transverse band before middle, a similar but complete and more curved band behind middle. Legs black, densely squamose and setose ; fore-coxae contiguous, placed towards anterior margin of prosternum ; femora slender, clavate, each with a sharp tooth ; tibiae shorter than femora, anterior and middle tibiae with a row



Peltotrachelus cognatus Marshall

of short spines internally, apical end of each tibia with a fringe of black bristles and a short mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint as long as second and spongy beneath ; claws free. Thoracic sterna black, densely squamose and setose laterally, pubescent in middle ; metasternum with a deep middle fovea near base. Abdominal sternites black, punctate, densely and finely pubescent.

Aedeagus straight, sinuate at apex, with a short exophallic valve, highly sclerotized, with phallotreme sub-apical ; aedeagal apodemes 1.7 times as long as aedeagus, curved near apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae, having a pair of plates at apex. Bursa copulatrix moderately developed ; ventral spiculum long and moderately curved. Spermatheca with cornu curved and pointed at apex, collum trough-shaped, ramus very short.

Measurements.—

Length

Male body : 5.4 to 5.8 mm ; rostrum : 0.9 to 1.0 mm.

Female body : 6.2 to 6.6 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.3 to 2.5 mm ; rostrum : 0.7 to 0.8 mm.

Female body : 2.8 to 3.0 mm ; rostrum : 0.8 to 0.9 mm.

Source.—*Tectona grandis*.

Range.—India : Pondicherry ; Karnataka, South Coorg , Tamil Nadu : Nilgiri Hills, Shevaroy Hills, Yercaud.

Holotype in British Museum (N.H.), London.

194. ***Peltotrachelus horridus* sp. nov.**

(Figs. 136a, 136b)

Frons black, much wider than length of an eye, much elevated than upper margins of eyes, moderately covered with mixed broadly-ovate and spathulate white and pale-yellowish scales ; central fovea small, circular, almost concealed by scales ; eyes black, broadly-ovate, slightly convex. Rostrum black, much longer than broad, with sides almost parallel ; dorsal area slightly depressed behind antennae, moderately covered with similar scales as on frons, with area behind epistome slightly impressed and covered with pale yellowish scales, with central carina slightly lower than dorso-laterals ; dorso-lateral carinae almost parallel upto little

before antennal insertion and gradually divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and shortly acuminate ; lateral areas dull, scarcely covered with whitish scales, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye, with a similar lower sulcus running from lower angle of scrobe to lower margin of eye. Antennae piceous, long, moderately squamose ; scape elongated, cylindrical, slightly curved, gradually clavate, covered with recumbent and few sub-erect whitish scales ; funicle with joint 1 much shorter than 2, 3 to 7 much longer than broad, with all joints profusely covered with narrow whitish scales ; club fusiform, finely pubescent.

Prothorax wider than long, with ocular lobes well-developed and vibrissae short. Pronotum black, transversely and longitudinally convex, widest at base, with base deeply bisinuate and apex almost truncate, laterally rounded, with base and lateral angles slightly impressed ; vestiture consisting of broadly-ovate and spathulate white and pale yellowish scales uniformly scattered throughout with a sub-denuded dark ovate patch in middle. Scutellum small, circular, covered with small whitish scales.

Elytra piceous, oblong, sub-parallel upto well beyond middle, a little wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices moderately impressed and each apex shortly acuminate ; striae narrow, with shallowly rounded and closely set punctures, intervals broad, convex, with intervals in humeral part slightly impressed ; vestiture consisting of almost uniform covering of broadly-ovate white and pale-yellowish scales and sub-erect spathulate scales, with small narrow whitish scales filling strial punctures. Legs black, moderately covered with whitish scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny-tooth ; tibiae with apices beset with dense black bristles, fore-tibiae with their apical $\frac{1}{3}$ beset with spines ; tarsi squamose ; hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna black, punctate and each puncture beset with a narrow white scale. Abdominal sternites black, punctate, sparsely covered with narrow recumbent white scales.

Aedeagus straight, sinuate at apex, with exophallic valve, lateral sides well-sclerotized ; phallotreme sub-apical, without orificial plates ; aedeagal apodemes about 2 times as long as aedeagus, aedeagal apodemes slightly curved and thick at apex ; phallobase ring-shaped, phallobasic apodeme longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset with setae and papillae, with pair of plates at apex ; gastral spiculum quite thick and sclerotized, lateral arms short each with process at base, median arm curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 7.2 mm ; rostrum : 0.7 mm.

Female body : 7.3 mm ; rostrum : 0.9 mm.

Breadth

Male body : 2.7 mm ; rostrum : 0.6 mm.

Female body : 3.0 mm ; rostrum : 0.3 mm.

Holotype.—Male ; India : Nandidrug ; 1950 ; T V Campbell : *Paratypes* : Females 3, same data as for holotype. Material in British Museum (N.H.), London.

195. ***Peltotrachelus rugipennis* Marshall**
(Fig. 137)

1917. *Peltotrachelus rugipennis* Marshall, Ann. Mag. nat. Hist., (8) 19 : 189.

1931. *Peltotrachelus rugipennis* : Schenkling & Marshall, Coleopterorum Catalogus, pars 114 : 11, 38.

Frons fusco-piceous, as broad as dorsal area of rostrum and continuing with it anteriorly, lying high above upper margins of eyes, covered with pale and blue-green scales and pale setae in front, only thinly pubescent behind ; central fovea deep and elongated, almost concealed by scales ; eyes small, lateral, black, elongate and slightly convex. Rostrum piceous, longer than its basal width, almost parallel sided from base to scrobes, then dilated at apex ; dorsal area sulcate in middle and sulcus continuing upto central fovea of frons, furnished with bluish-green scales ; central carina small, present only in interscrobial area ; dorso-lateral carinae

concealed by scales, diverging and turning upwards towards apex, overhanging lateral areas ; epistome long, with margin sharply carinate and forming an acute angle behind ; lateral areas squamose, each with a deep sulcus running just below dorso-lateral carina and a curved squamose sulcus from lower angle of scrobe to eye ; scrobes long, broad, curving inwards, open behind, almost visible from above ; mentum with two setae ; sub-mentum elevated into a sharp conical process directed backwards. Antennae moderately long, fuscus ; scape slightly curved in apical half, gradually clavate, sub-cylindrical, reaching near middle of prothorax, furnished with greenish recumbent setae ; funicle with joint 2 longer than 1, 3 and 4 sub-equal but much shorter than 1, 5 to 7 sub-equal and shortest, joints 3 to 7 longer than broad, all joints covered with greenish recumbent setae ; club fusiform, finely and uniformly pubescent.

Prothorax brown, transverse, broadest at base ; anterior margin very slightly rounded, with strongly developed ocular lobes and some vibrissae ; surface of pronotum with confluent punctation not very distinctly visible through scales, with a transverse impression before middle and a small deep fovea behind middle on each side, covered with bluish-green scales and pale fine setae, with scales mostly abraded in middle and naked area containing an indistinct carina in basal half ; lateral sides sub-parallel in basal half and narrowed in front, with basal margin deeply bisinuate, with a very small black tooth at each basal angle extending upto stria 7. Scutellum fuscus, small, bare, squarish.

Elytra fuscus, oblong, flat, very gradually narrowing from shoulders to behind middle and then strongly narrowing to apex, with apices jointly sinuate, somewhat narrower at shoulders than base of prothorax, with shoulders obliquely rounded and not prominent ; striae broader near base and narrowing apically ; intervals narrower at base and broadening apically, intervals and spaces between striae punctures raised at place to appear rugose, each interval with numerous fine sub-erect setae. Legs fuscus, sparsely squamose and densely setose ; pro-coxae contiguous, placed almost in middle of prosternum ; femora clavate, each with a conspicuous tooth ; tibiae slender, anterior tibiae shallowly bisinuate internally, fore and middle tibiae with a row of spines

on their inner apical half, apical end of each tibia with a fringe of black bristles and a small mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint 1.5 times as long as second, third bilobed joint almost as long as second and spongy beneath ; claws free. Thoracic sterna piceous, covered with bluish-green scales laterally and fine pale setae in middle. Abdominal sternites finely punctate and setose.

Aedeagus straight, sinuate at apex, with a small exophallic valve, highly sclerotized towards apex, with phallotreme sub-apical ; aedeagal apodemes 1.8 times as long as aedeagus, each curve near apex ; phallobase ring-shaped, with phallobasic apodeme longer than aedeagus ; endophallus lying between aedeagal apodemes, surpassing them anteriorly, beset with rows of setae and papillae and a cluster of long papillae near apex, having a pair of curved plates at apex. Female genitalia not studied.

Measurements.—

Length

Male body : 5.7 to 6.3 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 2.3 to 2.6 mm ; rostrum : 0.7 to 0.8 mm.

Source.—*Tectona grandis*.

Range.—India : Tamil Nadu, Nilambur, Annamalai Hills.

Holotype in British Museum (N.H.), London.

Genus 40. **Taractor** Gen. nov.

Frons as wide as or greater than length of eye ; eyes broadly ovate and nearly flat. Rostrum nearly as long as its apical width, dilated at genae ; dorsal area with a median sulcus ; dorso-lateral carinae diverging apically ; epistome with carinate margin forming acute or sometimes right angle extending slightly behind insertion

of antennae, lateral area without an oblique curved carina; mentum with two setae. Scape slightly curved, gradually clavate at apex, covered with recumbent fine scales; funicle with joint 2 equal to or broader than 1. Prothorax transverse, shallowly bisinuate at base, as broad at base as at apex, with moderate ocular lobes and short vibrissae. Elytra much broader at roundly rectangular shoulders than base of prothorax, slightly widening behind middle. Legs with a tooth on each femur; corbels of hind tibiae open. Metasternum with a small sharp tubercle in front of each hind coxa. Spermatheca with ramus indistinct.

Type species.—*Cyphicerus ferinosus* Faust, in Dresden Museum (Germany).

Distribution.—INDIA, BURMA, LAOS, THAILAND.

Key to the species of genus *Taractor* Gen. nov.

1. Elytra with numerous short recumbent setae on intervals	<i>subvirens</i> sp. nov.
—Elytra with a single row of erect or sub-erect setae on each interval	2
2. Prothorax distinctly rounded laterally, widest at middle, with base slightly wider than apex	<i>cervinus</i> sp. nov.
—Prothorax almost parallel sided, with base not wider than apex	3
3. Dorsal area of rostrum narrower than frons; dorso-lateral carinae parallel sided behind; antenna with scape slender	<i>integer</i> sp. nov.
—Dorsal area of rostrum as wide at its base as frons; antenna with scape comparatively stout	<i>indicus</i> sp. nov.

196. *Taractor subvirens* sp. nov. (Fig. 274)

Frons black, much wider than length of an eye, a little elevated than upper margins of eyes, densely covered with broadly-ovate and spathulate pale-greenish and whitish scales; eyes black,

broadly-ovate, almost flat. Rostrum piceous, much longer than broad, with sides gradually convergent ; dorsal area depressed behind antennae, covered with scales as on frons, with area behind epistome deeply impressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae sub-parallel upto antennal insertion and shortly divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and shortly acuminate ; lateral areas dull, densely covered with whitish scales, each with a narrow curved sulcus running from upper angle of scrobe to lower margin of eye, with a similar sulcus below running from lower angle of scrobe to lower margin of eye. Antennae piceous, long, moderately clavate, moderately covered with narrow recumbent greyish scales ; funicle with joint 1 a little shorter than 2, 3 to 7 slightly longer than broad, all joints covered with narrow greyish scales ; club fusiform, finely pubescent.

Prothorax wider than long, with ocular lobes poorly developed and vibrissae short and few. Pronotum black, transversely and longitudinally convex, widest at middle, with base moderately bisinuate and apex shallowly constricted, laterally rounded, with small shallow rounded depressions sub-laterally near base one on each side, with lateral angles impressed ; vestiture consisting of dense broadly-ovate and few spathulate pale-greenish scales without forming any distinct pattern. Scutellum small, circular, covered with recumbent white scales.

Elytra black, oblong, sub-parallel upto middle much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices moderately impressed and each apex shortly acuminate ; striae narrow, with shallowly rounded closely set punctures ; intervals broad, convex ; vestiture consisting of broadly ovate pale-greenish scales on all intervals and each with one or two rows of long spathulate scales, with narrow whitish scales filling strial punctures. Legs black, moderately covered with pale-greenish scales, fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense brunneous bristles ; tarsi squamose ; hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a pale-greenish scale. Abdominal

sternites piceous, punctate, sparsely covered with mixed broadly-ovate and spatulate pale-greenish scales.

Male genitalia not studied. Bursa copulatrix weakly developed ; ventral spiculum thick, somewhat broad near apex, curved and pointed at apex, collum curved, ramus indistinct.

Measurements.—

Length

Body 5.0 mm, rostrum : 0.7 mm.

Breadth

Body : 2.0 mm ; rostrum : 0.7 mm.

Holotype.—Female ; Burma : Momeit ; Doherty Coll. In British Museum (N.H.), London.

197. ***Taractor cervinus*** sp. nov.
(Figs. 138a, 138b)

Frons piceous, much narrower than length of an eye, a little elevated than upper margins of eyes, densely covered with broadly ovate slightly convex scales. Rostrum piceous, much longer than broad, with sides almost parallel ; dorsal area moderately depressed behind antennae, covered with dense scales as on frons, with area behind epistome moderately impressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae gradually convergent upto antennal insertion and sharply divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and shortly acuminate ; lateral areas shining, sparsely covered with whitish scales, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye, with a similar sulcus below running from lower angle of scrobe to lower margin of eye. Antennae brunneous, long, moderately squamose ; scape elongated, cylindrical, strongly curved, gradually clavate, sparsely covered with recumbent and sub-erect greyish scales ; funicle with joint 1 a little shorter than 2, 3 to 7 much longer than broad, all joints covered with dense greyish and few cupreous scales ; club fusiform, finely pubescent.

Prothorax wider than long, with ocular lobes weakly developed and vibrissae long and few. Pronotum black, transversely and

longitudinally convex, widest at middle, with base moderately bisinuate and apex shallowly constricted, laterally rounded ; surface with shallow rounded depressions sub-laterally near base one on each side, with lateral angles impressed, with middle of base and sub-lateral sides at base almost carinulate ; vestiture consisting of dense broadly-ovate white scales and sparse spathulate fulvus scales without forming any distinct pattern. Scutellum small, circular, covered with recumbent and white scales.

Elytra piceous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices slightly impressed and each apex shortly acuminate ; striae narrow, with shallowly rounded closely set punctures ; intervals broad, convex ; vestiture consisting of general broadly-ovate white scales, a row of yellowish spathulate scales on each interval, with short narrow whitish scales filling striae punctures. Legs piceous, moderately covered with narrow greyish scales ; fore-coxae contiguous, placed a little before middle of prosternum ; femora clavate, each with a short spiny-tooth ; tibiae with apices beset with dense brunneous bristles ; tarsi squamose ; hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a whitish scale. Abdominal sternites piceous, punctate, densely covered with mixed broadly-ovate and spathulate whitish scales.

Aedeagus straight, sinuate at apex, with exophallic valve partly coming out, lateral sides well-sclerotized ; phallosome apical, with well-developed orificial plates ; aedeagal apodemes about 2 times as long as aedeagus ; phallosome ring-shaped, phallosome apodeme longer than aedeagus ; endophallus not surpassing aedeagal apodemes, beset in the middle with papillae and at the apex with setae, with groups of plates at apex. Gastral spiculum thick ; lateral arms short, each with curved outwardly directed dentate plate ; median arm thick, curved and broad at apex. Female genitalia not studied.

Measurements.—

Length

Body : 5.0 mm , rostrum : 0.6 mm.

Breadth

Body : 2.0 mm , rostrum : 0.6 mm.

Holotype.—Male ; Burma : Prome. Holotype in B.M. (N.H.), London.

198. *Taractor integer* sp. nov.

(Fig. 275)

Frons piceous, a little wider than length of an eye, slightly elevated than upper margins of eye, sparsely covered with broadly-ovate and spathulate whitish scales ; central fovea, small, circular ; eyes piceous, broadly-ovate, slightly convex. Rostrum piceous, much longer than broad, with sides gradually convergent ; dorsal area moderately depressed behind antennae, sparsely covered with scales as on frons, with area behind epistome deeply impressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae almost sub-parallel upto antennal insertion and sharply divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and shortly acuminate ; lateral areas shining, sparsely covered with whitish scales, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye, with a similar sulcus below running from lower angle of scrobe to lower margin of eye. Antennae piceous, long, moderately squamose ; scape cylindrical, moderately curved, gradually clavate, sparsely covered with recumbent greyish scales ; funicle with joint 1 a little longer than 2, 3 to 7 longer than broad, with all joints covered moderately with greyish scales ; club fusiform, finely pubescent.

Prothorax a little wider than long, with ocular lobes not well-developed and vibrissae short and few. Pronotum black, transversely and longitudinally convex, widest at middle, with base moderately bisinuate and apex shallowly constricted, laterally rounded, with a shallow depression near apex and shallow rounded depressions sub-laterally near base one on each side, with lateral angles impressed, with middle of base and basal half of sub-lateral sides carinulate ; vestiture consisting of uniformly but moderately placed broadly-ovate and few spathulate whitish scales without forming any distinct pattern. Scutellum small, circular, covered with recumbent short whitish scales.

Elytra piceous, oblong, sub-parallel upto middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices slightly impressed and each apex shortly acuminate ; striae much broader than intervals, with shallowly rounded large closely set punctures ; intervals narrow, convex, with humeral intervals slightly impressed, covered with whitish and pale yellowish scales with all intervals densely covered with broadly-ovate whitish scales, each with a row of long almost erect pale-yellowish spathulate scales, with stria punctures beset with small whitish scales. Legs piceous, moderately covered with broad and narrow whitish scales ; fore-xoae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset with dense black bristles ; tarsi squamose ; hind tarsus with first joint a little longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a whitish scale. Abdominal sternites piceous, punctate, moderately covered with mixed broadly-ovate and spathulate scales.

Male genitalia not studied. Bursa copulatrix moderately developed ; ventral spiculum thick, blunt at apex ; spermatheca with collum well-developed and curved, ramus indistinct.

Measurements.—

Length

Female body : 3.3 mm ; rostrum : 0.4 mm.

Breadth

Female body : 1.4 mm ; rostrum : 0.4 mm.

Holotype.—Female ; Burma : Teinzo. In British Museum (N.H.), London.

199. **Taractor indicus** sp. nov.
(Figs. 139a, 139b)

Frons piceous, a little narrower than length of an eye, much elevated than upper margins of eyes, densely covered with broadly-ovate and spathulate snowy-white scales ; eyes black, broadly-ovate, slightly convex. Rostrum piceous, much longer than broad,

with sides gradually convergent ; dorsal area moderately depressed behind antennae, covered with dense scales as on frons, with area behind epistome moderately impressed, with central carina much lower than dorso-laterals ; dorso-lateral carinae gradually convergent upto little before antennal insertion and sharply divergent thereafter ; epistome small, gradually declivous anteriorly, with hind margin carinate and shortly acuminate ; lateral areas shining, sparsely covered with whitish scales, each with a narrow curved sulcus running from upper angle of scrobe to upper margin of eye, with a similar sulcus below running from lower angle of scrobe to lower margin of eye. Antennae ferrugineous, long, moderately squamose ; scape cylindrical, moderately curved, gradually clavate, moderately covered with recumbent and sub-erect whitish scales ; funicle with joint 1 much shorter than 2, 3 to 7 much longer than broad but 6 and 7 little less long comparatively, with all joints profusely covered with whitish scales ; club conical, finely pubescent.

Prothorax a little longer than broad, with ocular lobes poorly developed and vibrissae long. Pronotum piceous, transversely and longitudinally convex, widest at middle, with base moderately bisinuate and apex shallowly constricted, laterally rounded ; surface with a shallow depression near apex, with small shallow rounded depressions sub-laterally near base one on each side, with lateral angles impressed ; vestiture consisting of dense broadly-ovate and few spathulate white scales without forming any distinct pattern. Scutellum small, circular, covered with recumbent white scales.

Elytra piceous, oblong, parallel upto little beyond middle, much wider at shoulders than base of prothorax, with shoulders rounded, gradually declivous posteriorly, with lateral sides near apices not impressed and each apex shortly acuminate, striae narrow, with shallowly rounded closely set punctures ; intervals broad, convex, with humeral intervals slightly impressed ; vestiture consisting of broadly ovate white scales, with a row of long sub-erect spathulate pale yellowish scales on each interval, short narrow whitish scales filling strial punctures. Legs fulvus to ferrugineous, densely covered with broad and narrow white scales, fore-coxae slightly separated, placed in middle of prosternum ; femora clavate, each with short spiny tooth ; tibiae with apices

beset with dense brunneous bristles ; tarsi squamose ; hind tarsus with first joint much longer than 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a whitish scales. Abdominal sternites piceous, punctate, moderately covered with mixed broadly-ovate and spatulate whitish scales.

Aedeagus straight, sinuate at apex, with exophallic valve, phallotreme sub-apical, with moderately developed orificial plates, aedeagal apodemes longer than aedeagus ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus ; endophallus lying between aedeagal apodemes, beset with rows of spines and papillae, with groups of plates at apex. Gastral spiculum thick ; lateral arms short ; median arm curved and pointed at apex. Female genitalia not studied.

Measurements.—

Length

Body : 5.0 mm ; rostrum : 0.8 mm.

Breadth

Body 2.0 mm ; rostrum : 0.8 mm.

Holotype.—Male ; India ; (without precise data). Holotype in British Museum (N.H.), London.

Genus 41 **Pholicerus** Marshall

1944. *Pholicerus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 461.

Frons in level with upper margins of eyes, its width much less than length of an eye ; eyes very large, almost circular and nearly flat. Rostrum narrower than head, parallel-sided in basal half, strongly dilated at genae, lower surface short and not parallel with upperside ; dorsal area as broad at base as frons, lateral areas broad and even ; epistome with carinate margin forming acute angle ; mentum with two setae. Antennae stout, densely squamose throughout ; scape cylindrical, gradually clavate at apex, with appressed setae ; funicle with joints 1 and 2 equal. Prothorax with base shallowly bisinuate and somewhat wider than apex, rounded laterally, without ocular lobes, with fine vibrissae. Elytra much

wider at roundly rectangular shoulders than base of prothorax, separately rounded at apices, legs with femora toothed, corbels of hind tibiae open.

Type species.—*Pholicerus vigilax* Marshall

Distribution.—INDIA.

200. ***Pholicerus nigroderma*** sp. nov.
(Figs. 140a, 140b, 276)

Frons piceous, narrower than length of an eye, almost in level with upper margins of eye, covered with sub-erect spathulate white and golden scales, with central fovea small and circular, eyes black, ovate, almost flat. Rostrum piceous, a little longer than broad, parallel sided; dorsal area depressed moderately behind antennae, covered with spathulate and narrow white and golden scales, with area behind epistome impressed, with central carina lower than dorso-laterals; dorso-lateral carinae parallel upto little behind antennal insertion and divergent thereafter; epistome small, gradually declivous anteriorly, with hind margin carinate and sharply acuminate; lateral areas dull, with narrow spathulate and broadly ovate white scales, each with curved sulcus running from upper angle of scrobe to upper margin of eye. Antennae piceous, long, densely squamose; scape stout, moderately curved, gradually clavate, covered with seta-like recumbent white and golden scales; funicle with joint 1 longer than 2, 3 shorter than 2, 4 to 7 transverse and bead-like all joints profusely covered with white scales; club fusiform, finely pubescent.

Prothorax wider than long, with moderate ocular lobes and long vibrissae. Pronotum piceous, transversely and longitudinally convex, widest at middle, with base sinuate and apex shallowly constricted and narrower, laterally rounded; vestiture consisting of a few rows of small white scales at apical margin, two dense white patches separated by an area covered with golden scales at middle of base, white seta-like scales filling punctures. Scutellum small, oblong, sparsely covered with narrow white scales.

Elytra piceous, oblong, parallel upto little beyond middle, much wider at shoulders than base of prothorax, with shoulders

rounded, gradually declivous posteriorly, with lateral sides near apices sharply impressed and each apex shortly acuminate ; intervals broad, somewhat convex posteriorly in apical half ; striae narrow with deeply rounded closely set punctures ; vestiture consisting of short narrow white scales in punctures, white spathulate scales dispersed in irregular small patches, sutural intervals with each inner margin beset with a regular row of white scales, spathulate golden scales on all intervals. Legs piceous, densely covered with white scales ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short spiny tooth ; tibiae with apices beset densely with brown bristles, inner margins of fore-tibiae with 4 spines near apex ; tarsi squamose ; hind tarsus with first joint as long as 2 and 3 together. Thoracic sterna piceous, punctate and each puncture beset with a white scale, with punctures almostly concealed by white scales. Abdominal sternites piceous, punctate, densely covered with broadly-ovate and short spathulate snowy-white scales.

Aedeagus somewhat curved, sinuate at apex, with exophallic valve, with lateral sides sclerotized ; phallotreme sub-apical with weak orificial plates ; aedeagal apodemes 2 times as long as aedeagus, each thin and narrow at base and broad and thick towards apex ; phallobase ring-shaped, phallobasic apodeme as long as aedeagus and spathulate at apex ; endophallus not surpassing aedeagal apodemes, beset with rows of papillae, with groups of plates at apex. Gastral spiculum thick, lateral arms short ; median arm broad and curved at apex, with curved outer margin dentate. Bursa copulatrix well-developed ; ventral spiculum long and curved, with spathulate apex. Spermatheca with cornu long and curved at apex ; collum broad ; ramus lying parallel to collum.

Measurements.—

Length

Male body : 7.7 mm ; rostrum : 0.7 mm.

Female body : 8.0 mm ; rostrum : 0.9 mm.

Breadth

Male body : 2.9 mm ; rostrum : 0.7 mm.

Female body : 3.4 mm ; rostrum : 0.7 mm.

Holotype.—Male : India , Nilgiri Hills , 1922 , Andrewes.
Paratype Female 1, same data as for holotype. Material in British Museum (N.H.), London.

Genus 42. *Hemerus* Marshall

1944. *Hemerus* Marshall, Ann. Mag. nat. Hist., (11) 11 : 437, 459.

Head with frons much broader than length of an eye ; eyes nearly rounded. Rostrum transverse, feebly dilated at apex ; epistome with the carinate margin forming a sharp acute angle , mentum with two setae. Antennae with scape slender, cylindrical ; funicle with joint 1 longer than 2. Prothorax transverse, trapezoidal, much wider at base than at apex, with base deeply bisinuate, without ocular lobes but with long vibrissae. Elytra with shoulders narrow and sloping. Legs with corbels of hind tibiae open. Male genitalia with aedeagus sinuate at apex, with a small exophallic valve, without orificial plates ; phallobasic apodeme shorter than aedeagus , endophallus with a pair of endophallic plates at apex. Female genitalia with bursa copulatrix weakly developed ; spermatheca with collum and ramus lying parallel to each other.

Type species.—*Hemerus virens* Marshall.

Distribution.—INDIA.

201. *Hemerus virens* Marshall (Fig. 277)

1944. *Hemerus virens* Marshall, Ann. Mag. nat. Hist., (11) 11 : 459.

Frons piceous, flat, broader than length of rostrum in female and as broad as base of rostrum in male, lying a little above upper margins of eyes, completely covered with bluish and green scales and sub-recumbent pale setae concealing central fovea ; eyes piceous, large, rounded. Rostrum piceous, transverse, broader in female, very gradually narrowing from base to scrobes and slightly dilated at apex , dorsal area broadly impressed, densely covered with bluish and green scales and short sub-recumbent pale setae,

with a fine central carina running throughout its length ; dorso-lateral carinae completely covered with scales, diverging towards apex and running parallel behind ; epistome long, with margins carinate and forming an acute angle behind, extending far behind line of insertion of antennae ; lateral areas obliquely and longitudinally striolate, covered with sparse blue and green scales and pale-green setae ; scrobes small, narrow, curving inwards and open behind, almost visible from above ; mentum with two setae. Antennae fuscus ; scape curved, cylindrical, slender, gradually clavate, reaching middle of prothorax, covered with greenish recumbent setae ; funicle with joint 1 longer than 2, 3 to 7 sub-equal but shorter than 2, all joints covered with green recumbent scales and whorls of pale-green sub-erect setae ; club fusiform, finely and uniformly pubescent.

Prothorax piceous, transverse, trapezoidal, much wider at base than at apex, with a shallow transverse impression before middle on each side ; anterior margin sinuate in middle, without ocular lobes but with long vibrissae laterally ; surface of pronotum flattened, with median basal lobe in male somewhat turned upwards, densely covered with bluish and green scales, marked with small punctures and each puncture with a short sub-recumbent pale-green seta ; lateral sides shallowly constricted in its apical one-third and then widening behind, with basal margin deeply bisinuate with its median lobe rounded, its lateral angles acute and each extending to stria 6 of elytron. Scutellum small, piceous, rectangular with anterior margin rounded, completely covered with bluish and green scales.

Elytra piceous, oblong, parallel-sided in male and widening behind middle in female, narrowing towards apex, with apices jointly rounded, much steeply declivous at apical one-fourth, a little wider at shoulders than base of prothorax, with shoulders narrow and sloping ; striae very narrow, with stria punctures shallow and each puncture with a fine sub-recumbent seta ; intervals almost flat, uniformly studded with bluish-green scales, each interval with numerous spathulate pale setae. Legs brown, with coxae covered with brownish scales and pale setae, with a few bluish-green scales near apices ; fore-coxae contiguous, placed in middle of prosternum ; femora clavate, each with a short

tooth, covered with bluish-green scales and short recumbent setae ; apical end of each tibia with a fringe of pale bristles and a mucro, corbels of hind tibiae open ; tarsi densely setose ; hind tarsus with first joint more than 1.5 times as long as second, third bilobed joint shorter than second and spongy beneath, claws free. Thoracic sterna piceous, densely covered with bluish-green scales and short setae, with scales narrower and brownish in middle of each sternite. Abdominal sternites covered with green scales, with a continuous broad stripe of brownish scales in middle, punctate and each puncture with a pale seta.

Male genitalia not studied. Bursa copulatrix weakly developed , ventral spiculum long and curved at apex. Spermatheca with cornu pointed at apex, collum and ramus lying parallel to each other.

Measurements.—

Length

Male body : 4.8 to 5.1 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 5.7 to 6.2 mm ; rostrum : 0.9 to 1.0 mm.

Breadth

Male body : 1.8 to 1.9 mm ; rostrum : 0.8 to 0.9 mm.

Female body : 2.0 to 2.3 mm ; rostrum : 1.1 to 1.2 mm.

Range.—India : Chandigarh , Uttar Pradesh, Fyzabad ; West Bengal, Chota Nagpur ; Andhra Pradesh, Vizagapatnam, Chipurupalle.

Holotype in British Museum (N.H.), London.

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FIGURES : Pages 500—561

ABBREVIATIONS USED IN FIGURES

A. Male genitalia :

ADA, Aedeagal apodeme ; AED, Aedeagus ;
END, Endophallus ; ENDP, Endophallic plate ;
EXV, Exophallic valve ; OP, Orificial plate ;
PHB, Phallobase ; PHBA, Phallobasic apodeme ;
PHT, Phallotreme.

B. Female genitalia :

BC, Bursa copulatrix ; C. Cornu ; CO, Collum ;
CX, Coxite ; OV, Ovipositor ; R, Ramus ;
SD, Spermathecal duct ; SV, Ventral spiculum ;
V, Vagina, VIII, Eighth sternite.

EXPLANATION TO FIGURES (Page 501)**A. Male genitalia :**

Aspidomycter laesicollis Pajni & Sidhu

1a. Aedeagus

1b. Gastral spiculum

A. lefroyi Marshall

2a. Gastral spiculum

2b. Aedeagus

A. lunatus Marshall

3. Aedeagus

Platymycterus himalayanus Marshall

4. Aedeagus

P. feae Faust

5. Aedeagus

P. moestus Marshall

6. Aedeagus

P. sjostedti Marshall

7. Aedeagus

Paramycter setiepistomus sp. nov.

8a. Gastral spiculum

8b. Aedeagus

Thlipsomerus quadrimaculatus sp. nov.

9a. Aedeagus

9b. Gastral spiculum

T. nigromeculatus Pajni & Sidhu

10. Aedeagus

T. albosquomus sp. nov.

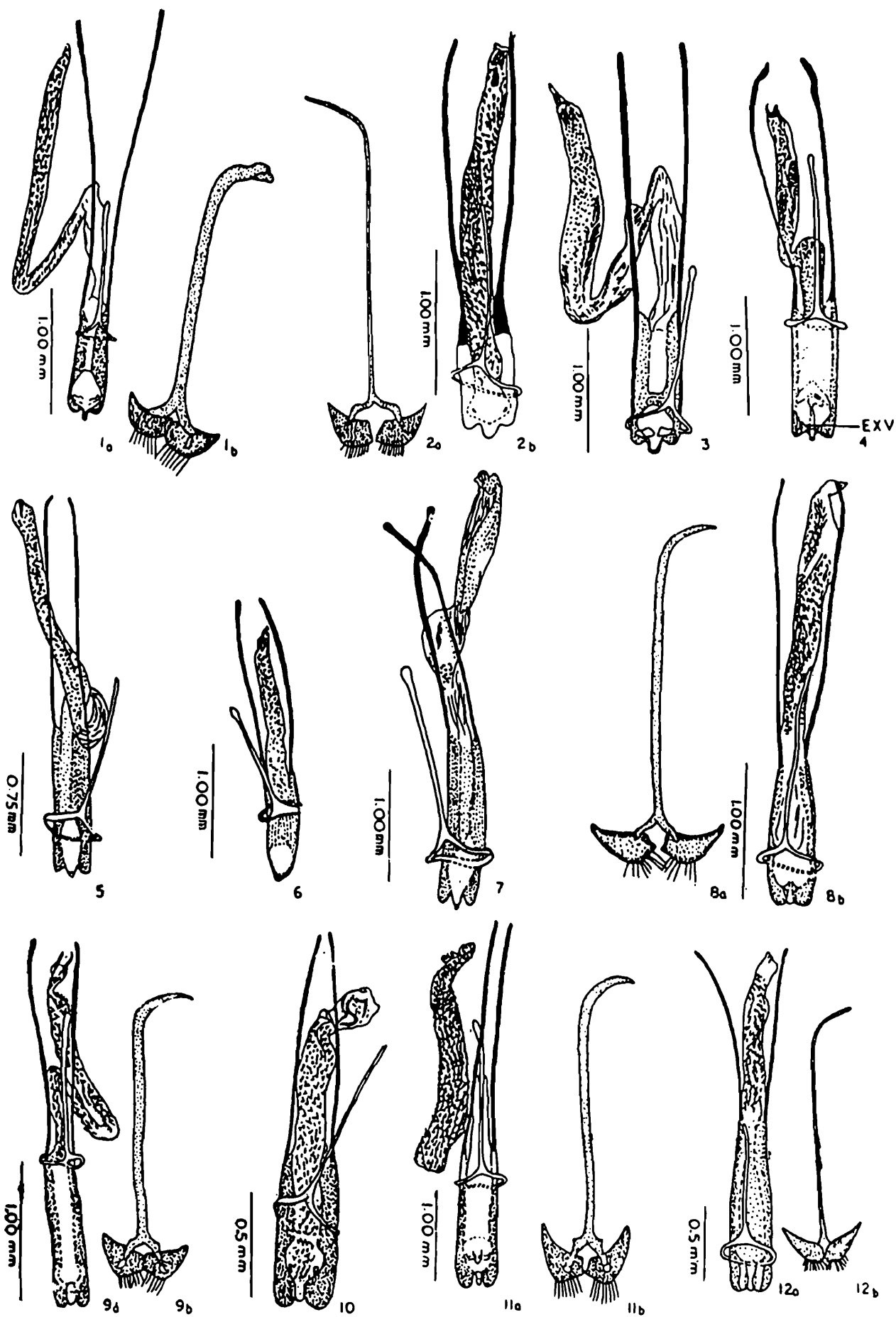
11a. Aedeagus

11b. Gastral spiculum

T. foveicollis

12a. Aedeagus

12b. Gastral spiculum



EXPLANATION TO FIGURES (Page 503)**A. Male genitalia :**

Thlipsomerus subcosticollis Marshall

13. Aedeagus

Amrikus deplanatus Faust

14. Aedeagus

A. glebossus Marshall

15. Aedeagus

Epixynus calvus Marshall

16a. Aedeagus

16b. Gastral spiculum

Piezophrys hebes Marshall

17. Aedeagus

P. cruciatus sp. nov.

18. Aedeagus

P. superciliatus sp. nov.

19. Aedeagus

P. subchloris sp. nov.

20. Aedeagus

P. alboscuteclatus sp. nov.

21. Aedeagus

P. punctostiratus sp. nov.

22. Aedeagus

Cyphicerinus tectonae Marshall

23. Aedeagus

C. pannosus Marshall

24. Aedeagus

C. hirsutus Marshall

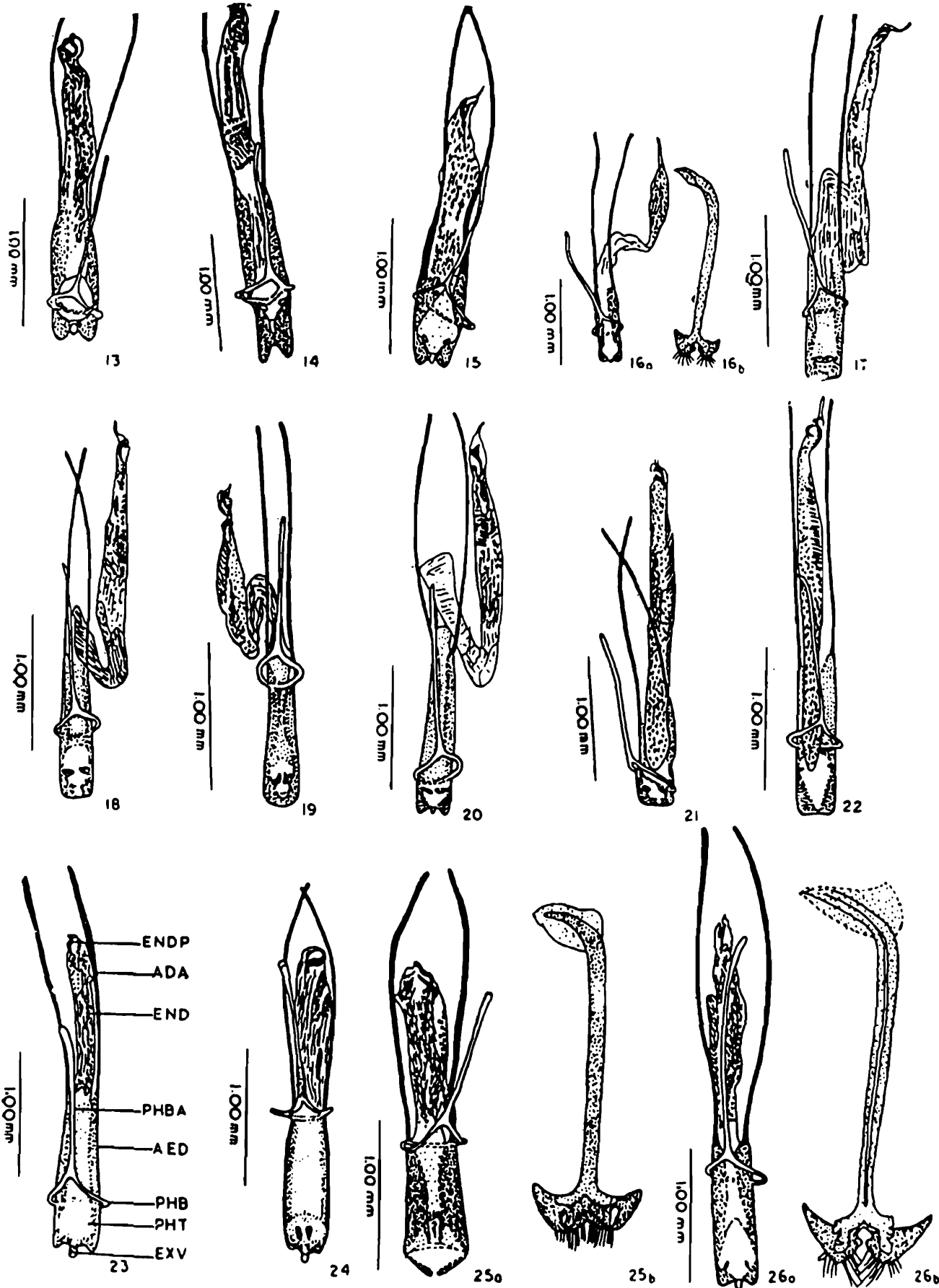
25a. Aedeagus

25b. Gastral spiculum

C. nepalensis Faust

26a. Aedeagus

26b. Gastral spiculum



EXPLANATION TO FIGURES (Page 505)**A. Male genitalia :**

Cyphicerinus andamanicus sp. nov.

27a. Gastral spiculum

27b. Aedeagus

Indophytoscaphus chandigarhensis (Pajni & Singal)

28. Aedeagus

I. carinipennis sp. nov.

29a. Gastral spiculum

29b. Aedeagus

Cyrtepistomus qularis sp. nov.

30a. Aedeagus

30b. Gastral spiculum

C. pini Marshall

31. Aedeagus

C. herbicola sp. nov.

32a. Aedeagus

32b. Gastral spiculum

C. jucundus Redtenbacher

33. Aedeagus

C. himachalensis sp. nov.

34. Aedeagus

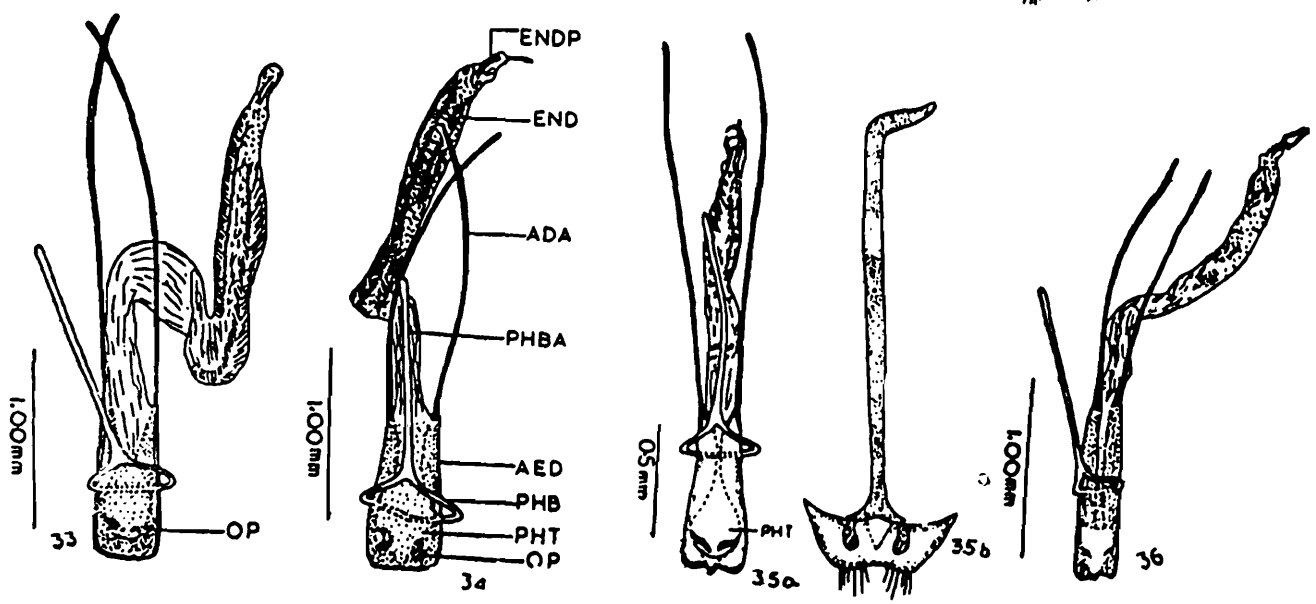
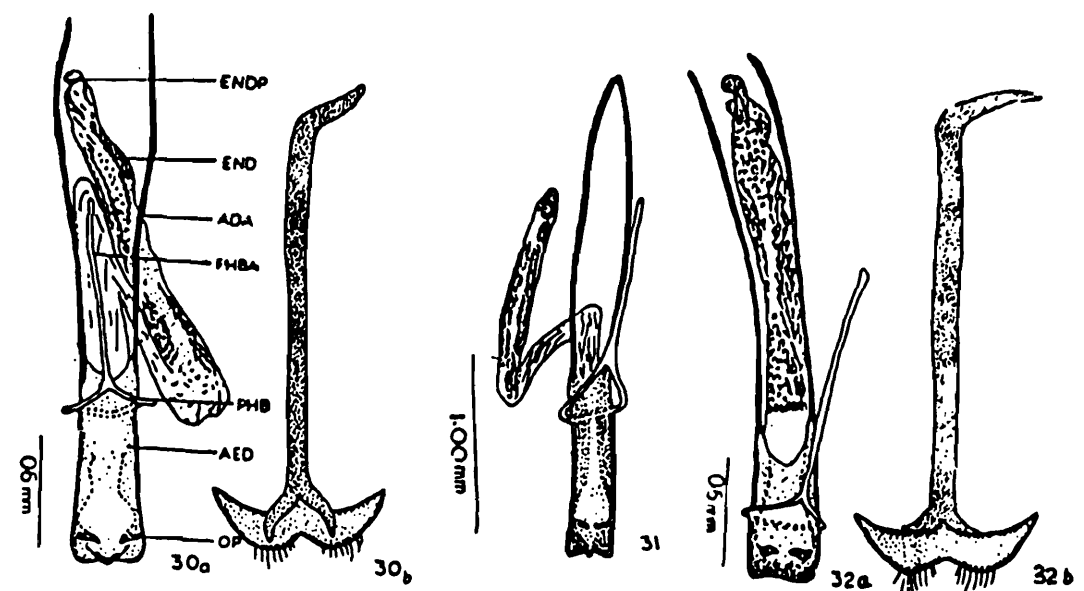
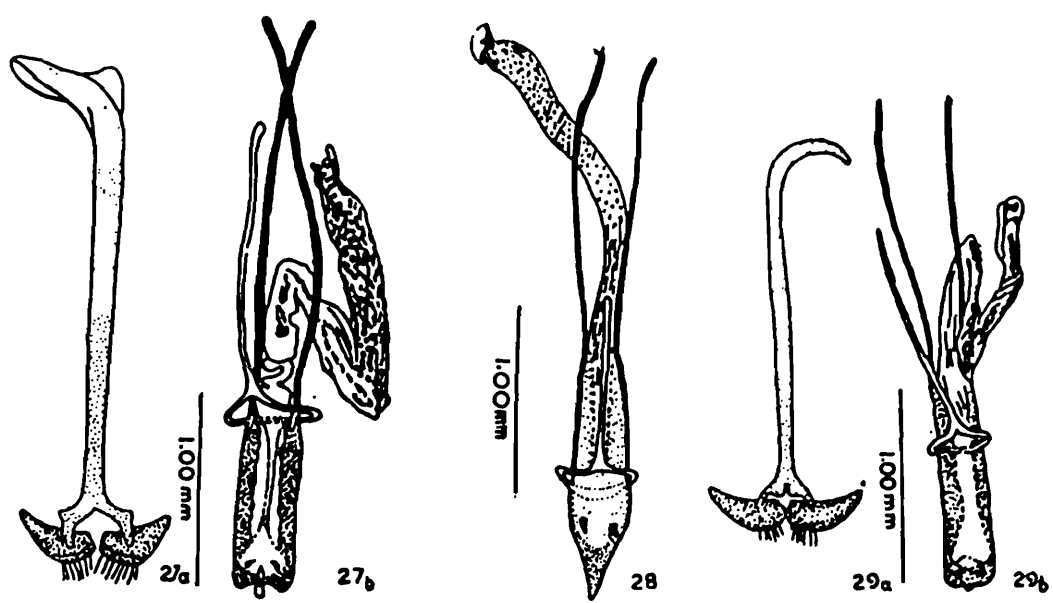
C. bardus Marshall

35a. Aedeagus

35b. Gastral spiculum

C. varicolor sp. nov.

36. Aedeagus



EXPLANATION TO FIGURES (Page 507)**A. Male genitalia :**

Cyrtepistomus rudis sp. nov.

37a. Aedeagus

37b. Gastral spiculum

C. lanatus sp. nov.

38a. Aedeagus

38b. Gastral spiculum

C. chloris sp. nov.

39. Aedeagus

C. victoriae sp. nov.

40a. Aedeagus

40b. Gastral spiculum

C. vinctus sp. nov.

41a. Aedeagus

41b. Gastral spiculum

C. albus sp. nov.

42a. Aedeagus

42b. Gastral spiculum

C. tenuiclavis sp. nov.

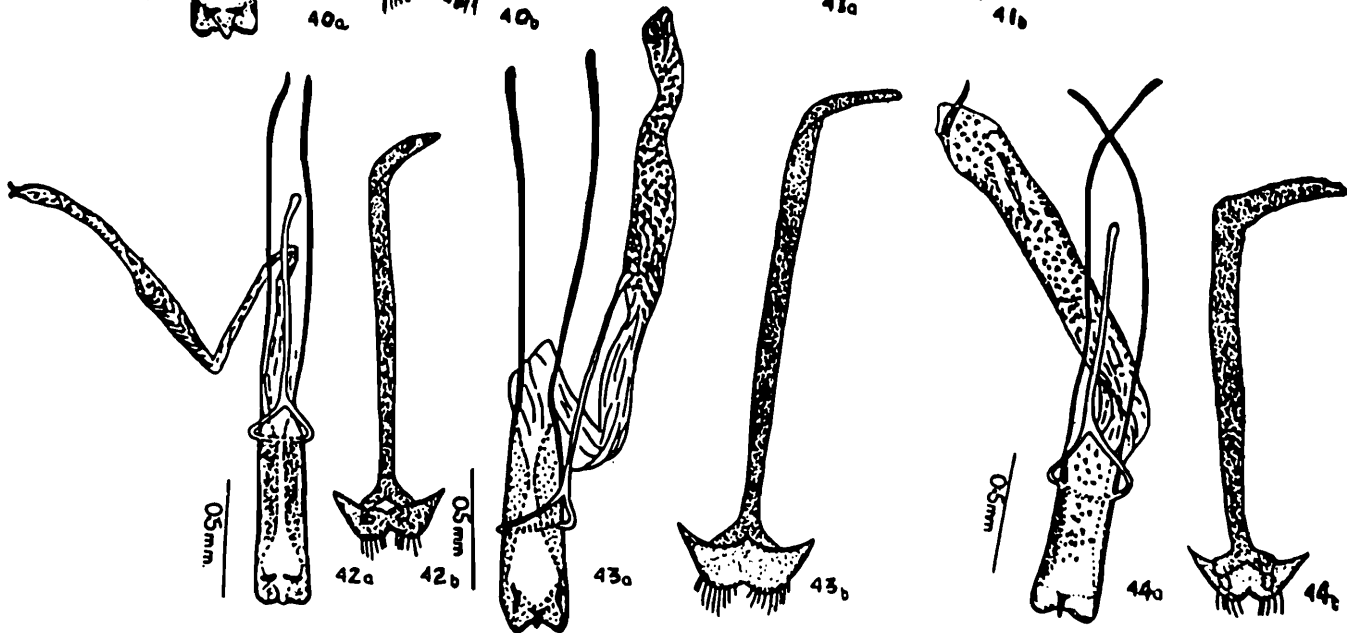
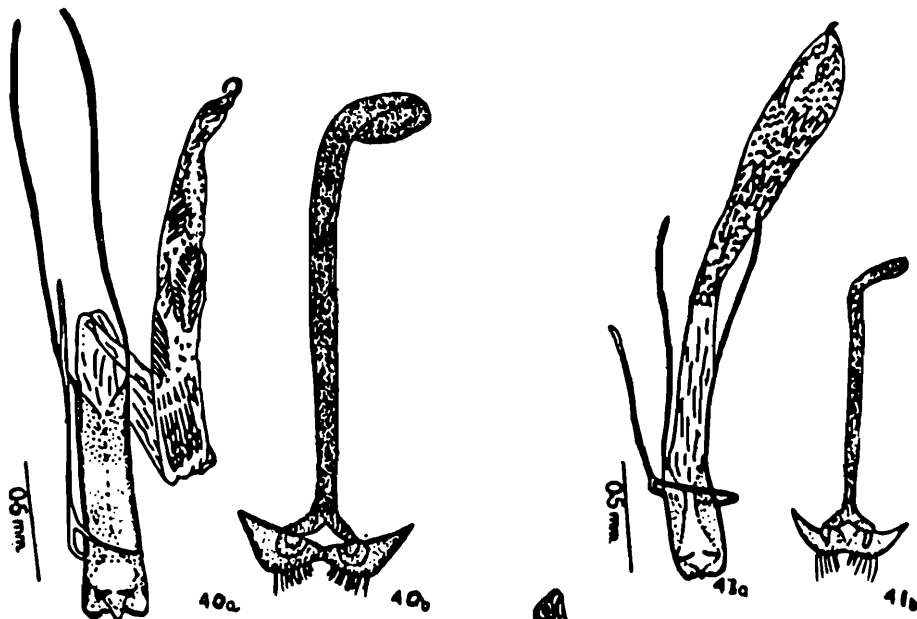
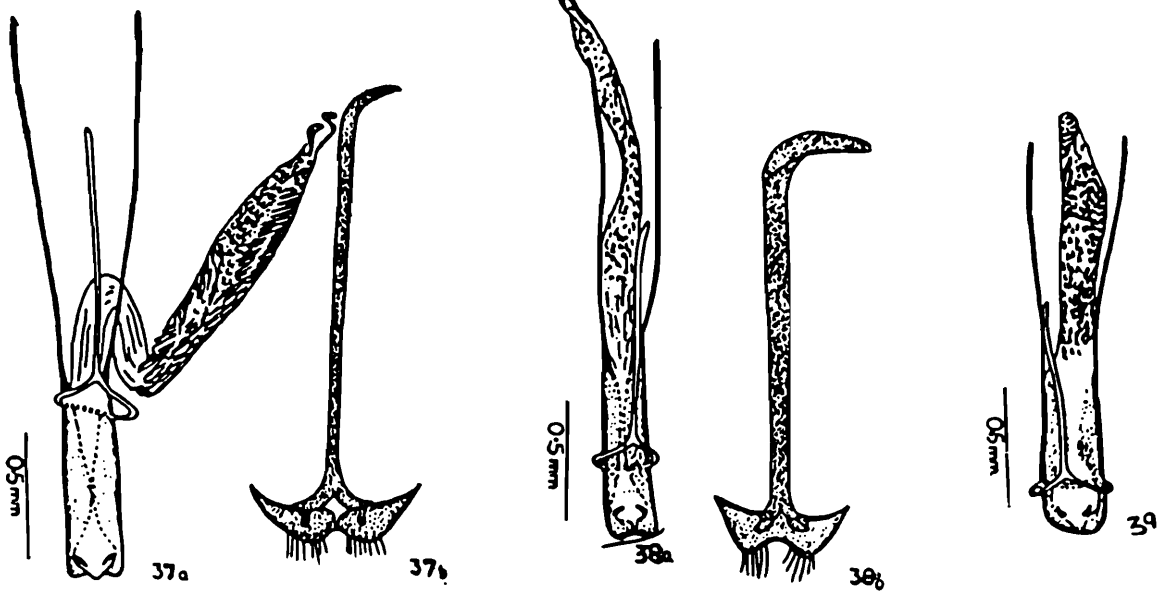
43a. Aedeagus

43b. Gastral spiculum

C. championi sp. nov.

44a. Aedeagus

44b. Gastral spiculum



EXPLANATION TO FIGURES (Page 509)**A. Male genitalia :**

Platymycteropsis angulicollis Marshall

45. Aedeagus

P. fausti Marshall

46a. Aedeagus

46b. Gastral spiculum

Epius meghalayensis sp. nov.

47. Aedeagus

E. minutus sp. nov.

48. Aedeagus

Hilaus bidentulus Marshall

49. Aedeagus

H. chlorosquamosus sp. nov.

50. Aedeagus

Doliophron gracilicornis Faust

51a. Aedeagus

51b. Gastral spiculum

D. tenuicornis Faust

52. Aedeagus

Eryngus fuscotarsis sp. nov.

53. Aedeagus

Crinorrhinus crassirostris Faust

54. Aedeagus

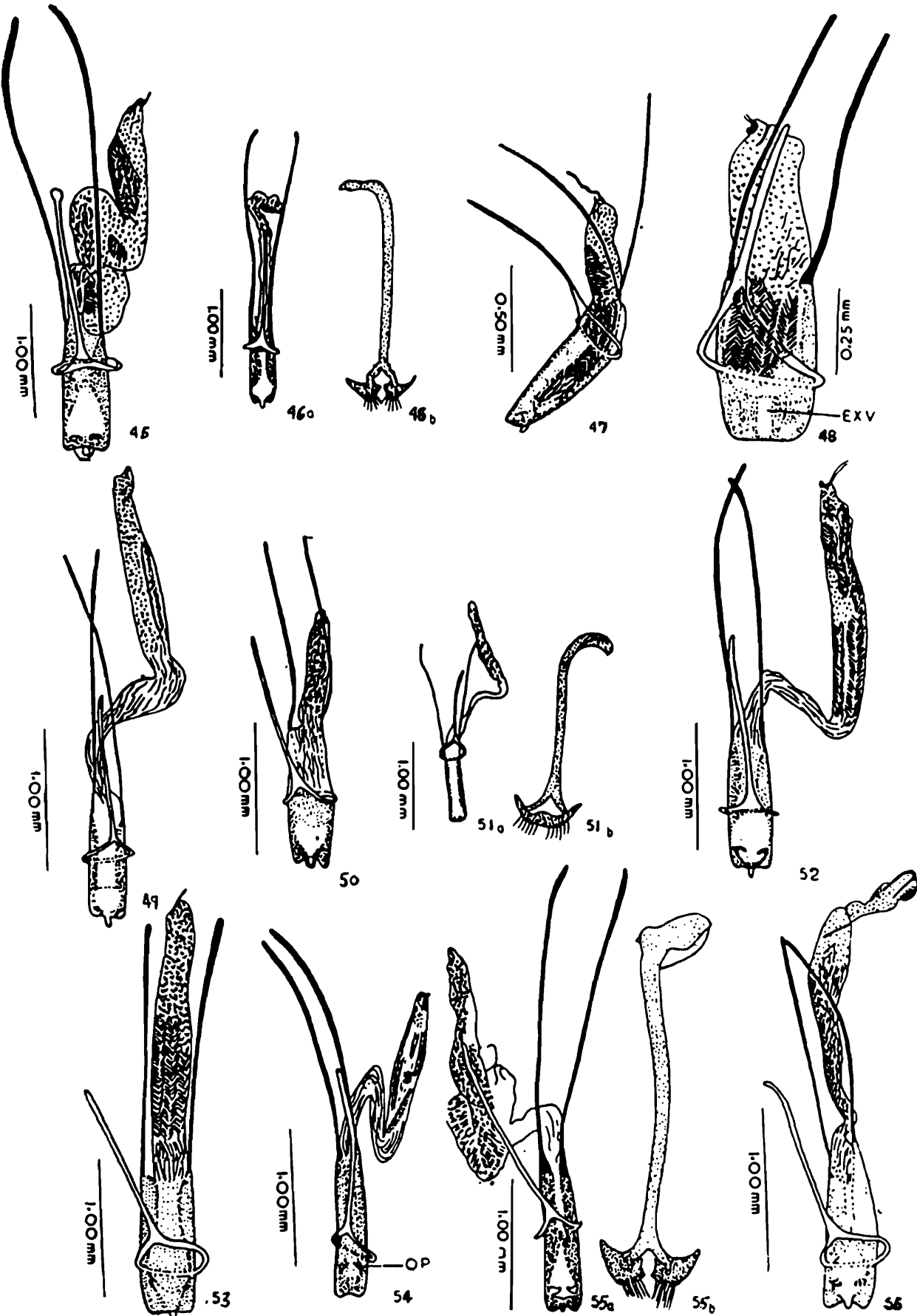
C. cuprisetis Marshall

55a. Aedeagus

55b. Gastral spiculum

C. sartus Marshall

56. Aedeagus



EXPLANATION TO FIGURES (Page 511)**A. Male genitalia :**

Crinorrhinus spartusus Marshall

57. Aedeagus

C. nebulesus Marshall

58. Aedeagus

Himachala fulvescens sp. nov.

59. Aedeagus

Meionops aspersus Marshall

60a. Aedeagus

60b. Gastral spiculum

Marshalla bituberculatus sp. nov.

61. Aedeagus

Amblyrrhinus poricollis Schonherr

62. Aedeagus

A. posticus Walker

63. Aedeagus

A. minuticornis sp. nov.

64. Aedeagus

A. cavirostris sp. nov.

65a. Aedeagus

65b. Gastral spiculum

A. subrecticollis Marshall

66. Aedeagus

Thyraululus prasinaus Marshall

67a. Aedeagus

67b. Gastral spiculum

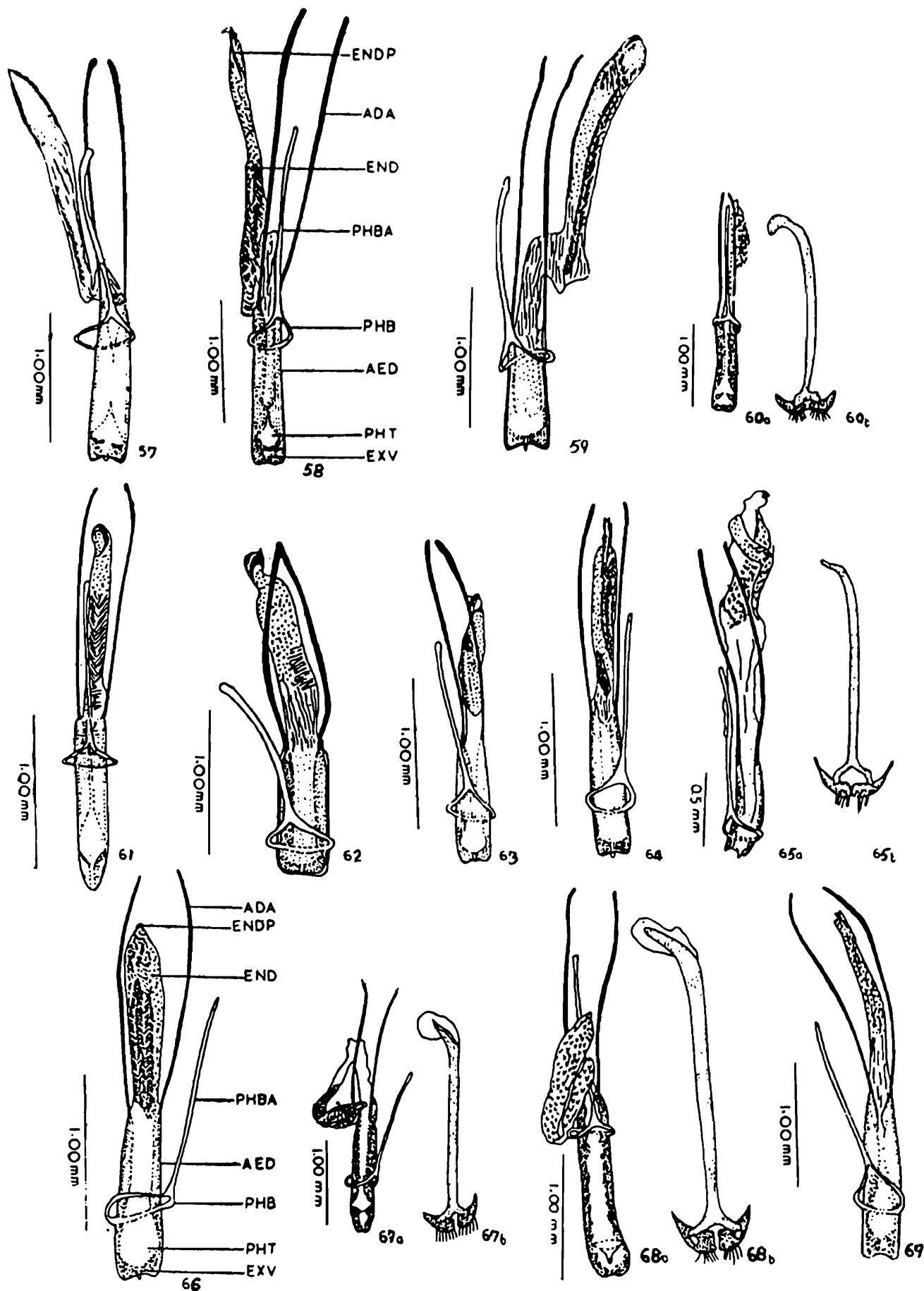
T. crinitus sp. nov.

68a. Aedeagus

68b. Gastral spiculum

Hamartus instabilis Marshall

69. Aedeagus



EXPLANATION TO FIGURES (Page 513)**A. Male genitalia :**

Scaeorrhinus tardus sp. nov.

70a. Aedeagus

70b. Gastral spiculum

Parascaphus vittacollis sp. nov.

71. Aedeagus

P. dalbergiae sp. nov.

72a. Aedeagus

72b. Gastral spiculum

P. debilis sp. nov.

73a. Aedeagus

73b. Gastral spiculum

P. orthoscapus sp. nov.

74. Aedeagus

P. quadriscutellatus sp. nov.

75. Aedeagus

Rhichostomus placidus sp. nov.

76a. Aedeagus

76b. Gastral spiculum

R. terrenus Marshall

77. Aedeagus

Agrostes varisetis Marshall

78a. Aedeagus

78b. Gastral spiculum

A. quadrinotatus Marshall

79a. Aedeagus

79b. Gastral spiculum

Phylladobius brunneus sp. nov.

80a. Aedeagus

80b. Gastral spiculum



EXPLANATION TO FIGURES (Page 515)**A. Male genitalia :**

Pseudphytoscapus annuloscutellus sp. nov.

81. Aedeagus

P. boivei sp. nov.

82a. Aedeagus

82b. Gastral spiculum

P. nubilus Faust

83. Aedeagus

P. shillongensis sp. nov.

84. Aedeagus

P. manoji sp. nov.

85. Aedeagus

Phytoscapus triangularis Olivier

86. Aedeagus

P. aversus sp. nov.

87a. Aedeagus

87b. Gastral spiculum

P. decorus sp. nov.

88a. Aedeagus

88b. Gastral spiculum

P. virgatus sp. nov.

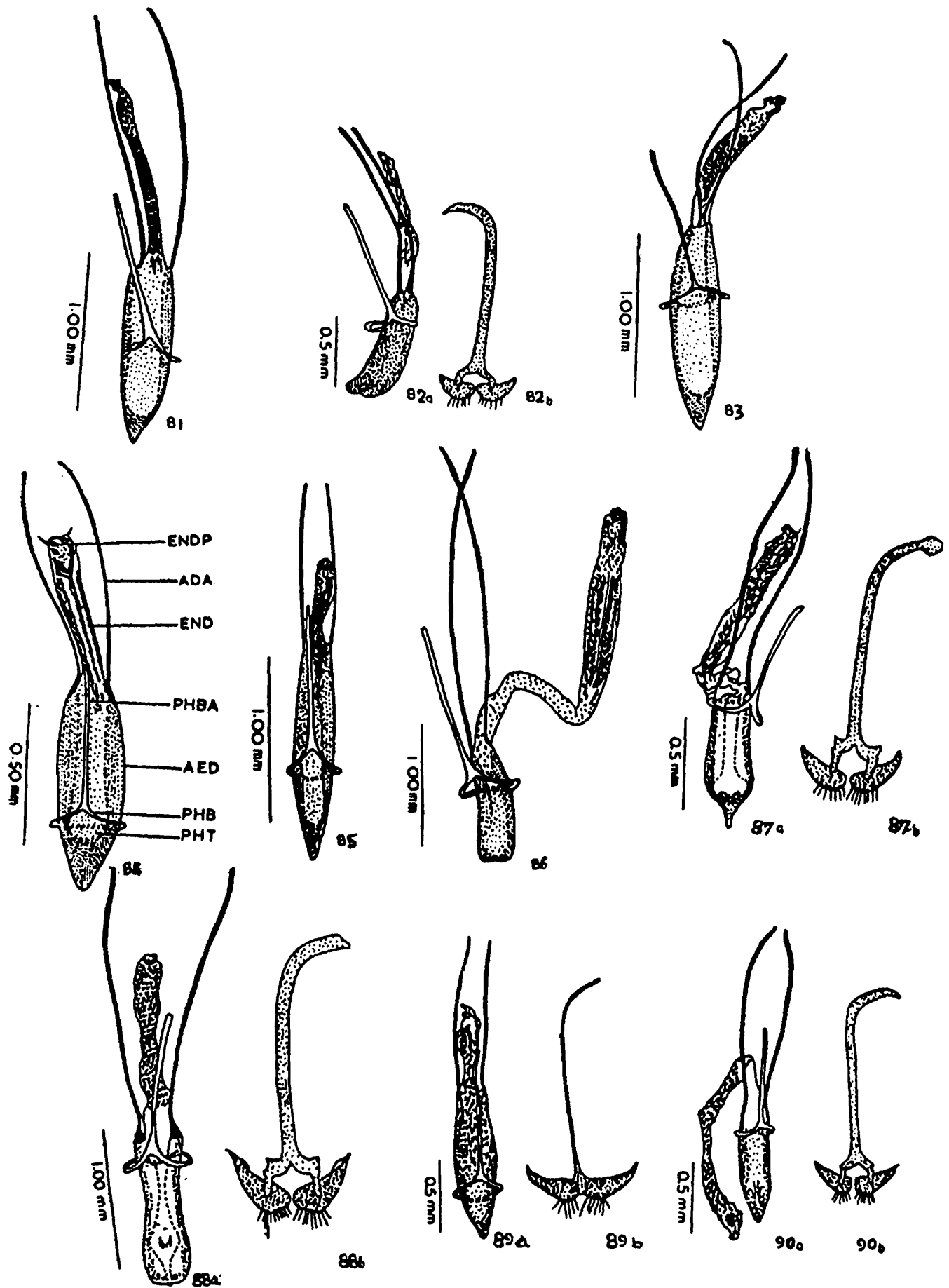
89a. Aedeagus

89b. Gastral spiculum

P. crispus sp. nov.

90a. Aedeagus

90b. Gastral spiculum



EXPLANATION TO FIGURES (Page 517)**A. Male genitalia :**

Phytoscaphus tenuirostris Marshall

91. Aedeagus

P. suspensus sp. nov.

92a. Aedeagus

92b. Gastral spiculum

P. chlorohumeralis sp. nov.

93a. Aedeagus

93b. Gastral spiculum

P. fractivirgatus Marshall

94. Aedeagus

P. chlorolateralus sp. nov.

95. Aedeagus

P. limis sp. nov.

96a. Aedeagus

96b. Gastral spiculum

P. fuscofasciatus sp. nov.

97. Aedeagus

P. kaulbacki sp. nov.

98a. Aedeagus

98b. Gastral spiculum

P. marshalli (Pajni & Chhibba)

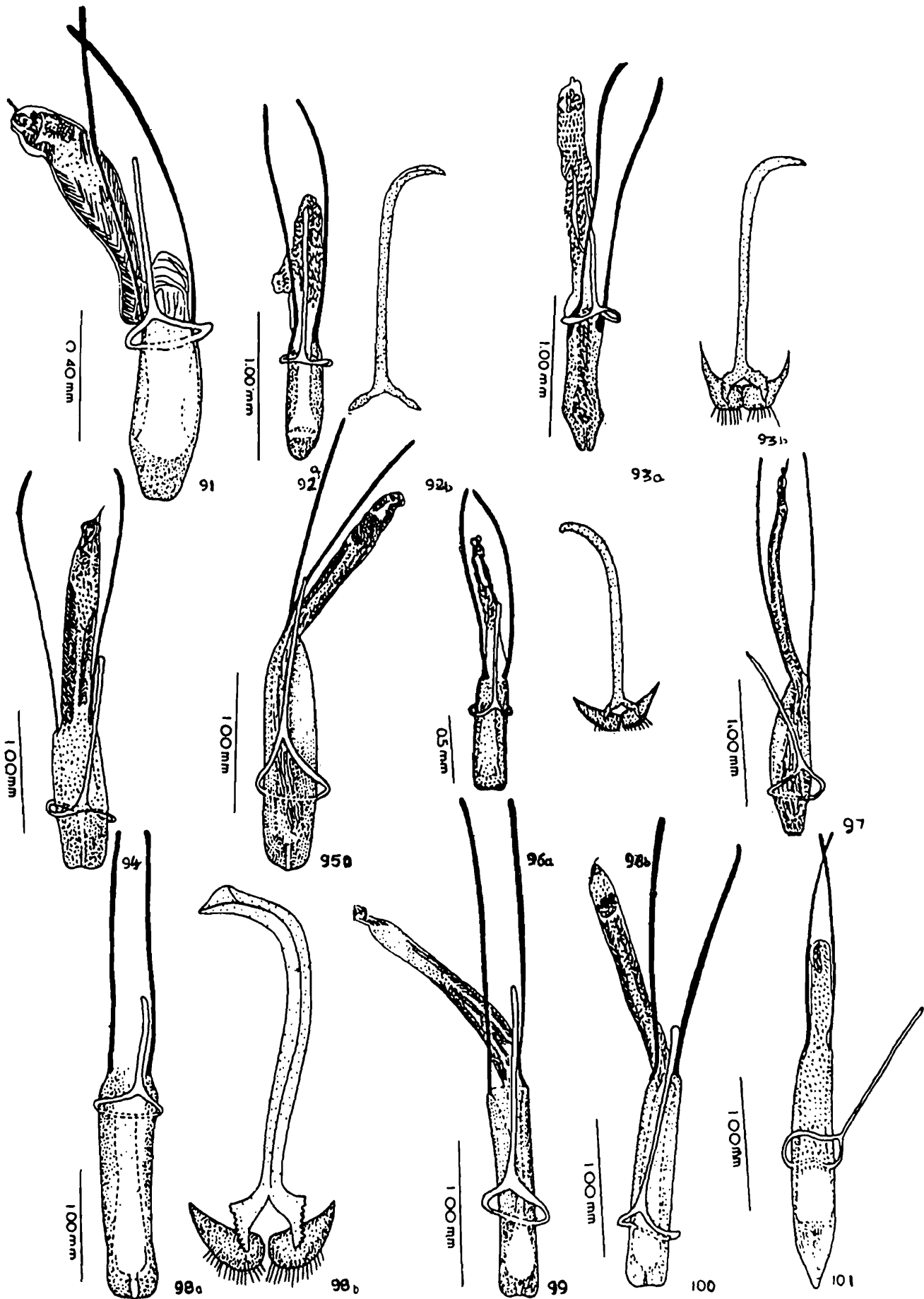
99. Aedeagus

P. chloroticus Boheman

100. Aedeagus

Hirsutopes andamanensis sp. nov.

101. Aedeagus



EXPLANATION TO FIGURES (Page 519)**A. Male genitalia :**

Hirsutopes megaoculatus sp. nov.

102. Aedeagus

Dieradolcus spinipectus sp. nov.

103a. Aedeagus

103b. Gastral spiculum

D. moratus (Faust)

104. Aedeagus

D. inaptus sp. nov.

105a. Aedeagus

105b. Gastral spiculum

D. laticollis sp. nov.

106a. Aedeagus

106b. Gastral spiculum

D. incultus sp. nov.

107a. Aedeagus

107b. Gastral spiculum

D. canus sp. nov.

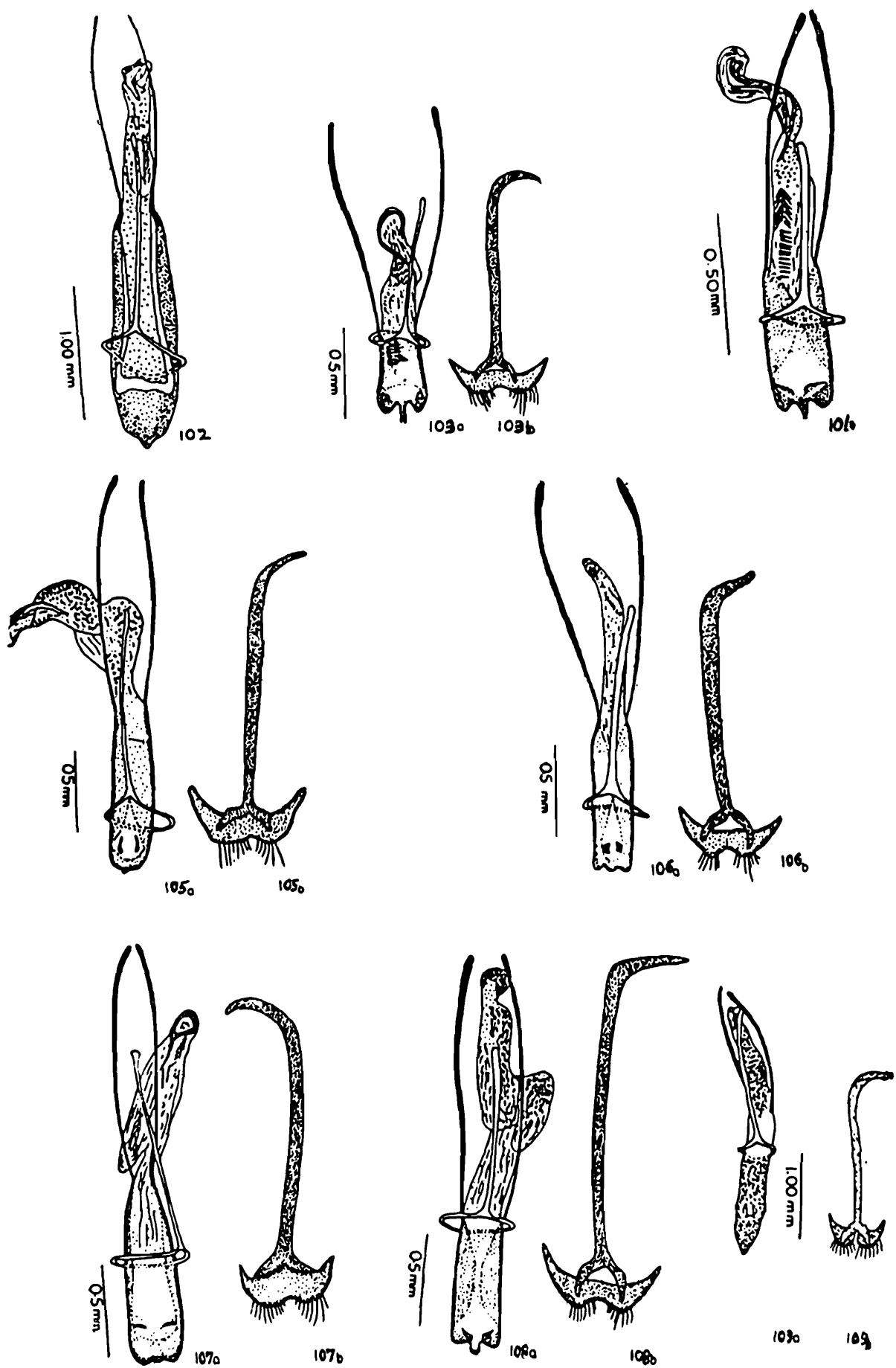
108a. Aedeagus

108b. Gastral spiculum

Drymophoetus multicostatus (Chevrolat)

109a. Aedeagus

109b. Gastral spiculum



EXPLANATION TO FIGURES (Page 521)**A. Male genitalia :**

Cyphicerus emarginatus Faust

110a. Aedeagus

110b. Gastral spiculum

C. zizyphi sp. nov.

111a. Aedeagus

111b. Gastral spiculum

C. passerinus (Olivier)

112a. Aedeagus

112b. Gastral spiculum

C. pardalis sp. nov.

113a. Aedeagus

113b. Gastral spiculum

C. novemlineatus (Olivier)

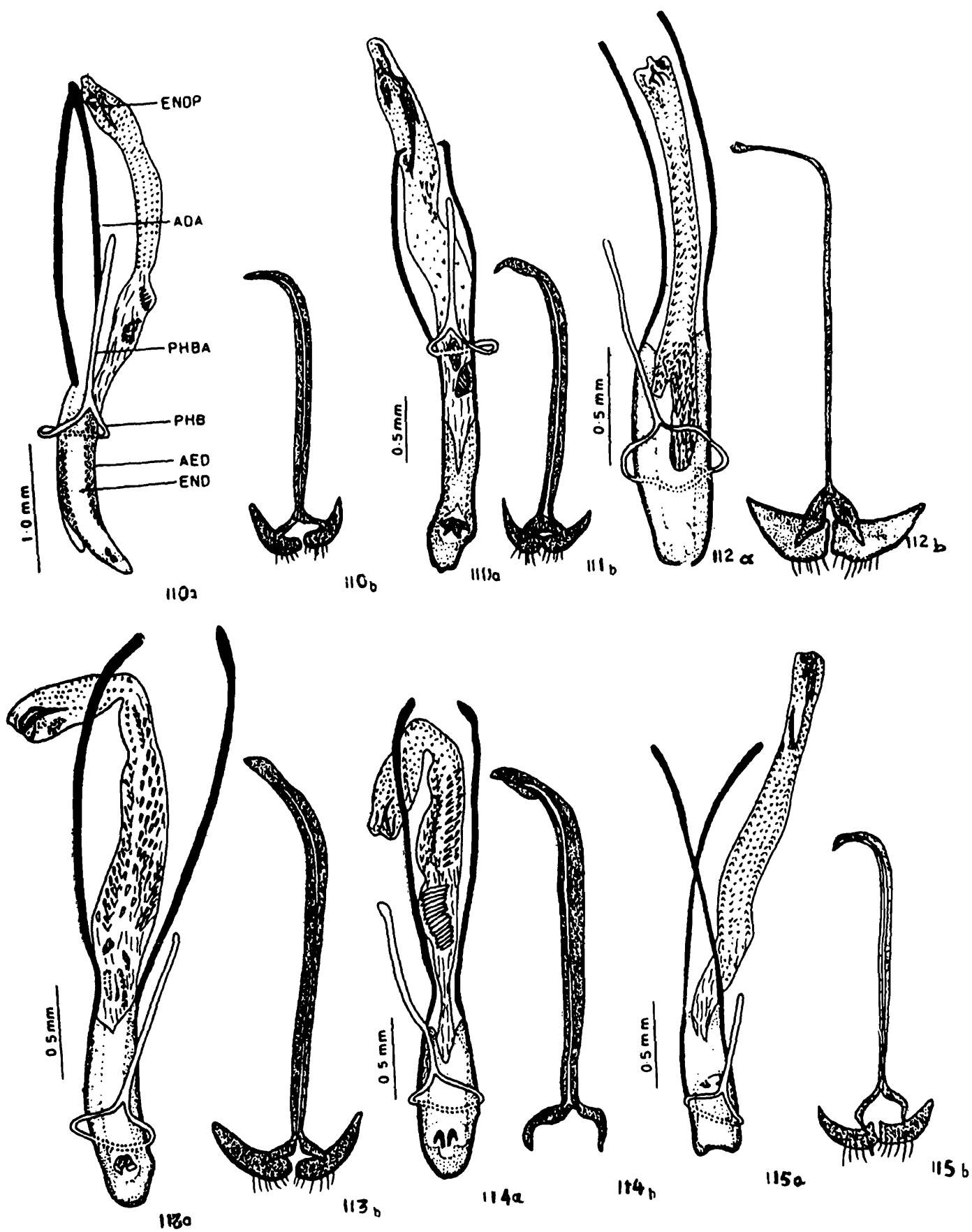
114a. Aedeagus

114b. Gastral spiculum

C. lineatus (Motschulsky)

115a. Aedeagus

115b. Gastral spiculum



EXPLANATION TO FIGURES (Page 523)**A. Male genitalia :**

Cyphicerus graniger sp. nov.

116a. Aedeagus

116b. Gastral spiculum

C. surdus sp. nov.

117a. Aedeagus

117b. Gastral spiculum

C. alsus sp. nov.

118a. Aedeagus

118b. Gastral spiculum

C. faustus sp. nov.

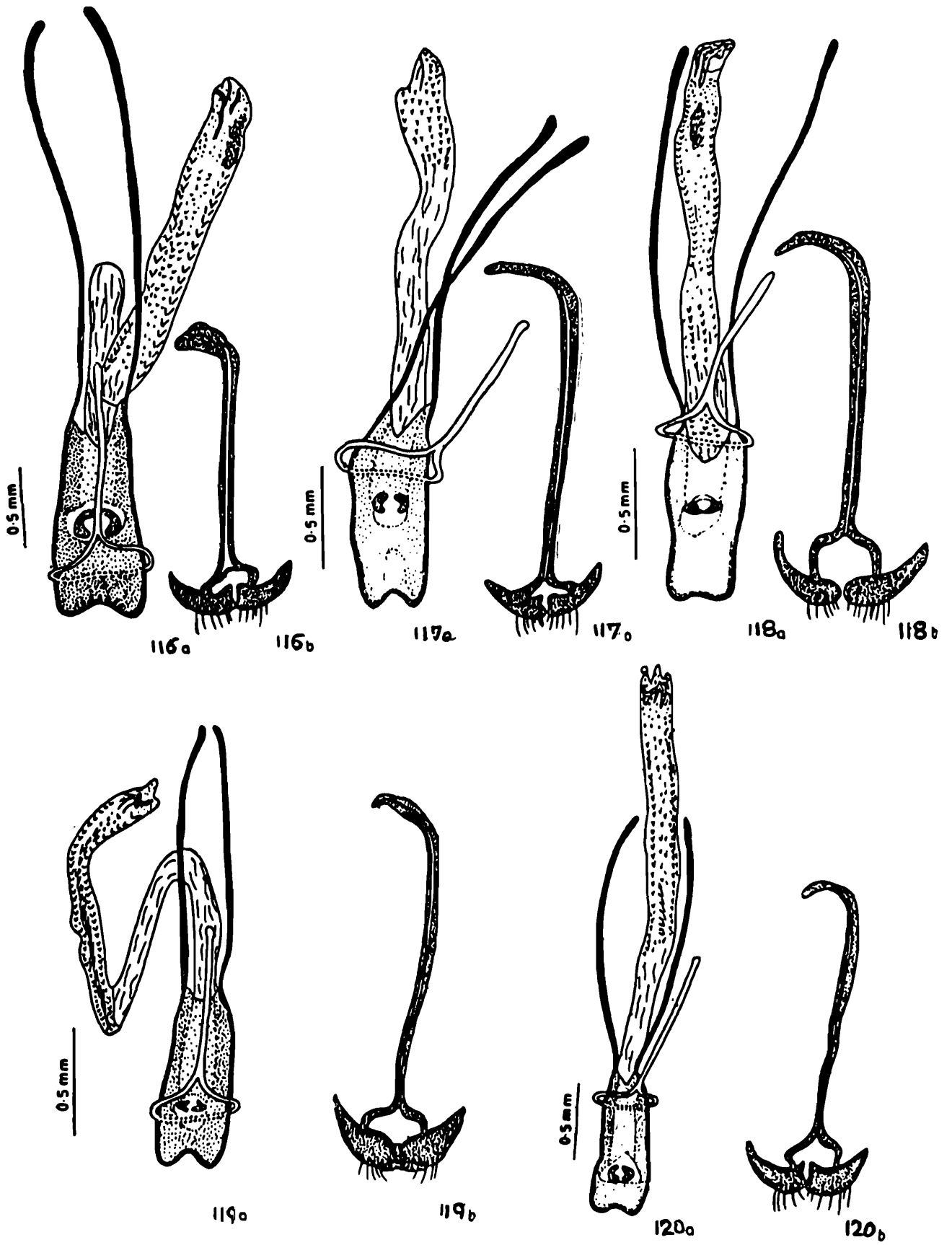
119a. Aedeagus

119b. Gastral spiculum

C. trifesciatus sp. nov.

120a. Aedeagus

120b. Gastral spiculum



EXPLANATION TO FIGURES (Page 525)**A. Male genitalia :***Cyphicerus ornatus* Faust

121a. Aedeagus

121b. Gastral spiculum

C. alternans sp. nov.

122a. Aedeagus

122b. Gastral spiculum

C. labifer sp. nov.

123a. Aedeagus

123b. Gastral spiculum

C. longipilis sp. nov.

124a. Aedeagus

124b. Gastral spiculum

C. sticticus sp. nov.

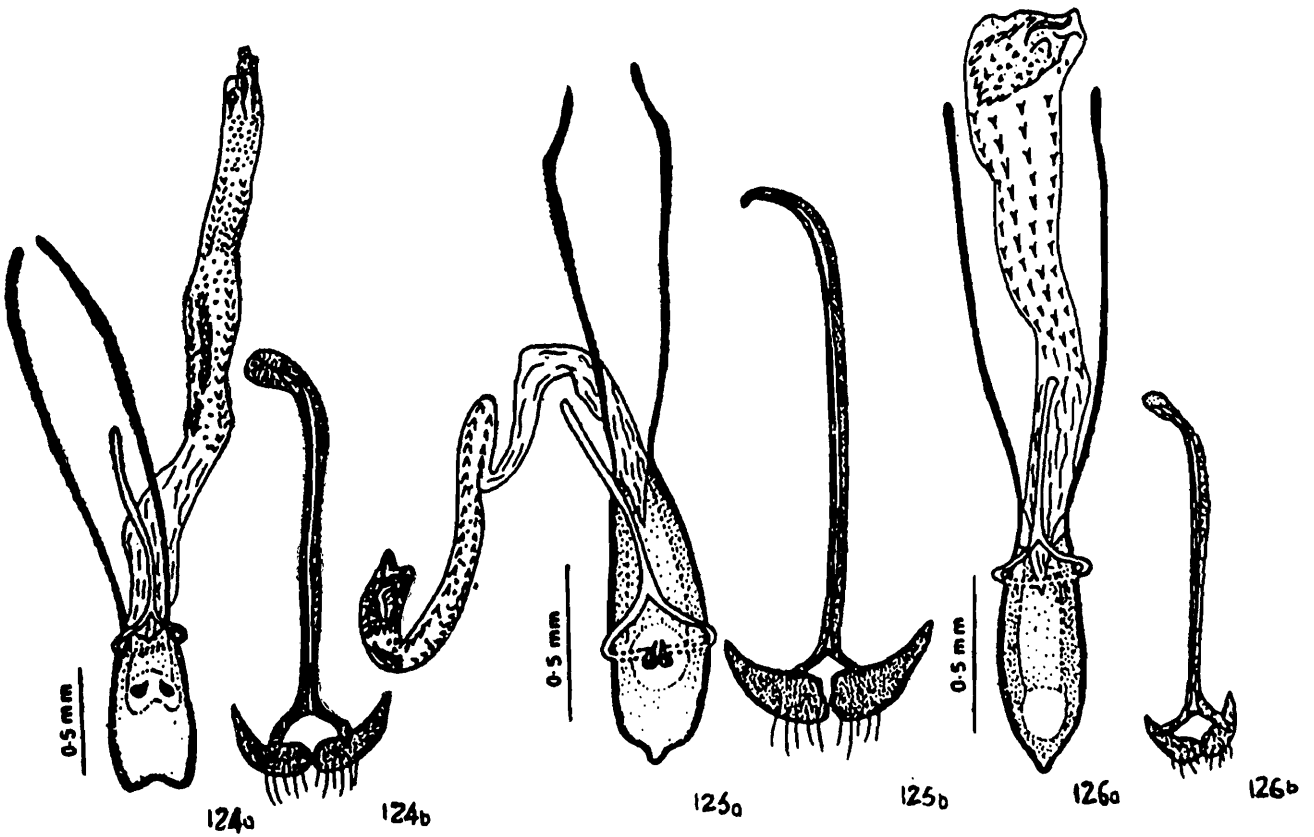
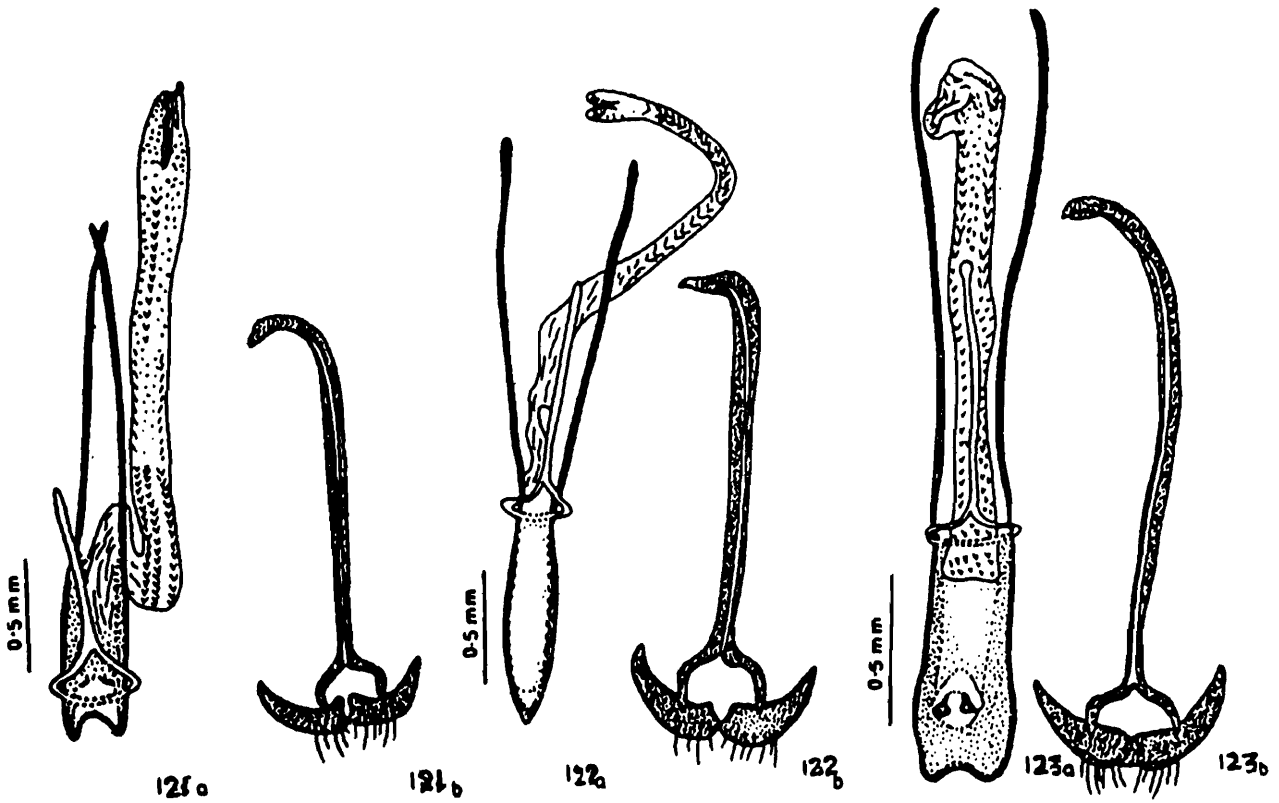
125a. Aedeagus

125b. Gastral spiculum

C. juavis sp. nov.

126a. Aedeagus

126b. Gastral spiculum



EXPLANATION TO FIGURES (Page 527)**A. Male genitalia :**

Thalponomus theae sp. nov.

127a. Aedeagus

127b. Gastral spiculum

T. ornatus sp. nov.

128a. Aedeagus

128b. Gastral spiculum

Hypenephorus albus (Pascoe)

129. Aedeagus

Peltotrachelus juvenicus (Faust)

130. Aedeagus

P. propinquus (Faust)

131. Aedeagus

P. pubes (Faust)

132. Aedeagus

P. albopubes sp. nov.

133. Aedeagus

P. maculosus sp. nov.

134a. Aedeagus

134b. Gastral spiculum

P. cognatus Marshall

135. Aedeagus

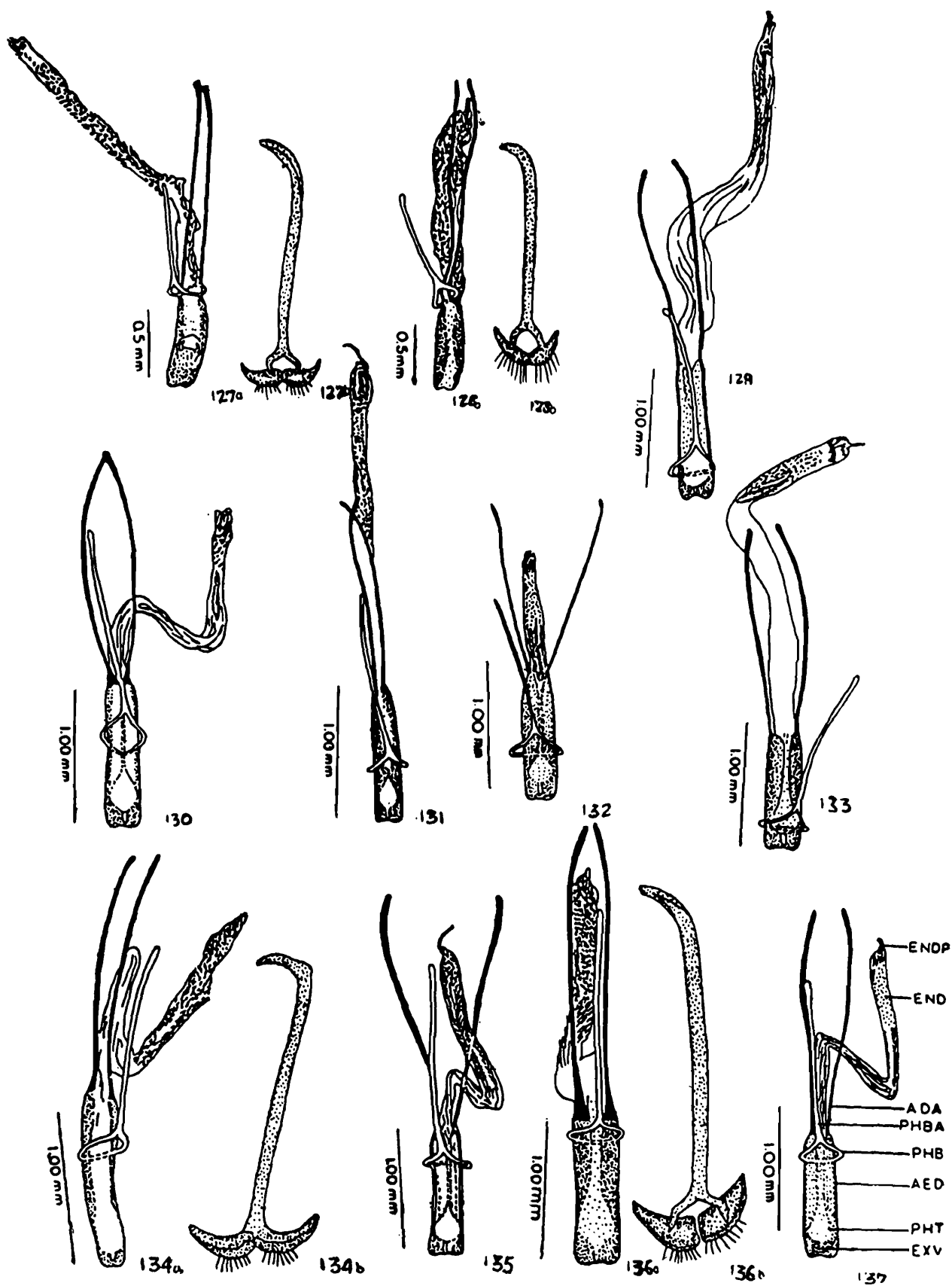
P. horridus sp. nov.

136a. Aedeagus

136b. Gastral spiculum

P. rugipennis Marshall

137. Aedeagus



EXPLANATION TO FIGURES (Page 529)**A. Male genitalia :**

Taractor cervinus sp. nov.

138a. Aedeagus

138b. Gastral spiculum

T. indicus sp. nov.

139a. Aedeagus

139b. Gastral spiculum

Pholicerus nigroderma sp. nov.

140a. Aedeagus

140b. Gastral spiculum

B. Female genitalia :

141. *Aspidomycter laesicollis* Pajni & Sidhu

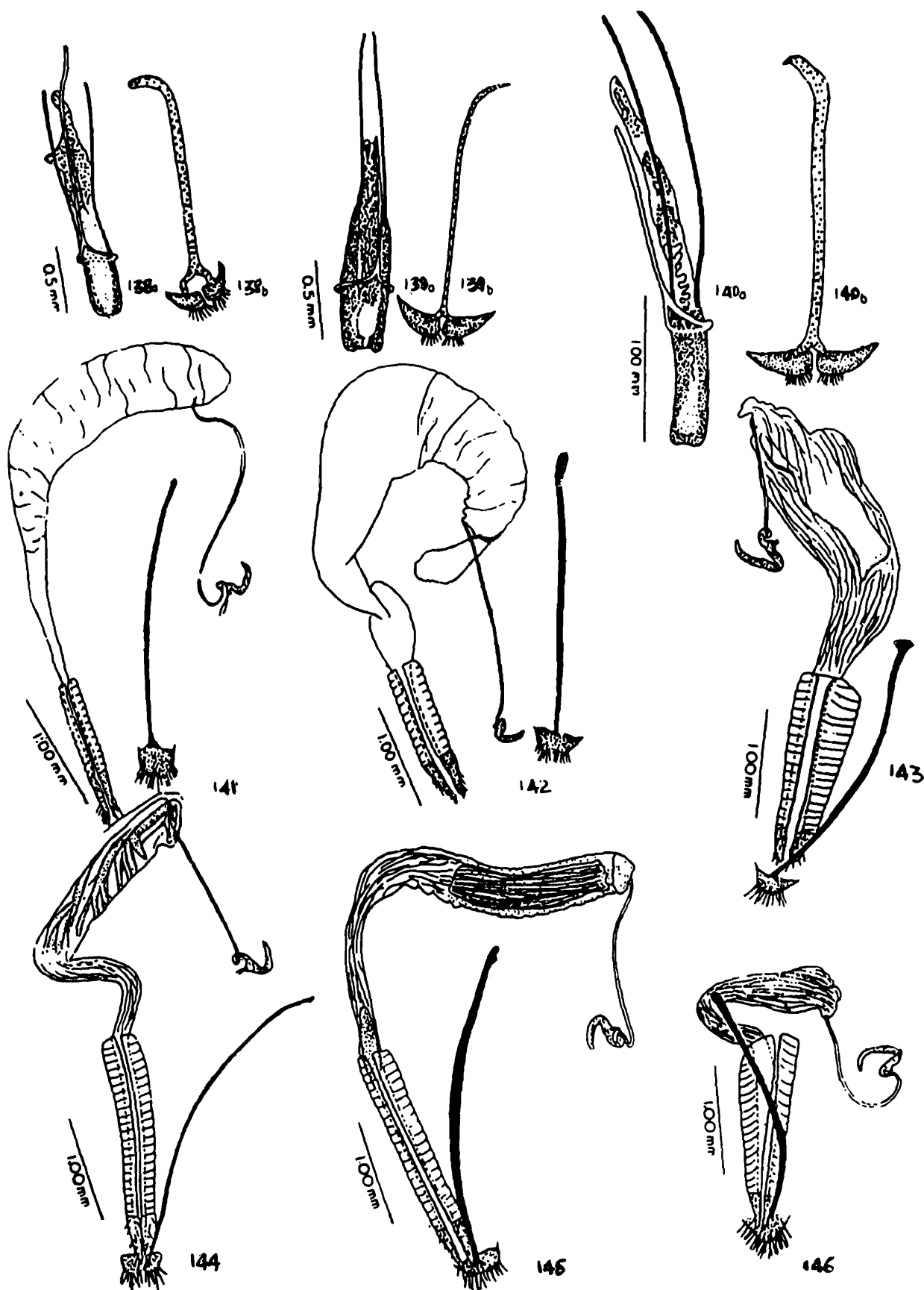
142. *A. lunatus* Marshall

143. *Plytomycter himalayanus* Marshall

144. *P. feae* Faust

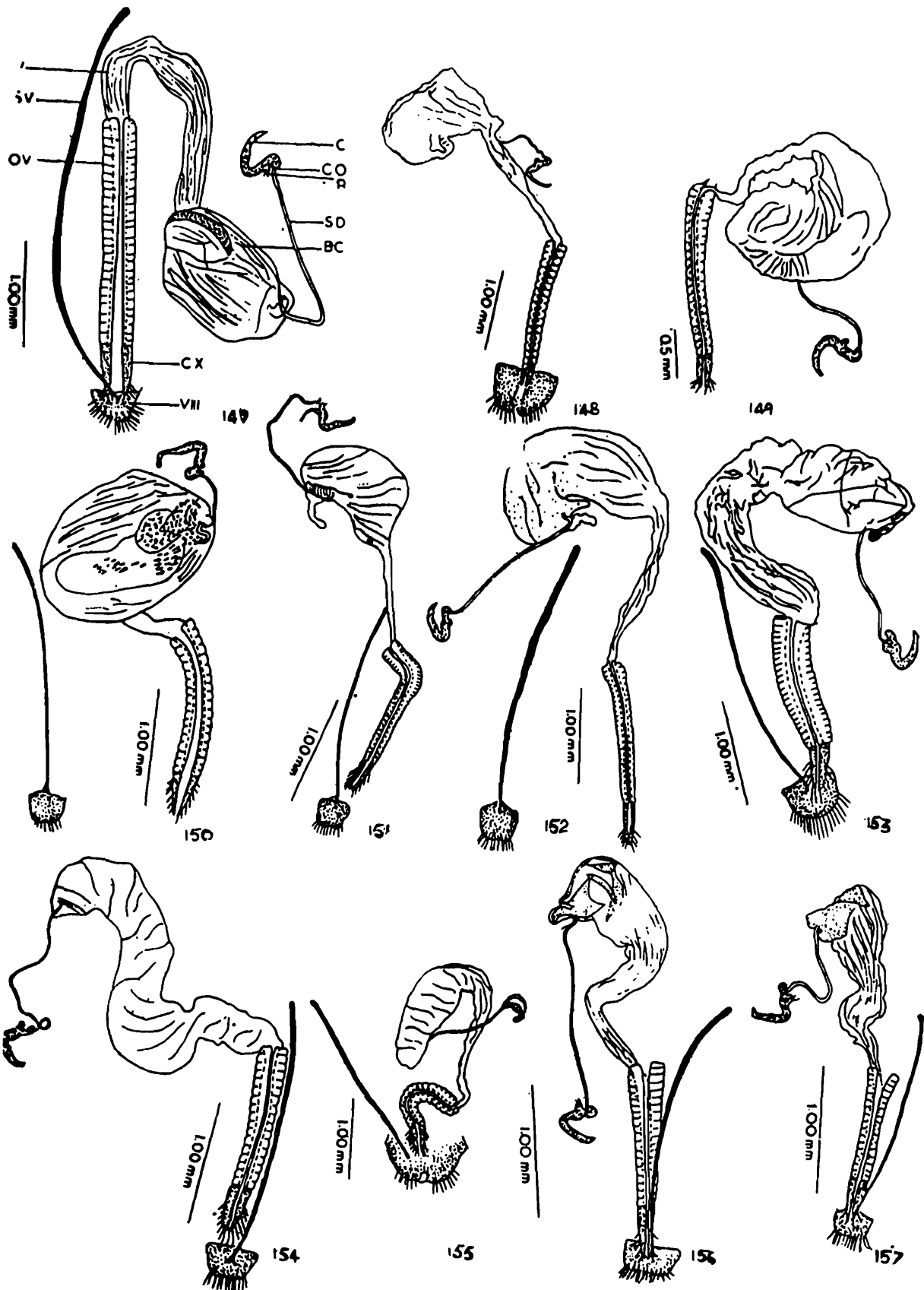
145. *P. deceptor* Marshall

146. *P. moestus* Marshall



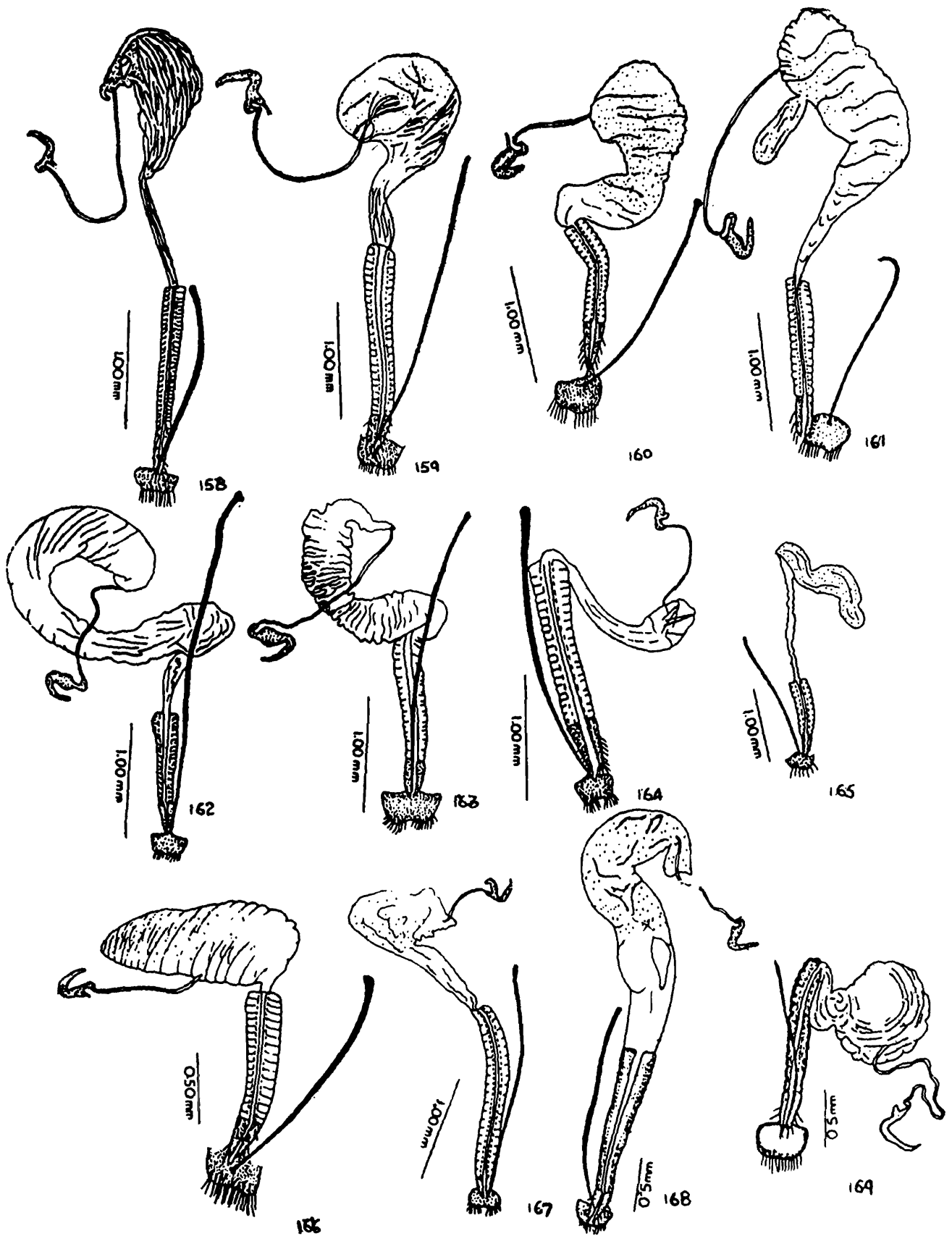
EXPLANATION TO FIGURES (Page 531)**B. Female genitalia :**

- 147. *Platymycterus sjostedti* Marshall
- 148. *Paramycter trivitticollis* Marshall
- 149. *P. cuprescens* sp. nov.
- 150. *Thlipsomerus darjeelingensis* Pajni & Sidhu
- 151. *T. nigromaculatus* Pajni & Sidhu
- 152. *T. subcosticollis* Marshall
- 153. *Amrikus deplanatus* (Faust)
- 154. *A. glebossus* (Marshall)
- 155. *Epizynus calvus* Marshall
- 156. *Piezophrys hebes* Marshall
- 157. *P. cruciatus* sp. nov.



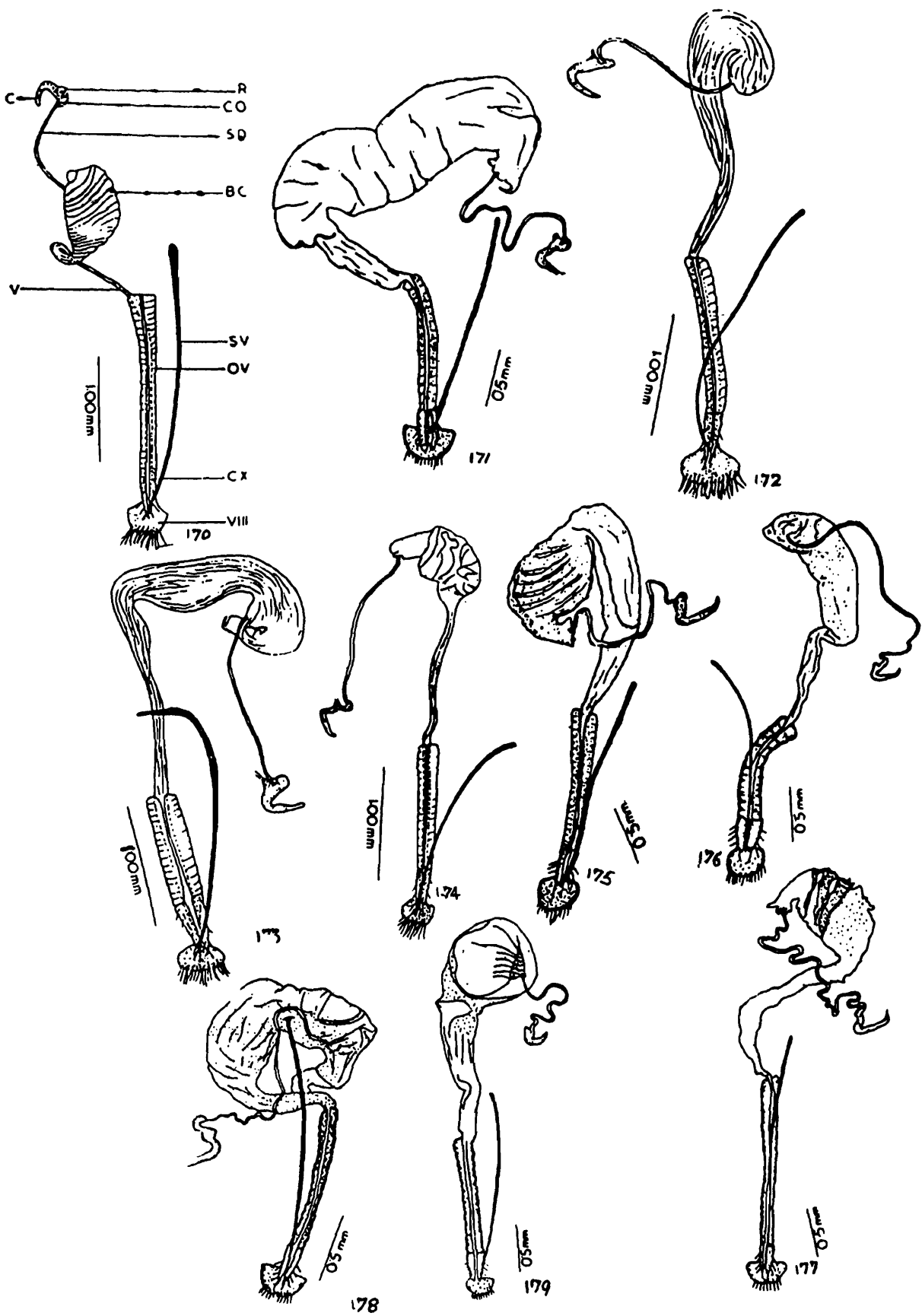
EXPLANATION TO FIGURES (Page 533)**B. Female genitalia :**

- 158. *Piezophrys patuloepistomus* sp. nov.
- 159. *P. alboscutellatus* sp. nov.
- 160. *Cyphicerinus tectonae* Marshall
- 161. *C. pannosus* Marshall
- 162. *C. nepalensis* Faust
- 163. *C. andamanicus* sp. nov.
- 164. *Indophytoscaphus sensarmai* Pajni & Chhibba
- 165. *Oedophrys multituberculatus* sp. nov.
- 166. *O. rufiscutallatus* sp. nov.
- 167. *O. albofasciatus* sp. nov.
- 168. *Cyrtepidomus qularis* sp. nov.
- 169. *C. subcostatus* sp. nov.



EXPLANATION TO FIGURES (Page 535)**B. Female genitalia :**

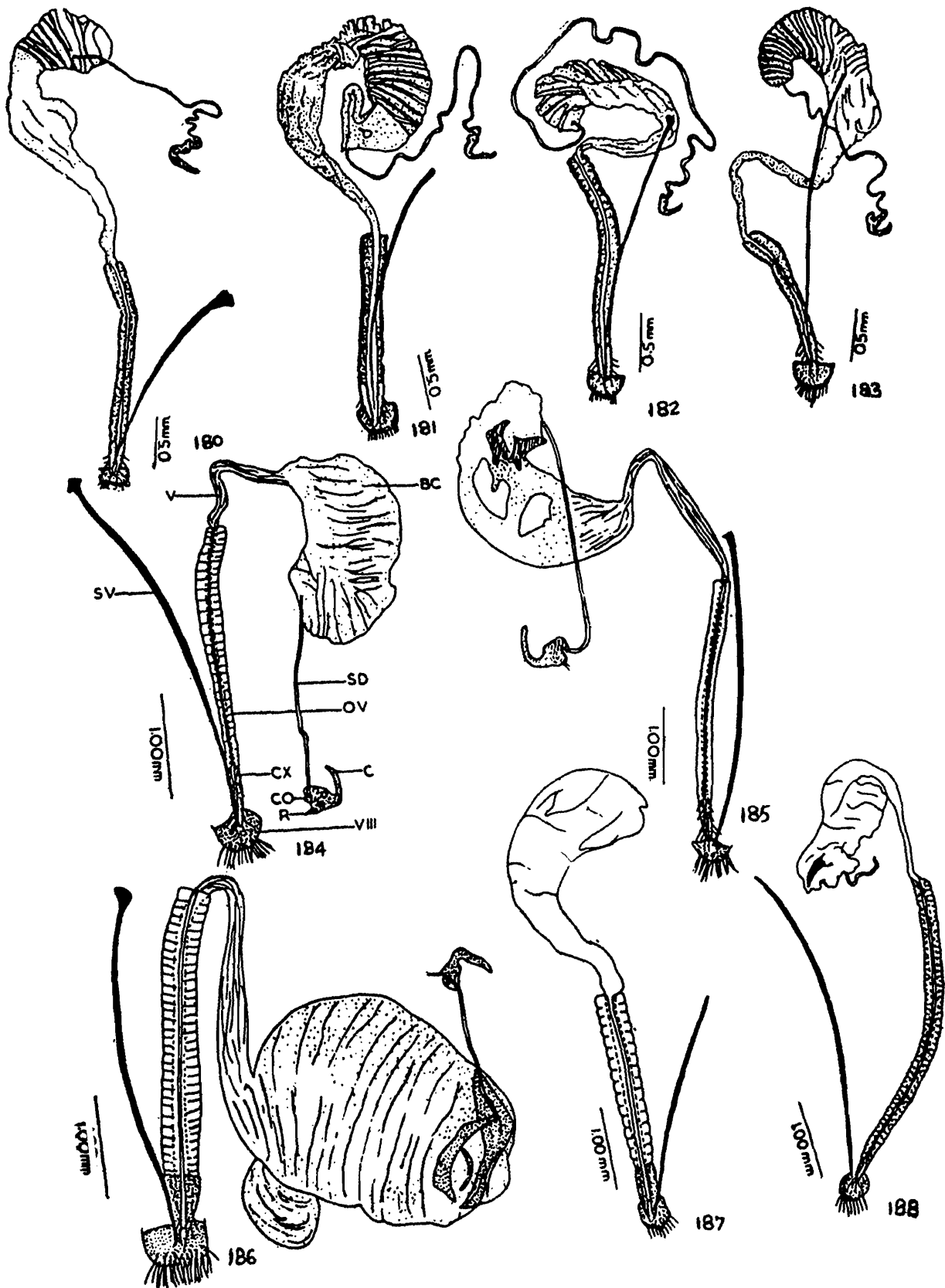
- 170. *Cyrtepistomus pini* Marshall
- 171. *C. herbicola* sp. nov.
- 172. *C. jucundus* Redtenbacher
- 173. *C. himachalensis* sp. nov.
- 174. *C. varicolor* sp. nov.
- 175. *C. tuberculatus* sp. nov.
- 176. *C. bicallosus* sp. nov.
- 177. *C. victoriae* sp. nov.
- 178. *C. sulcifrons* sp. nov.
- 179. *C. vinctus* sp. nov.



EXPLANATION TO FIGURES (Page 537)**B. Female genitalia :**

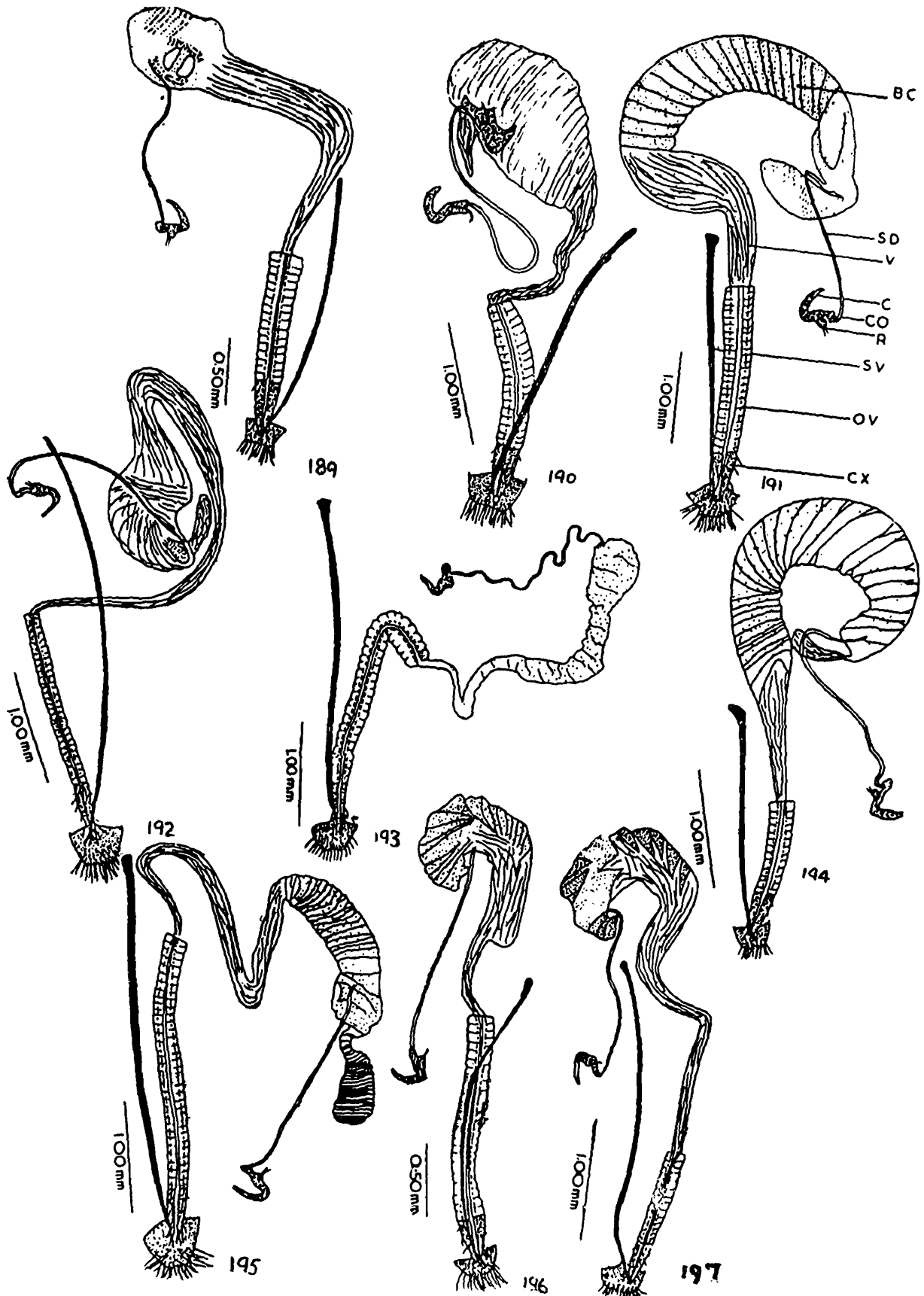
- 180. *Cyrtepidomus planis* sp. nov.
- 181. *C. tenuiclavis* sp. nov.
- 182. *C. championi* sp. nov.
- 183. *C. frontalis* sp. nov.
- 184. *Platymycteropsis excisangulus* Reitter
- 185. *P. denticollis* Marshall
- 186. *P. angulicollis* Marshall
- 187. *P. sikkimensis* Marshall
- 188. *P. herbeus* Marshall

FIGURES



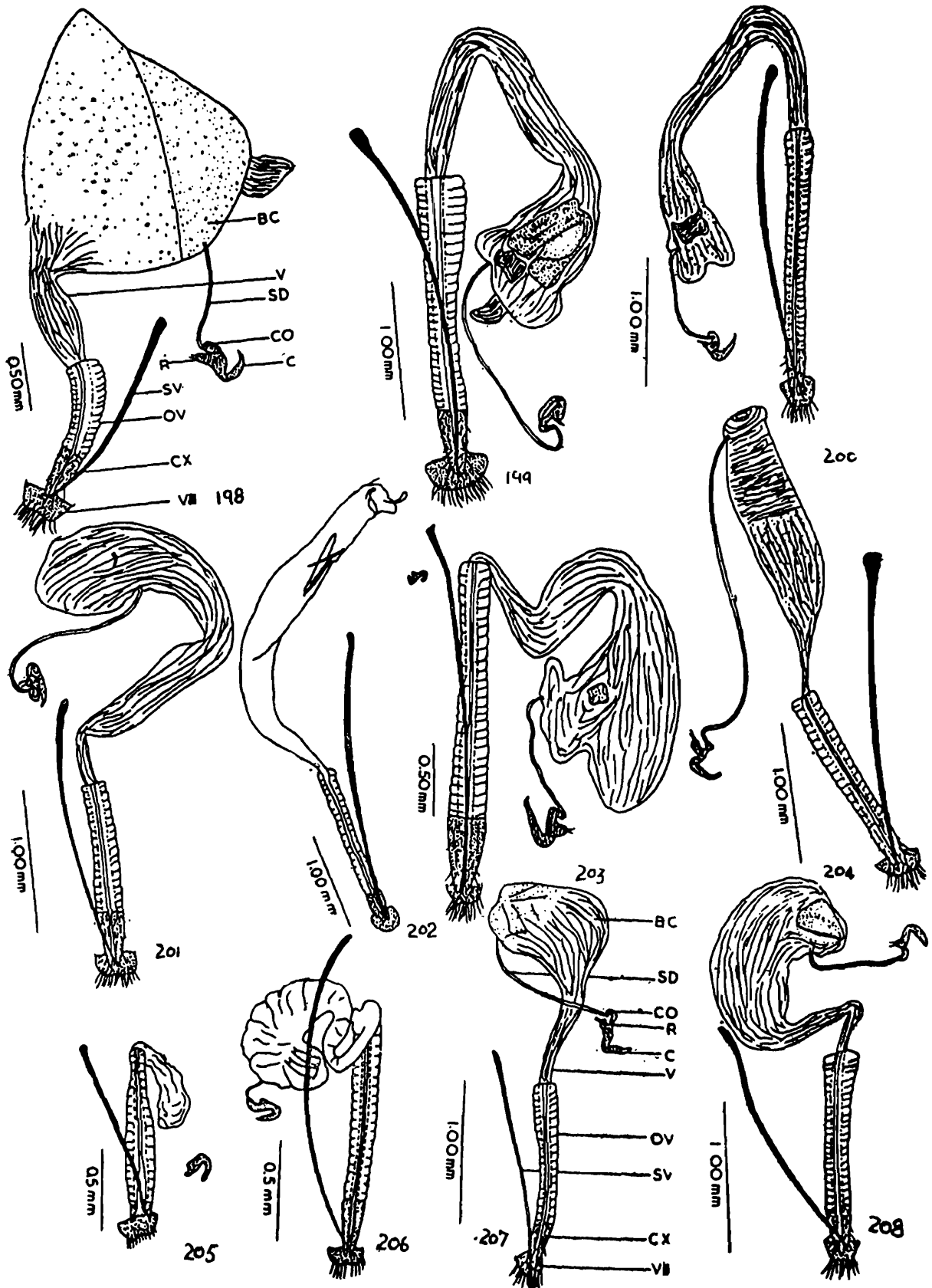
EXPLANATION TO FIGURES (Page 539)**B. Female genitalia :**

- 189. *Hilaus bidentulus* Faust
- 190. *Doliophron tanuicornis* Faust
- 191. *Crinorrhinus foveifrons* (Faust)
- 192. *C. crassirostris* (Faust)
- 193. *C. approximans* Marshall
- 194. *C. sartus* Marshall
- 195. *C. nebulosus* Marshall
- 196. *Himachala fulvescens* sp. nov.
- 197. *H. squamifrons* sp. nov.



EXPLANATION TO FIGURES (Page 541)**B. Female genitalia :**

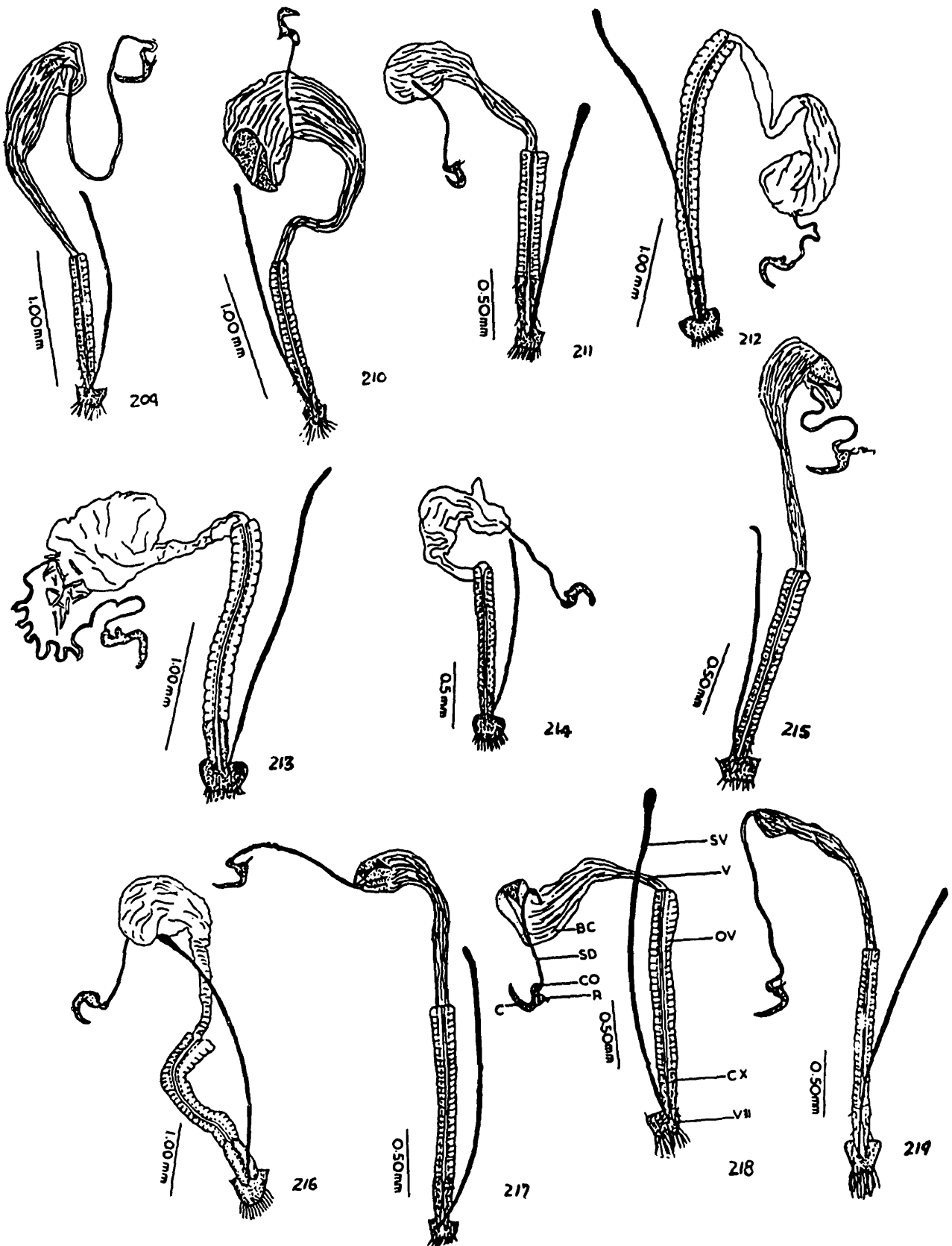
- 198. *Marshalla bituberculatus* sp. nov.
- 199. *Amblyrrhinus poricollis* Schonherr
- 200. *A. posticus* Walker
- 201. *A. minuticornis* sp. nov.
- 202. *A. cavirostris* sp. nov.
- 203. *A. subrecticollis* Marshall
- 204. *Hamartus instabilis* Marshall
- 205. *Parascaphus globicollis* sp. nov.
- 206. *P. tergalis* sp. nov.
- 207. *P. vittacollis* sp. nov.
- 208. *P. orthoscapus* sp. nov.



EXPLANATION TO FIGURES (Page 543)**B. Female genitalia :**

- 209. *Parascaphus albosetosus* sp. nov.
- 210. *P. quadriscutellatus* sp. nov.
- 211. *Rhcnostomus terrenus* Marshall
- 212. *Agrostes varisetis* Marshall
- 213. *A. quadrinotatus* Marshall
- 214. *Phylladobius segnis* sp. nov.
- 215. *Pseudphytoscapus annuloscutellus* sp. nov.
- 216. *P. boviei* sp. nov.
- 217. *P. nubilus* Faust
- 218. *P. shillongensis* sp. nov.
- 219. *P. manoji* sp. nov.

FIGURES

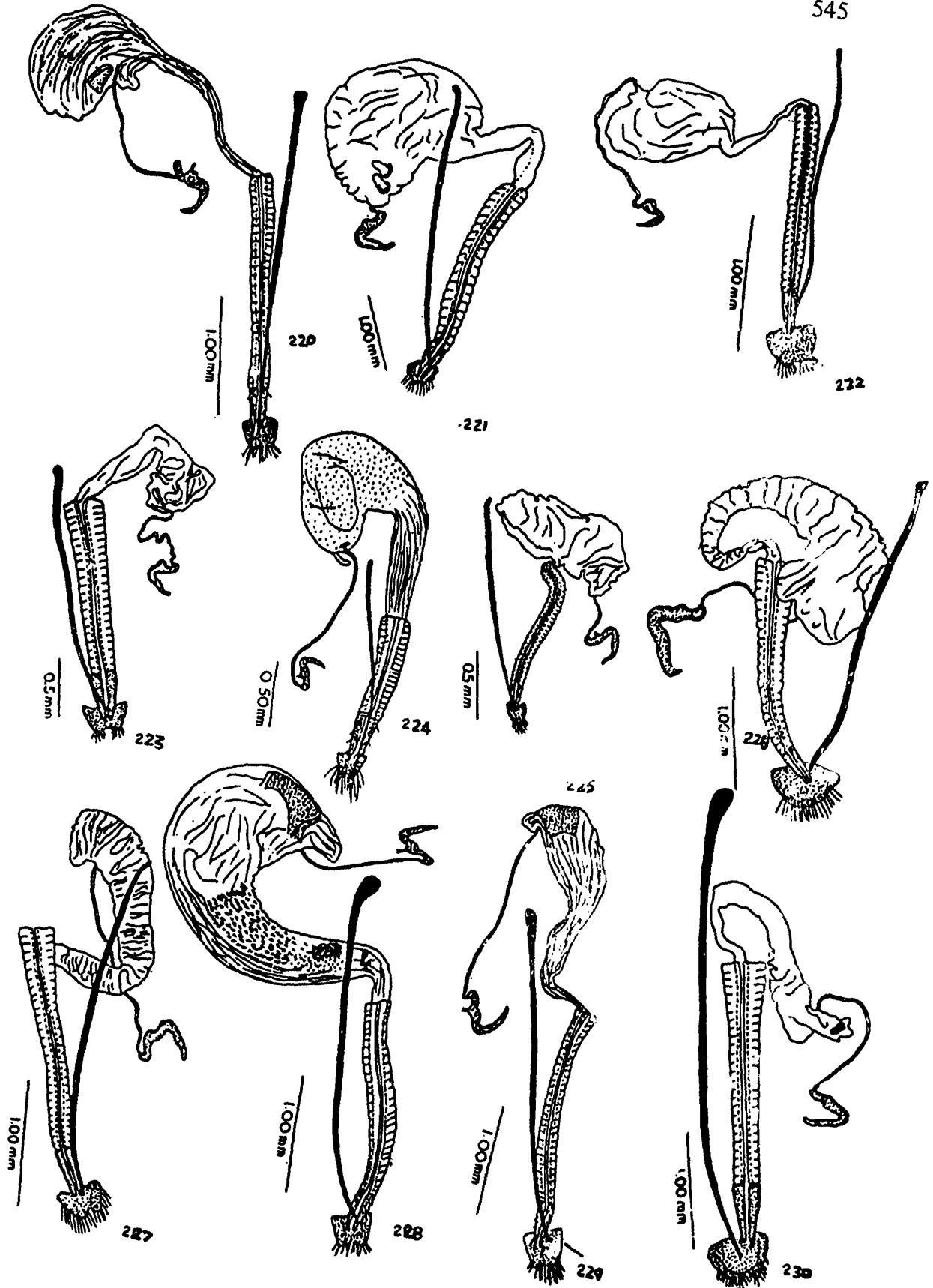


EXPLANATION TO FIGURES (Page 545)**B. Female genitalia :**

- 220. *Phytoscaphus triangularis* Olivier
- 221. *P. lineatus* Faust
- 222. *P. decorus* sp. nov.
- 223. *P. tamarixus* sp. nov.
- 224. *P. tenuirostris* Marshall
- 225. *P. delusus* sp. nov.
- 226. *P. liratirostris* sp. nov.
- 227. *P. Kaulbacki* sp. nov.
- 228. *P. marshalli* (Pajni & Chhibba)
- 229. *P. chloroticus* Boheman
- 230. *P. vagenotatus* sp. nov.

FIGURES

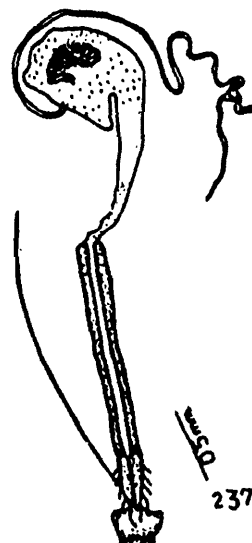
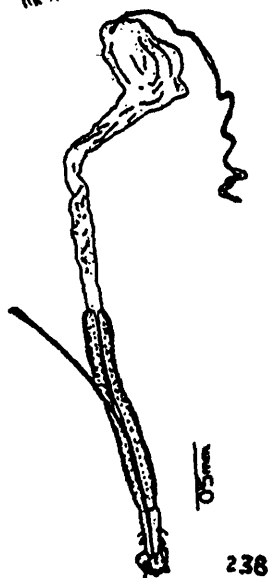
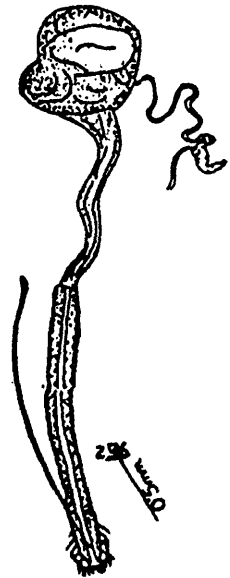
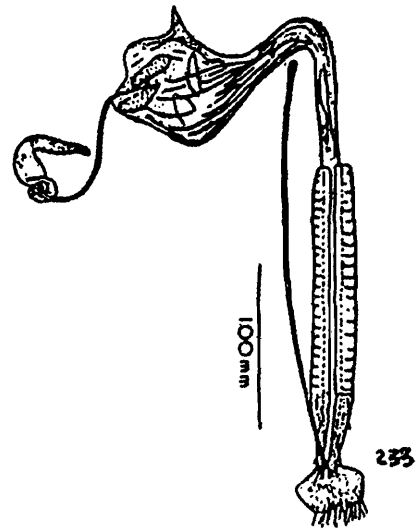
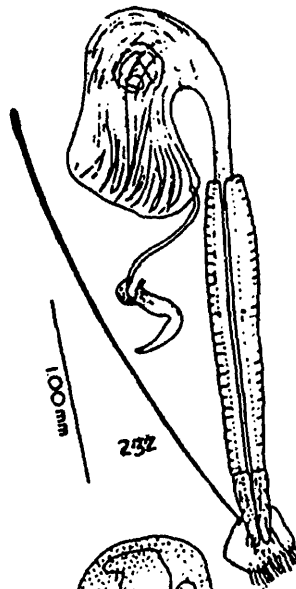
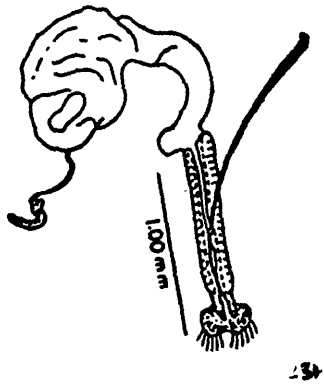
545



EXPLANATION TO FIGURES (Page 547)**B. Female genitalia :**

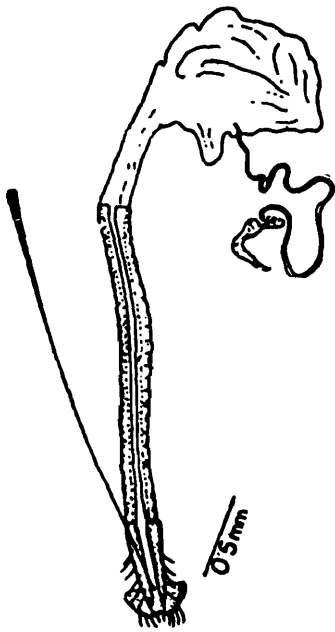
- 231. *Tanyscapus compressus* Marshall
- 232. *Hirsutopes andamanensis* sp. nov.
- 233. *H. megaoculatus* sp. nov.
- 234. *Deiradolcus spinipectus* sp. nov.
- 235. *D. moratus* Faust
- 236. *D. rectirostris* sp. nov.
- 237. *D. virgaticollis* sp. nov.
- 238. *D. atkinsoni* sp. nov.

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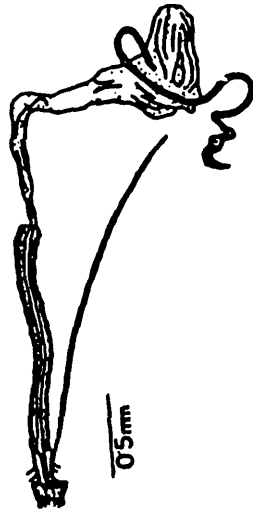


EXPLANATION TO FIGURES (Page 549)**B. Female genitalia :**

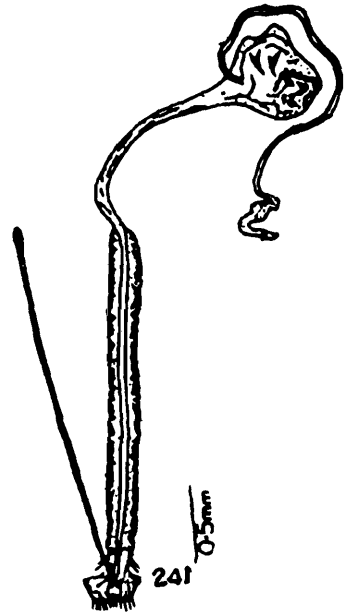
- 239. *Deiradolcus pubescens* sp. nov.
- 240. *D. laticollis* sp. nov.
- 241. *D. incultus* sp. nov.
- 242. *D. dohertyi* sp. nov.
- 243. *Drymophoetus pectoralis* sp. nov.
- 244. *D. modestus* Redtenbacher



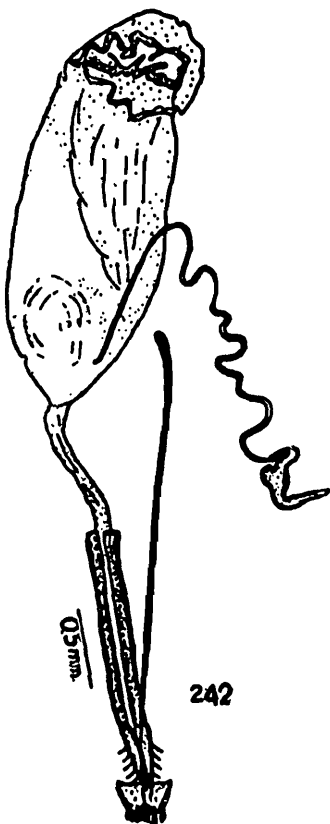
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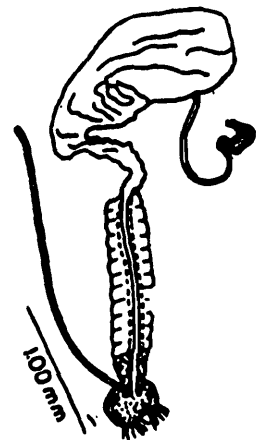
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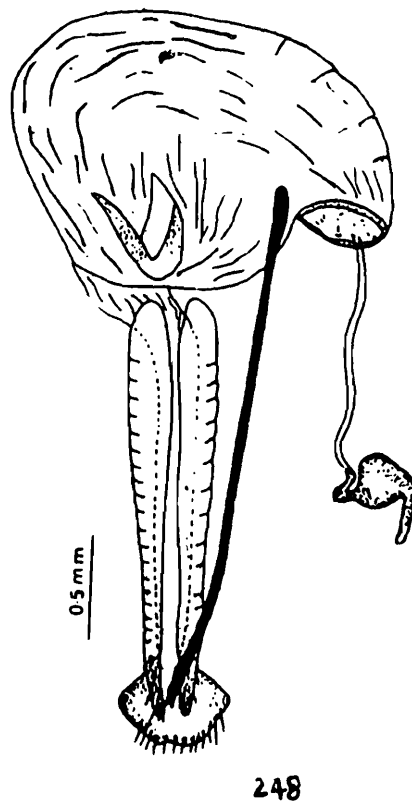
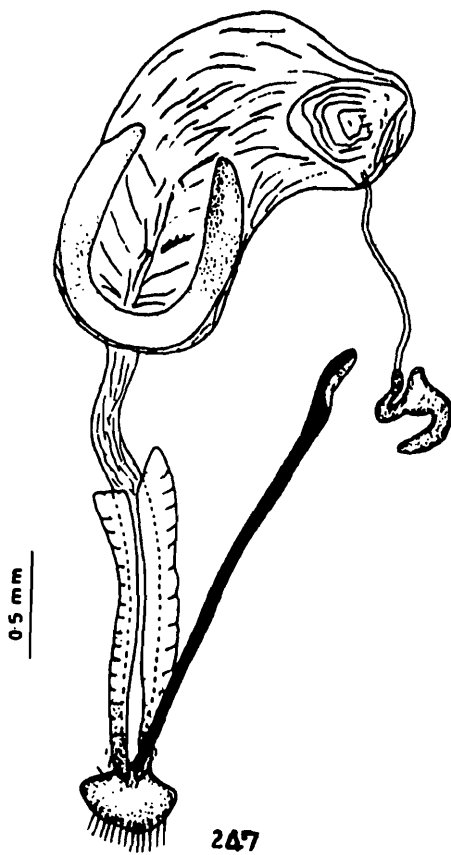
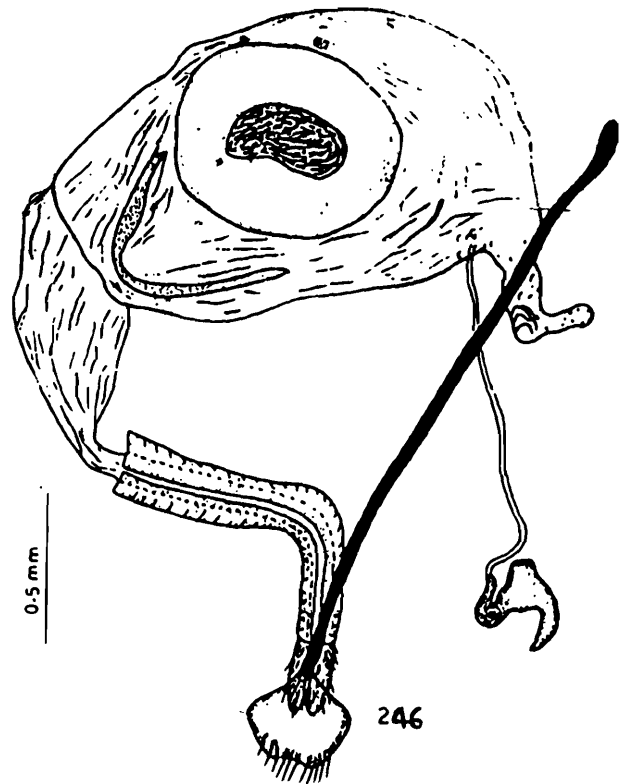
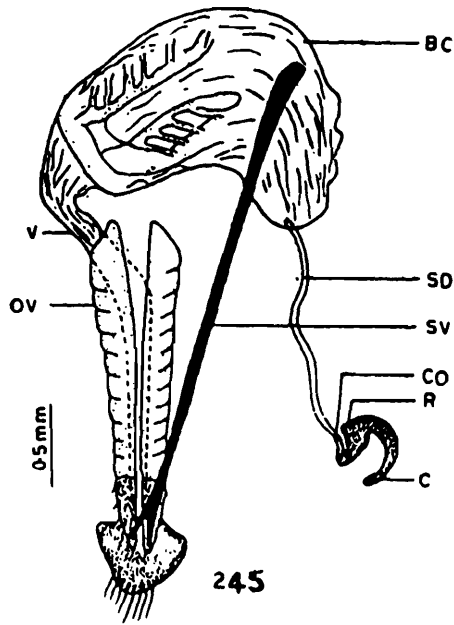
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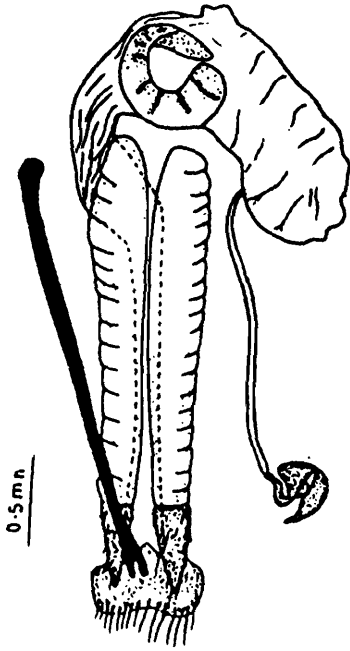
EXPLANATION TO FIGURES (Page 551)**B. Female genitalia :**

- 245. *Cyphicerus emarginatus* Faust
- 246. *C. necopinus* Faust
- 247. *C. zizyphi* sp. nov.
- 248. *C. passerinus* Olivier

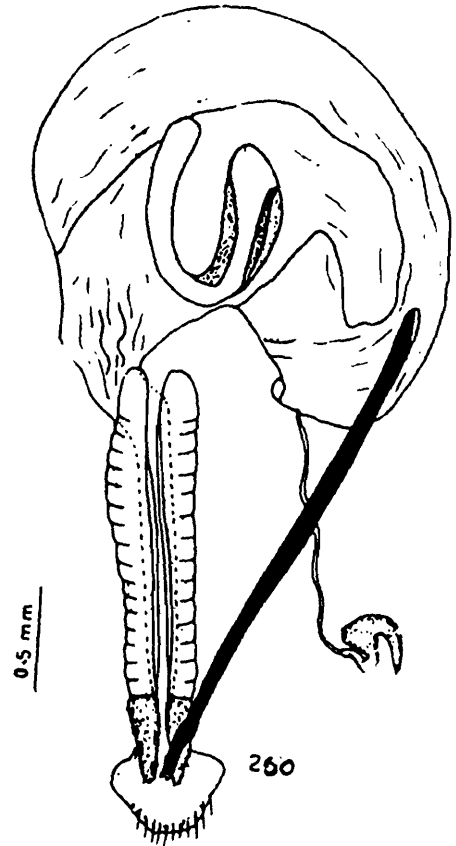


EXPLANATION TO FIGURES (Page 553)**B. Female genitalia :**

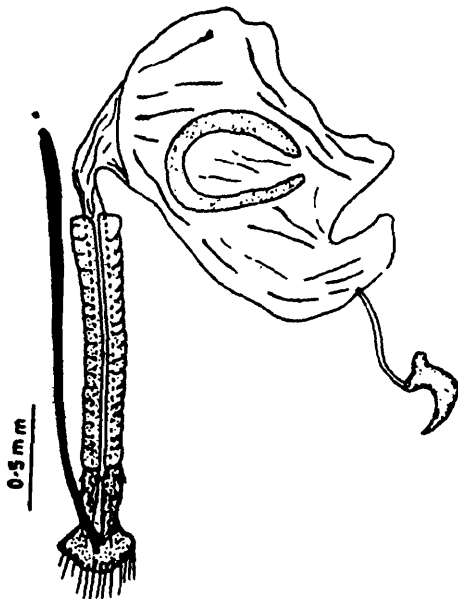
- 249. *Cyphicerus pardalis* sp. nov.
- 250. *C. novemlineatus* Olivier
- 251. *C. longicornis* Motchulsky
- 252. *C. lineatus* Motchulsky



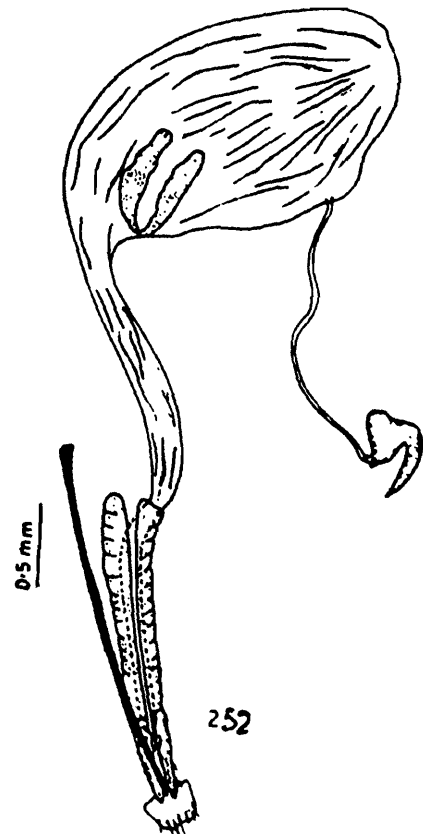
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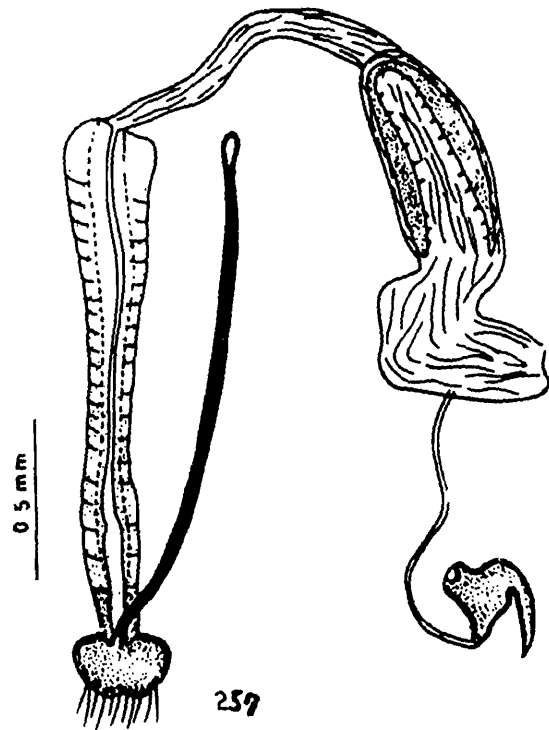
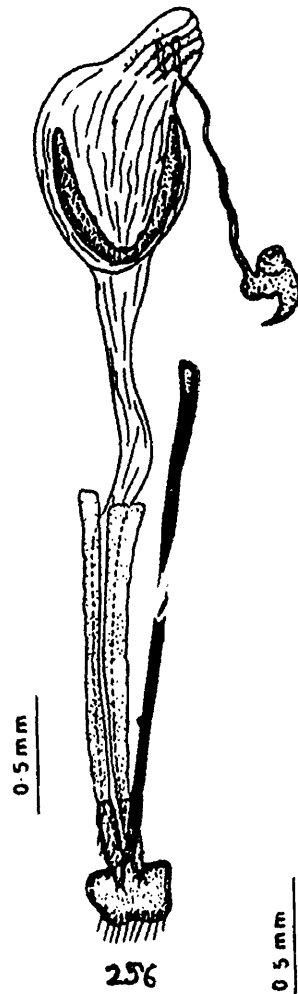
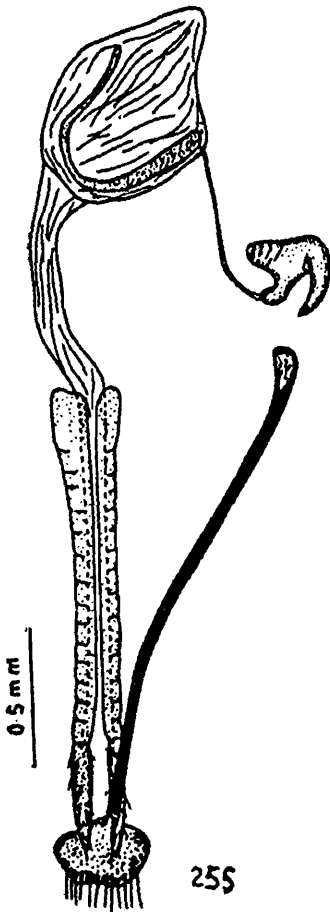
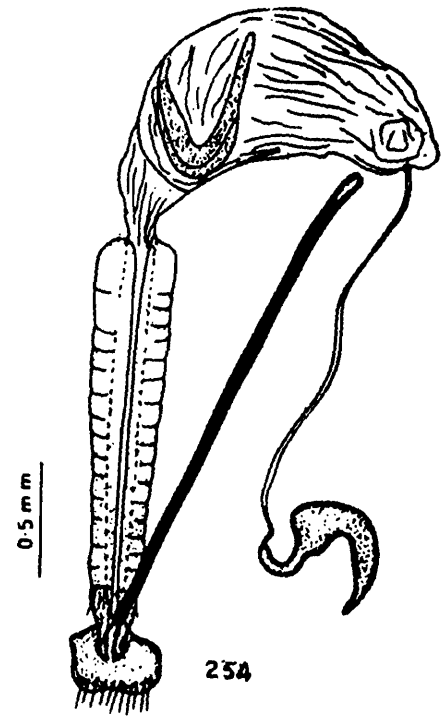
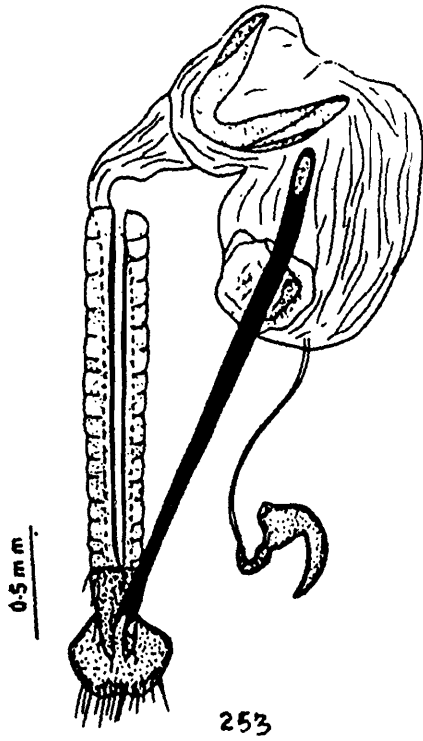
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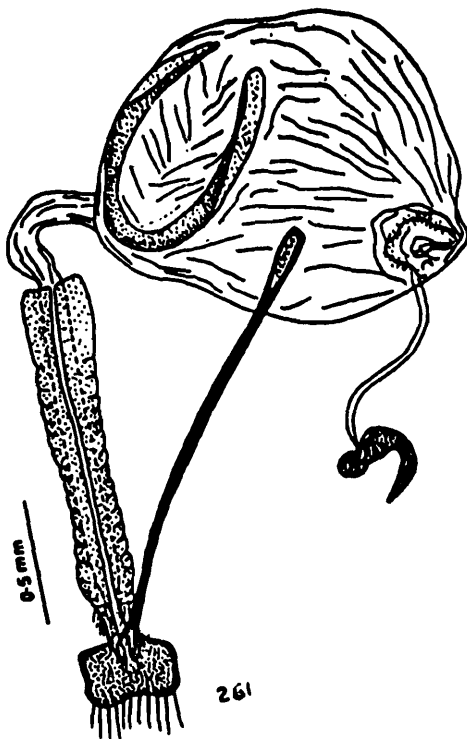
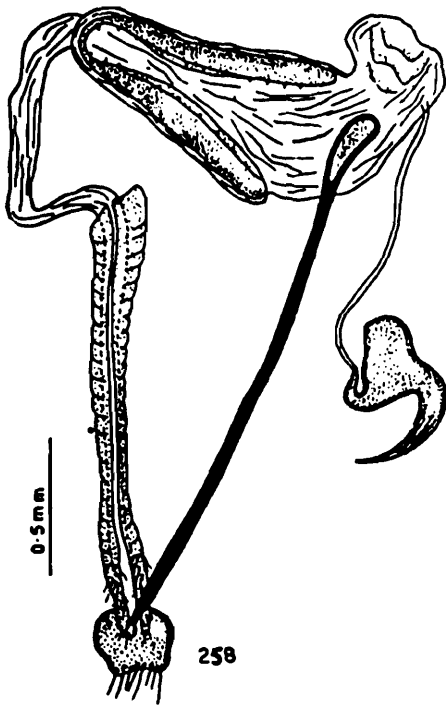
EXPLANATION TO FIGURES (Page 555)**B. Female genitalia :**

- 253. *Cyphicerus nudimalis* sp. nov.
- 254. *C. bombacis* sp. nov.
- 255. *C. graniger* sp. nov.
- 256. *C. surdus* sp. nov.
- 257. *C. alsus* sp. nov.



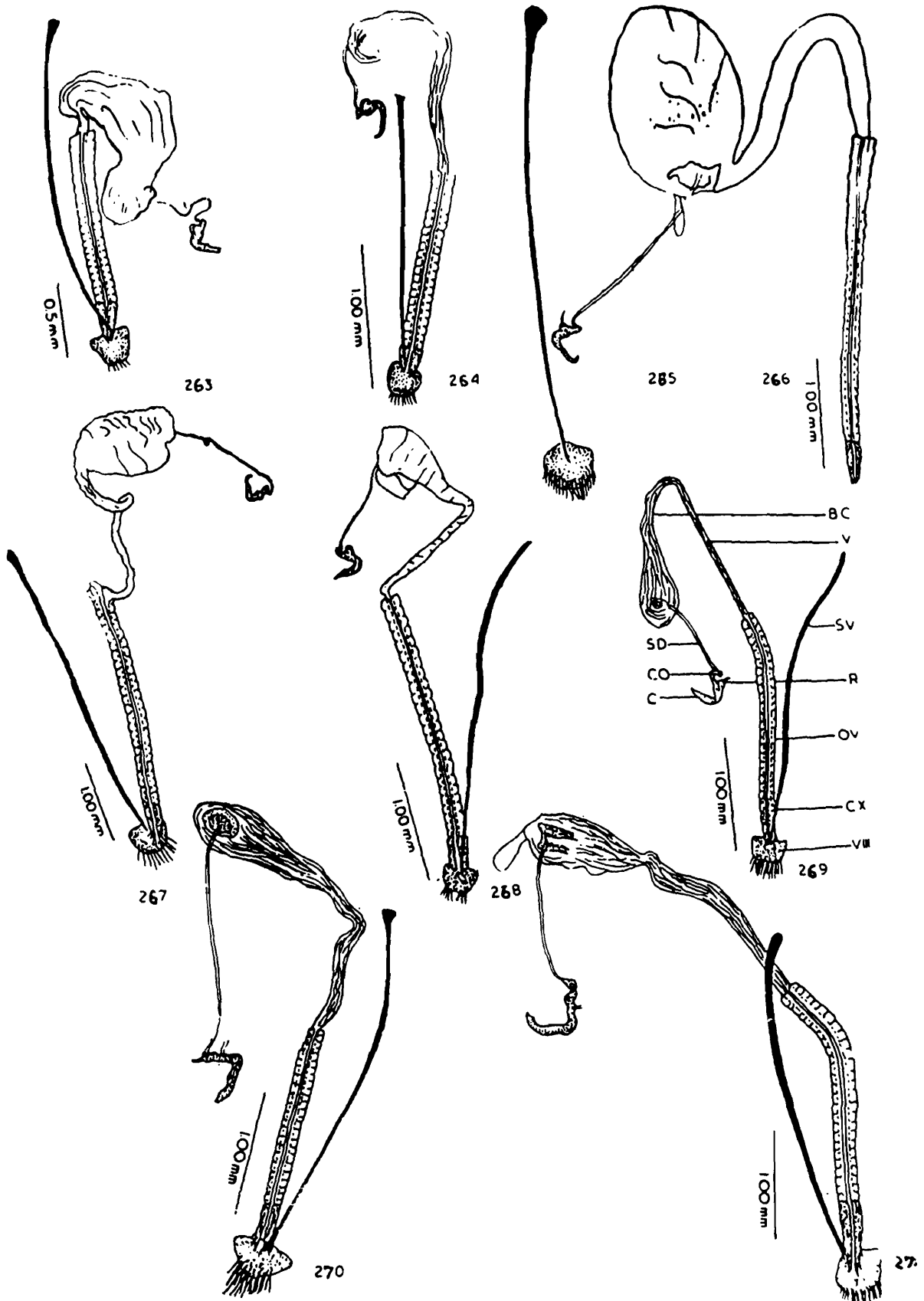
EXPLANATION TO FIGURES (Page 557)**B. Female genitalia :**

- 258. *Cyphicerus bidentipes* sp. nov.
- 259. *C. alternans* sp. nov.
- 260. *C. sesquilineis* sp. nov.
- 261. *C. sticticus* sp. nov.
- 262. *C. juavis* sp. nov.



EXPLANATION TO FIGURES (Page 559)**B. Female genitalia :**

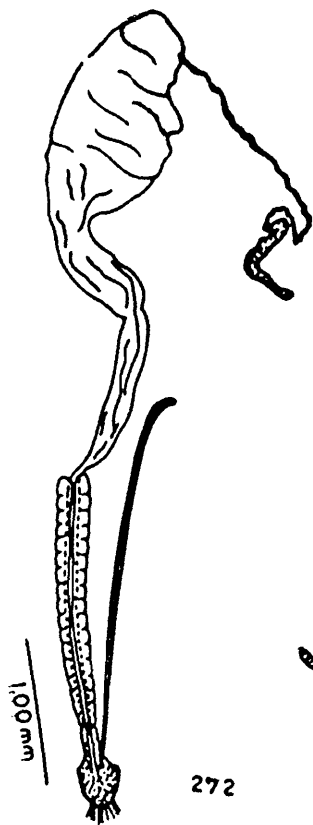
- 263. *Thalponomus theae* sp. nov.
- 264. *T. ornatus* sp. nov.
- 265. & 266. *Hypenephorus albus* (Pascoe)
- 267. *H. inermis* sp. nov.
- 268. *Peltotrachelus juvencus* (Faust)
- 269. *P. propinquus* (Faust)
- 270. *P. pubes* (Faust)
- 271. *P. albopubes* sp. nov.



EXPLANATION TO FIGURES (Page 561)**B. Female genitalia :**

- 272. *Peltotrachelus maculosus* sp. nov.
- 273. *P. cognatus* Marshall
- 274. *Taractor subvirens* sp. nov.
- 275. *T. integer* sp. nov.
- 276. *Pholicerus nigroderma* sp. nov.
- 277. *Hemerus virens* Marshall

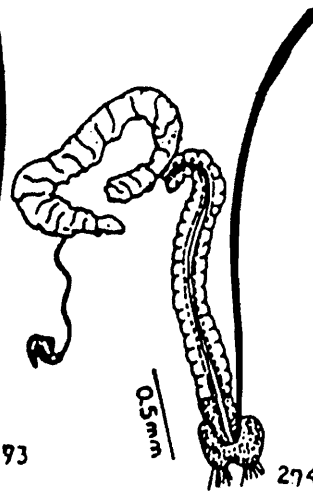
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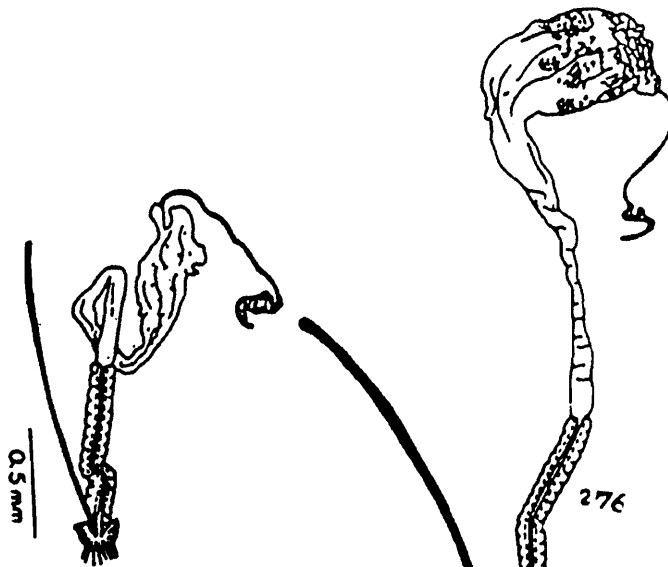
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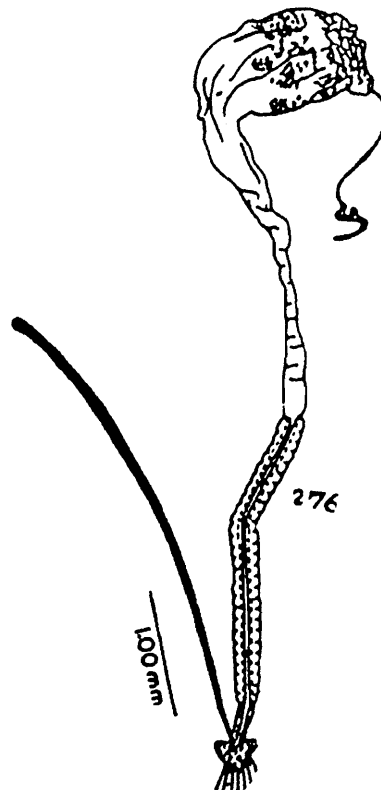
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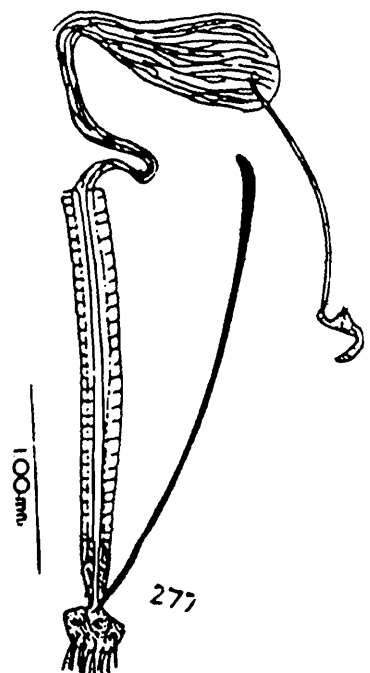
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