

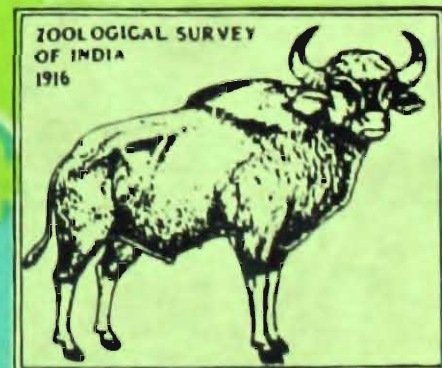
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FAUNA OF WEST BENGAL

PART-6(A)

ZOOLOGICAL SURVEY OF INDIA

1993



FAUNA OF WEST BENGAL

PART - 6A
(INSECTA : COLEOPTERA)

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**INSECTA : COLEOPTERA : ADEPHAGA :
FAM. RHYSODIDAE, PAUSSIDAE AND CICINDELIDAE**

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INTRODUCTION

Order Coleoptera consists of four suborders namely Archostemata, Adephaga, Myxophaga and Polyphaga. Archostemata and Myxophaga are not known from India, but members of Adephaga and Polyphaga are present in great numbers both as individuals and as different taxa. Families Rhysodidae, Paussidae and Cicindelidae belong to suborder Adephaga. Members of this suborder are found both in land and in water. Families under present study fall under terrestrial Adephaga (Geadephaga). In recent times some authors treated Paussidae and Cicindelidae as two distinct subfamilies of the family Carabidae. This view has not been universally accepted and we have also treated them as distinct families in the present work.

One hundred and fifty species of Rhysodidae, 400 species of Paussidae and about 2,000 species of Cicindelidae are known from all over the world. Indian fauna of these families were dealt with by Fowler (1912) in the 'Fauna of British India' series and he recorded 289 species under 21 genera from Indian region. Since the publication of Fowler's volume, Cicindelid beetles, commonly known as tiger beetles, have attracted the attention of a number of workers like Dover and Rebeiro (1923), Heynes-wood and Dover (1928), Mandl (1969, 1970, 1975, 1978), Pajni and Bedi (1972), Saha and Halder (1986), Biswas and Rynth (1987) and Saha, Halder and Biswas (in Press), but none of these workers studied exclusively the 'Fauna of West Bengal'. Only very recently Pearson and Ghorparde year have recorded the species of the genus *Cicindela* from Darjiling-Siliguri area ref. No further information on the families Rhysodidae and Paussidae is however available. All together 63 species of Cicindelidae and 10 species of Paussidae were known from West Bengal. During this study 4 species of Cicindelid beetle and one species of Paussid beetle and one new species of Rhysodidae have been added to the list of West Bengal Fauna.

Present study deals with all materials available in the section of Coleoptera II. ZSI, Calcutta. It includes both unidentified and previously determined specimens. For the sake of completeness of the record, species of which no material is available at present but was recorded earlier in the literature from the state, have also been included.

Keys to the families, subfamilies, genera and species have been provided. For little known group chief characteristic of the major taxa have also been given. References for first description, current valid names and distribution are given for each species. A systematic list of all the species included in the paper has been given. A few species which has been recorded from 'Bengal' in the literature but on actual examination of specimens found to be collected from areas outside present day West Bengal, have also been included here with the idea that these species are very likely to occur in areas now under West Bengal.

Some of the specimens studied are very old, in fact, a few of them are almost of hundred years, and during this long period inter state boundary and areas within individual state have been re-organised. As far as possible localities have been placed according to the arrangement known at present.

SYSTEMATIC ACCOUNT : LIST OF TAXA

Suborder ADEPHAGA

Family A. RHYSODIDAE

Genus 1. *Omoglymmus* Ganglbauer 1892

Species 1. *Omoglymmius (Orthoglymmius) darjeelingensis* sp. nov. Saha & Biswas

Family B. PAUSSIDAE

Subfamily I. CERAPTERINAE

Genus 1. *Cerapterus* Swederus 1788

Species 1. *C. latipes* Swederus

Genus 2. *Pleuropterus* Raffray 1855

Species 2. *P. cardoni* Gestro

Subfamily II. PAUSSINAE

Genus 3. *Ceratoderus* Westwood 1842

Species 3. *C. andrewesii* Desneux

4. *C. bifasciatus* (Koller)

Genus 4. *Euplatyrhopalus* Desneux 1905

Species 5. *E. aplustriper* (Westwood)

Genus 5. *Platyrhopalus* Westwood

Species 6. *P. angustus* Westwood

7. *P. denticornis* Donovan

*8. *P. intermeius* Benson

Genus 6. *Paussus* Linnaeus 1775

Species 9. *P. pilicornis* Donovan

*10. *P. sesquisulcatus* Wasmann

11. *P. cognatus* Westwood

Family C. CICINDELIDAE

Subfamily I. COLLYRINAE

Genus 1. *Neocollyris* Horn 1901

Species 1. *N. smithii* (Chaudoir)

2. *N. redtenbacheri* (Horn)

3. *N. variitarsis* (Chaudoir)
- * 4. *N. variicornis* (Chaudoir)
5. *N. attenuata* (Redtenbachev)
6. *N. distincta* (Chaudoir)
- * 7. *N. insignis* (Chaudoir)
- * 8. *N. saphyrina* (Chaudoir)
9. *N. fuscitarsis* (Schmidt-Goebel)
10. *N. bonelli* (Guerin)
11. *N. samaragdina* (Horn)
12. *N. feae* (Horn)
13. *N. crassicornis* (Dejean)

Genus 2. *Collyris* Fabricius 1801

Species 14. *C. longicollis* Fabr.

Genus 3. *Tricondyla* Latreille 1822

Species 15. *T. macrodera* Chaudoir

Subfamily II. THERATINAE

Genus 4. *Therates* Latreille 1817

Species * 16. *T. dohertyi* Horn

** 17. *T. obliquus* Fleutiaux

18. *T. gestroi* Horn

Subfamily III. CICINDELINAE

Genus 5. *Prothyma* Hope 1838

Species 19. *P. proxima* Chaudoir

Genus 6. *Heptodonta* Hope 1838

Species 20. *H. nodicollis* Bates

21. *H. kraatzi* Horn

22. *H. pulchella* Hope

Genus 7. *Cicindela* Linnaeus 1735

Species 23. *C. chloropleura* Chaudoir

24. *C. tetrastacta* Wiedmann

25. *C. dromicoides* Chaudoir

26. *C. funebris* Schmidt-Goebel

27. *C. triguttata* Hope

28. *C. spinolae* Gestro

29. *C. bigemina* Klug
30. *C. seriepunctata* Horn
31. *C. decempunctata* Dejean
32. *C. undulata* Dejean
33. *C. erudita* Wiedmann
34. *C. grammophora* Chaudoir
35. *C. cognata* Wiedmann
36. *C. minuta* Olivier
37. *C. nitida* Wiedmann
38. *C. agnata* Fleutiaux
39. *C. angulata* Fabricius
40. *C. sumatrensis* Herbst
41. *C. cardoni* Fleutiaux
42. *C. chloris* Hope
43. *C. funerea* McLeay
44. *C. albopunctata* Chaudoir
45. *C. oberthuri* Fleutiaux
46. *C. octonotata* Wiedmann
47. *C. aurulenta* Fabricius
48. *C. sexpunctata* Fabricius
- * 49. *C. aurovittata* Brulle
50. *C. assamensis* Parry
51. *C. bicolor* Fabricius
52. *C. haemorrhoidalis* Wiedmann
53. *C. cyanea* Fabricius
54. *C. vignitiguttata* Dejean
55. *C. multiguttata* Dejean
56. *C. vittigera* Herbst
57. *C. striolata* Illiger
58. *C. cancellata* Dejean

59. *C. catena* Fabricius
60. *C. striatifrons* Chaudoir
61. *C. biramosa* Fabricius
62. *C. quadrilineata* fabricius
63. *C. limosa* Saunders

Species marked with single * is new record for West Bengal and marked with double ** is new to India.

Suborder ADEPHAGA

Suborder Adephaga contains single super family Caraboidea which includes 9 families, namely (1) Rhysodidae (2) Paussidae (3) Cicindelidae (4) Carabidae (5) Haliplidae (6) Hygrobiidae (7) Amphizoidae (8) Dytiscidae and (9) Gyrinidae. Of these Hygrobiidae does not occur in India and Amphizoidae is not available in West Bengal. Two more group, namely Trachypachyidae and Noteridae, however have been given family status by Crowson (1955). The former is included in Carabidae and the latter in Dytiscidae. A key to the families of Adephaga has been given recently (Biswas and Saha 1986) and it is also included here.

Key to the families of suborder Adephaga or superfamily Caraboidea.

- 1(8) Hind coxae not extending to the elytra; metapleura and the first visible abdominal segment are in contact. First 2-4 antennal segments glabrous. Terrestrial insects.
- 2(3) Metasternum without transverse suture in front of hind coxae which are well separated, 1st visible abdominal sternite exposed between hind coxae, 2nd and 3rd fused. [Head and Prothorax with deep longitudinal grooves. Hind wing without oblongum]Rhysodidae
- 3(2) Metasternum with transverse suture in front of hind coxae which are almost or quite contiguous. 1st visible abdominal sternite not or hardly exposed between hind coxae
- 4(5) Clypeus extending laterally in front of antennal insertions. Lacinia of maxilla usually with a hook articulated at apex, Elytra not regularly striate. Hind wing usually without oblongumCicindelidae
- 5(4) Clypeus not extending laterally in front of antennal insertions. Lacinia of maxilla (Hexagonini of Carabidae), very rarely with such a hook.
- 6(7) Front tibiae with both spurs terminal. Front coxal cavities closed behind. Elytra with a notch or fold at sides posteriorlyPaussidae
- 7(6) If both front tibial spurs are terminal the fore coxal cavities are open behind Carabidae

- 8(1) Aquatic insects with the hind coxae extending to the Elytra dividing the metapleuron from the first visible abdominal segment. All antennal segments with similar surface ornamentation.
- 9(10) Hind coxae produced into large plates, covering first 2 or 3 abdominal sternites...Haliplidae
- 10(9) Hind coxae not produced into such plates.
- 11(14) Metasternum with a distinct transverse suture in front of hind coxae.
- 12(13) Front coxae conical, projecting their cavities closed behind. Tibiae and tarsi fringed with long swimming hairsHygrobiidae
- 13(12) Front coxae spherical, their cavities open behind. Legs not adapted for swimming Amphizoidae
- 14(11) Metasternum without a distinct transverse suture in front of hind coxae.
- 15(16) Eyes not completely divided. Antennae filiform. Mid and Hind legs not very short and broad Dytiscidae
- 16(15) Eyes completely divided into dorsal and ventral parts, Antennae short and thick, 2nd segment with a process, Mid and Hind legs forming short, broad paddles Gyrinidae

Family A. RHYSODIDAE

Rhysodidae is a small family of rare insects, inhabiting decaying woods. Previously its systematic position has been debated and once it was placed among the superfamily Cucujoidea. Members of this family can be easily recognised from other families of Adepaga by elongated body with typical 11 segmented moniliform antennae and grooves and carinae on pronotum. Other characteristic features of the family are : Head with a distinct small neck, forehead with two deep sulci. Temples and genae well marked. Antennae inserted under side margin of fore head, Mandible very large maxillae with two small lobes, maxillary palpi 4 jointed. Prosternum large, strongly extended in front of anterior coxae. Mesosternum very short. Metasternum very long, anterior coxal cavities closed behind. Mesocoxal cavities open and hind coxae subtriangular and widely separated. Abdomen with six ventral segments, three anterior ones cornate. Legs short, tarsi five jointed.

At present more than 150 species are known from the World. They are distributed throughout the world and are more prevalent in tropics. 27 species have been recorded from India including *Omoglymnus darjeelingensis* sp.nov. Saha and Biswas. In India the group is distributed in Himalayas, South India and Andaman and Nicobar Islands. The group has not been found in Western India and Indo-gangetic plains. The family was also not known from West Bengal. This is the first time that any species of the family is recorded from West Bengal.

Genus 1. *Omoglymmius* Ganglbauer 1892

1892. *Omoglymmius* Banglbauer, Die Kafer von Mitteleuropa. Wien. 1 : 530-534.

1978. *Omoglymmius*, Bell and Bell. Questions Entomologiae 14(1) : 72.

1. *Omoglymmius (Orthoglymmius) darjeelingensis* sp.n.

Type material : Holotype male, labelled "INDIA" : West Bengal, Darjiling dist. 4 Km. of N. of Gorubathan, 20.xii. 1973, Srivastava and Maity (Deposited in Z.S.I.).

Description : Length 5.50; colour dark reddish brownish; antennal segments 2-7 rather wider than long and segments 8-11 as long as wide, cone distinct; head elongate; clypeal setae present; head with median lobe elongate, narrowed posteriorly with its tip acutely pointed; orbital groove wide and reaching almost half of the eye; anteromedial margin of the temporal lobe shallowly emerginate, margined with pilosity; medial angles approximated outously angulate; posterolateral and posteromedial margins oblique; occipital angles broadly rounded, indistinct; eyes small, flat, narrow; post orbital tubercle large 0.7 as long as eye and rather wider than eye, pilose.

Pronotum : Moderately long, length/greatest width 1.20 widest slight anterior the middle; sides rather moderately curved, more curved near apex, not sinuate near hind angle; paramedian grooves almost equal to carinae at middle; carinae wide, impunctate.

Elytra elongate, narrow, striae subequal, intervals moderately convex, interval 5 more elevated at base; striae with one setae near apex; medial fovea of the apical tubercle with two setae; striae 6 with a row of 3 setae near humerus; apical striate with 4 setae; striae 7 with a row of 5 setae near apex.

Male with shallow median impression on metasternum; abdominal sterna II-V each with a transverse row of punctures and with deep lateral pit on sternum V; leg with ventral teeth on anterior femur; middle calcar acute; hind calcar with two distinct angulate lobes prominent angle obtuse and distal angle acute.

Female not known.

Discussion : *O(O) darjeelingensis* is nearest to its neighbouring species *crenatus* (*Grouvelle*) from Bhutan in its elongated and tapering median lobe with acute tip, orbital groove wide and reaching near the level of middle of eye, postorbital tubercle large, pronotum with the sides strongly curved near apex and the elytra with the interval 5 distinctly elevated near the base but differs from the latter by its temporal lobe with oblique (emarginate in *Crenatus*) post medial margin, medial angle obtuse, occipital angle indistinct and the pronotum with paramedian grooves almost as wide as the Carinae at the middle level; eyes rather narrow.

Family B. PAUSSIDAE

Members of the family Paussidae are known to be myrmecophilous in habit. Paussids are generally treated as distinct family but some recent authors place it as subfamily of more predominant family

Carabidae. These beetle can be easily recognised by their peculiar antennal shape and elytra with a notch or fold on each side near apex. Body usually 4-12 mm in length, usually more or less depressed, sometimes very convex, rarely subcylindrical, covered with fine hairs. Front tibiae with both spurs terminal. Front coxal cavities closed behind.

The group is very widely distributed and found in all tropical and subtropical countries.

Key to the Subfamilies

- 1(2) Antennae moniliform, eleven jointedProtopaussinae
- 2(1) Antennae very variable, compressed and dilated, two to ten segmented
- 3(4) Antennae six to ten segmented; maxillary and labial palpi long; buccal cavity not concealed by maxillary and labial palpiCerapterinae
- 4(3) Antennae mostly two segmented sometimes upto six segmented; Maxillary and labial palpi shorter and thicker, completely concealing the buccal cavity at rest Paussinae

The subfamily Protossinae is repressed by one genus and two species. These insects approaching closely Carabid beetle nature and shape of body and antennae. No member has been reported from West Bengal.

Subfamily I. CERAPTERINAE

The subfamily contains five genera of which only two are known from India. Both the genera namely, *Cerapterus* Swederus and *Pleuropterus* Westwood are recorded from West Bengal.

Key to the genera

- 1(2) Antennae ten segmented, all free; labial palpi strongly enlarged, truncate and excavate at apex 1. *Cerapterus* Swederus
- 2(1) Antennae ten segmented, segment 2-10 soldered together, rather slender, last segment not strongly enlarged or truncate at apex 2. *Pleuropterus* Westwood

Genus 1. *Cerapterus* Swederus 1788

1788. *Cerapterus* Swederus, *Kongl. Vet. Acad. Handl.*, **9** : 203.

1912. *Cerapterus* Fowler, *Fauna Brit. Ind., Coleoptera* : 450.

Form short and broad. Head small, transverse with a short neck, eyes large, antennae 10-jointed segmented, all free. Maxillae bilobed, maxillary 4-jointed, labial palpi 3-jointed, very stout, first joint very small, second much larger, enlarged in front, and the third very large, with apex excavate. Pronotum short, transverse, sides rounded. Legs short, femora and tibiae very broad, tibiae strongly compressed, tarsi short,

partly fitting into grooves on the tibiae. First four joints short, hardly broader than fifth in female; strongly dilated and transversely and thickly pilose in male.

The genus is mainly African in distribution. One species is found in India.

1. *Cerapterus latipes* Swederus

1788. *Cerapterus latipes* Swederus, *Kongl. Vet. Acad. Handl.*, **9** : 203, pl.6, fig.1.

1912. *Cerapterus latipes*, Fowler, *Fauna Brit. India, Coleoptera* : 450.

Material studied : No material was available for study.

Distribution : India : West Bengal (No definite locality); Tamil Nadu. Also Srilanka and Burma.

Remarks : Fowler (1912) stated that the species is widely distributed and probably not uncommon throughout India. However no material is present in our collection and no specimen was collected during mopping survey of West Bengal. The species has been included here on the basis of record by Fowler (1912).

Genus 2. *Pleuropterus* Raffray 1855

1855. *Pleuropterus* Raffray, *Nouv. Arch. Mus. Paris*, (2) **8** : 338.

1912. *Pleuropterus*, Folwer, *Fauna. Brit. India, Coleoptera* : 451.

From elongate oblong, rather depressed. Head small, eyes prominent, antennae 10-segmented, 2-10 soldered together; maxillary palpi 4-jointed thickened in middle and little narrowed towards apex. Labial palpi 3 jointed, first joint small, 2nd and 3rd of equal length but third broader and truncate at apex. Pronotum always transverse, raised in the middle, excavate at sides, posterior angles either truncate or sharp. Elytra with or without longitudinal ridges. Legs long and slender, femora rather compressed, tarsi long.

The genus is mainly African in distribution. Two species are found in Indian region. One is known from West Bengal.

2. *Pleuropterus cardoni* Gestro 1901

1901. *Pleuropterus cardoni* Gestro, *Ann. Mus. Genova* : 822, fig.3.

1912. *Pleuropterus cardoni*, Fowler, *Fauna Brit. India, Coleoptera* : 452-453.

Material studied : No material was available for study.

Distribution : India : West Bengal (no definite locality).

Remarks : The species has been included on the basis of Fowler's report but the specific locality "Mander" as recorded by Fowler may actually belong to Bihar.

Subfamily II. PAUSSINAE

The subfamily Paussinae is represented by 9 genera of which 6 genera are known from India. A key to the genera occurring in West Bengal is given below.

- 1(6) Maxillary palpi five jointed. Second joint of labial palpi longer than broad, much longer than first joint.
- 2(3) Antennae six segmented; last five segments more or less soldered together and forming a club *Ceratoderus* Westwood
- 3(2) Antennae two segmented; the second segment forming a distinct club.
- 4(5) Pronotum transversely divided by a feeble furrow, anterior lobe twice as broad as posterior; club of antennae irregular, strongly bidentate on its external margin *Euplatyrhopalus* Desn.
- 5(4) Pronotum not divided, at most with a depressed transverse line in the middle, club of antennae round, lens- shaped, or oblong with the apex rounded and the base truncate *Platyrhopalus* Westwood
- 6(1) Maxillary palpi four jointed. First two joints of the labial palpi always very small and about equal in size *Paussus* Linnaeus.

Genus 3. *Ceratoderus* Westwood 1842

1842. *Ceratoderus* Westwood, *Proc. Linn. Soc. London*, 18 : 51.

1912. *Ceratoderus*, Fowler, *Fauna Brit. India, Coleoptera* : 454-455.

From slender and elongate. Head large, eyes small, antennae long, six segmented, first segment subquadrate, 2nd to 6th soldered together forming a flat club. Maxillae with one lobe, maxillary palpi 5 jointed, labial palpi 3 jointed, last joint largest. Pronotum feebly broader than head, much narrowed behind and with a strong transverse furrow behind the middle and with feebler longitudinal furrow. Elytra long, pygidium exposed. Legs large, compressed. Tarsi elongate, last joint longest.

The genus contains three species all are found in India. Two species are known from West Bengal. *Ceratoderus andrewesi* is collected for the first time from West Bengal. A key is given to separate the two species.

- 1(2) Head ferruginous or reddish castaneous; external out line of club uneven *C. andrewesi* Des.
- 2(1) Head black; external outline of club of antennae even... *C. bifasciatus* Koll.

3. *Ceratoderus andrewesi* Desneux, 1905

1905. *Ceratoderus andrewesi* Desneux, *Ann. Soc. Ent. Belgique*, 49 : 194.

1912. *Ceratoderus andrewesi*, Fowler, *Fauna Brit. India, Coleoptera* : 456.

Material examined : 1 ex, Calcutta, 9.3.1988, S. Biswas Coll.

Distribution : India : West Bengal (Calcutta); Orissa and Tamil Nadu.

Biology : The specimen was collected while moving among the grass of *Dactylon* sp. under the shade of a Bakul, *Mimusops elengi* (Sapotaceae) tree.

Remarks : This is the first record of the species from West Bengal..

4. *Ceratoderus bifasciatus* (Koller), 1836

1836. *Paussus bifasciatus* Kollar. *Ann. Hofmus Wien*, **1**, pl.31, fig.7.
 1845. *Ceratoderus bifasciatus*, Westwood *Arcan. Ent.*, **2** : 37, pl.58, fig.1.
 1912. *Ceratoderus bifasciatus*, Fowler, *Fauna Brit. India Coleoptera* : 455.

Material studied : No material is available for study.

Distribution : India : West Bengal (No definite locality); Tamil Nadu (Nilgiri hills). Also known from Bangladesh (Dacca) and Pakistan.

Genus 4. *Euplatyrhopalus* Desneux 1905

1905. *Euplatyrhopalus* Desneux, *Genera Insectorum*, (Wytsman), Paussidae : p.
 1912. *Euplatyrhopalus*, Fowler, *Fauna Brit. India, Coleoptera* : 465-466.

From elongate oblong, depressed. Head large, narrower than pronotum, eyes large and prominent. Antennae two segmented, 1st subquadrate, 2nd large, flat and irregular, outer margin very deeply emerginate forming two large and long sharp teeth. Maxillary palpi 4-jointed, labial palpi 3-jointed, first joint very small, other two longer, the third acuminate. Pronotum large, transverse, bilobed but not divided. Elytra rather long. Legs long and slender, apex of tibiae produced externally into sharp point. Tarsi moderately large.

The genus contains 4 species and distributed in India and Indonesia. Only one species has been recorded from West Bengal.

5. *Euplatyrhopalus aplustrifer* (Westwood) 1838

1838. *Platyrhopalus aslustafer* Westwood, *Trans. Linn. Soc. London*, **16** : 664, Pl. 33, fig. 51.
 1912. *Euplatyrhopalus aplustrifer*, Fowler, *Fauna Brit. India, Coleoptera* : 466.

Material studied : 1 ex, Netrokona, J.N. Bagchi coll.

Distribution : India : West Bengal (No definite locality), Bihar (Chota Nagpur, Barway); Maharastra (Bombay); and Karnataka (Kanara). Also from Bangladesh.

Remarks : The species has been included on the basis of Fowler's (1912) record.

Genus 5. *Platyrophalus* Westwood 1838

1838. *Platyrophalus* Westwood, *Trans. Linn. Soc. London*, **16** : 654.

Elongate, very broad, robust in form. Antennae two segmented, with a large elliptical, almost circular or oblong club, incised externally at the base, incision forming a pronounced teeth. Maxillae large, bilobed, inner lobe hooked, outer styliform, Maxillary palpi five jointed, third joint large and tick. Pronotum cordiform, transverse or as broad as long, much narrower at base than elytra. Legs short, compressed, femora partly excavate, tibiae sharply produced, tarsi comparatively short.

The genus is mainly Indian and Indo-Malayan in distribution. Eight species occur in India and one species is found in Africa. Three species have been recorded from West Bengal.

Key to the species of genus *Platyrophalus* from West Bengal.

- 1(2) Pronotum strongly transverse, and sharply constricted behind the middle *P. denticornis* Don
- 2(1) Pronotum not transverse, at least as long as broad, only slightly constricted behind middle.
- 3(4) Margins of the club of the antennae even *P. angustus* Westwood
- 4(3) Margins of the club of the antennae uneven *P. intermedius* Bens.

6. *Platyrophalus angustus* Westwood 1839

1839. *Platyrophalus angustus* Westwood, *Trans. ent. Soc. London*, **2** : 92, Pl.10, fig.6.

1912. *Platyrophalus angustus*, Fowler, *Fauna Brit. India, Coleoptera* : 461-462.

Material studied : 1 ex, Berhampore Court, Murshidabad district, 12.1922. S. Ribeiro Coll.

Biology : The specimen was collected at the base of Croton plant in garden.

Distribution : India : West Bengal (Murshidabad); Assam (Dunsiri valley); Kashmir (Jhelum valley); Uttar Pradesh (Chandan chowki, Dehra Dun); Bihar (Chotnagpur)

7. *Platyrophalus denticornis* (Donovan) 1800

1800. *Paussus denticornis* Donovan, *Ins. Ind*, **1** : 8, pl. 5, fig. 1.

1838. *Platyrophalus denticornis*, Westwood, *Trans. Linn. Soc. London*, **16** : 657, Pl.33, figs. 43-48.

1912. *Platyrophalus denticornis*, Fowler, *Fauna Brit. India, Coleoptera* : 459-460.

Material studied : 2 exs, Calcutta, 1 ex, Dakhindari, Calcutta, no other data.

Distribution : India : West Bengal (Calcutta); Maharashtra (Bombay, Khandala, Wallon near Ahmednagar).

8. *Platyrhopalus intermedius* Benson 1846

1846. *Platyrhopalus intermedius* Benson, *Calcutta Journ. Nat. Hist.*, 6 : 468.

1912. *Platyrhopalus intermedius*, Fowler, *Fauna Brit. India, Coleoptera* : 462.

Material studied : 1 ex, Pashok, Darjiling district), Eastern Himalays. 1-12. x . 1917, F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling district Pashok), Uttar Pradesh (Saharanpur).

Remarks : This is the first record of the species from West Bengal. The specimen was determined by Rebiero in 1926.

Genus 6. *Paussus* Linnaeus 1775

1775. *Paussus* Linnaeus, *Bigae Insect.* : 7.

Forms variable. Antennae two segmented, second segment expanded into a very variable club. Pronotum always divided into two lobes by a transverse furrow, often furnished with tufts of yellow secretory hairs at the sides. Maxillary palpi four joined. Labial palpi three joined, with the first two always small and the third very long, variable in shape and size, more or less acuminate at apex.

The genus contains 180 species and widely distributed in Africa and Asia, two species are known from Europe and one or two have been described from Australia. No record of its occurrence is available either from South or North America.

Materials of only two species have been studied during this work. However another 10 species have been recorded in literature from West Bengal. As these beetles are rare and live in very specialised habitat their collection depends somewhat on chance factor. So for the sake of comprehensiveness of the state Fauna of West Bengal a key to the all known species from West Bengal is provided here.

Key to the species of genus *Paussus* Linnaeus known from West Bengal.

- 1(10) Club of antennae not excavate
- 2(7) Pronotum with a central transverse furrow, but not distinctly divided into an anterior and posterior portion.
- 3(6) Club of antennae more or less round, lenticular.
- 4(5) Club of antennae without, or only with traces of transverse impression
..... *P. cognatus* Westwood
- 5(4) Club of antennae with one strong transverse impression, and a second more or less abbreviated
..... *P. Ssquisulcatus* Wason

- 6(3) Club of antennae distinctly oblong, longer than broad..... *P. schiodter* Westwood
- 7(2) Pronotum strongly divided into an anterior and posterior portion.
- 8(9) Elytra with strong short equidistant tufts of stiff setae at the sides; club of antennae subovate, lenoticular or lens-shaed, impressed but not excavate *rufitarsis* Westwood
- 9(8) Elytra without special tufts of setae at the margins. Club of antennae inverted pear shaped
..... *P. pilicornis* Don.
- 10(1) Club of antennal excavate on its exterior side.
- 11(18) Club of antennae with the margins of the excavations not setigerous, with or without distinct teeth.
- 12(13) Anterior portion of pronotum not produced into a tooth at sides, at most shortly and bluntly extended, not or scarcely broader than the posterior portion..... *P. fichteli* Don.
- 13(12) Anterior portion of pronotum produced into a more or less angular tooth at the sides.
- 14(15) Elytra with a single long, somewhat curved spine at ech external apical angle
..... *P. boysi* Westwood
- 15(14) Elytra without spine, special setae or tuft of hairs at apex.
- 16(17) Sides of elutra with long and stout wire like setae *P. jerdoni* Westwood
- 17(16) Sides of elytra without strong wire like setae *P. thoracicus* Don
- 18(11) Club of antennae with the lower margin of the excavtion denticulate and setigerous, and the upper margin simple or obsolately denticulate, but not setigerous.
- 20(21) Elytra with regular and distinct rows of stiff yellowish-white bristles
..... *P. seriesetosus* Wasmann
- 21(20) Elytra without regular rows of bristless.
- 22(23) Posterior tibiae much thickened. Club of antennae less strongly impressed above
..... *P. tribialis* Westwood
- 23(22) Posterior tibiae not thickened. Club of antennae with the excavation broad
..... *P. nauceras* Bens

9. *Paussus pilicornis* Donovan 1800

1800. *Paussus pilicornis* Donovan, *Ins. India*, Pl.5, fig.4.

Material studied ; 1 ex (damaged), Calcutta, 13.3.1916. S.W. Kemp Coll.

Distribution : India : West Bengal (Calcutta).

10. *Pausus sesquisulcatus* Wasmann 1899

1899. *Paussus sesquisulcatus* Wasmann, *Notes Leyden Mus*, 21 : 37.

Material studied ; 2 exs, Madarihat forest, jalpaiguri dist. 3.5.1983, B.N. Das & Party coll.

Distribution : India : West Bengal (Jalpaiguri Dist.): Uttar Pradesh; Bihar; Maharastra. Also from Burma.

Biology : The specimens were collected at light.

Remarks : The species is recorded from West Bengal for the first time.

11. *Paussus cognatus* Westwood 1841

1841. *Paussus cognatus* Westwood. *Trans. Linn. Soc. London*, 19 : 49.

1912. *Paussus cognatus*, Fowler, *Fauna Brit. India, Coleoptera*, : 477-478.

Material studied : No material was available from West Bengal for study.

Distribution : India : West Bengal (no exact locality); Tamil Nadu.

Remarks : The species has been included here on the basis of Fowler's record who however did not mention any specific locality in Bengal.

Family C. CICINDELIDAE

The members of the family Cicindelidae, popularly known as tiger beetles are remarkable for their activity and ferocity. Some of them are also colourful in appearance. These insects are very close related to Carabidae and some authors treat tiger beetles belonging to a subfamily of Carabidae. But these beetle can be separated from Carabidae both on the basis of morphological character and life history. In Cicindelidae clypeus extends beyond the antennal insertion but in Carabidae clypeus does not extend to the point of antennal insertion. The Chief characteristic of the family can be mentioned as follows.

Head large, eyes prominent to very prominent. Maxille withouter lobe forming two jointed palpus (except in Therates) and in Indian insect, inner lobe elongate and provided with an articulated hook like process at the end. Antennae filiform, 11-segmented, sometimes somewhat incesstate towards the apex.

Clypeus extending laterally in front of insertion of the antennae.

Elytra covering or nearly covering abdomen. Wings very rarely absent. 6 abdominal segments visible in female, 7 in male, first three cornate. Legs long, slender, adapted for swift running. Tarsi 5-jointed.

The family contains about 1200 species from all over the world. Genus *Cicindela* is the largest and contains about half of the species and found in all parts of the world. The other general are restricted to tropical or subtropical countries. 67 species have been recorded from West Bengal.

Key to the subfamilies of Cicindelidae found in West Bengal.

- 1(2) Episterna of the metasternum very narrow, more or less strongly furrowed Collyrinae
- 2(1) Episterna of the metasternum very narrow, broad and smooth.
- 3(4) Outer lobe of maxillary palpi obsolete, reprinted by a short seta-like process Theratinae
- 4(3) Outer lobe of the maxillary palpi normal and well developed Cicindelinae

Subfamily I. COLLYRINAE

The subfamily Collyrinae contains four genera, namely *Collyris* Fabricius, *Neocollyris* Horn, *Tricondyla* Latreille and *Dercorania* Chaudoir. Of these first three genera have been recorded from West Bengal and genus *Dercorania* has not yet been known from the state. This genus is common in Srinalka and extends to Southern and Western part of India. The genera included in this work can be separated by the following key.

- 1(4) Wings always present; labrum with seven teeth, female with two small but usually sharp projections on posterior edge of last abdominal ventral segment.
- 2(3) Size larger; head widely, deeply and roundly excavate between the eyes; vertex behind the eyes very short *Collyris* Fabricius
- 3(2) Size smaller; head narrowly impressed between the eyes, bistrate, vertex behind the eyes more or less long *Neocollyris* Horn
- 4(1) Wings absent, elytra connate; labrum with six teeth; female without the two projections on last abdominal ventral segment *Tricondyla* Latreille

Genus 1. *Neocollyris* Horn 1901

1901. *Neocollyris* Horn, *D. ent. Zeit.* : 45.

1912. *Neocollyris*, Fowler, *Fauna Brit. India, Coleoptera* : 229-230.

From long and slender, size small, with the elytra mostly of blue colour. Hed with the vertex behind

the eyes long, more or less convex or pulvinate. Space between eyes much narrowly and less strongly impressed. Labrum with the central teeth obtuse, external tooth on each side separated from the rest, sharp; Maxillary palpi with 3rd joint little shorter than 4th, 4th sub-elongate, ovate. Labial palpi with last joint securiform, more dipited in the male.

The genus contains about 100 species and is mainly confined to Indo-Malayan region but eight species are found in tonkin and china. The species are mainly arboreal.

Key to the species of the genus *Neocollyris* Horn

- 1(8) Small and slender species (8-13 mm in length); colour metallic green, blue or violaceous; vertex longer and narrower (specially in males); elytra finely but more closely punctured, punctures not elongate at apex
- 2(3) Pronotum lagenoid or flask shaped, much dilated before base, with a long and narrow collum; female with apophysis small stalked, the obtuse points being very small.
..... *N. variicornis* Chaudoir.
- 3(2) Pronotum with the sides less dilated behind.
- 4(5) Forehead deeply excavated between the eyes; metasternum deeply and closely punctured; female with the apophysis stalked*N. variitarsis* Chaudoir.
- 5(4) Forehead flat between the eyes, not excavated.
- 6(7) Metasternum punctate; elytra less elongate, shoulders obsolete
..... *N. attenuata* Redtenbacher
- 7(6) Metasternum smooth; elytra more elongate, shoulders marked *N. redtenbacheri* Horn
- 8(1) Moderate to larger species (13-22 mm in length).
- 9(14) Moderate in size (13-15 mm in length)
- 10(11) Posterior tibiae clear red *N. fuscitarsis* Schm - Goebel
- 11(10) Posterior tibiae dark.
- 12(13) Pronotum strongly dilated before the basal constrictions*N. bonelli* Guerin
- 13(12) Pronotum moderately or slightly dilated before the basal constrictions
..... *N. distincta* Chaudoir.
- 14(9) Larger species (15-22 mm in length).
- 15(22) Colour green, blue, violaceous or blakish.

- 16(17) Antennae strongly thickend towards apex *N. crassicornis* Dejan
- 17(16) Antennae not strongly thickened towards apex.
- 18(19) Pronotum cylindrical without well- developed column *N. saphyrina* Chaudoir
- 19(18) Pronotum with well developed collum.
- 20(21) Base of elytra strongly punctured; antennae long *N. insignis* Chaudoir
- 21(20) Base of elytra finely punctured ; antennae shorter *N. samaragdina* Horn.
- 22(15) Colour dark brown, pitchy, or rufocastaneous (ocassionally with a slight metallic reflection), with the apex of the often lighter; middle portion of the elytra more or less roughly plicate.
- 23(24) Elytra densely punctured to apex, with the apicl punctures elongate *N. feae* Horn
- 24(23) Apical third of elytra somewhat distinctly but never densely puncture with elongate punctures *N. smithii* Chaudoir

1. *Neocollyris smithii* (Chaudoir) 1864

1864. *Collyris smithi* Chaudir, *Ann. Soc. ent. France* : 518.
1895. *Collyris maeleavi* Horn, *Deutsche Ent. Zeikchr.* : 81.
1912. *Neocollyris smithi*, Fowler, *Fauna Brit. India, Coleoptera* : 265.

Material examined : No material was available for study.

Distribution : India : West Bengal (no definite locality); Nagaland. Also known from Burma and Bangladesh.

2. *Neocollyris redtenbacheri* (Horn) 1864

1864. *Collyris attenuata* Chaudoir (necx. Redt), *Ann. soc. Ent. France*, p. 523, Pl.9, fig. 19.
1984. *Collyris redtenbacheri* W. Horn. *Deutsche Ent. Zeitschr.* : 12.
1912. *Neocollyris redtenbacheri*, Fowler, *Fauna Brit. India, coleptera* : 239.

Material examined : 11 exs. Darjeeling, Pashok; 26.v.-14.vi. 16, F.H. Gravely coll. 3 exs., Darjeeling, singla, May-1912, Lord carmichales coll. 1 ex., Darjeeling, Ghumti, June-1914, Lord carmichales coll.

Distribution : India : West Bengal (Darjiling); Nagaland, Meghalaya, Himachal Pradesh. Also known from Burma.

3. *Neocollyris variitarsis* (Chaudoir) 1860

1860. *Collyris variitarsis* Chaudoir, *Bull. soc. Moscow*, 295.
 1893. *Collyris schmidt-goebeli* W. Horn, *Ann. Mus. Genova*, 578.
 1893. *Collyris brachycephala* W. Horn, *Ann. Mus. Genova*, 379.
 1912. *Neocollyris variitarsis*, Fowler, *Fauna Brit. India, Coleoptera* : 241.

Material examined : 2 exs., Darjeeling, Sukna, E. Himalayas, 500 ft, 2.vii.08, N. annandalis coll.
 2 exs., Darjeeling, Singla, May 1913, Lord Carmichaels coll.

Distribution : India : West Bengal (Darjiling district); Assam, Also known from Nepal, Burma and Malaysia.

4. *Neocollyris variicornis* (Chaudoir) 1864

1864. *Collyris variicornis* Chudoir, *Ann. Soc. ent. France*, : 580.
 1892. *Collyris flavolabiata* W. Horn, *Deutsche Ent. Zeitschr...*, : 366.
 1893. *Collyris gestroi* W. Horn, *Ann. Mus. Genova*, : 380.
 1912. *Neocollyris variicornis*, Fowler, *Fauna Brit. India, Coleoptera* : 245.

Material exmined ; 1 ex., Sitong, nr. Mongpu, Darjeeling, E. Himalayas, 2-5.vii.18, S. Kemp. Coll.
 1 ex, Darjeling singla, May-1913, Lord Carmichael's coll.

Distribution : India : West Bengal (Darjeeling dist.); Assam; Andaman and Nicobar Is.; Meghalaya; Nagaland; Sikkim. Also known from Burma and Bangladesh.

Remarks : The species is recorded for the first time from West Bengal.

5. *Neocollyris attenuata* (Redtenbacher) 1848

- 1848 *Collyris attenuata* Redtenbacher, Hiigel's kashmir, iv. : 498.
 1850. *Collyris maculicornis* Chaudoir, *bull. Soc. Moscou*, 1 : 19.
 1912. *Neocollyris attenuata*, Fowler, *Fauna Brit. India, Coleptera* : 240.

Material examined ; 1 ex, Darjeeling, Singla, Aug. Sept. 1912, Lord Carmichael's coll. 2 exs., Darjeeling, 9.vii. 14, Carmichael's coll.; 1 ex., Darjiling, 16.vi.14, F.H. Gravely Coll.

Distribution : India : West Bengal (Calcutta, Darjeeling); Assam and Himachal Pradesh.

6. *Neocollyris distincta* Chaudoir 1860

1860. *Collyris distincta* Chaudoir, *Bull. soc. Moscou*, : 290.
 1864. *Collyris procera* Chaudoir, *Ann. Soc. Ent. France*, 501.
 1898. *Collyris proceera* W. Horn, *Deutsche Ent. Zeischer*, 193.
 1912. *Neocollyis distinct*, Fowler, *Fauna Brit. India, Coleoptera* : 250.

Material examined : 1 ex., Darjeeling, Pashok, E. Himalayas, 26.vi.15, F.H. Gravely coll. 1 ex,

Calcutta.

Distribution : India : West Bengal (Darjiling, Calcutta); Assam; Meghalaya; Tamil Nadu and Orissa.

7. *Neocollyris insignis* Chaudoir 1864

1864. *Collyris insignis* Chaudoir, *Rev. Mag. Zool.*, : 76.
1912. *Neocollyris insignis*, Fowler, *Fauna Brit. India, Coleoptera*, : 258.

Material examined ; 1 ex. Darjeeling, singla, June-1913, Lord Carmichael's coll. 1 ex, Darjeeling, Pashok, E. Himalayaal's vi. 1916, L.C. Hartless coll.

Distribution : India : West Bengal (Darjiling); Meghalaya. Also known from Bhutan and Burma.

Remarks : The species is recorded for the first time from West Bengal.

8. *Neocollyris saphyrina* Chaudoir 1850

1850. *Collyris saphyrina* Chaudoir, *Bull. Soc. Moscou*, : 18.
1912. *Neocollyris saphyrina*, Fowler, *Fauna Brit. India, Coleoptera* : 257.

Material examined ; 1 ex. Darjeeling, Pashok, E. Himalayas, 26.vi.16, F.H. Gravely coll. 1 ex. Kalyani (near Calcutta), 20.vii.65. H. Ghose coll.

Distribution : India : West Bengal (Calcutta, Darjiling, Nadia); Assam; Sikkim. Also known from Nepal.

Remark : This is the first time the species is recorded from West Bengal.

9. *Neocollyris fuscitarsis* Schmidt- Goebel 1846

1846. *Collyris fuscitarsis* Schmidt-goebel, *Fauna. Col. Birm.*, : 16.
1846. *Collyris diffracta* Schmidt-Goebel, *Fauna Col. Birm.*, : 17.
1912. *Neocollyris fuscitarsis*, Fowler, *Fauna Brit. India, Coleoptera* : 256.

Material examined ; 1 ex., Darjeeling, Singla, June-1913, Lord Carmichale's coll.

Distribution : India : West Bengal (Darjiling); Assam; Sikkim.

10. *Neocollyris bonelli* (Guerin) 1834

1834. *Collyris bonelli*, Gurein, *Belanger. vov. Ind. or. Zool.* : 481.
1892. *Collyris batesi* W. Horn, *Deutsche Ent. Zeitschr.*, : 355.
1912. *Neocollyris bonelli*, fowler, *Fauna Brit. India, Coleoptera* : 248.

Material examined : 1 ex., Kharagpur, West Bengal, 17-30.vi.11 R. Hodgart coll. 2 exs, Siripur Saran, North Bengal, 20.ix.10. Mus. coll. 1 ex, Rangamati, Chittaganj Hill Tract, Bengal. 11-16. vii.15, R. Hodgart.

Distribution : India : West Bengal (Medinipur, Calcutta); Assam; bihar; Nagaland. Also known from Burma and Bangladesh.

Remarks : The species variable in colour, shape of pronotum nature of sculpture on elytra and degree of excavation. Based on the above variations the species has been divided into three varieties.

11. *Neocollyris samaragdina* Horn 1894.

1894. *Collyris samaragdina* W. Horn, *Deutsche Ent. Zeitscher*, : 220.

1912. *Neocollyris saaragdina*, Fowler, *Fauna Brit. India, Coleoptera* : 258.

Material examined ; 1 ex, Kurseong. E. Himalayas, 7.vii.09. Mus. coll.

Distribution : India : West Bengal (Darjiling). Also known from Bhutan

12. *Neocollyris feae* (Horn) 1893

1893. *Collyris feae* W. Horn, *Ann. Mus. Genova*, : 373.

1912. *Neocollyris feae*, Fowler, *Fauna Brit. India, coleoptera* : 264.

Material examined ; 1 ex. Raangamati, Chittaganj Hill tract, Bengal (Now under Bangladesh). 11-16.vii.15. R. Hodgart coll.

Distribution : India : Bengal. Also known from Burma and Bangladesh.

13. *Neocollyris crassicornis* (Dejean) 1825

1825. *Collyris crassicornis* Dejean, *Spec. Gen*, 1 : 166.

1846. *Collyris pleuritica* Schmidt-Goebel, *Fauna Col. birm.*, : 13.

1864. *Collyris vollenhorii* Chaudoir, *Ann. soc. ent. France*, : 495.

1912. *Neocollyris crassicornis*, Fowler, *Fauna Brit. India, Coleoptera* : 261.

Material examined : 1 ex., Salt Lake, nr. durgapur, Calcutta, 7.vi.14, F.H. Gravely. Coll. 1 ex., Calcutta, 25.vi.07, Mus. coll. 1 ex., Maldah, Bengal nr. R. Ganges. W. Hirriue coll.

Distribution : India : West Bengal (Calcutta, Maldah); Assam; Orissa, Bihar. Burma, Indonesia and China.

Genus 2. *Collyris* Fabricius 1801.

1801. *Collyris* Fabricius (*Inpad*) *Syst. II.I* : 226.

1912. *Collyris*, Fowler, *Fauna Brit. India, Coleoptera* : 223.

From long and moderately slender, size large. Labrum with the external teeth separated from the intermediate by a narrow and very deep fissure, very sharp; maxillary palpi with the third joint rather long in both sexes, strongly clavate, the last very short, smaller, subglobose or securiform in the male, narrower in the female. Head with the forehead between the eyes very widely, deeply and roundly excavate, with posterior margin of the excavation semicircular, subcarinate. Vertex very short.

The genus contains 4 species and all are found in India. Only one species has been recorded from West Bengal.

14. *Collyris longicollis* Fabricius 1787

1787. *Collyris longicollis* Fabr. *Mant. Ins.* : 185.
 1834. *Collyris caviceps* Klug. *Jaharb. Insekentk.* : 45.
 1912. *Collyris longicollis*, Fowler, *Fauna Brit. India, Coleoptera* : 225.

Material examined : 1 ex, Sahebganj, August 1884, Motiram coll.; 1 ex, Sahebganj, Bengal 6.x.1916.

Distribution : India : West Bengal (Darjiling); Bihar; Tamil Nadu; Karnataka. Also known from Thailand.

Genus 3. *Tricondyla* Latreille, 1822

1822. *Tricondyla* Latreille, *Hist. Nat. Col. Eur.*, 1 : 65.
 1912. *Tricondyla*, Fowler, *Fauna Brit. India, Coleoptera* : 273.

The genus can be characterised as follows.

Head large, deeply excavate, with a distinct neck; eyes prominent, antennae long filiform. Labrum large with six teeth. mentum very short at base, central tooth absent or rudimentary, side lobes much produced, labial palpi strongly developed. Pronotum more or less parallel sided, broad, constricted in front and behind, occasionally slightly convergent but without a column in front. Elytra narrowed in front, dilated and very convex behind. Mesosternum long. Legs very long.

The genus contains 9 species (Fowler 1912) from India and Srilanka and only one species has been recorded from West Bengal.

15. *Tricondyla macrodera* Chaudoir 1860

1860. *Trycondyla macrodera* Chaudoir, *Bull. Soc. Moscou*, : 300.
 1912. *Trycondyla macrodera*, Fowler, *Fauna Brit. India, Coleoptera* : 278.

Material examined ; 3 exs., Darjeeling, Pashok, E. Himalayas 26.v.-14.vi.16, F.H. Gravely coll.; 1 ex., Darjeeling, singla, alt. Lord Carmichael's coll; 1 ex. Ghumti, Darjeeling, E. Himalayas. vii.11.1913. F.H. Gravely coll.; 2 exs. Gopaldhara. Rungbung valley Darjeeling. BR. Sikkim 1911 - W.K. Webb coll.

Distribution : India : West Bengal (Darjiling); Assam; Also known from Bhutan and Tonkin.

Subfamily III THERATINAE

The members of the subfamily resemble in general appearance to the members of subfamily Cicindelinae and share certain characters, as for instances in the formation of the apex of the seventh ventral segment of the abdomen in the female. But this subfamily can easily be recognised by having the outer lobe of the maxillary palpi obsolete and represented by a minute seta-like process. This subfamily contains a single genus *Therates* Latreille.

Thirty four species of this genus are known so far. They are distributed from the Philippine Islands to New Guinea and Islands of Malay Archipelago. One species was recorded from West Bengal (Fowler 1912). Two more species are added to West Bengal fauna in this work.

Key to the species of the genus *Therates* Latreille.

- 1(2) Pronotum not or scarcely transverse; head not or very feebly impressed behind eyes
 *T. doherty* Horn
- 2(1) Pronotum more or less distinctly transverse.
- 3(4) Interocular space not quite smooth; head with a deep transverse impression at base of frontal sulci
 *T. obliquus* Fleutiaux.
- 4(3) Interocular space smooth *T. gestroi* Horn

Genus 4. *Therates* Latreille 1817

1817. *Therates* Latreille, *Egn. Anim.* (ed 1), 3 : 179.

1854. *Therates*, Lacordaire, *Gen. Col.* 1 : 28.

Diagnositic characters and distribution of the genus are discussed under the subfamily.

16. *Therates dohertyi* Horn 1905.

1905. *Therates dohertyi* W. Horn, *Scotin. Ent. Zeit.* : 277.

1912. *Therates dohertyi*, Fowler, *Fauna Brit. India, Coleoptera* : 296.

Material examined : 1 ex, Pashok, Darjeeling, E. Himalayas. 1919, L.C. Hartless Coll.

Distribution : India : West Bengal (Darjiling); Assam. Also known from Burma.

Remarks : The species has been recorded for the first time from West Bengal.

17. *Therates obliquus* Fleutiaux 18991893. *Therates obliquus* Fleutiaux, *Ann. soc. ent. France*, 497.1912. *Therates obliquus*, Fowler, *Fauna Brit. India, Coleoptera* : 298.*Material examined* : 1 ex. Pashok, Darjeeling, E. Himalayas 1919. L.C. Hartless Coll.*Distribution* : India : West Bengal (Darjeeling). Also known from Burma.*Remarks* : The species is being recorded for the first time from West Bengal as well as from India.18. *Therates gestroi* Horn 19001900. *Therates gestroi* W. Horn, *Deutsche Ent. Zeitschr* : 196.1912. *Therates gestroi*, Fowler, *Fauna Brit. India, Coleoptera* : 298.*Material examined* ; 6 exs. Kalimpong, Darjeeling, E. Himalayas, 24.iv.-10.v.15, F.H. Gravely Coll.; 1 ex. Keerseong, Darjeeling, E. Himalayas, 3-vii-08. N. Annandale coll.; 3 exs. pashok, Darjeeling, E. Himalayas, 19, L.C. Hartless coll.; 2 exs., Pashok, Darjeeling, E. Himalayas, 25.v-14.vi.16, F.H. Gravely coll.; 1 ex. Mahanundy Darjeeling, 16.vi.F.H. Gravely coll.; 1 ex. Ghumti, Darjeeling, E. Himalayas, vii.11.F.H. Gravely coll.*Distribution* : India : West Bengal (Darjiling), Meghalaya. Also known from lower Siam.

Subfamily IV. CICINDELINAE

Subfamily Cicindelidae is the predominant group of the family. Four genera of this subfamily are known from India. Of the three genera have been recorded from West Bengal. A key to separate these genera is given below :-

- 1(2) Under side (except in *Porthyma beloides*) entirely without pubescence *Prothyma* Hope
- 2(1) Underside with more or less pubescence.
- 3(4) Underside practically without pubescence; elytra parallel sided with the apex always conspicuously truncate obliquely *Heptodonta* Hope
- 4(3) Underside with variable but distinct pubescence, sometimes scanty but often very thick and tomentose *Cicindela* Linnaeus

Genus 5. *Prothyma* Hope 18381838. *Prothyma* Hope, *Col. Man.*, 2 : 27.1912. *Prothyma*, Fowler, *Fauna Brit. India. Coleoptera* : 300-301.

The chief characteristic of the genus is the total absence of pubescence on the ventral side. The

genus contains about fifty species. Members of this genus are distributed over Africa, Madagascar, Malay region, China and India. Of about a dozen of species known from India region. Only one species is recorded from West Bengal.

19. *Prothyma proxima* Chaudoir 1860.

1860. *Cicindela proxima* Chaudoir, *Bull. soc. Moscou*, : 325.

1912. *Prothyma proxima*, Fowler, *Fauna Brit. India, Coleoptera*, : 302.

Material examined : 1 ex., Birbhum (no other data).

Distribution : India : West Bengal (Birbhum, Calcutta); Maharashtra; Karnataka; Tamil Nadu.

Genus 6. *Heptodonta* Hope 1838

1838. *Hoptodonta* Hope, *Col. Man.*, 2 : 22.

1912. *Heptodonta*, Fowler, *Fauna Brit. India, Coleoptera* : 310.

The chief characteristic of the genus may be stated as. Elytra long and parallel, apices conspicuously oblique, underside practically glabrous, except at the anterior edge of posterior coxal cavities. Labrum with seven distinct teeth, wings never reduced, anterior as well as intermediate tarsi dilated in male.

The genus contains about one and half a dozen species and distributed to India, Malaya Peninsula and previously known Indochina. One species is known from Philippine and one has doubtfully recorded from Hongkong. From West Bengal three species have been recorded and they can be separated by the following key.

Key to the species of *Heptodonta* known from West Bengal.

- 1(2) Pronotum transversely globose *P. nodicollis* Bates
- 2(1) Pronotum not transverse, usually distinctly longer than broad.
- 3(4) Sculptures of elytra much finer towards apex, rugose but never oblique *P. kraatzi* Horn
- 4(3) Elytra punctured, with the punctures somewhat confluent in parts towards base
..... *P. pulchella* Hope

20. *Heptodonta nodicollis* (Bates) 1874.

1874. *Pronyssa nodicollis* Bates, *Ent. Monthly mag*; 10 : 267.

1912. *Heptodonta nodicollis*, Fowler, *Fauna Brit. India, Coleoptera* : 311.

Material examined : 3 exs., above Sureil, Darjeeling, E. Himalayas, 1-8.vii.18, S. Kemp coll.; 1 ex., Kurseong, E. Himalayas, N.B. Jahans coll.; 1 ex., Lebong, Darjeeling, E. Himalayas, 13.vi.14. F.H.

Gravelly coll.; 2 exs., Sureil, Darjeeling, iv.v.17, S.W. Kemp coll.; 1 ex. Kurseong, E. Himalayas, 26.vi.10. Annandale coll.

Distribution : India : West Bengal (Darjiling); Meghalaya.

21. *Heptodonta kraatzi* Horn 1899

1899. *Heptodonta kraatzi* W. Horn, *Deutsche Ent. Zeitschr.* : 54.
1912. *Heptodonta kraatzi*, Fowler, *Fauna Brit. India, Coleoptera* : 312.

Material examined ; 2 exs. pashok, Darjeeling, 11.vi.16, L.C. Hartless coll.; 1 ex. Ghoom, Darjeeling, June-1914, Lord Carmichaels collection; 1 ex., Darjeeling, Singhla, Aug-Sept. 1912, Lord Carmichaels coll.

Distribution : India : West Bengal (Darjiling).

22. *Heptodonta pulchella* (Hope) 1831

1831. *Cicindela pulchella* Hope, *Gray's zool. Miscu.* : 21.
1845. *Cicindela hopei* Parry, *Trans. ent. Soc. London.* : 84.
1850. *Cicindela variipes* Chaudir, *Bull. Soc. Moscou.* : 11.
1893. *Heptodonta ferrarii* Gestro, *Ann. Mus. Genova.* : 366.
1912. *Heptodonta pulchella*, Fowler, *Fauna Brit. India, Coleoptera* : 312.

Material examined : 2 exs., Rangeet valley, Darjeeling, E. Himalayas, 29.v.16, F.H. Gravelly coll.; 1 ex., Gopaldhara, Rungbong valley, Darjeeling, BR. Sikkim, 1911, W.K. Webb coll.; 2 exs. Darjeeling, Mungphu, Lord Carmichael's coll.

Distribution : India : West Bengal (Darjeeling). Also known from Nepal; Burma and S.W. China.

Genus 7. *Cicindela* Linnaeus 1735.

1735. *Cicindela* Linnaeus, *Syst. Nat.*, 2 : 657.
1912. *Cicindela*, Fowler, *Fauna Brit. India, Coleoptera* : 314-319.

Chief characteristic of the genus can be given as follows : head large, more or less excavated and nearly always striated between the eyes. Eyes large and prominent.

Antennae long, filiform Mandibles large and powerful with strong and sharp teeth. Pronotum variable, usually quadrate or subquadrate. Scutellum usually well developed. Elytra variable, always markedly broader than pronotum, shoulders well marked, sutural apical angle often with a small sharp spine. Underside usually brilliantly metallic, pubescence variable, scanty to very thick. Legs long to very long and slender. Posterior coxae large and strong, trochanters well developed.

This is the largest and most important genus of the family. It contains over 700 species from all over

the world. 42 species have been recorded from West Bengal. A key to separate them has been provided here.

Key to the species of genus *Cicindela* Linnaeus known from West Bengal

- 1(26) Pubescence of the underside weak, partial or entirely absent.
- 2(21) Pubescence of the underside weak and partial (size 8-20 mm).
- 3(4) Intermediate tarsi dilated in the male, length 9-10 mm.1. *C. tetrastacta* Wiedman
- 4(3) Intermediate tarsi not dilated in the male (length 10.5- 17.5 mm).
- 5(6) Margin of the elytra brilliantly and broadly metallic, size medium length 10.5 - 11.5 mm
..... 2. *C. chloropleura* Chaudoir
- 6(5) Margins of the elytra not or only narrowly metallic.
- 7(8) Size small, 7.5-9mm); elytra with narrow white margins, unicolourous3. *C. limosa* Saund
- 8(7) Size moderate or rather large (12-20 mm); elytra unicolorous or with spots or bands and without white margins.
- 9(16) Sides of pronotum without or with a few scanty fugitive setae.
- 10(13) Sides of pronotum without setae, abdomen with the apex metallic green and the sides bare, size moderate to rather large (15-20 mm).
- 11(12) Elytra dark black with or without obscure greenish reflection , a large oblong humeral spot at each shoulder and a single large rounded spot just behind the middle size large, length 18-20 mm
..... 4. *C. assamensis* Parry
- 12(11) Elytra dark blue, velvety; no humeral spot, with a regular longitudinal row of three spots (collectively variable in size in certain extent) size moderate, length 14-18 mm
..... 5. *C. sexpunctata* F.
- 13(10) Sides of pronotum with a few setae; abdomen with apex broadly red and the sides scanty pubescent, size moderate 15 - 17 mm.
- 14(15) Elytra unicolorous, dark greenish, cyaneous or bluish... 6. *C. bicolor* F.
- 15(14) Elytra dull black, with a small spot at each shoulder and two large round spots on each side one at middle and one before apex 7. *C. haemorrhoidalis* Wiedmann
- 16(9) Sides of pronotum with pronounced setae.

- 17(18) Elytra with a crescent shaped pater extending from the shoulders for one third or half of the elytra (elytra dull green with yellow fasciae, middle fasciae transverse and parallel ..8. *C. dives* Gory
- 18(17) Elytra without crescent shaped patch extending from the shoulders.
- 19(20) Genae with a few scattered hairs; sides of the pronotum blue violaceous 9. *C. oberthuri* Fleutiaux.
- 20(19) Genae without hairs; sides of the pronotum coppery green..... 10. *C. aurovittata* Brulle
- 21(2) Pubescence almost absent (except on coxae).
- 22(23) Elytra unicolourous or with a single longitudinal yellow stripe extending for whole length each side. 11. *C. cyanea* F.
- 23(22) Elytra with three transverse fascia, basal, apical and middle or crescent shaped basal and middle fascia forming a characteristic eruciform marking
- 24(25) Elytra more convex and less parallel sided; humeral crescent shaped and forming a somewhat distinct eruciform (axe shaped) marking with the middle fascia... 12. *C. aurofasciata* Dejean.
- 25(24) Elytra less convex and more parallel sided; pronotum widest at middle; elytral fasciae transverse and parallel, not forming eruciform marking, basal markings small and the middle markings more towards the apex 13. *C. angulicollis* Horn
- 26(1) Pubescence of the underside always strong at the sides.
- 27(100) Upper surface not entirely smooth glabrous and shining.
- 28(93) Elytra dark with or without pale marking and or spots.
- 29(88) Size small (average length 8-10 mm or rarely 11-12 mm) or moderate length, 12-16 mm).
- 30(69) Size larger (length 11-13 mm).
- 31(60) Genae bare
- 32(49) Elytra even, species obscure, dense with or without more or less distinct light markings.
- 33(38) Elytra with white spots or markings, no part of side or apical margins continuously white
- 34(35) Pronotum with the disc strongly and brightly metallic and coppery, elytra dull; size small (7-8 mm); Elytra with a white spot at shoulder along with other variable spots..... 14. *C. spinolae* Guerin

- 35(34) Pronotum with the disc not brightly metallic and almost of the same colour as elytra, elytra without spot at shoulders (humeral spot present).
- 36(37) Each elytron with four white spots not arranged in row... .. 15. *C. viridilabtris* Chaudoir
- 37(36) Each elytron with three white spots arranged in a longitudinal row
 16. *C. seriepunctata* Horn
- 38(33) Elytra with the margins more or less white
- 39(44) Elytra with the margins rather broadly white and without any inverted V. shaped hooked or sinuer mark
- 40(41) Elytra with the margins from shoulder to apex rather broadly and almost continuously whitish testaceous, slightly interrupted at anterior and posterior one fourth. Elytra with characteristic marking17. *C. fastidiosa* Dejean
- 41(40) Elytra with only apical margins white and with five white spots on each side.
- 42(43) Each elytron with five white spots; one humeral, three on disc, and one joining a process of the white apical margin18. *C. decempunctata* Dejean
- 43(42) Each elytron with a sinuate marking at the centre, and a spot before and behind this, between the apical and basal patches19. *C. bigemina* Klug
- 44(39) Elytra with the lateral white markings narrow (and always interrupted) and always with an inverted V-shaped hooked or sinuate marking producing / extending from the centre of the light marginal border on each side
- 45(46) Elytra of female without shining patch 20. *C. imperfecta* Chaudoir
- 46(45) Elytra of female with a more or less distinct smooth and shining patch near the suture on each side.
- 47(48) Pubescence of the underside coarser at the sides, almost tomentose
 21. *C melancholica* Fabricius
- 48(47) Pubescence of the underside less coarse at the side, not tomentose ..22.*C. undulata* Dejean.
- 49(32) Elytra uneven, with or without velvety patches and fovae.
- 50(59) Elytra more or less uneven or Foveolate.
- 51(56) Elytra more or less uneven, velovety or with velvety patches but not fovelate.

- 52(53) Elytra much narrower at base than behind middle (sides rounded) apices much produced
..... 23. *C. dromicoides* Chaudoir
- 53(52) Elytra with the sides parallel, or subparallel, apices not or scarcely produced.
- 54(55) Elytra with two transverse velvety patches on each side, meeting or nearly meeting at suture (size
9-10 mm)...24. *C. funebris* Schm-Goebel.
- 55(54) Elytra with a longer or shorter longitudinal smooth velvety patch parallel with the suture
.....25. *C. triguttata* Horn
- 56(51) Elytra more or less distinctly foveolate or subfoveolate.
- 57(58) Elytra shining black, strongly foveolate; colour testaceous26. *C. foveolata*
- 58(57) Elytra dark black, scarcely foveolate; labrum dark27. *C. holocerica* F.
- 59(50) Elytra even, without velvety patches or foveae.
- 60(31) Genae pubescent, species dark with more or less intricate white marking.
- 61(66) Elytra with the white or white testaceous margins very plainly interrupted in two or three places.
- 60(61) Elytra margins very thin and obscure; length 8-8.5 mm 28. *C. minuta* ol.
- 61(60) Elytral margins very conspicuous.
- 62(63) Head and pronotum bright metallic green 29. *C. erudita* Wiedemann.
- 63(62) Head and pronotum dark.
- 64(65) Body smaller and narrower, central fascia of elytra arising from the thin marginal pale line ...
..... 30. *C. grammophora* Chaudoir
- 65(64) Body larger and more robust; central fascia of elytra arising from a marginal spot or thickening
... 31. *C. Cognata* Wiedemann
- 66(60) Elytra with the light margins continuous from shoulder to apex, though nearly interrupted just
before the oblique truncation of the apex.
- 67(68) Setae on the side of the pronotum very long and invading its disc, central fascia of the elytra more
stronger, sinuate and extended further towards apex; trochanters dark
... 32. *C. nitida* Wiedemann
- 68(67) Setae on the sides of the pronotum shorter but well marked (not invading the disc); central fascia
of the elytra less strongly sinuate and much less extended towards the apex; trochanters red or
ferruginous33. *C. agnata* Fleut

- 69(30) Size moderate. Length 12-16 mm.
- 70(75) Elytra with an intricate light pattern with an irregular inverted V-shaped mark on each producing from the centre of the margin and nearly meeting out the suture (in *Cardoni*) this mark usually broken, leaving a single spot on the disc.
- 71(72) Body longer and narrower; male with a tuft of long setae on the underside of the fourth joint of the antennae; the transverse extension of the light pattern of the apical third of the elytra much more prominent and ends in a up word triangular spot near the suture34. *C. angulta* F.
- 72(71) Body shorter and broder; male without any tuft of setae on underside of the fourth segment of antennae; the tranverse extension at apical third of the elytra does not from any spot near the suture.
- 73(74) Ground colour obscure dark bronze, with more or less distinct greenish reflection; central inverted V-shaped markings well marked35 *C. sumatrensis* Herbst.
- 74(73) Ground colour of elytra dark brown; central marking of the elytra does not form the inverted V-shaped mrkings rather broad and short with a rounded spot below its apex, near the suture 36. *C. cardoni* Felut.
- 75(70) Elytra without any particular pattern of beyond spots or short longitudinal patches.
- 76(81) Sides of the prothorax with strong pubescene projecting beyond the margin of pronotum and invading the disc of pronotum.
- 77(78) Disc of pronotum with marked setae; size 11.5-14.00 mm37. *C. albopunctata*. Chaudoir
- 78(77) Disc of pronotum with scantly setae.
- 79(80) Colour bright green; pubescene of the pronotum much shorter and more tomentose, and more projecting out the sides38. *C. chloris* Hope
- 80(79) Colour brown or dull green; pubescence of the pronotum thinner and less tomentose and less projecting at the sides39. *C. funera* Macleay
- 81(76) Sides of the pronthorax without or with feeble pubescence, not or scarcely projecting beyond the margin of the pronotum and not involving the disc of the pronotum.
- 82(83) Pubescence of the margins of the pronotum not encroaching on the disc of the pronotum 40. *C. striolata* Illiger
- 83(82) Pubescence of the margins of prothorax encorching on the disc of the pronotum.
- 84(85) Elytra obscure dark green with linear yellow or yellowish white marking 41. *C. vittigera* Dejean

- 85(84) Elytra black with white margins, pubescence clear white, thick and tomentose.
- 86(87) Length 15-17 mm; pronotum quadrate, wider than long; elytra spots more regular and more numerous; episterna of metasternum abruptly bare on inner side42. *C. vigintigutta* Herbst
- 87(86) Length 12-13 mm; pronotum longer than broad elytral spots less regular and less numerous; epistoma of metasternum almost covered with pubescence43. *C. multiguttata* Dej.
- 88(29) Size large, length 15-25 mm.
- 89(90) Length 20-25 mm; spots on elytra very large and conspicuous44. *C. octonotata* Wied.
- 90(89) Length 15-18 mm; spots on elytra less conspicuous.
- 91(92) Pronotum subquadrate, slightly narrowed towards base; central discoidal markings straight and linear reaching almost from the margin to the suture, anterior discoidal spot very small, if present, much smaller than the apical spot..... 45. *C. duponti* Dej.
- 92(91) Pronotum almost square with the sides straight; central discoidal markings broader, towards margins than towards suture, anterior discoidal spot rather large, about the same size as the apical spot.46. *C. aurulenta* F.
- 93(28) Elytra white with dark markings.
- 94(95) Elytra distinctly ovate; glabrous; pubescence of prostrnum very thick and tomentose, and projecting in a fringe beyond the sides of prosternum; genae quite bare and shining; length 8-12 mm... *C. copulata* Schm-Goehl.
- 95(94) Elytra oblong or oblong ovate.
- 96(97) Underside entirely and thickly tomentose, markings thin, proceeding from a dark longitudinal line on each side of the suture, elytral dark markings linear on either side, parallel to the suture from which spring three more or less oblique stripes, parallel to each other 48. *C. albina* Wied.
- 97(96) Underside thickly pubescent at the sides, base in the middle; markings broader, proceeding from the suture; elytral markings antler-like.
- 98(99) Genae bare and shining; pronotum subquadrate, sides almost straight, elytra subparallel-sided 49. *C. cancellata* Dejean
- 99(98) Genae densely pilose; pronotum with the sides more rounded; elytra more shorter, wider and less parallel sided. 50. *C. catena* F.
- 100(27) Upper surface smooth, glabrons and shining.

- 101(102) Pronotum as long as broad, a slightly transverse; elytra with transverse white at about the middle of the margin reaching to about the middle of the disc; hinder white portion of the margin thickened at its apex forming a lunule; size 10-14 mm 51. *C. biramosa* Fabricus
- 102(101) Pronotum distinctly transverse; elytra with alternate bronze and testaceous longitudinal stripes (not transverse spots) reaching the apex to base; hinder white portion of the margin not thickened or forming lunule; size 15-17 mm. 52. *C. quadrilineata* F.

23. *Cicindela chloropleura* Chaudoir 1865

1865. *Cicindela chloropleura* Chaudoir, *Cat. coll.*, : 59.
1912. *Cicindela chloropleura*, Fowler, *Fauna Brit. India, Coleoptera* : 327

Material examined : 3 exs. pashok, Darjeeling, 26. v. - 14. vi. 16, F. H. Gravely coll., 1 ex., pashok, Darjeeling E. Himalayas, 1916. L. C. Hartless coll., 1 ex., Peshoke, Darjeeling, E. Himalayas- R.S Lister coll., 1 ex., Darjeeling, May-June- 1912, Lord Carmichael's coll., 1 ex., Kalimpong, Darjeeling, E. Himalayas, 14 iv. -10. v. 15, F. H. Gravely coll., 2 exs., Rungeet valley, Darjeeling, 29. v. 16. F. H. Gravely coll.

Distributions : India : West Bengal (Darjeeling); Himachal Pradesh. Also known from Bangladesh.

24. *Cicindela tetrastacta* Wiedemann 1823

1823. *Euryoda tetrastacta* Wiedemann, *Zool. Mag.*, (ii) 1 : 65.
1834. *Cicindela colon* Klug, *Jahrb. Ins.*, 1 : 11.
1912. *Cicindela tetrastacta*, Fowler, *Fauna Brit. India, Coleoptera* : 337.

Material examined : 1 ex., Birbhum, Ind. Mus. coll., 1 ex. Calcutta Ind. Mus. coll.

Distribution : India : West Bengal (Birbhum, Bardhaman, Calcutta); Bihar; Maharashtra.

25. *Cicindela dromicoides* Chaudoir, 1852

1852. *Cicindela dromicoides* Chaudoir, *Bull. Soc. Moscou*, 1 : 21
1912. *Cicindela dromicoides*, Fowler, *Fauna Brit. India, Coleoptera* : 341.

Material examined : 2 exs., Darjeeling Palmajua, 21. vi. vii. 1959, H. Khajuria; 4 exs., Darjeeling, Ghum, E. Himalayas, viii. 11, F. H. Gravely coll.

Distribution : India : West Bengal (Darjeeling); Meghalaya, Bihar, Uttarpradesh, Himachal Pradesh.

26. *Cicindela funebris* Schmidt-Goebel 1846

1846. *Cicindela funebris* Schmidt Goebel, *Col. Fauna Bir.*, : 18
1886. *Cicindela dolesn* Fleutiaux, *Bull. Soc. Ent. France*, : 111
1912. *Cicindela funebris* Fowler, *Fauna Brit. India, Coleoptera*, : 341.

Material examined : 1 ex., Darjeeling Kurseong, Ind. Mus. coll. 3 exs., Darjeeling, Monhgpu, Atkinson, Ind. Mus. coll.

Distribution : India : West Bengal (Darjilling); Nagaland; Manipur, Also known from Burma.

27. *Cicindela triguttata* Herbst 1800

- 1800 *Cicindela triguttata* Herbst, *Kafer*, **10** : 182, pl. 172, fig. 5
 1852. *Cicindela chlorochila* Chaudoir, *Bull. Soc. Moscou*, : 25
 1912. *Cicindela triguttata*, Fowler, *Fauna Brit. India, Coleoptera*, : 345

Material examined : 1 ex., Siliguri, Base of E. Himalayas, 3-4 vi. 1911, N A & S K coll., 1 ex., Calcutta, Mus. coll; 1 ex; Kalimpong Darjeeling, E. Himalayas 24-iv-10. v.15, F. H. Gravely coll. 3 exs Rangamati, Chittagang Hill tract, Bengal, 11-16. vii. 15, R Godgart coll.

Distribution : India : West Bengal (Calcutta, Darjiling); Also known from Burma, China, Philippine Is. Malay Archipelego, Indonesia and Bangladesh.

28. *Cicindela spinolae* Gestro 1889

1889. *Cicindela spinolae* Gestro, *Ann. Mus. Civ. Genova*, : 85
 1912. *Cicindela spinolae*, Fowler, *Fauna Brit. India, Coleoptera*, : 346.

Material examined : 6 exs., Darjeeling, Rangpo, 30 v. 1974, J K Jonathan coll. 8 exs. Darjeeling, Peshok, alt. L.C. Hartless coll; 3 exs. Darjeeling, Singla, May-1913, Lord Carmichale coll; 2 exs. Kalimpong, E. Himalayas, 19-24 v. 30, S. L. Hora coll.

Distribution : India : West Bengal (Barddhaman, Darjiling); Assam, Bihar, Also known from Burma and Bangladesh.

29. *Cicindela bigemina* Klug 1834

1834. *Cicindela bigemina* Klug, *Jahrb. Ins.*, **1** : 30
 1835. *Cicindela tremula* Brulle, *Arch. Mus. Paris*, **1** : 135, Pl. 9, Fig. 3.
 1893. *Cicindela iravaddica* Gestro, *Ann. Mus. Genova*, : 35.
 1905. *Cicindela bigemina* sub sp. *procera* W. Horn, *Desutsche Ent. Zeitschr* : 34
 1912. *Cicindela bigemina*, Fowler, *Fauna Brit. India, Coleoptera* : 347.

Material examined : 3 exs., Siliguri, Base of E Himalaya, 3-4 vi. 1911, N A & S K coll., 3 exs. Calcutta, 1 vii. 07, Mus. coll.; 1 ex Kurseong , 13 -16 vii. 07, Mus. coll., 3 exs., Saraghat , R Ganges, E Bengal, 26 vi. 09, J T Jonkins coll.

Distribution : India : West Bengal (Calcutta, Darjiling, Maldah, Murshidabad); Bihar, Madhya Pradesh and Maharastra. Also known from Bangladesh.

30. *Cicindela seriepunctata* Horn 1892

1892. *Cicindela scriepunctata* W Horn, *Deutsche Ent. Zeitschr* : 80
 1912. *Cicindela seriepunctata*, Fowler, *Fauna Brit. India, Coleoptera* : 351.

Material examined : 6 exs. Darjeeling, Single May, 1913, Lord Carmicheals coll. 5 exs. Darjeeling, Kalimpong, 19-20. v. 30, S. L. Hora coll; 3 exs. Darjeeling, Rungest Valley , 29. v. 16, F. H. Gravely coll; 1 ex. Darjeeling, May -1912, Lord Carmichale coll; 2 exs. Darjeeling, Pasoke 26 v. 14 vi. 16, F. H. Gravely coll; 1 ex Darjeeling, Singla, 25. iv. 23, M. S. Sharma coll.

Distribution : India : West Bengal (Darjiling);

31. *Cicindela decempunctata* Dejean 1825

1825. *Cicindela decempunctata* Dejean, *Spec. col.* 1 : 145.
 1893. *Cicindela modica* Gestro, *Ann. Mus. Genova*, : 354.
 1912. *Cicindela decempunctata*, Fowler, *Fauna Brit. India, Coleoptera* : 353.

Material examined : 1 ex; Rajmahal, 31. vii. 07, Mus. coll.

Distribution : India : West Bengal (Birbhum, Murshidabad). Also known from Burma and Vietnam.

32. *Cicindela undulata* Dejean 1825

1825. *Cicindela undulata* Dejean, *Spec. col.*, 1 : 96.
 1892. *Cicindela dubia* W Horn, *Dentsche Ent. Zeitschr* : 80
 1912. *Cicindela undulata*, Fowler, *Fauna Brit. India, Coleoptera* : 356.

Material examined : 2 exs. Calcutta , 23. ix. 11, F.H.G. coll.

Distribution : India : West Bengal (Calcutta, Barddhaman); Bihar, Madhya Pradesh, Uttar Pradesh, Orissa and Tamil Nadu. Also known from Bangladesh.

33. *Cicindela erudita* Wiedemann 1823

1823. *Cicindela erudita* Wiedemann, *Zool. Mag.*, ii, 1 : 68.
 1831. *Cicindela amabilis* Dejean, *Spec. Cal*, v, : 228.
 1839. *Cicindela caloropus* Brulle, *Arch. Mus. Paris*, i, 134, Pl. 9, Fig. 2.
 1912. *Cicindela crudita*, Fowler, *Fauna Brit. India, Coleoptera* : 362.

Material examined : 3 exs; Sundarban, Bagmara, 8. ix. 1983. S Chattopadhyay coll.

Distribution : India : West Bengal (Maldah, South 24-Parganas); Bihar, Uttar Pradesh, Himachal Pradesh and Kashmir.

34. *Cicindela grammophora* Chaudoir 1852

1852. *Cicindela grammophora* Chaudoir, *Bull. Soc. Muscou*, : 7
 1912. *Cicindela grammophora*, Fowler, *Fauna Brit. India, Coleoptera* : 365.

Material examined : 3 exs., Sripur, Saran, N. Bengal, 27. ix .10, Mus Coll.; 1 ex, Damukdia, E. Bengal, 7.vi. 08, Mus. coll. (Now in Bangladesh). 1 ex. Damikdia Ghat, E. Bengal , 30.vi. 08, N .A coll., 1 ex; Katihar, Purnia Dist. N. Bengal, 1-24. ix. 10. C. Paiva coll.

Distribution : India : West Bengal (Bardhaman, Calcutta, Maldah), Bihar.

35. *Cicindela cognata* Wiedemann 1823

1823. *Cicindela cognata* Wiedemann, *Zool. Mag.* ii, 1 : 66.
 1836. *Cicindela triramosa* Kollar, *Ann. Wien. Mus*, i, : 330.
 1912. *Cicindela cognata*, Fowler, *Fauna Brit India, Coleoptera* : 364.

Material examined : 1 ex; Goalbathan, E. Bengal. 9. vii. 09. R. Hodgart coll.

Distribution : India : West Bengal (Bardhaman, Darjeeling, Murshidabad); Bihar. Also in Bangladesh.

36. *Cicindela minuta* Olivier 1790

1790. *Cicindela minuta* Olivier, *Ent*, ii, : 31 Pl. 2, Fig. 13.
 1825. *Cicindela tremebunda* MeLeay, *Ann. Jav*, : 12.
 1834. *Cicindelaprinsepi* Saunders, *Trans. ent. soc. London*, : 65, Pl. 7, Fig. 7.
 1912. *Cicindela minuta*, Fowler, *Fauna Brit. India, Coleoptera* : 366.

Material examined : 5 exs., Calcutta, Eden garden; 11. vi. 07, F. H. Gravely coll; 1 ex; Darjeeling, Pashok, 1913; L. C. Hartless coll; 1 ex; Calcutta, 6. xii. 25, A.B.S. S. coll.

Distribution : India : West Bengal (Calcutta, Darjiling, Murshidabad); Bihar, Tamil Nadu, Pondicherry. also known from Burma, China, Indochina, Malay Archipelago and Bangladesh.

37. *Cicindela nitida* Wiedemann 1821

1821. *Cicindela nitida* Wiedmann, *Gern. mag. Ent.*, iv, : 117.
 1836. *Cicindela venosa* Kollar, *Ann. Wien. Mus*, i, : 331.
 1912. *Cicindela nitida*, Fowler, *Fauna Brit. India, Coleoptera*, : 366.

Material examined ; 2 exs., Calcutta, Eden Gardens, 19.xi.07, Mus. coll., 2 exs, Calcutta, 21.x.14, F.H. Gravely coll.; 4 exs. Rajmahal, Bengal? 6.vii.09, N. Annandale coll.; 1 ex., Calcutta, 3.iv.10, C. Paiva coll.; 2 exs., Saraghat, E. Bengal, 3.ix.09, N. Annandale coll.

Disribution : India : West Bengal (Bardhaman, Calcutta, Darjeeling, Maldah); Bihar, Tamil nadu.

Also known from Bhutan, Burma and Bangladesh.

38. *Cicindela agnata* Fleutiauxz 1980.

1980. *Cicindela agnata* Fleutiaux, *C.R. Soc. Ent. Belg. que.* : 68.
1912. *Cicindela aganata*, Fowler, *Fauna Brit. India, Coleoptera* : 367.

Material examined ; 1 ex., West Bengal (no other data).

Distribution : India : West Bengal (Bardhaman, Darjeling), bihar, Orissa, Tamil Nadu.

39. *Cicindela angulata* Fabricius 1798

1798. *Cicindela angulata* Fabricius *Ent. Syst. Suppl.*, : 62.
1845. *Cicindela latipenis* Parry, *Trans. ent. Soc. London*,
1912. *Cicindela angulata*, Fowler, *Fauna Brit. India, Coleoptera* : 370.

Material examined ; 3 exs., Pankhabari, Mus. coll.; 1 ex., Maldah, Indian Mus. coll.; 1 ex. Calcutta. (No other data).

Distribution : India : West Bengal (Bardhaman, Calcutta, Darjeeling, Maladah), Bihar. Also known from Pakistan, Burma, Hainan, Annam.

40. *Cicindela sumatrensis* Herbst 1800

1800. *Cicindela sumatrensis* herbst, *Kafer*, 10 : 179, Pl. 172, Fig. 1.
1836. *Cicindela archuta* Kollar, *Ann. Wien. Mus.*, i. : 330.
1883. *Cicindela niponesis* Bates, *Trans. ent. Soc. London*, : 216.
1912. *Cicindela sumatrensis*, Fowler, *Fauna Brit. India, Coleoptera* : 371.

Material examined : 2 exs., Siliguri. Base of E. Himalayas. 3.4.vi.1911, N.A. & S.K. coll. 1 ex., Damukdia, E. Bengal, 7.vi.08. Mus. Coll.

Distribution : India : West Bengal (Calcutta, Darjeling, Maldah), bihar, Tamil Nadu, Maharashtra, kerala. Also known from Pakistan, Burma, Nepal, China, Japan, Indonesia, Malay Peninsula and Bangladesh.

41. *Cicindela cardoni* Fleutiaux 1980.

1890. *Cicindela cardoni* Fleutiaux, *C.R. Soc. Ent. Belgique*, : 169.
1912. *Cicindela cardoni*, Fowler, *Fauna Brit. India, Coleoptera* : 372.

Material examined : 2 exs., Puruliya, Manbhum Dist., 10.11.12, N.. & F.H.G. coll.

Distribution : India : West Bengal (Bardhaman, Puruliya); Bihar, Maharashtra, Karnataka, Pondichery. Also known from Burma.

42. *Cicindela chloris* Hope 1831

1831. *Cicindela chloris* Hope, *Gray's zool. Miscell.* : 21.
 1848. *Cicindela himalayica* Redtenbracher, *Hügels Kaschmir*, iv. 2 : 497, Pl. 23, Fig. 1.
 1912. *Cicindela chloris*, Fowler, *Fauna Brit. India, coleoptera* : 376.

Material examined ; 1 ex., Siliguri, Base of E. Himalayas, 3-4.vi.1911, N.A. & S.K. coll.

Distribution : India : West Bengal (Darjiling); Uttar Pradesh; Kashmir. Also known from Nepal.

43. *Cicindela funerea* McLeay 1825

1825. *Cicindela funerea* Mcleay, *Ann. Jav.*, : 12.
 1826. *Cicindela marginepunctata* Dejean, *Spec. Col.*, : ii, : 428.
 1831. *Cicindela assimilis* Hope, *Gray's Zool. Miscell* : 21.
 1912. *Cicindela funerea*, Fowler, *Fauna Brit. India, Coleoptera* : 377.

Material examined : 4 exs., Darjeeling, Rangeet valley, 29.v.16. F.H. Gravely coll.; 1 ex., Darjeeling, Kalimpong, 24.iv.-10.v.15, F.H. Gravely coll.; 2 exs., Darjeeling, Singla, May-1913, Lord Carmichael's coll.; 1 ex., Darjeeling, Rangpo, 31.ix.17, F.H. Gravely coll.; 2 exs., Rangeet valley, Darjeeling, E. Himalayas, 31.x.17, F.H. Gravely coll.; 1 ex., Gopaldhara, Rungbong valley, Darjeeling, BR. Sikkim, 1911, W.K. Webbs coll.

Distribution : India : West Bengal (Darjiling); Assam, Bihar, Maharashtra, Himachal Pradesh. also known from Bangladesh, Burma, Indonesia. Celebes, Hinan, Indochina.

44. *Cicindela albopunctata* Chaudoir 1852

1852. *Cicindela albopunctata* Chaudoir, *Bull. Soc. Moscou*, : 10.
 1878. *Cicindela olivia* Bates, *Cist. Ent.*, : 330.
 1912. *Cicindela albopunctata*, Fowler, *Fauna Brit. India. Coleoptera* : 378.

Material examined : 3 exs., Rhenock, Darjeeling, West Bengal, 6.ix.1959, B. K. Tikader coll.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh, Himachal Pradesh.

45. *Cicindela oberthuri* Fletiaux 1893

1893. *Cicindela oberthuri* Fletiaux, *Bull. soc. Ent. France*, : 216.
 1912. *Cicindela oberthuri*, Fowler, *Fauna Brit. India, Coleoptera* : 380.

Material examined : 2 exs., Darjeeling, Singla, May-1913, Lord Carmichael's coll., 2 exs., Gopaldhara, Rungbon valley, Darjeeling, 1911, W.K. Webb.

Distribution : India : West Bengal (Darjiling).

46. *Cicindela octonotata* Wiedemann 1819

1819. *Cicindela octonotata* Wiedemann, *Zool. Mag.*, i.3. : 168.
 1912. *Cicindela octonotata*, Fowler, *Fauna Brit. India, Coleoptera* : 381.

Material examined : 1 ex., Sukna, Darjeeling, E. Himalayas, 1.vii.08, N. annandale coll.; 2 exs., Mariambari Tea Estate, Pankhabari, E. Himalayas, 15-23.viii. 28, I.M. Puri coll.; 4 exs., Sukuna, Darjeeling, E. Himalayas, 6.vi. 30, S.L. Hora coll.

Distribution : India : West Bengal (Bardhaman, Darjiling, Maldah, Murshidabad); Assam, Bihar, Mizoram, Manipur, Meghalaya, Uttar Pradesh, Himachal Pradesh. Also known from Bngladesh and Burma.

47. *Cicindela aurulenta* Fabr. 1825.

1825. *Cicindela aurulenta* Fabricious *Syst. El.* 1 : 239.
 1839. *Cicindela virgula* Fleutiaux, *Bull. soc. Ent. France*, : 491.
 1912. *Cicindela aurulenta* var. *virgula*, Fowler, *Fauna Brit. India, Coleoptera*, : 383.

Material examined : 2 exs. Darjeeling, Rangpo, 5. vii. 1979, p. Halder coll; 1 exs. Darjeeling, Rangpo, 7. vii. 1979, S. C. Mitra coll. 3 exs. Rungeet valley, Darjeeling, E. Himalayas, 20. v. 16, F. H. Gravely coll; 1 ex. Ghumti, Darjeeling, E. Himalayas, vii. 11, F. H. Gravely coll. 2 exs. Pashok, Darjeeling, 26. v- 14 vi. 16. F. H. Gravely coll; 4 exs. Soom, Darjeeling, 15. vi. 14, F. H. Grvely coll; 2 exs. Darjeeling, Singla June - 1913, Lord Carmichael's coll.

Distribution : India : West Bengal (Darjiling); Assam, Nagaland. Also known from Bhutan, Bangladesh, Burma, China and Hongkong.

48. *Cicindela sexpunctata* Fabricius 1775

1775. *Cicindela sexpunctata* Fabricius, *Syst. Ent.* : 226.
 1862. *Calochroma sexpunctata* Motschulsky, *Etud. Ent.* xi. : 22.
 1912. *Cicindela sexpunctata*, Fowler, *Fauna Brit. India Coleoptera* : 385.

Material examined : 3 exs., Calcutta, 9. ix. 1931. S.R. coll., 1 ex; calcutta, 24. v. 14; F. H. Gravely coll. 2 exs; Calcutta, Sibpur, 1907, L. R. coll; 1 ex; Calcutta, Ballygung, 20. vi. 08, T. Benthum coll. 3 exs. Calcutta, 4-9 viii. 1959, A. P. Kapur; 1 ex; Palta, 24 Parganas, 11. vii. 1984, S. K. Majumder; 1 ex. Barrackpore near Calcutta, x 24, S. Riberiro coll; 1 exs. Basanti, 24 Parganas, Sundarban 16. xi. 09, J T Jenkins coll; 1 ex; Calcutta, x 21, S W Kemp; 2 exs. Raniganj, Bengal, a Martin; 1 ex. Calcutta, 19. vi 09; Mus. coll.

Distribution : India : West Bengal (Barddhaman, Birbhum, Calcutta, Maldah, Murshidabad, North 24 Parganas, South 24 Parganas); Bihar; Maharastra; Tamil Nadu; Kashmir; Andaman and Nicobar Islands. Also known from Burma, Bangladesh, China, Vietnam, Formosa, Annam, Philippine. Senegal.

49. *Cicindela aurovittata* Brulle 1838

1838. *Cicindela aurovittata* Brulle, *Arch. Mus. Paris*, i, : 127, Pl. 8, fig. 3
 1912. *Cicindela aurovittata* Fowler, *Fauna Brit. India Coleoptera* : 386.

Material examined : 1 ex; Dakhindari, Salt Lake near Calcutta, v. 26. B. N. Chopra coll.

Distribution : India : West Bengal (Calcutta), Tamil Nadu, Andaman and Nicobar Island. Also known from Srilanka, Burma, Philippine Island.

Remarks : The species is being recorded for the first time from India.

50. *Cicindela assamensis* Parry 1845

1845. *Cicindela assamensis* Parry, *Trans. Ent. Soc. London*, iv. : 84.
 1862. *Calostola assamensis* Motschulsky, *Etud. Ent.*, xi. : 22.
 1912. *Cicindela assamensis*, Fowler, *Fauna Brit. India, coleoptera* : 395.

Material examined ; 1 ex., Pashok, Darjeeling, E. Himalayas, vi.1916, L.C. Hartless coll.; 1 ex., Sukna, Darjeeling, E. Himalayas, 1 vii. 08, N. Annandales coll.; 1 ex. Gopaldhara, Rungbong valley, Darjeeling, Sikkim, 1911, W.K. Webb.

Distribution : India : West Bengal (Darjiling); Assam, Meghalaya, Manipur. Also known from Bangladesh and Burma.

51. *Cicindela bicolor* Fabricius 1781

1781. *Cicindela bicolor* Fabricius, *Sp. Ins.*, 1, : 283.
 1912. *Cicindela bicolor*, Fowler, *Fauna Brit. India, Coleoptera* : 400.

Material examined : 3 exs., Goria near Calcutta, 27.vi.08, J.B.R. coll., 1 ex., Agarpara near Calcutta, 16.vi.25, R.H. coll.; 1 ex. Birbhum. (no ther data.)

Distribution : India : West Bengal (Bardhaman, Birbhum, Calcutta, Maldah, Murshidabad); Bihar, Meghalaya, Maharashtra, Himachal Pradesh.

52. *Cicindela haemorrhoidalis* Wiedemann 1823

1823. *Cicindela haemorrhoidalis* Wiedemann, *Zool. Mag.*, ii, 1 : 63.
 1826. *Cicindela quadrimaculata* Sturm. *Cat.*, : 55, Pl. I, Fig. I.
 1832. *Cicindela flavopunctata* Audocrin, *Mag. zool.*, : 18.
 1912. *Cicindela haemorrhoidalis*, Fowler, *Fauna Brit. India, Coleoptera* : 402.

Material examined ; 1 ex., Lohardanga (no other data).

Distribution : India : West Bengal (Calcutta); Assam, Bihar, Maharashtra, Karnataka, Tamil Nadu, Kerala.

53. *Cicindela cyanea* Fabricius 1787

1787. *Cicindela cyanea* Fabricius, *Mant.* 1 : 155.
 1831. *Cicindela cyanea* var. *dejeani* Hope, *Gray's zool. Miscell.* : 21.
 1912. *Cicindela cyanea* var. *dejeani*, Fowler, *Fauna Brit. India, Coleoptera* : 406.

Material examined : 1 ex., Berhampore (no other data).

Distribution : India : West Bengal (Murshidabad), Bihar.

54. *Cicindela viginiguttata* Herbest 1806

1806. *Cicindela viginiguttata* Herbest, *Kafer*, x, : 175, Pl. 179, Fig. 9.
 1825. *Cicindela viginiguttata* Dejean, *Spec. col.*, i, : 168.
 1912. *Cicindela viginiguttata*, Fowler, *Fauna Brit. India, Coleoptera* : 416.

Material examined ; 1 ex., Kurseong, E. Himalayas, 5000 ft., 13-16. vii.07, Mus. Coll.; 1 ex. Berhampur (no other data); 1 ex. Mongphu (no other data).

Distribution : India : West Bengal (Birbhum, Darjiling), Bihar, Also known from Bangladesh.

55. *Cicindela multiguttata* Dejean 1825.

1825. *Cicindela multiguttata* Dejean, *Spec. Col.*, i, : 109.
 1912. *Cicindela multiguttata*, Fowler, *Fauna Brit. India, Coleoptera* : 417.

Material examined : 2 exs., Darjeeling, Rangpo, Soom, 5.vii.1974, P. Halder coll.; 1 ex. Darjeeling, Rangpo, 23.v.1979, M.S. Shishodia coll.

Distribution : India : West Bengal (Bardhaman, Darjiling), Assam. Also known from Bangladesh.

56. *Cicindela vittigera* Dejean 1825

1825. *Cicindela vittigera* Dejean, *Spec. Col.*, i, : 107.
 1912. *Cicindela vittigera*, Fowler, *Fauna Brit. India, Coleoptera* : 417.

Material examined : 1 ex., Goalbathan, East Bengal, 9.vii.09, R. Hodgart coll. 1 ex. Damukdia, East Bengal. 30.vi.08. N.A. Coll.

Distribution : India : West Bengal (Calcutta, Maldah, Murshidabad). Also known from Bangladesh.

57. *Cicindela striolata* Illiger 1800

1800. *Cicindela striolata* Illiger, *Wieg. Arch*, i, : 114.
 1831. *Cicindela vigorsi* Dejean, *Spec. Co.*, v, : 223.
 1865. *Cicindela lineifrons* Chaudoir, *Cat. Col.*, : 62.
 1912. *Cicindela striolata*, Fowler, *Fauna Brit. India, Coleoptera* : 419.

Material examined : 3 exs., Soom, Darjeeling, 16.vi.14, F.H. Gravely coll.; 1 ex., Pashok, Darjeeling, 26.v.-14.vi.16, F.H. Gravely coll.; 1 ex. Mungphu; 1 ex., Maldah (No other data.

Distribution : India : West Bengal (Calcutta, Darjeeling, Maldh), Bihar, Meghalaya, Maharashtra, Karnataka, Kerala. Also known from Burma, Indonesia, China, Indo-china, Formosa, Celebes and Philippines.

58. *Cicindela concellata* Dejean 1825

1825. *Cicindela concellata* Dejean, *Spec. Col.*, i, : 116.
 1846. *Cicindela concellata* Schmidt - Goebel, *Fauna Col. Birm.*, : 5, Pl.1, Fig.4.
 1912. *Cicindela concellata*, Fowler, *Fauna Brit. India, Coleoptera* : 424.

Material examined : 3 exs., Siliguri, Base of E. Himalayas, 3-4.vi.1911, N.A. & S.K. coll.; 2 exs., Sukna, E. Himalayas, 1.vii.08, N. Annandale coll.; 1 ex., Berhampur.

Distribution : India : West Bengal (Bardhaman, Darjiling, Murshidabad), Orissa, Maharashtra, Kerala, Karnataka. Also known from Burma, Indonesia, Cochin-china.

59. *Cicindela catena* Fabricius 1775

1775. *Cicindela catena* Fabricius, *Syst. Enty.*, : 226.
 1754. *Cicindela capensis* Herbest, *Fuessly, Arch. Ins.*, : 149, Pl. 27, Fig. 14.
 1912. *Cicindela catena*, Fowler, *Fauna Brit. India, Coleoptera* : 426.

Material examined : 1 ex, Calcutta, Indian Mus. coll.

Distribution : India : West Bengal (Calcutta, Darjiling), Karnataka, Kerala. Also known from Burma.

60. *Cicindela striatifrons* Chaudoir 1852

1852. *Cicindela striatifrons* Cahudoir, *Bull. soc. Moscou*, : 12.
 1912. *Cicindela striatifrons*, Fowler, *Fauna Brit. India, Coleoptera* : 426.

Material examined ; 1 ex., Berhampur, West Bengal, Atkinson; 1 ex., Murshidabad, West Bengal, Indian Mus. coll.

Distribution : India : West Bengal (Murshidabad), Maharashtra, Karnataka.

61. *Cicindela biramosa* Fabricius 1781

1781. *Cicindela biramosa* Fabricius, *Spec. Ins.*, i : 286.
 1784. *Cicindela tridentata* Thunberg, *Nov. Ins. Sp.*, : 26 Fig. 40.
 1912. *Cicindela biramosa*, Fowler, *Fauna Brit. India, Coleoptera* : 431.

Material examined : 4 exs., Sunderban Tiger Reserve, 24-Parganas, West Bengal, 10-14.ix.1983, S.S. Saha coll.; 7 exs., Sunderban, West Bengal, 22.vi.1973, S. Roy coll.

Distribution : India : West Bengal (south 24-Parganas), Andaman Island. Also known from Bangladesh, Burma, Srilanka, Malacca, China.

62. *Cicindela quadrilineata* Fabricius 1781

1781. *Cicindela quadrilineata* Fabricius, Sp. Ins., i, : 285.

1912. *Cicindela quadrilineata*, Fowler, *Fauna Brit. India, Coleoptera* : 434.

Material examined ; 5 exs., West Bengal, 24-Parganas (S) Sundarban, Bagmara, 18.ix.1983, S. Chattopadhyay coll.; 8 exs., West Bengal, Sunderban, Machuakhal, 13.ix.1983, S. Chattopadhyay coll.; 5 exs. West Bengal, Tiger Reserve, Sundarban, 14.ix.1983, S.S. Saha coll.; 1 ex. West Bengal, Sundarban, 22.iv.1973, S. Roy coll.

Distribution : India : West Bengal (South 24-Parganas), Krala. Also known from Pakistan and Srilanka.

Remarks : The species is being recorded for the first time from West Bengal.

63. *Cicindela limosa* Saunders 1834

1834. *Cicindela limosa* Saunders, *Trans. ent. Soc. London* : 64, Pl.7, Fig.6.

1882. *Cicindela cinctella* Chevrolat, *Le Nat.* : 73.

1912. *Cicindela limosa*, Fowler, *Fauna Brit. India, Coleoptera* : 436.

Material examined : 6 exs., Sunderban Tiger Reserve, 14.ix.1983, S.S. Saha coll.; 5 exs., Durgapur, Salt Lake near Calcutta. 8.iii. 1914, Ind. Mus. coll.; 3 exs., Salt Lake neat Calcutta, 23.v.-7.vi.14, F.H. Gravely coll.

Distribution : India : West Bengal (Calcutta, South 24-Parganas), Sikkim, Andaman Island. Also known from Burma, Srilanka, Chusan Island.

SUMMARY

Sixty five species belonging to 14 genera, 5 subfamilies and three families have been dealt with in this paper. Of them one species has been described as new to science, 11 species have been recorded first time from West Bengal of which two species are first time recorded from India. Key to subfamilies, genera and species have been provided under each family. Relevant references and collection and distributional data are also provided. Remarks on habit and habitat have also been incorporated wherever available.

CHART SHOWING DISTRICT WISE DISTRIBUTION OF
SPECIES RECORDED FROM WEST BENGAL

Species	Bankura	Bardhaman	Birbhum	Calcutta	Darjiling	Haora	Hugli	Jalpaiguri	Koch Behar	Maldah	Medinipur	Murshidabad	Nadia	24-Parganas (North)	24-Parganas (South)	Puruliya	West Dinajpur
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Genus *Omoglymmus* Ganglbaur 1892

Omoglymmius (Orthoglymmius) *darjeelingensis*
sp.nov. Saha & Biswas

+

PAUSSIDAE

Cerpterus Sweders 1788

C. latipes Swederus

Pleuropterus Raffray 1855

P. cardoni Gestro

Ceratoderus Westwood 1842

C. andrewesi Desneux

C. bifasciatus (Koller)

+

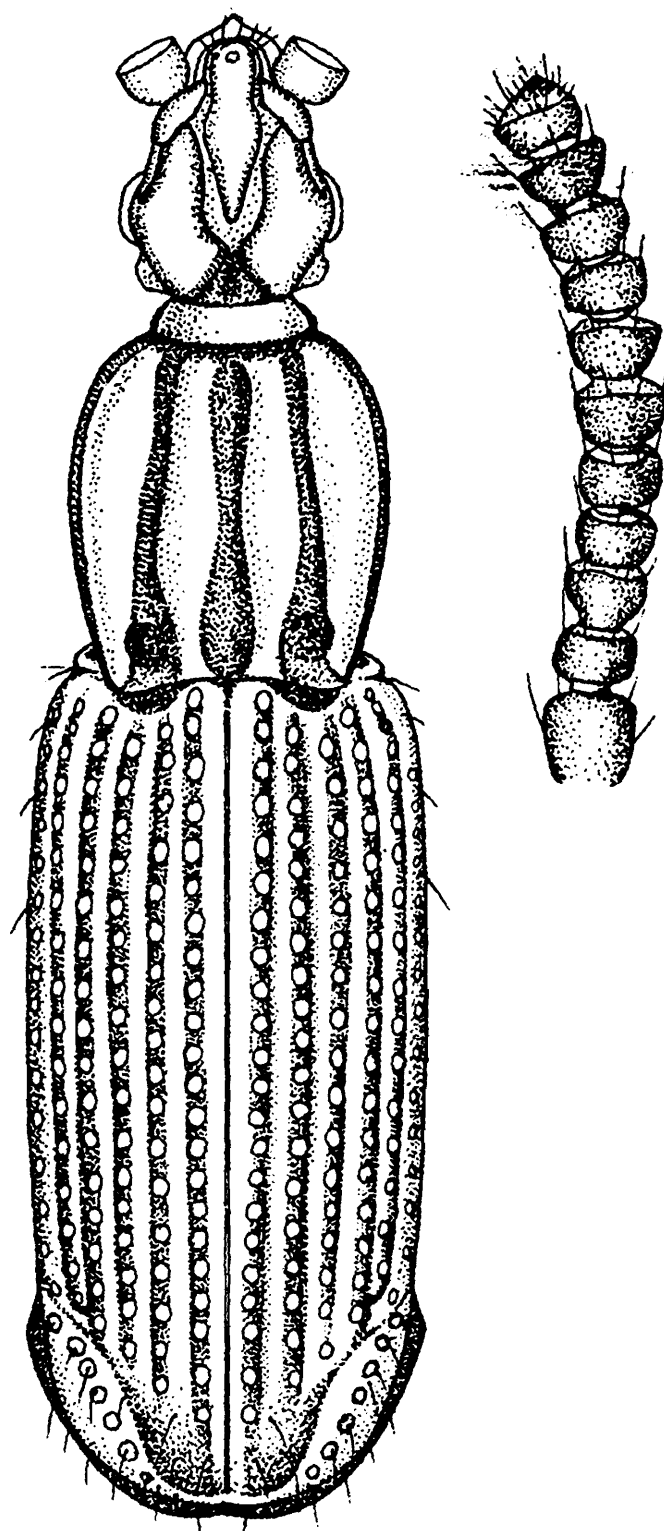
Euplatyrhopalus Desneax 1905

E. aplustriper (Westwood)

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Platyrhoplus</i> Westwood																	
<i>P. agustus</i> Westwood												+					
<i>P. denticornis</i> Donovan				+													
<i>P. intermedius</i> Benson					+												
<i>Paussus</i> Linnaeus 1775																	
<i>P. pilicornis</i> Donovan				+													
<i>P. sesquisulcatus</i> Wasmann								+									
<i>P. cognatus</i> Westwood																	
<i>Necollyrs</i> Horn 1901																	
<i>N. smithii</i> (Chaudoir)																	
<i>N. redtenbacheri</i> Horn					+												
<i>N. variitarsis</i> (Chaudoir)					+												
<i>N. variicornis</i> (Chaudoir)					+												
<i>N. atenuata</i> Redtenbacher					+												
<i>N. distincta</i> (Chaudoir)					+												
<i>N. insignis</i> (Chaudoir)					+												
<i>N. Spyrina</i> (Chaudoir)					+												
<i>N. fuscitarsis</i> (SchmGoeb)					+												
<i>N. bonelli</i> (Guerin)												+					
<i>N. samaragdina</i> (Horn)					+												
<i>N. feae</i> (Horn)																	
<i>N. crassicornis</i> (Dejean)				+													
<i>Collyris</i> Fabricius 1801																	
<i>C. longlicollis</i> Fabricius																	

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>C. decempunctata</i> Dejean																	
<i>C. undulata</i> Dejean				+													
<i>C. crudita</i> Wiedmann												+					
<i>C. grammophora</i> Chaudoir																	
<i>C. cognata</i> Wiedmann				+													
<i>C. nitid</i> Olivier				+	+												
<i>C. agnatha</i> Fleutiaux					+												
<i>C. sumatrensis</i> Herbst					+												
<i>C. angulata</i> Fabricius				+	+												
<i>C. cardoni</i> Fleutiaux																	
<i>Cicindela</i> Linnaeus																	
<i>C. chloris</i> Hope					+												
<i>C. funarea</i> Macly					+												
<i>C. albopunctata</i> Chaudoir					+												
<i>C. oberthuri</i> Fleutiaux					+												
<i>C. octonotata</i> Wiedmann					+												
<i>C. aurulenta</i> Fabr.																	
<i>C. aurulenta virgula</i> Fleutiaux					+												
<i>C. sexpunctata</i> Fabricius				+										+		+	
<i>C. aurovittata</i> Brulle				+													
<i>C. assamensis</i> Parry					+												
<i>C. bicolor</i> Fabricius			+	+													
<i>C. haemorrhoidalis</i> Wied														+			
<i>C. cyanea dejeani</i> Hope												+					
<i>C. vigintiguttata</i> Herbst					+												
<i>C. multiguttata</i> Dejean					+												
<i>C. vittigera</i> Dejean																	
<i>C. striolata</i> Illiger					+					+							
<i>C. cancellata</i> Dejean					+							+					

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>C. catena</i> Fabricius				+													
<i>C. striotifrons</i> Chaudoir												+					
<i>C. biramosa</i> Fabricius																	+
<i>C. quadrilineata</i> Fabr.																	+
<i>C. limosa</i> Saunders				+													+



Omoglymmius (Orthoglymmius) darjeelingensis sp.n.

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**INSECTA : COLEOPTERA : ADEPHAGA :
CARABIDAE : HARPALINI**

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INTRODUCTION

Tribe HARPALINI is one of the largest group of the family Carabidae. Both the genera and species are numerous and diversified. Some more than one thousand species under numerous genera are distributed throughout the world. Harpalini is well represented in India largely by such palaeartic genera as *Harpalus* Latreille, *Hypolithus* Dejean, *Stenolophus* Stephens and *Acupalpus* Latreille. Of these genera *Harpalus* is mostly confined to the Himalayan tract. The genus *Anisodactylus* Dejean, is the palaeartic representative of the subtribe Anisodactylina is replaced in South East Asia by the genus *Gnathophanus* MacLeay. A good number of the Indian genera of the subtribe Harpalina are spread over S.E. Asia but do not occur elsewhere. So far 115 species under 38 genera are known from India of which 30 species under 18 genera are recorded from the state of West Bengal. Like carabids in general the members of this group are primarily carnivorous in habit but some, particularly the *Harpalus* species are found to feed on foliage, cereals and other vegetable matters in addition to their carnivorous habit and should rather be termed 'Omnivorous'

As in the other groups of the family Carabidae the pioneer workers of this group are Latreille (1802), MacLeay (1825), Stephens (1827) and Erichson (1837). Most of the genera and species of this group have been described by Dejean (1829, 1837), Motschulsky (1855, 1864), Chaudoir (1844, 1852, 1854 and 1863), Bates (1889, 1891 and 1892), Alluand (1930) and Andrewes (1919-1947). The last author (Andrewes) is the only major worker of the current century who has done the major work of the Oriental Carabidae by his series of publications as 'Papers on Oriental Carabidae' (1919-1947), these literatures are given in the work of Habu, 1973 and are not repeated in this work) and two volumes of Fauna of British India (1929 and 1935). But no comprehensive work on the Indian or West Bengal fauna of this group of Carabidae is yet available and this is the first attempt for a comprehensive work on this group of the family Carabidae.

As regards to Harpalini fauna of West Bengal most of the species were originally described from the other parts of India or other countries of S.E. Asia and are subsequently recorded from West Bengal mostly by Chaudoir, Bates and Andrewes as referred above. Two species *Coleolissus perlucens* Bates and *Stenolephus quinquepustulatus* Wied. are first time recorded from West Bengal in this work.

This work consists of studies on 31 species under 18 genera and 4 subtribes of the tribe Harpalini so far recorded from West Bengal and based on the material of both old and recent surveys of West Bengal

carried out by the different parties of the Zoological Survey of India. For the species where material have not been available from West Bengal studies have been based on the material from the other states of India or on literature.

Taxonomic arrangements have been followed after Andrewes (1930) and Habu (1973).

SYSTEMATIC ACCOUNT : LIST OF TAXA

(Species marked with * are first records from West Bengal)

Tribe HARPALINA

- Subtribe I. **ABLYSTOMINA**
- Genus 1. ***Amblystomus*** Erichson 1837
1. *bivattatus* Andrewes 1919
- Subtribe II. **ANISODACTYLINA**
- Genus 2. ***Chydaeus*** Chaudoir 1854
2. *bedeli* (Tchitch. 1897)
3. *obscurus* Chaudoir 1854
- Genus 3. ***Gnathophanus*** MacLeay 1825
4. *laevistriatus* (Sturm. 1818)
5. *punctilabris* MacLeay 1825
- Genus 4. ***Lamprophonus*** Bates 1889
6. *lucens* Bates 1889
- Subtribe III. **HARPALINA**
- Genus 5. ***Harpalus*** Latreille 1802
- Subgenus (a) ***Ophonus*** Stephens 1827
7. *indicus* Bates 1891
- Subgenus (b) ***Harpalus*** (s. str.)
8. *indicola* Bates 1878
9. *karennius* Bates
- Genus 6. ***Harpaliscus*** Bates 1892
10. *birmanicus* Bates 1892
- Genus 7. ***Dioryche*** MacLeay 1825

11. *chinanda* Andrewes 1921
 12. *nagpurensis* (Bates 1891)
 13. *torta* MacLeay 1825
 14. *colombensis* (Nietner 1857)
- Genus 8. *Ophoniscus* Bates 1892
 15. *iridulus* Bates 1892
- Genus 9. *Oxycentrus* Chaudoir 1854
 16. *parallelus* Chaudoir 1854
- Genus 10. *Trichotichnus* Morawitz 3. 1863
- Subgenus (a) *Trichotichnus* (s. str.)
 17. *birmanicus* Bates 1892
- Subgenus (b) *Kareya* Andrewes 1919
 18. *endentata* Bates 1892
- Genus 11. *Hypolithus* Dejean 1829
 19. *lividus* Andrewes 1923
- Genus 12. *Liodaptus* Bates 1889
 20. *birmanus* Bates 1889
- Genus 13. *Pachytrachelus* Chaudoir 1852
 21. *cribriceps* Chaudoir 1852
 22. *oblongus* (Dejean 1831)
- Genus 14. *Platymetopus* Dejean 1831)
 23. *flavilabris* (Fabr. 1798)
- Genus 15. *Coleolissus* Bates 1892
 *24. *perlucens* Bates 1892
- Subtribe IV STENOLOPHINA
- Genus 16. *Stenolophus* Stephens 1827
- Subgenus (a) *Stenolophus* (s. str.)
 25. *splendidus* (Motchulsky 1864)
- Subgenus (b) *Egadroma* Motchulsky 1855
 *26. *quinquepustulatus* Wied 1823

27. *charis* Bates 1892
 28. *rectifrons* Bates 1892
 29. *smaragdulus* (Fabr. 1798)
- Genus 17. *Egaploa* Alluand 1930
 30. *crenulata* (Dejean 1829)
- Genus 18. *Anoplogenius* Chaudoir 1852
 31. *microgonus* Bates 1886

Tribe HARPALINA

Key to subtribes of the tribe HARPALINA (After Habu 1973)

- 1(2) Clypeus and labrum more or less asymmetrically emerginate at apex; penultimate segment of labial palpi with more than two setae at inner side; fore tarsi of male with two rows of adhesive hairs on ventral side..... Amblystomina
- 2(3) Clypeus and labrum normal, not asymmetrically emerginate at apex
- 3(4) Penultimate segment of labial palpi with two (rarely three) setae at inner side; fore tarsi of male with two rows of adhesive hairs on ventral side; marginal series of pores on elytral interval 9 widely interrupted at middle, generally composed of 14 pores..... Stenolophina
- 4(5) Penultimate segment of labial palpi with more than (rarely three) setae at inner side; marginal series of pores on elytral interval 9 often continuous, composed of more than fifteen pores in general
- 5(6) Fore tarsi of male with two rows of adhesive hairs on ventral side; suture between mentum and submentum complete, submentum with one or two setae on either side..... Harpalina
- 6(5) Fore tarsi of male with compact, not two lined, adhesive hairs on ventral side; suture between mentum and submentum generally incomplete; submentum with two setae on either side..... Anisodactylina

Subtribe I. AMBLYSTOMINA

Genus 1. *Amblystomus* Erichson 1837

1837. *Amblystomus* Erichson, *Kaf. Mark Brand.*, 1 : 59.
 1924. *Ablystomus*, Andrews, *Miss. Prov. cent. Ind. Himalaya*, 1914 Guy Babault, Carabidae, p. 33.
 1930. *Amblystomus*, Andrewes, *Cat. Indian Ins. Part 18 Carabidae*, p. 17.

1. *Amblystomus bivittatus* Andrewes1892. *Amblystomus bivittatus* Bates, *Ann. Soc. ent. Belgique*, p. 231.1919. *Amblystomus bivittatus* Andr. *Ann. Mag. Nat. Hist.* p. 474.*Material examined* ; 1 ex. Calcutta, xi. 21, Riberio coll.*Distribution* : India : West Bengal (Calcutta). All other provinces of India. Elsewhere : Nil.

Subtribe II. ANISODACTYLINA

Key to genera of Subtribe ANISODACTYLINA

- 1(2) Elytra interval 3 with one dorsal pore or without dorsal pore; paraglossae separated from the ligula by deep notch..... *Chydaeus* Chaudoir
- 2(3) Elytra interval 3 (sometimes also 5 or 5 and 7) with series of several pores; paraglossae adnate to ligula or separated from it by shallow notch.
- 3(4) Frontal impressions not or faintly extending in posterolateral direction; mentum completely separated from submentum by distinct suture
- 4(5). Mentum with distinct median tooth; postgenae developed.....*Gnathopanus* MacLeay
- 5(4) Mentum without median tooth; postgenae ill developed.....*Lamprophonus* Bates

Genus 2. *Chydaeus* Chaudoir 18541854. *Chydaeus* Chaudoir *Bull. Soc. Ent. Nat. Moscou*, 2 : 343.1987. *Acrogeniodon* Tchitch. *L'Abelle*, 24 : 65.1924. *Chydaeus*, Andrewes, *Miss. Prov. Cent. Ind. Himalaya*, 1914 Guy Babault, Carabidae, p. 29.1930. *Chydaeus*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p. 109.Key to species of genus *Chydaeus* Chaudoir

- 1(2) Antennae palpi, fore and mid tarsi reddish brown.....*bedeli* (Tchitch.)
- 2(1) Antennae palpi, fore and mid tarsi black.....*obscurus* Chaudoir

2. *Chydaeus bedeli* (Tchitch 1897)1897. *Acrogenioden bedeli* Tchitch., *L'Abeillae*, 29 : 66.1924. *Chydaeus bedeli* Andr. *Miss. Prov. Cent. Ind. Himalaya* p. 29.*Material examined* : No material was available from West Bengal for study.

Distribution : India : West Bengal (Darjeeling), Himachal Pradesh, Sikkim, Uttar Pradesh. Elsewhere : China.

3. *Chydaeus obscurus* Chaudoir 1854

1854. *Chydaeus obscurus* Chaudoir, *Bull. Soc. Imp. Nat. Moscou*, **2** : 344.
 1899. *Acragerodon semenowi* (Tchitch), *Horae. Soc. ent. Rossicae* p. 660.
 1924. *Acrogenidon semenowi* (*Acrogeniodon*) (Andr.), *Ann. Mag. nat. Hist.* (8) **14** : 590.
 1926. *Chydaeus obscurus*, *Andr. Ent. Monthly Mag.*, p. 68.

Material examined : 4 exs. from Darjiling dist., E. Himalayas.

Distribution : India : West Bengal (Darjiling). Elsewhere : Nil.

Genus 3. *Gnathophanus* MacLeay 1825

1825. *Gnathophanus* MacLeay, *Ann. Jav.*, p. 20.
 1920. *Gnathophanus*, Andrewes, *Ann. Soc. Ent. Belgue*, p. 106.
 1930. *Gnathophanus* Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae. p. 170.

Key to the species of genus *Gnathophanus* MacLeay

- 1(2) Elytra with series of several pores on interval 3 and 7; posterior half of lateral margin of pronotum almost oblique.....*punctilabris* MacLeay
 2(1) Elytra with series of several pores on interval 3 only.....*laevistriatus* (Sturm.)

4. *Gnathophanus laevistriatus* (Sturm) 1818

1818. *Harpalus laevistriatus* Sturm., *Deutschl. Fauna. Ins.*, **4** : 80.
 1829. *Selenophorus orientalis* Dej. *Sp. Gen. Col.*, **4** : 128.
 1892. *Gnathophanus actipennis* Bates, *Ann. Mus. Civ. Storia Nat. Genova*, **32** : 328.

Material examined : 1 ex. from Birbhum; 2 exs. from Murshidabad; 1 ex. Lower Bengal; 3 exs. Berhampur Murshidabad dist., Bengal (no other data available).

Distribution : India : West Bengal (Birbhum, Murshidabad and South 24 Parganas). All the Indian States. Elsewhere : Burma.

5. *Gnathophanus punctilabris* MacLeay 1825

1825. *Gnathophanus punctilabris* (*Harpalus*) *Macl. Ann. Jav.*, p. 20.
 1919. *Gnathophanus untilabris* (*Harpalus*), *Ander, Trans. ent. soc. London*, p. 150.
 1829. *Gnathophanus javanus* (*Anisoductylus*) Dej. *Species Gen. Col.* **4** : 146.
 1859. *Gnathophanus dispellens* (*Harpalus*) *Walk. An. Mag. Nat. Hist.*, (3) **3** : 51.
 1892. *Gnathophanus gnathophanoides* (? *Platymetopus*) Bates, *Ann. Mus. Civ. Storia Nat. Genova*, **32** : 332(note).

Material examined : 1 ex. from Murshidabad.

Distribution : India : West Bengal (Murshidabad). All the Indian States Except N.W. India.
Elsewhere : Throughout south East Asia including Celebes and Philippines Is.

Genus 4. *Lamprophonus* Bates 1889.

1889. *Lamprophonus* Bates, *Ann. Mus. Civ. Nat. Genova*, **27** : 101.
1919. *Lamprophonus*, Andrewes, *Trant. ent. soc. London*, p. 194.
1930. *Lamprophonus*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p. 189.

6. *Lamprophonus lucens* Bates 1889.

1889. *Lamprophonus lucens* Bates, *Ann. Mus. Civi. Stor. Nat. Genova*, **27** : 102.
1930. *Lamprophonus lucens*, Andrewes, *Cat. Indian Ins. Party*. 18-Carabidae, p.-189.

Material examined ; 1 ex. Madhupur, 'Bengal' 22.x.09, C. Paiva coll.

Distribution : India : West Bengal (North 24 Parganas), Bihar, Madhya Pradesh, Orisa and Tamil Nadu. Elsewhere : Burma, Indo-China, Java, Sri Lanka.

Subtribe III. HARPALINA

Key to genera of subtribe HARPALINA

- 1(4) Dorsal surface more or less pubescent; mandibles short, almost hidden beneath labrum; paraglossae adnate to ligula or separated by narrow slit.
- 2(3) Mentum with simple median tooth; postgenae ill-developed; elytral intervals 3,5 and 7 with series of several small pores; frontal impressions extending in posterolateral direction.....
.....*Hypolithus* Dejean
- 3(3) Mentum without median tooth; postgenae well developed, pubescent; elytral intervals 3,5 and 7 without dorsal pores; frontal impressions not extending in posterolateral direction.
.....*Platymetopus* Dejean
- 4(1) Dorsal surface glabrous; mandibles more or less long, extending beyond labrum; paraglossae separated from ligula by deep notch.
- 5(6) Elytral interval 3 with one or without any dorsal pore; marginal pores interrupted at middle (except *Harpalus*)
- 6(7) Body wide; frontal impressions short, shallow or obsolete, not extending in posterolateral direction; marginal pores of elytra not interrupted at middle.....*Harpalus* Latreille
- 7(8) Body narrow: frontal impressions more or less extending in posterolateral direction.

- 8(9) Postgenae well developed; mentum well emerginate and with simple median tooth normal.....
.....*Trochotichnus* Moranitz
- 9(8) Postgenae ill developed; mentum less emerginate and with large, triangular median tooth.....
.....*Oxyientrus* Chaudoir
- 10(5). Elytral intervals 3 (sometimes also 5 and 7) with series of several dorsal pores; marginal pores of elytra not interrupted at middle.
- 11(12) mentum without median tooth; tarsi pubescent on dorsal side..... *Ophoniscus* Bates
- 12(13).Mentum with median tooth; tarsi glabrous on dorsal side
- 13(14).Head more or le ss large; pronotum cordate, moderately convex; body not narrow; head not coarsely punctate on dorsal side
- 14(15).Pronotum with posterior marginal setae; elytra with apex deeply sinuate; basal angles of pronotum rounded..... *Coleolissus* Bates
- 15(16) Pronotum without posterior marginal setae; basal angles of pronotum angulate.
- 16(17) Postgenae ill developed; scutellary striole long.....*Harpaliscus* Bates
- 17(16).Postgenae well developed; scutellary striole very short.....*Dioryche* MacLeay

Genus 5. *Harpalus* Latreille 1802.

1802. *Harpalus* Latreille, *Nat. Crust Ins.*, 3 : 92.
1829. *Harpalus*, Dejean, *Spec. Gen. Col.*, 4 : 190.
1930. *Harpalus*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p. 176.

Key to subgenera of genus *Harpalus* Latreille

- 1(2) Marginal pores on interval 9 of elytra widely interrupted at middle.....*Ophonus* Stephens
- 2(1) marginal pores on interval 9 of elytra not interrupted at middle.....*Harpalus* (s.str.)

Subgenus (a) *Ophonus* Stephens

1827. *Ophonus* Stephens, *Ill. Brit. Ent.* 1 : 67.
1829. *Ophonus*, Dejean, *Spec. Gen. Col.*, 4 : 193.
1973. *Haraplus* (*Ophonus*), Habu, *Fauna Japonica*, p. 69.

7. *Harpalus (Ophonus) indicus* Bates 1891

1891. *Harpalus indicus* Bates, *Comp. Soc. Ent. Belgique*, p. 332.
 1930. *Ophonus indicus*, Andrewes, *Cat. Indian Ins.* Part. 18-Carabidae, p. 244.

Material examined : No material from West Bengal was available for study.

Distribution : India : West Bengal (Darjiling). Areas of Indian States in Himalayan tract.

Key to specices of subgenus *Harpalus* (s.str.)

- 1(2) Pronotum with lateral margins rounded towards base; base of pronotum distinctly smaller than base of elytra..... *karennius* Bates
- 2(1) Pronotum with lateral margins almost oblique towards base; base of pronotum equal to base of elytra.....*indicola* Bates

8. *Harpalus* (s. str.) *indicola* Bates 1878

1878. *Harpalus indicola* Bates, *Proc. zool. Soc. London*, p. 714.
 1926. *Harpalus indicola* Andr. *Ent. Month. Mag.*, p. 68.

Material examined : No material was available from West Bengal for study.

Distribution : India ; West Bengal (Darjiling), Bihar. Elsewhere : Nil.

9. *Harpalus* (s. str.) *karennius* Bates 1892

1892. *Harpalus karennius*, Bates, *Ann. Mus. Civ. Storia. Nat. Genova*, 32 : 341.
 1930. *Harpalus karennius*, Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 177.

Material examined : No material available for study.

Distribution : India : West Bengal (no definite locality).

Other Indian States : Assam, Himachal Pradesh, Meghalaya, Manipur, Sikkim. Elsewhere : Cambodia.

Genus 6. *Harpaliscus* Bates 1892.

1892. *Harpaliscus* Bates, *Ann. Mus. Civ. Nat. Genova*, 32 : 340.
 1930. *Harpaliscus*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p. 175.

10. *Harpaliscus birmanicus*, Bates 1892

1892. *Harpaliscus birmanicus*, Bates, *Ann. Mus. Civ. Storia Nat. Genova*, **32** : 341.
 1926. *Harpaliscus birmanicus*, Andrewes, *Ent. Monthly mag.*, p. 68.
 1930. *Harpaliscus birmanicus*. Andrewes, *Cat. Indian Ins.* part - 18, Carabidae, p. 175.

Material examined : No material available for study.

Distribution : India : West Bengal (No definite locality). Bihar, Meghalaya, Manipur, Sikkim, Uttar Pradesh. Elsewhere : Burma, Laos.

Genus 7. *Dioryche* Macleay.

1825. *Dioryche* MacLeay, *An. Jav.*, p. 385.
 1919. *Dioryche*, Andrewes, *Trans. ent. Soc. London*, p. 156.
 1930. *Dioryche*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p. 146.

Key to species of genus *Dioryche* MacLeay

- 1(4) Scutellary striole rudimentary or absent; basal area of pronotum throughly puncture.
 2(3) Basal area of the pronotum finely puncture; legs yellowish brown.....*chinnanda* Andrews
 3(2) Basal area of pronotum coarsely puncture; legs reddish brown..... *nagpurensis* (Bates)
 4(5) Scutellary striole more or less long; basal area of pronotum throughly puncture or not
 5(6) Basal area of pronotum throughly and densely rugose-punctate; frontoclypeal suture fine.....
 *colombensis* (Nietner)
 6(5) Basal area of pronotum rather sparsely punctate on either side only; frontoclypeal suture deep...
*torta* MacLeay

11. *Dioryche chinnada* Andrewes 1921

1921. *Dioryche chinnada*, Andrewes, *Rec. Indian Mus.* **22** : 342.
 1930. *Dioryche chinnada*, Andrewes, *Cat. Indian Ins.* part 18-Carabidae, p. 146.

Material examined : No material available for study.

Distribution : India ; 'Bengal' (No definite locality, Bihar, madhya Pradesh, Maharashtra, Uttar Pradesh, Tamil Nadu. *Elsewhere* : Sri Lanka.

12. *Dioryche nagpurensis* Bates 1891

1891. *Dioryche nagpurensis* (*Platymetopus*) Bates, *Comp. Soc. Ent Beligouque.*, p. 329.
 1921. *Dioryche nagpurensis* (*Platymetopus*), Andrewes, *Rec. Indian Mus.*, **22** : 342.

Material examined : 1 ex. from Eden Garden Calcutta (At light) 14.x.11 F.H. Gravely; 1 ex. from Berhumpur, Bengal; 1 ex. from Murshidabad; 2 exs. at Calcutta 6-10.xi. 07 Mus. coll.; 1 ex., at Calcutta, 8.viii. 09, N.A.; 1 ex. from Manbhumi, West Bengal, K. Hallows; 2 exs. at Calcutta 24.xii.07 Mus. coll.; 1 ex. from Kharagpur Bengal 17.30.vi. 11, R. Hodgort, 1 ex. at Calcutta (at light) 12.xi. 20, S. Ribeiro.; 2 exs. at Calcutta (at light) 31.x.21. S. Ribeiro.; 1 ex. at Calcutta (at light) xi. 23, S. Ribeiro; 2 exs. at Calcutta (at light) III. 24. S. Ribeiro.; 1 ex. at Calcutta (at light). 6.vi. 23. S. Ribeiro.

Distribution : India : West Bengal (Calcutta, Medinipur and Murshidabad), Bihar, Orissa, Uttar Pradesh. *Elsewhere* : Nil.

13. *Dioryche torta* Macl. 1825

1825. *Dioryche torta* Macl. *Ann. Jav.*, p. 21.
 1829. *Platymetopus amoena* Dej. *Sp. Gen. Col.* 4 : 73.
 1889. *Platymetopus laetula* Bates, *Ann. Soc. ent. France*, p. 270.

Material examined : 1 ex., Murshidabad.

Distribution : India : West Bengal (Murshidabad). All the Indian States. *Elsewhere* : Burma, Borneo, Formosa, Indo-China, Java, Malay Peninsula, Sumatra, Sri Lanka.

14. *Dioryche colombensis* (Nietn) 1857

1857. *Dioryche colombensis*, Nietn., *J. Asiatic Soc. Bengal*, 25 : 151.
 1921. *Dioryche colombensis*, Andrews, *Rec. Indian Mus.*, 22 : 342.
 1930. *Dioryche colombensis*, Andrewes, *Cat. Indian Ins.* Part - 18, Carabidae, p. 146.

Material examined : No material was available for study.

Distribution : All the Indian States. *Elsewhere* : Maldives, Sri Lanka.

Genus 8. *Ophoniscus* Bates 1892.

1892. *Ophoniscus* Bates, *Ann. Mus. Civ. Nat. Genova*, 32 : 337.
 1923. *Ophoniscus*, Andrewes, *Ann. Mag. Nat. Hist. soc.*, (9) 12 : 446.
 1930. *Ophoniscus*, Andrewes, *Cat. Indian Ins.*, Part 18. Carabidae, p. 242.

15. *Ophoniscus iridulus* Bates 1892

1892. *Ophoniscus iridulus* Bates, *Ann. Mus. Civ. Nat. Genova*, 32 : 337.
 1930. *Ophoniscus iridulus*, Andrewes, *Cat. Indian Ins.* Part. 18-Carabidae, p-243.

Material examined : No material from West Bengal was available for study.

Distribution : India : West Bengal (Darjiling). Assam, Bihar and Uttar Pradesh. *Elsewhere* : Burma, Laos.

Genus 9. *Oxycentrus* Chaudoir 1854

1854. *Oxycentrus* Chaudoir, *Bull. soc. Nat. Moscou*, 1 : 345.
 1876. *Oxycentrus*, Bates, *Trans. ent. Soc. London*, p. 3.
 1930. *Oxycentrus*, Andrewes, *Cat. Indian Ins.*, Part 18 Carabidae, p. 250.

16. *Oxycentrus parallelus* Chaudoir 1854

1854. *Oxycentrus parallelus* Chaudoir, *Bull. Soc. Imp. Nat. Moscou*, 1 : 347
 1930. *Oxycentrus parallelus*, Andrewes, *Cat. Indian Ins.* Part 18 Carabidae, p. 251.

Material examined : 2 exs. Kharagpur 17.30.vi. 11 1 ex. Calcutta, Atkinson; 1 ex. Calcutta Mus. coll., 1 ex. at Calcutta Oct. 12 F.H.G. coll.; 1 ex. Calcutta (at light) 6.xii.07, Mus. coll.; 1 ex. Calcutta 31.v.08, N.A.; 1 ex. Calcutta, 4.xi. 07 Mus. coll.; 1 ex. Calcutta (at light) 18.viii. 15, F.H.G. coll.; 1 ex. Calcutta (at light) Oct. 1921, Ribeiro, 1 ex. Saraghat, E. Bengal River Ganges 4.viii. 09, J.T. Jenkins; 1 ex. Siripur Seran, N. Bengal 25.ix. 10, Mus. coll.

Distribution : India : West Bengal (Calcutta, Medinipur), Bihar, Uttar Pradesh. Elsewhere : Nil.

Genus 10. *Trichotichnus* Morawitz 1863

1863. *Trichotichnus* Morawitz, *Beitr.*, p. 63.
 1900. *Trichotichnus*, Morawitz, *Hor. Soc. Ent. Ross.*, 24 : 363; 1901, 25 : 244.
 1930. *Trichotichnus*, Andrewes, *Cat. Indian Ins.*, Part 18. Carabidae, p. 351.

Key to subgenera and species of genus *Trichotichnus* Morawitz

- 1(2) Frontal impressions shallow; posterior angles of pronotum rectangular; elytral interval 3 with one dorsal pore [*Trichotichnus* (s.str.)].....*birmanicus* Bates
 2(1) Frontal impressions deep; posterior angles of pronotum rounded; elytral interval 3 without dorsal pore (*Kareya*)*endentata* Bates

Subgenus *Trichotichnus* (s. str.)17. *Trichotichnus* (s.str.) *birmanicus* Bates 1892.

1892. *Trichotichnus birmanicus* Bates, *Ann. Mus. Civ. Nat. Genova*, 32 : 342.
 1930. *Trichotichnus birmanicus*, Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 351.

Material examined : No material from West Bengal was available for study.

Distribution : India : West Bengal (Darjiling)

Other Indian States : Uttar Pradesh. Elsewhere : Burma, Laos.

Subgenus (b) *Kareya* Andrewes 1919

1919. *Kareya* Andrewes, *Ann. Mag. Nat. Hist.* (9) : 3 : 473.
 1930. *Kareya*, Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 186.

18. *Trichotichnus Kareya edentata* Bates 1892.

1892. *Kareya edentata* (? *Platymetopus*) Bates, *Ann. Museo. Civico. Str. Nat. Genova*, 32 : 331.
 1919. *Kareya edentata* (? *Platymetopus*), Andrewes, *Ann. mag. Nat. Hist.* (9) 3 : 473.

Material examined : 1 ex. from Darjiling dist., E. Himalayas 24.vi., 10.v.15, F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling), Bihar, Himachal Pradesh, Manipur, Meghalaya, Madhya Pradesh, Sikkim, Uttar Pradesh. *Elsewhere* : Burma, Laos.

Genus 11. *Hypolithus* Alluand 1930

1829. *Hypolithus* Dejean, *Spec. Gen. Gen.* col. 4 : 166.
 1930. *Hyparpalus* Alluand, *Bull. Soc. Ent. France*, p. 162.

19. *Hypolithus lividus* Andrewes 1923

1923. *Hypolithus lividus*, Andrewes, *Spol. Zeyl.* p. 234.
 1930. *Hypolithus lividus*, Andrewes, *Cat. Indian Ins.* Part. 18 Carabidae,

Material examined : 1 ex., Calcutta; 1 ex., Sripur Saran 'N. Bengal' 26.ix. 10, Mus. coll.

Distribution : India : West Bengal (Calcutta). Throughout the plains of India. *Elsewhere* : Sri Lanka.

Genus 12. *Liodaptus* Bates 1889.

1889. *Liodaptus* Bates, *Ann. Mus. Civ. Nat. Genova*, 27 : 102.
 1930. *Liodaptus*, Andrewes, *Cat. Indian Ins.*, Part 18, Carabidae, p. 201.

20. *Liodaptus birmanus* Bates 1889.

1889. *Liodaptus birmanus* Bates, *Ann. Mus. Civ. St. nat. Genova*, 27 : 102.
 1912. *Daptidius dispennis* Chaudoir in litt. *Vuillet Ins.* 2 : 19.
 1930. *Liodaptus birmanus* Andrewes, *Cat. Indian Ins.*, Part 18 Carabidae, p. 201.

Material examined : 1 ex. from Calcutta (at light) 12.xi.07, Mus. coll., 1 ex. from Calcutta (at light) 6.xii. 07, Mus. coll.

Distribution : India : West Bengal (Calcutta, South 24 Parganas), Assam and Bihar. *Elsewhere* : Burma, Bangladesh, Indo-China, Siam.

Genus 13. *Pachytrachelus* Chaudoir 1852

1852. *Pachytrachelus* Chaudoir, *Bull. Soc. Nat. Moscou*, 1 : 85.
 1930. *Pachytrachelus*, Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 256.

Key to species of genus *Pachytrachelus* Chaudoir 1852

- 1(2) Size not less than 10 mm; dorsal surface of head coarsely punctate throughout; base of pronotum not much reduced..... *cribriceps* Chaudoir
 2(1) Size more than 10 mm; head with few punctures on dorsal surface; base of pronotum much reduced *oblongus* (Dejean)

21. *Pachytrachelus cribriceps* Chaudoir 1852.

1852. *Pachytrachelus cribriceps*, Chaudoir, *Bull. Soc. Imp. Nat. Moscou*. 1 : 86.
 1891. *Pachytrachelus cribriceps*, Bates, *Comp. Soc. Ent. Belgique*, p. 333.
 1930. *Pachytrachelus cribriceps*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p. 256.

Material examined ; 1 ex., Murshidabad dist.

Distribution : India : West Bengal (Darjiling, Murshidabad), Bihar, Orissa. Elsewhere : Nil

22. *Pachytrachelus oblongus* (Dejean 1831)

1831. *Pachytrachelus oblongus* (*Agonoderus*) Dej. *Species Gen. Col.* 5 : 813.
 1801. *Pachytrachelus angulatus* (*Carabus*) F. *Syst. Eleuth.* 1 : 203. (not spec. Ins. 1 1781 302).
 1861. *Pachytrachelus ceylonicus* (*Batascolis*) Motch., *Bull. Soc. Imp. Nat. Moscou*. 1 : 130.
 1920. *Pachytrachelus oblongus*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p. 256.

Material examined ; 1 ex. Kharagpur, Bengal, 17-30.vi. 11, R. Hodgart coll., 1 ex. Calcutta (at light), x.21.S.W. Kemp. 3 exs. Berhumpur, Murshidabad dist. Bengal. 1 ex. Maldah. 1 ex. from Murshidabad. 1 ex. Purulia 10.xi. 12, N.A. & F.H.G. 1 ex. Calcutta (at light) vi. F.H.G. 1 ex. Calcutta (At light) 25.vi. 15.F.H.G. 1 ex. Calcutta (At light) 9.x. 14. F.H.G. 1 ex. Calcutta (at light) Oct. 11. F.H.G. 1 ex. Calcutta (at light) xi. 15.F.H.G.

Distribution : India : West Bengal (Calcutta, Maldah, Murshidabad, Medinipur, Puruliya). All the Indian States. Elsewhere : Throughout South East Asia but not extending to Japan; Australia.

Genus 14. *Platymetopus* Dejean 1829

1829. *Platymetopus* Dejean, *Spec. Gen. Col.*, 4 : 68.
 1892. *Platymetopus*, Bates, *Ann. Mus. Civ. Nat. Genova*, 32 : 332
 1930. *Platymetopus*, Andrewes, *Cat. Indian Ins.*, Part 18-Carabidae, p.280.

23. *Platymetopus flavilabris* (F) 1798

1798. *Carabus flavilabris* F. *Suppl. Ent. Syst.*, p. 59
 1838. *Platymetopus flavilabris*, Hope, *Col. Man.*, 2 : 90.
 1857. *Ophonus senilis* Nietn., *J. Asiatic Soc. Bengal*, 26 : 150.
 1930. *Platymetopus sensilis*, Andrewes, *Cat. Indian Insect*, Part - 18. Carabidae, p. 280.

Material examined : 3 exs., Murshidabad; 1 ex., Calcutta, Oct. 1914 F.H.G. coll.

Distribution : India : West Bengal (Calcutta, Murshidabad). All the Indian States. Elsewhere : Sri Lanka.

Genus 15. *Coleolissus* Bates 1892

1892. *Coleolissus* Bates, *Ann. Mus. Civ. Nat. Genova*, 32 : 338.
 1930. *Coleolissus*, Andrewes, *Cat. Indian Ins.*, Part 18 - Carabidae, p. 119.

24. *Coleolissus perlucens* (Bates) 1878

1878. *Coleolissus perlucens* (*Hypolithus*) Bates, *Proc. Zool. Soc. London*. p. 715.
 1930. *Coleolissus perlucens* (*Hypolithus*), Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 120.

Material examined : 1 ex. from Birbhum (no other data available).

Distribution : India : West Bengal (Birbhum), Jammu & Kashmir.

Remarks : This species is first time recorded from West Bengal.

Subtribe IV. STENOLOPHINA

Key to genera of Subtribe STENOLOPHINA

- 1(2) Elytra without scutellary striole; mentum without median tooth; segment 4 of fore and mid tarsi in male elongately bilobed.....*Anoplogenus* Chaudoir
- 2(3) Elytra with scutellary striole; mentum with or without median tooth; segment 4 of fore and mid tarsi in male well bilobed.
- 3(4) Mentum with median tooth; paraglossae adnate or searated from ligula by shallow notch.....*Egaploaa* Alluaud
- 4(3) Mentum without median tooth; para glossae separated from ligula by deep notch.....*Stenolophus* Stephens

Genus 16. *Stenolophus* Stephens 1827

1827. *Stenolophus* Stephens 1827, *Illustr. Brit. Ent. Mandib.*, 1 : 67
 1829. *Stenolophus*, Latreille 1829, in Cuvier's *Regne Anim.*, (Ed. ii), 4 : 391.

Key to subgenera of genus *Stenolophus* Stephens

- 1(2) Tarsal segment 5 without seta on ventral side; sternite 4 (or 3) to 6 well pubescent.....
.....*Stenolophus* (s. str.)
- 2(1) Tarsal segment 5 with one seta on each ventrolateral margin; sternite 6 glabrous.....
.....*Egadroma* Motschulsky

Subgenus (a) *Stenolophus* (S. str.)25. *Stenolophus* (s. str.) *splendidus* Motschulsky 1864

1864. *Stenolophus splendidus* Motschulsky, *Bull. Soc. Imp. Nat. Moscou*, 2 : 205.
1892. *Stenolophus harapaloides* Bates, *Ann. Mus. Civ. Nat. Genova*, 32 : 347.
1930. *Stenolophus spnendidus*, Andrewes, *Catr. Indian Ins. Part 18-Carabidae*, p. 319.

Material examined : No material was available from West Bengal for study.

Distribution : India : West Bengal (Calcutta, South 24 Parganas). Elsewhere : Burma.

Subgenus (b) *Egadroma* Motschulsky 1855

1855. *Egadroma* Motschulsky, *Stud. Ent.*, p. 43
1973. *Egadroma*, Habu, *Fauna Japonica*, Carabidae : Harpalini (Insecta : Coleoptera) : 376

Key to species of subgenus *Egadroma* Motschulsky

- 1(2) Colour blackish brown; elytra without spots or colour pattern..... *rectifrons* Bates
- 2(3) Colour reddish brown; elytra with spots or variable colour pattern
- 3(4) Elytra always with 5 spots..... *quinquepustulatus* Wied.
- 4(5) Elytra with colour pattern variable
- 5(6) Pronotum with surface near angles punctate, posterior angles of pronotum not so rounded; elytra colour pattern absent on apical part..... *charis* Bates
- 6(5) Pronotum with surface near posterior angles impunctate; posterior angles of pronotum, well rounded; elytral interval 6, 6-7 or 4-7 yellowish brown near apex..... *smaragdulus* (Fabr.)

26. *Stenolophus* (*Egadroma*) *quinquepustulatus* Wied 1823

1823. *Stenolophus quinquepustulatus* Wied, *Zool. Mag.* ii : 1.
1924. *Stenolophus quinquepustulatus*, Andrewes, *Ann. Mag. Nat. Hist. Soc.*, (9) 13 : 469.
1930. *Stenolophus quinquepustulatus*, Andrewes, *Catr. Indian Ins. Part. 18-Carabidae*, p. 319.

Material examined : 1 ex., West Bengal, Singur, 21.vi.1972, Oppenhemer.

Distribution : India : West Bengal (Hooghly). All other Indian states in plains.

Remarks : The species is first time recorded from West Bengal.

27. *Stenolophus (Egadroma) charis* Bates 1892

1892. *Stenolophus charis* Bates, *Ann. Mus. Civ. Nat. Genova*, **32** : 349.

1930. *Stenolophus charis*, Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 317.

Material examined : No material from West Bengal was available for study.

Distribution : India : 'Bengal' (no definite locality), Uttar Pradesh. Elsewhere : Burma Timor.

28. *Stenolophus (Egadroma) rectifrons* Bates 1892

1892., *Stenolophus rectifrons*, Bates, *Ann. Mus. Civ. Nat. Genova*, **332** : 348.

1930. *Stenolophus rectifrons*, Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 317.

Material examined : 1 ex., Sukna, Darjiling dist. 23-30.viii.28, I.M. Puri; 1 ex., Calcutta, 16.vi.18.F.H. Gravely.

Distribution : India : West Bengal (Calcutta, Darjiling, south 24 Parganas), Bihar, Kerala, Tamil Nadu. Elsewhere : Burma, Burneo, China, Indo-China, Siam, Sumatra, Sri Lanka.

29. *Stenolophus (Egadroma) smaragdulus* Fabr. 1778

1798. *Stenolophus smaragdulus* (Carabus) F. *Suppl. Ent. Syst.*, p. 60.

1845. *Stenolophus trechoides* (Harpalus) Hope *Trans. ent. Soc. London*, **4** : 15.

1864. *Stenolophus apicalis* (Egadroma) Motch. *Bull. Soc. Imp. Nat. Moscou*. **2** : 205.

1886. *Stenolophus transmutans* Bates *Ann. Mag. Nat. Hist.* (5) **17** : 80.

1889. *Stenolophus cyanellus* Bates. *Ann. Museo. Civico. St. nat. Genova*, **27** : 103.

Material examined : 9 exs. Calcutta (at light) 19-31.x. 1921.; 3 exs., Kharagpur Bengal, 17.30.vi.11; 1 ex., Darjeeling, R. Hodgart. 1 ex., Siliguri; 1 ex, Purulia; 10.xi. 12. N.A. & F.H.G. 2 exs., Calcutta; 4-10.xi. 11 F.H.G. 3 exs., Calcutta; 26.xi. vii-iii. 14, F.H.G. 2 exs, Calcutta; 10.vi. iii. 10. F.H.. 2 exs., Calcutta 14-30.x. 11, F.H.G.; 1 ex., Calcutta; 21.iv. 11. F.H.G. 1 ex, Calcutta; 4.xi. 07, Mus. col. 1 ex., Calcutta; Atkinson, 1 ex., Calcutta, 14.i. 08 Mus. coll. 1 ex., Calcutta, vii. 14. F H.G. 2 exs, Calcutta; 18.viii-xi. 15.F.H.G. 1 ex., Calcutta; 8.iii. 15 F.H.g.

Distribution : India : West Bengal (Calcutta, Darjiling, Medinipur, Puruliya). All the Indian States. Elsewhere : Throughout the whole of South East Asia extending Japan.

Genus 17. *Egaploa* Alluand 1916

1916. *Egaploa* Alluand, *Ann. Soc. Ent. France*, **85** : 73.

30. *Egaploa crenulata* (Dejean 1829)

1829. *Stenolophus crenulata* Dejean, *Spec. Gen. Col.*, **4** : 432.

1843. *Stenolophus fulvipes* Erichson, *Arch. Naturg.*, **9** : 216.

1930. *Egaploa crenulata*, Andrewes, *Czt. Indian Ins.* Part 18-Carabidae, p. 162.

Material examined : No. material from West Bengal was available for study.

Distribution : Throughout India. Elsewhere : Africa.

Genus 18. *Anoplogenius* Chaudoir 1852

1852. *Anoplogenius* Chaudoir, *Bull. Soc. Imp. Nat. Moscou*, **1** : 88.

1930. *Anoplogenius*, Andrewes, *Cat. Indian Ins.* Part 18-Carabidae, p. 28.

31. *Anoplogenius microgonus* Bates 1886

1886. *Anoplogenius microgonus* Bates *Ann. Mag. Nat. Hist.* (5) **17** : 78.

1889. *Anoplogenius renitens* I bates (not Bates 1886) *Ann. soc. Ent. France* p. 272.

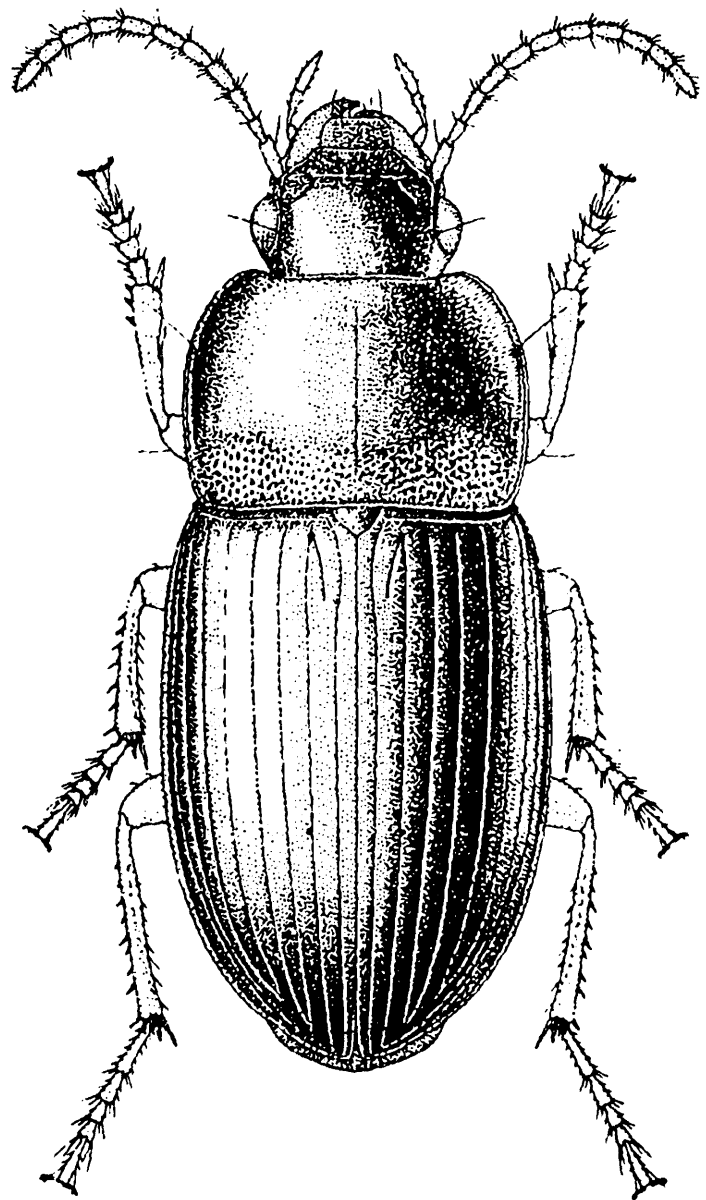
Material examined ; 3 exs., at Calcutta 1. 1956, A. Sarkar

Distribution : India : West Bengal (Calcutta, South 24-Parganas), Bihar, Orissa. Elsewhere : Burma, Cochin-China, Laos, Philippine IS. Sumatra, Sri Lanka.

VI. CHART : SHOWING DISTRICTWISE DISTRIBUTION OF SPECIES OF THE TRIBE HARPALINI
(CARABIDAE) RECORDED FROM WEST BENGAL

Name of the Species	Bankura	Bardhaman	Birbhum	Calcutta	Darjiling	Haora	Hugli	Jalpaiguri	Koch Behar	Maldah	Medinipur	Murshidabad	Nadia	24-Parganas (North)	24-Parganas(South)	Puruliya	West Dinajpur
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. <i>Amblystomus bivittatus</i> Erichson				+			
2. <i>Chydaeus bedeli</i> (Tchitch)		-			+
3. <i>C. obscurus</i> Chaudoir	-				+	
4. <i>Gnathophanus lacvistriatus</i> (Sturm.)	-		+				.					+		.		+	.
5. <i>G. punctilabris</i> McLeay			.	.								+	.	.			
6. <i>Lamprophonus lucens</i> Bates						.	.						+	.			.
7. <i>Harpalus (Ophonus) indicus</i> Bates				-	+								.	.			
8. <i>Harpalus (s.str.) indcola</i> Bates					+	.								.			
9. <i>Harpalus (s.str.) karennius</i> Bates																	
10. <i>Harpaliscus birmanicus</i> Bates																	
11. <i>Dioryche echinnanda</i> Andrewes																	
12. <i>D. nagpurensis</i> Bates				+							+	+					
13. <i>D. torta</i> MacLeay													+				

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
14. <i>D. colombensis</i> (Niether)																	
15. <i>Ophonisues iridulus</i> Bates					+												
16. <i>Oxycentrus parallelus</i> chadoir				+							+						
17. <i>Trichotichnus (s.str.) birmanicus</i> Bates					+												
18. <i>Trichotichnus (Kareya) edentato</i> Bates					+												
19. <i>Hypolithus lividus</i> andrewes				+	+												
20. <i>Liodaptus birmanus</i> Bates				+													+
21. <i>Pachytrachelus cribericeps</i> Chadoir					+							+					
22. <i>P. oblongus</i> (Dejean)				+						+	+	+		+			
23. <i>Platymetopus flavilabris</i> (Fabr.)				+							-	+					
24. <i>Coleolissus perlucens</i> Bates			+									-	-				
25. <i>Stenolophus (s.str.) splendidus</i> Motch.				+	-	-	-			-	-						+
26. <i>S. (Egadroma) quinquepustulatus</i> Wied	-	-	-	-	-	-	+				-	-					-
27. <i>S. (Egadroma) charis</i> Bates	-	-		-			-	-	-	-	-	-		-			-
28. <i>S. (Egadroma) rectifrons</i> Bates		-		+	+	-	-	-		-	-		-		+		-
29. <i>S. (Egadroma) smaragdulus</i> (Fabr.)				+	+		-	-	-	-	-		-		+		-
30. <i>Egapola crenulata</i> (Dejean)									-	-	-		-		-		-
31. <i>Anoplogenius microgonus</i> Bates	-	-	-	+		-	-	-	-	-	-		-		+		-



Trichotichnus (Kreya) edentata (Hope)

SUMMARY

This is the first attempt for an comprehensive study of the tribe Harpalini (fam. Carabidae) fauna of the area which is now under the state of West Bengal. So far twenty nine species were known to occur in West Bengal and two species viz. *Coleolius perlucens* Bates and *Stenolophus quinquepustulatus* Wiedemann are now first time record from this state. Keys to all the six subtribes, 18 genera, four subgenera and 31 species are provided. Total distributional records of all the species are also provided. A chart showing district wise distribution of the species recorded from West Bengal is also provided.

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**INSECTA : COLEOPTERA : ADEPHAGA :
FAM. DYTISCIDAE**

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INTRODUCTION

The members of the family are commonly known as 'predaceous diving beetles' and most perfectly adapted to the aquatic life. They form one of the main constituents of insect fauna of aquatic biota. They are very active swimmers, preying on other small water life. The larvae, popularly known as 'water tigers' of larger species may at times destroy the fry or fingerlings of commercial fishes.

The group has a characteristic appearance with convex form, stream lined body, and paddle like hind legs. The members of this family can be separated from another dominant family Hydrophilidae by having hind coxae fused with metasternum, ventrite 1 divided and maxillary palpi short. It differs from Gyrinidae, another common aquatic family, by eyes not being divided into dorsal and ventral parts.

Dytiscid beetles frequent both stagnant and running waters. They also inhabit in both fresh and brackish waters and more or less salt water. A few of the members of the family have also been found in thermal springs. Though both larval and adults are found in water, adult are perfectly capable of living on land. Recently Brancucci (1983) has described a terrestrial genus *Geodessus* from Meghalaya, India.

Both larvae and adults of the group are carnivorous and prey on various aquatic animals including molluscs, worms, insects, tadpoles and small fishes. Thus this group is important in fish culture. In fishery culture beetles serve multiple roles. They serve as food for carnivores or omnivorous fishes, they are also highly predatory on fish fry upto 5 cm and compete with the small fish for food.

Some members of the family also act as an intermediate host for the trematode parasite of the genus *Lecithodendrium* Loose.

In the males of certain genera the first three segments of the fore tarsi are dilated to form highly efficient adhesive pads which are provided beneath with cuplike succurs.

The family occurs all over the world but is more characteristic of the palaeartic region. It contains about 4,000 species of which 223 have been recorded from India.

Zimmerman (1920) published in *Coleopterorum Catalogues* pars 71, Vol 4 his world catalogue of this family. Since the publication of Zimmerman's catalogue some scattered works were available until Vazirani took up of the Indian Fauna. From 1953 to 1980 a series of papers of this author were published and in this papers he brought together the information of Indian fauna including description of several new taxa.

Besides Vazirani, a number of other workers contributed greatly to our knowledge of the group, chief among them are Balfour-Browne (1946 a and b), Guignot (1954, 1956 and 1958), Gestwendtner (1936), Wewalka (1975) and Brancucci (1983 a and b). These authors, besides describing or recording new Indian taxa, have contributed extensively to our knowledge of the geographical distribution of our species and genera.

So far fauna of West Bengal is concerned, no comprehensive work has ever been undertaken.

Material of this study are based on the collection made by various survey parties of ZSI from different districts of West Bengal. These surveys were conducted over three years (1985-87). Besides the material collected during these surveys all previous collections present in Zoological Survey of India were also studied. Among these a few important collections such as Calcutta insect fauna survey of Dr. Kapur (1949-57), Murshidabad collection of Kemp (1911), West Bengal collection of Ribeiro, Kharagpur and South 24 Parganas surveys of K. S. Pradhan.

Distributional data of the species has been given from the published records as well as actual study of the specimens. Important synonymies only have been included. Keys to the subfamilies, genera and species have been provided. Wherever possible remarks on the biology, distribution and other important facts have also been provided.

All together 69 species belonging to 21 genera under 5 subfamilies have been dealt with in this paper.

Very recently Brancucci have recorded *Clypeodytes dilutus* Sharp and *Lacconectus nicholasi* Brancucci and *L. peguensis* Brancucci from West Bengal. As no material was available with us these species could not be incorporated in the present work.

SYSTEMATIC ACCOUNT : LIST OF TAXA

Family DYTISCIDAE

Subfamily I. NOTERINAE

Genus 1. *Hydrocoptus* Motschulsky

Species 1. *H. subvittulus* Motschulsky

Genus 2. *Canthydrus* Sharp

Species 2. *C. flavus* (Motschulsky)

3. *C. laetabilis* (Walker)

4. *C. luctuosus* (Aube)

5. *C. morsbachi* (Wehnkce)

6. *C. ritsemai* Regimbert

Subfamily II. LACCOPHILINAE

Genus 3. *Laccophilus* Leach

Species 7. *L. anticatus* Sharp

8. *L. basalis* Motschulsky

9. *L. elegans* Sharp

10. *L. ellipticus* Regimbert

11. *L. flexuosus* Aube

12. *L. chinensis inefficiens* Walker

13. *L. kempfi* Gschwendtner

14. *L. parvulus* Aube

15. *L. rufulus* Regimbert

16. *L. sharpi* Regimbert

Subfamily III. HYDROPORINAE

Genus 4. *Metheles* Sharp

Species 17. *M. indicus* Regimbert

Genus 5. *Hyphyrus* Illiger

Species 18. *H. (Apriophorus) renardi* Severin

Genus 6. *Hydrovatus* Motschulsky

Species 19. *H. acuminatus* Motschulsky

20. *H. bonvouliri* Sharp

21. *H. cardoni* Severin

22. *H. castaneus* Motschulsky
23. *H. confertus* Sharp
24. *H. ferrugatus* Regimbert
25. *H. fuscus* Sharp
26. *H. picipennis* Motschulsky
27. *H. pinguis* Regimbert
28. *H. sinister* Sharp

Genus 7. *Guignotus* Houlbert

- Species
29. *G. flammulatus* (Sharp)
 30. *G. fulvescens* (Zimmermann)
 31. *G. orientalis* (Clark)
 32. *G. pendjabensis* Guignot
 33. *G. egimberti* (Gschwendtner)
 34. *G. signatellus* (Klug)

Genus 8. *Clypeodytes* Regimbert

- Species
35. *C bufo* (Sharp)
 36. *C indicus* (Regimbert)

Genus 9. *Uvarus* Guignot

- Species
37. *U. quadrilineatus* (Zimmermann)

Genus 10. *Hyphophorus* Sharp

- Species
38. *H. aper* Sharp
 39. *Hyphophorus bengalensis* Severin

Genus 11. *Peschetius* Guignot

Species 40. *P. quadricostatus* (Aube)

Subfamily IV. COLYMBETINAE

Genus 12. *Copelatus* Erichson

Species 41. *C. freudei* Guignot

Genus 13. *Lacconectus* Motschulsky

Species 42. *L. fulvescens* Motschulsky

43. *L. ritsemai* Regimbert

Genus 14. *Agraphis* Guignot

Species 44. *A. kempi* Vazirani

Genus 15. *Agabus* Leach

Species 45. *Agabus guttatus* (Paykull)

46. *A. amoenus sinuaticollis* Regimbert

Genus 16. *Platynectes* Regimbert

Species 47. *P. kashmirensis* Balfour-Browne

Genus 17. *Rhantus* Stephens

Species 48. *R. ovalis* Gschwendtner

49. *R. sikkimensis* Regimbert

50. *R. taprobanicus* Sharp

Subfamily V. DYTISCINAE

Genus 18. *Erestes* Castelnau

Species 51. *E. sticticus* (Linnaeus)

Genus 19. *Hydaticus* LeachSpecies 52. *H. bengalensis* REgimbert53. *H. fabricii* Macleay54. *H. luczonicus* Aube55. *H. ponticus* SharpGenus 20. *Rhantaticus* SharpSpecies 56. *R. congestus* (Klug)Genus 21. *Sandracottus* SharpSpecies 57. *S. mixtus* (Blanchard)Genus 22. *Cybister* CurtisSpecies 58. *C. cognatus* Sharp59. *C. confusus* Sharp60. *C. convexus* Sharp61. *C. dehaani* Aube62. *C. guerini* Aube63. *C. javanus* Aube64. *C. limbatus* (Fabricius)65. *C. posticus* Aube66. *C. rugulosus* Redtenbacher67. *C. sugillatus* Erichson68. *C. tripunctatus asiaticus* Sharp69. *C. ventralis* Sharp

Family DYTISCIDAE

Key to the subfamilies of Dytiscidae known from West Bengal

- 1(6) Scutellum not visible
- 2(5) Fourth segment of pro and mesotarsi not reduced and subequal to the 3rd segment; proster process straight, occasionally a little depressed
- 3(4) Posterior legs with two tarsal claws of equal length; sides of the pronotum rebordered
..... Noterinae
- 4(3) Posterior legs with a single tarsal claw; sides of the pronotum not rebordered
..... Laccophilinae
- 5(2) Fourth segment of the pro and meso tarsi much reduced, hardly visible; prosternal process arched and obliqueHydroporinae
- 6(1) Anterior border of the eyes excised; three basal segment of the protarsi enlarged but not forming a large pallet... Colymbatinae
- 8(7) Anterior border of the eyes not excised; three basal segments of the protarsi enlarged into rounded, oval or sub triangular palletDytiscinae

Subfamily I NOTERINAE

Key to the general of subfamily Noterinae known from West Bengal

- 1(2) Curved spurs not present on the apex of fore tibiae*Hydrocoptus* Motschulsky
- 2(1) Curved spurs present on the apex of fore tibiae*Canthydrus* Sharp

Genus 1. *Hydrocoptus* Motschulsky, 1859

1859. *Hydrocoptus* Motschulsky. *Etudes Entomologiques*, 8 : 43, 364.

1977. *Hydrocoptus*, Vazirani. *Cat. Orient. Dyliscidae*. 2

1. *Hydrocoptus* (*s. str.*) *subvittulus* Motschulsky, 1860

1860. *Hydrocoptus subvittulus* Mostschulsky. *Etud. Ent.*, 8 : 53 (1859).

1882. *Hydrocoptus vittatus*, Sharp, *Sci. Trans. Roy. Dublin Soc.*, 2 : 262.

1887. *Methles sternales* Seiditz. *Verh. Naturf. Ver. Brunr.* 78 : 78, U.131.

1977. *Hydrocoptus* (*s. str.*) *subvittulus*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 4.

Material studied : Calcutta : 1 ex, 3.11.1906; 1 ex, 14.10.1911; 14 exs, 17.10.1911; 1 ex, 3.1913; 1 ex, 3. 1914. F.H. Gravely coll; 42 exs, 26.10.1949, A.P. Kapur coll; 26 exs, light trap at Calcutta Air Port, 1977. 15 exs, Hatberia, 6.9-27.11.1977, N.K. Pramanik coll. 24 Parganas : 1 ex, Lakhikantapur, 15.10.1965, S.P.C. and K.D.C. coll.

Distribution : India : West Bengal (Calcutta, North 24 Parganas, South 24 Parganas); Assam; Bihar; Orissa; Tmil Nadu; Maharastra; Gujrat. Also known from Burma, Sri Lanka, China and Indonesia.

Biology : The species is found in small pool and has been collected from March November. Specimens are often attracted to light.

2. Genus *Canthydrus* Sharp, 1882

1882. *Canthydrus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 269, 838.

1977. *Canthydrus*, Vazirani, *Cat. Orient. Dytiscidae* : 5.

Key to the species of the genus *Canthydrus* known from West Bengal.

- 1(4) Elytra testaceous
- 2(3) Length 2.5 3.0 mm. antennae testaceous, with the apical segments a little darker
..... *C. flavus*
- 3(2) Length 2.0 2.4 mm. Antennae testaceous, all segments
concolorous... *C. ritsemai*
- 4(1) Elytra brownish black, with testaceous/yellow spots.
- 5(6) Length 2.25 2.7 mm. Pronotum testaceous... *C. laetabilis*
- 6(5) Length 2.9 3.5 mm. Pronotum largely black at least on the disc.
- 7(8) Elytra black, with three orange spots as under : 1, Outer basal in the form of an elongate streak, 2, small, inner, basal, 3, small postmedian..... *C. lunctuosus*
- 8(7) Elytra black with two yellow spots as under : 1, outer basal , in the form of a transverse narrow streak, 2, nearly rounded, small and post median. *C. morsbachi*

2. *Canthydrus flavus* (Motschulsky), 1855

1855. *Hydrocanthus flavus* Motschulsky, *Etudes Entomologique*, 4 : 83.

1977. *Canthudrus flavus*, Vazirani, *Cat. Orient.*, *Dytiscidae* : 5.

Material studied : 1 ex., North 24 Pargnas, Hatberia, 19.3.1978, N.K. Pramanik.

Distribution : India : West Bengal (North 24-Parganas); Manipur. Also known from Thailand, Vietnam, Indonesia, China and Formosa.

Remarks : This species is recorded for the first time from West Bengal.

3. *Canthydrus laetabilis* (Walker), 1858

1858. *Hydroporus laetabilis* Walker, *Ann. Mag. Nat. Hist.*, **3** (2) : 205.
 1876. *Hydrocanthus orientalis* Wehncke, *Berlin. Ent. Zeitsch.*, **20** : 222.
 1948. *Canthydrus amicus* Guignot, *Bull. Soc. Ent. France*, **52** : 9.
 1977. *Canthydrus laetabilis*, Vazirani, *Cat. Orient.*, Dytiscidae, pp. 6.

Material studied : 4 exs, Calcutta from tank in the Museum compound, 7.4.1910; 1 ex, same locality, 8.4.1910. 7 exs, Calcutta tank, no date, N. Annandale coll. 13 exs, Calcutta, no other data; 59 exs, 26.10.1949, A.P. Kapur coll. South 24 Parganas dist., 2 exs, Canning, 30.1.1906, N. Annandale coll., 1 ex., Sonarpur, 26.7.1965, G.N. Saha coll. 1 ex, 8.9.1965, K.S. Pradhan coll. Murshidabad district, 4 exs, Berhampore court, 13.4.1910, S.W. Kemp coll. Medinipur district, 3 exs, Kharagpur, 17.30.6.1911, R. Hodgart coll. 3 exs, Bantala, 6.5.1987, T. Sengupta coll.

Distribution : India : West Bengal (Calcutta, Medinipur, Murshidabad, South 24 Parganas); Assam; Bihar; Orissa; Andhra Pradesh; Maharashtra; Gujarat; Kerala; Rajasthan and Uttar Pradesh. Also known from Burma, Bangladesh, Sri Lanka, Pakistan and Nepal.

Remarks : The species is found in the small pool and tank and quite common in Calcutta and surrounding areas.

4. *Canthydrus luctuosus* (Aube), 1838

1838. *Hydrocanthus luctuosus* Aube, in Dejean's species Coleopteres, **6** : 408.
 1882. *Canthydrus ornatus* Sharp, *Sci. Trans. R. Dublin. Soc.*, **2** : 275.
 1882. *Canthydrus forntalis* Sharp, **2** : 276.
 1882. *Canthydrus sexpunctatus* Sharp, **2** : 276.
 1977. *Canthydrus luctuosus*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 6.

Material studied : 1 ex, Siliguri, Base of eastern Himalayas, 8.3. - 4.6.1911, N. Annandale and S. Kemp coll.

Distribution : India : West Bengal (Darjiling); Bihar; Orissa; Andhra Pradesh; Tamil Nadu; Maharashtra; Karnataka and Kerala. Also known from Iran and Sri Lanka.

5. *Canthydrus morsbachi* (Wehncke), 1876

1876. *Hydrocanthus morsbachi* Wehncke, *Deutsch. ent. Z.* **20** : 222.
 1882. *Canthydrus angularis* Sharp, 1882, *Sci. Trans. R. Dublin.*, **2** : 277.
 1948. *Canthydrus scapharius* Guignot, *Bull. Soc. Ent. France*, **52** : 9.
 1977. *Canthydrus morsbachi*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 7.

Material studied : Calcutta, 7 exs, 1907, 4 exs, 1907. 3 exs, Bantala, 6.5.87, T. Sengupta coll. 1 ex, Baghmari, 24.8.1962, B.D. & H.L. Pal coll.

Distribution : India : West Bengal (Calcutta, North 24 -Parganas); Orissa, Tamil Nadu; Kerala and Maharastra. Also known from Thailand, Burma, Indonesia and Africa.

6. *Canthydrus ritsemai* Regimbert, 1880

1880. *Hydrocanthus retsemai* Regimbert, *Notes Leyden Mus.*, 2 : 213.

1883. *Canthydrus javanus* Wehncke, *Deutsch. ent. Z.*, 27 : 145.

1977. *Canthydrus ritsemai*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 8.

Material studied : 11 exs, Calcutta, 1907, no other data. 4 exs, Calcutta, 26.10.1949, A.P. Kapur coll., 1 ex., 20.8.1950, A.P. Kapur coll., 1 ex, Siliguri, base of eastern Himalayas, 1 ex, 3-4.6.1911, N. Annandale and S. Kemp coll. 2 exs, South 24 Parganas district : Lakshikantapur, 15.10.1963, S.P.C. and K.D.C. coll.

Distribution : India : West Bengal (Calcutta, Darjiling, South 24-Parganas); Assam; Bihar; Orissa; Andhra Pradesh. Also known from Burma, Vietnam, Indonesia, Malaysia and Singapur.

Subfamily II. LACCOPHILINAE

Only a single genus *Laccophilus* Leach occurs in West Bengal

Genus 3. *Laccophilus* Leach, 1817

1817. *Laccophilus* Leach, *Zool. Misc.*, 3 : 69.

1977. *Laccophilus*, Vazirani, *Cat. Orient. Dyliscidae.*, pp.9.

Key to the species of the genus *Laccophilus* known from West Bengal

- 1(6) Elytra unicolorous, without any distinct markings.
- 2(3) Punctuation on elytra double, in the posterior half larger, closer and more distinct..... *L. rufulus*
- 3(2) Punctuation on elytra uniform.
- 4(5) Length 3.25 - 3.75 mm. Form oval*L. ellipticus*
- 5(4) Length 3.8 - 4.1 mm. Form rather elongate*L. kempi*
- 6(1) Elytra with distinct black or brown patterns.
- 7(10) Elytra brownish black with markings consisting of yellow fascia.
- 8(9) Length 3.0 - 3.2 mm. Elytra brown with 5 yellow fascia*L. anticatus*
- 9(8) Length 3.5 - 4.5 mm. Elytra brown with 3 yellow fascia*L. elegans*

- 10(7) Elytra testaceous-reddish, markings consisting of brown irrotations of brown/ black zig zag undulating lines.
- 11(14) Elytra testaceous, with solid brown/black irrotations.
- 12(13) Elytra with irrotations well marked. Penis very much narrowed in the anterior part *L. basalis*
- 13(12) Elytra with irrotations less marked. Penis almost uniformly broad *L. chinensis inefficiens*
- 14(11) Elytra testaceous with undulating single or double lines, undulating single lines reduced to irrotations of small, thin curved lines.
- 15(16) Elytra markings, flexuopus, excessively irregular and covering the entire surface excepting the lateral margins *L. flexuosus*
- 16(15) Elytra markings consisting of double zig zag lines, sometimes the lines becoming thick and coalescent.
- 17(18) Elytra markings consisting of zig zag double markings, generally thick and coalescent; pronotum without any black markings along the anterior and posterior margins *L. parvulus*
- 18(17) Elytral markings consisting of zig zag double lines, clear and thick but never coalescent; pronotum with transverse black markings in the middle, along the anterior and posterior margins *L. sharpi*

7. *Laccophilus anticatus* Sharp, 1890

1890. *Laccophilus anticatus* Sharp, *Trans. Ent. Soc. London*, : 341.
 1977. *Laccophilus anticatus*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 9.

Material studied : 3 exs, Murshidabad district : 1 ex, Berhampore Court, 13.4.1910, S.W. Kemp coll. 1 ex, Calcutta, Khidirpur dock, 12.1917, M.O.T. Iyengar coll. 4 exs, Calcutta, N. Annandale coll., 1 ex, 1907, 1 ex, Mus. Tanks, 1 ex, 20.11.1906, 24 Parganas district, wxz 6.10.1961, G. Michael coll. 4 exs, Bartibill, Barrackpore, from Canal, 6.5.87. T. Sengupta, 1 ex. Hugli district : 1 ex, Tarakeshwar, 10.8.1965, P. Parui coll.

Distribution : India : West Bengal (Calcutta, Hugli, Murshidabad, North 24-Parganas); Assam; Bihar; Orissa and Manipur.

8. *Laccophilus basalis* Motschulsky, 1859

1859. *Laccophilus basalis* Motschulsky, *Etud. Ent.*, 8 : 45.
 1977. *Laccophilus basalis*, Vazirani, *Cat. Orient Dytiscidae* pp. 10.

Material examined : 1 ex, Darjiling district, Kalimpong, 29.1.1931, S.L. Hora coll. 2 exs, Teesta,

9.2.1953, M.N. Acharji coll. 1 ex, Rilli river, below Kalimpong, 29.1.1931, S.L. Hora coll. 1 ex, Calcutta, 26.10.1949, A.P. Kapur coll. 1 ex, North 24-Parganas, Datta Pukur, 6.12.1966, A.N.T. Joseph coll, 1 ex, light trap at Calcutta air port, 1977.

Distribution : India : West Bengal (Calcutta, Darjiling, North 24-Parganas); Andaman. Also known from Srilanka and Indonesia.

9. *Laccophilus elegans* Sharp, 1882

1882. *Laccophilus elegans* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 302-303.
1977. *Laccophilus elegans*, Vazirani, *Cat. Orient Dytiscidae*, pp. 11.

Material studied : 1 ex, Darjiling district : Kalimpong, 29.1.1931, S.L. Hora coll. 1 ex, Calcutta (at light), 8.1914, F.H. Gravely coll.

Distribution : India ; West Bengal (Calcutta, Darjiling); Nagaland; Bihar; Orissa; Andhra Pradesh and Andaman island.

10. *Laccophilus ellipticus* Regimbert, 1899

1899. *Laccophilus ellipticus* Regimbert, *Ann. Soc. ent. Fr.*, (6) 9 : 152.
1977. *Laccophilus ellipticus*, Vairani, *Cat. Orient. Dytiscidae*, pp. 11.

Material studied : 2 exs, Murshidabad district : Berhampur court, 13.4.1910, S.W. Kemp coll. 1 ex, Siliguri, Darjiling district : Mahanandi river, 20.3.1945, H.A. Hafiz coll. 1 ex, Salbhata, from the tank ghutel band, 7.3.1946, 6 exs, Calcutta : Light trap at Calcutta air port, 1.12.1977.

Distribution : India : West Bengal (Calcutta, Darjiling, Murshidabad); Assam; Bihar; Orissa; Andhra Pradesh; Madhya Pradesh; Goa and Kerala. Also known from Burma, Sri Lanka, China and Vietnam.

11. *Laccophilus flexuosus* Aube, 1838

1838. *Laccophilus flexuosus* Aube, in Dejean's *Species Coleopteres*, 6 : 430.
1882. *Laccophilus cognatus* Sharp, *Sci. Trans. R. Dublin Soc.* 2 : 316.
1936. *Laccophilus solutus indicus* Gschwendtner, *Rec. Indian Mus.*, 37 : 367.
1977. *Laccophilus flexuosus*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 11-12.

Material studied : 8 exs, Calcutta, no other data. 2 exs, Medinipur district, Kharagpur, (17-30).6.1911, R. Hodgart coll. 1 ex, Abhaipur, 27.11.1947, K.S. Pradhan coll.

Distribution : India : West Bengal (Calcutta, Medinipur); Bihar; Orissa; Andhra Pradesh; Madhya Pradesh; Maharashtra; Uttar Pradesh; Himachal Pradesh; Karnataka; Tamil Nadu; Gujarat and Rajasthan. Also known from Burma, Sri Lanka, Nepal, Pakistan, Iraq, Iran, Japan and Indonesia.

12. *Laccophilus chinensis inefficiens* Walker, 1858

1858. *Laccophilus chinensis* Boheman, In Kongliga Svenska Fregatten. Eugenie resa Zoologi, 1. Insecta : 21
 1859. *Laccophilus inefficiens* Walker, *Ann. Mag. Nat. Hist.* 3 (3) : 51.
 1954. *Laccophilus chinensis inefficiens*, Guignot. *Ark. Zool.*, (N.S.), 6 : 565.

Material examined : Calcutta, 1 ex, 26.10.1949, A.P. Kapur coll. 1 ex, Manbhum (Now Puruliya), Hallowes coll., no other data.

Distribution : India : West Bengal (Calcutta, Puruliya); Assam; Bihar; Orissa; Madhya Pradesh, Uttar Pradesh; Himachal Pradesh; Punjab and Rajasthan.

13. *Laccophilus kempii* Gschwendtner, 1936

1936. *Laccophilus kempii* Gschwendtner, *Rec. Indian Mus.*, 37 : 366.
 1977. *Laccophilus kempii*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 12.

Material studied : 1 ex., Darjiling district, Jorpokri, nr. Silong, Darjiling district, 67.6.1918, S. Kemp coll.

Distribution : India : West Bengal (Darjiling).

Remarks : The species is known only from Darjiling district of West Bengal.

14. *Laccophilus parvulus* Aube, 1838

1838. *Laccophilus parvulus* Aube, in Dejean's species.
 1977. *Laccophilus parvulus*, Vazirani, *Cat. Orient. Dytiscidae*, 13-14.

Material studied : 1 ex, Medinipur district, Kharagpur, (17-30). 6.1911, R. Hodgart coll. 2 exs, Bireswar, North 24 Parganas, 3.7.87, T. Sengupta coll.

Distribution : India : West Bengal (Medinipur, North 24 Parganas); Assam; Manipur; Bihar; Orissa; Madhya Pradesh; Andhra Pradesh; Maharashtra; Tamil Nadu; Goa; Gujrat and Rajasthan. Also known from Burma, Sri Lanka, Pakistan, Malayasia, Indonesia and Phillipines.

Remarks : *Laccophilus orientalis* Aube, *L. undulifer* Motschulsky, *L. obtusus* sharp, *L. derasus* Sharp, *L. decoratus* Boheman and *L. proteus* Regimbert are considered to be synonymy of *L. parvulus* Aube. Details are in Vazirani (1977).

15. *Laccophilus rufulus* Regimbert, 1888

1888. *Laccophilus rufulus* Regimbert, *Ann. Mus. Stor. nat. Genova.* (2) 6 : 61.
 1977. *Laccophilus rufulus*, Vazirani, *Cat. Orient. Dytiscidae*, pp. 14-15.

Material studied : 1 ex, Calcutta, at light, 10.6.1907, 2 exs, Calcutta, 20.10.1949, A.P. Kapur coll.

1 ex, Darjiling district, Siliguri, base of eastern Himalayas, (3-4). 6.1911, N. Annandale and S. Kemp. 3 exs, Medinipur, Kharagpur, 13-3-.6.1911, R. Hodgart coll.

Distribution : India : West Bengal (Calcutta, Darjiling, Medinipur); Assam; Manipur; Bihar; Orissa and Madhya Pradesh.

16. *Laccophilus sharpi* Regimbert, 1889

1889. *Laccophilus sharpi* Regimbert, *Ann. Soc. ent. Fr.*, 6(9) : 151.

1977. *Laccophilus sharpi*, Vazirani, *Cat. Orient. Dytiscidae* pp. 15.

Material studied ; 1 ex, Murshidabad district : Berhampore Court, 13.4.1910, S. Kemp coll. 1 ex, Calcutta, 3.1924, S. Ribeiro coll. 5 exs, 26.10.1949, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta, Murshidabad); Bihar; Orissa; Madhya Pradesh; Maharastra; Tamil Nadu; Gujrat; Rajasthan and Andaman Island. Also known from Burma, Sri Lanka, Nepal, Pakistan, Iraw, Japan and Formosa.

Remarks : *Laccophilus ponticus* Sharp, *L. clarki* Sharp, and *L. formosanus* Takizawa have been synonymised with *L. sharpi* Regimbert. Details are in Vazirani (1977).

Subfamily III. HYDROPORINAE

Key to the genera of subfamily HYDRIPROINAE known from West Bengal.

- 1(2) Prosternal process little deflected from the general direction, fore tarsi with 5 segments
..... ***Metheles***
- 2(1) Prosternal process much deflected from the general direction of the prosternum; fore tarsi usually with 4 segments.
- 3(4) Claws of the hind tarsi mostly unequal, the external claw nearly invisible. Prosternal process oblong, size more than 2 mm. ***Hyphydrus***
- 4(3) Claws of the hind tarsi equal.
- 5(6) Prosternal process broadened at the apex, stural angls of the elytra acuminate ***Hydrovatus***
- 6(5) Prosternal process not broadened at the apex.
- 7(12) Pronotum marked with striae on both the sides, pronotal striae generally continued on the elytra.
- 8(9) Clypeus distinctly thickened, semi- circular in outline (with a transverse striae between the eyes)
..... ***Clypeodytes***

9(8) Clypeus not thickened almost cut straight.

10(11) Elytra with a sutural striae *Guignotus*

11(10) Elytra without a sutural striae, or if present only near apex *Uvarus*

12(7) Pronotum not marked with striae on both the sides.

13(14) Base of the epipleurae with an oblique cavity, elytra without longitudinal carina
..... *Hyphoporus*

14(13) Base of the epipleurae without an oblique cavity, elytra with longitudinal carina *Peschetius*

Genus 4. *Methles* Sharp, 1882

1882. *Methles* Sharp. *Sci. Trans. R. Dublin Soc.*, 2 : 489, 873.

1977. *Methles*, Vazirani, *Cat. Orient. Dytiscidae*. : 20.

17. *Metheles indicus* Regimbert 1899

1899. *Methles indicus* Regimbert, *Ann. Soc. ent. Fr.*, 68 : 241.

1977. *Methles indicus*, Vazirani, *Cat. Orient Dytiscidae* : 20.

Material studied : Calcutta, 1 ex, 26.10.1949, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta); Bihar.

Remarks : The species was known only by its type specimen from Chotangapur, Bihar. The specimen under report is the second specimen known.

Genus 5. *Hyphydrus* Illiger, 1807

1807. *Hyphydrus* Illiger, *Mag. Ins.* 6 : 349.

1977. *Hyphydrus*, Vazirani, *Cat. Orient. Dytiscidae* : 20.

18. *Hyphydrus (Apriophorus) renardi* Severin, 1890

1890. *Hyphydrus renardi* Severin, *Ann. Soc. ent. Belg.*, 34.

1977. *Hyphydrus (Apriophorus) renardi*, Vazirani, *Cat. Orient. Dytiscidae*. : 23.

Material studied : 1 ex. Medinipur district, Belpahari, S. Biswas coll.

Distribution : India : West Bengal (Medinipur); Bihar; Orissa; Uttar Pradesh; Madhya Pradesh; Tamil Nadu and Rajasthan. Also known from Burma.

Genus 6. *Hydrovatus* Motschulsky 1855.1855. *Hydrovatus* Motschulsky, *Etud. Ent.* 5:82.1882. *Hydrovatus*, Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 321, 848.Key to the species of the genus *Hydrovatus* known from West Bengal

- 1(2) Elytra black, with testaceous markings *H. Cardoni*
- 2(1) Elytra testaceous or ferruginous.
- 3(6) clypeus rebordered and raised anteriorly, elytra with obsolete reticulation.
- 4(5) Form larger and more oval; punctation on elytra more profound; punctation on metacoxae strong and dense *H. ferrugatus*
- 5(4) Form a little smaller and narrower; punctation on elytra not so profound; punctation on metacoxae less strong and less dense *H. fuscus*
- 6(3) Clypeus rebordered or not, but not raised anteriorly.
- 7(12) Length 3 mm or more.
- 8(9) Clypeus distinctly rebordered; elytra microreticulate (meshes rounded and minute like pin head) *H. picipennis*
- 9(8) Clypeus not rebordered, elytra obsolete reticulate (meshes larger and not so distinct)
- 10(11) Punctation on pronotum and elytra more impressed *H. bonvuloiri*
- 11(10) Punctation on pronotum and elytra less impressed *H. castaneus*
- 12(7) Length less than 3 mm.
- 13(14) Length 2.60-2.80 mm. *H. pinguis*
- 14(13) Length not more than 2,50 mm.
- 15(16) Elytra less densely punctate than pronotum, punctures separated by at least their own diameter *H. accuminata*
- 16(15) Elytra more densely punctate than pronotum, punctures almost coalescent.
- 17(18) Clypeus not rebordered; form more attenuated posteriorly; sides of pronotum subparallel; pronotoelytral angle distinct; elytra darker than head and pronotum *H. sinister*

18(17) Clypeus very narrowly rebordered; form more oval; side of pronotum arched, pronoto-elytral angle not distinct; elytra concolorous with head and pronotum*H. confertus*

19. *Hydrovatus acuminatus* Motschulsky, 1859

1859. *Hydrovatus acuminatus* Motschulsky, *Etude Entomologiques*, 8 : 42.
 1863. *Hydrovatus babius* Clark, *Trans. ent. Soc. Lond.*, (3) 1 : 424.
 1880. *Hydrovatus consanguineus* Regimbart, *Notes Leyden Mus.*, 2 : 212.
 1977. *Hydrovatus acuminatus*, Vazirani, *Cat. Orient. Dytiscidae* : 25.

Material studied ; 5 exs, 26.10.1949, A.P. Kapur coll.; 1 ex, at white light at Calcutta airport, 1.12.1977; 1 ex, 30.5.1951, M.B. Kripalani coll.; 1 ex, 26.10.1949, A.P. Kapur coll.; 1 ex, 19.10.1906, 1 ex., 13.8.1909, N. Annandale coll; 1 ex, 7.9.1912, F.H. Gravely coll. All above material from Calcutta. 1 ex, Chinsura Agricultural firm, Hugli district, 15.3.1978, D.K. Nath coll.; 3 exs, C.R.P.S. Compound, Berhampore, Murshidabad district, (5-13). 11.1974, A.K. Hazra coll.

Distribution : India : West Bengal (Calcutta, Hugli, Murshidabad); Bihar; Orissa; Kerala. Also known from Burma, China, Indonesia, Malacca, Celebes and Madagascar.

20. *Hydrovatus bonvouloiri* Sharp, 1882

1882. *Hydrovatus bonvouloiri* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 335.
 1977. *Hydrovatus bonvouloiri*, Vazirani, *Cat. Orient. Dytiscidae* : 26.

Material studied : 1 ex, Calcutta, no other data. 2 exs, (at light), 6.8.1950, A.P. Kapur coll; 1 ex, 2.12.1956, A.P. Kapur coll; 1 ex, Bantala, 6.5.1987, T. Sengupta coll; 1 ex, Bireswar, North 24-Parganas, 3.7.1987.

Distribution : India : West Bengal (Calcutta, North 24 Parganas); Bihar; Karnataka. Also known from Sri Lanka, Burma, China, Malaysia, Vietnam, Formosa, Indonesia and Phillipines.

21. *Hydrovatus cardoni* Severin, 1890

1890. *Hydrovatus cardoni* Severi, *Ann. Soc. ent. Belg.*, 34, Bull. (4) 12 : 189.
 1970. *Hydrovatus cardoni*, Vazirani, *Orient. Ins.*, 4 : 96.

Material studied : No material was available for study. Vazirani 1970 (Oriental insects) did not mention any material from West Bengal.

Distribution : India : West Bengal; Bihar and Orissa.

22. *Hydrovatus castaneus* Motschulsky, 1855

1855. *Hydrovatus castaneus* Motschulsky, *Etudes Entomologiques*, 5 : 82.
 1977. *Hydrovatus castaneus*, Vazirani, *Cat. Orient. Dytiscidae* : 26.

Material studied : 1 ex, Victoria point, Mungphber, E. Himalayas, Darjiling district, 8.1887, E.J. Atkinson coll; 12 exs, Calcutta, 26.10.1949, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta, Darjiling); Bihar; Orissa; Punjab and Kerala. Also known from Burma, Celebes and Indonesia.

23. *Hydrovatus confertus* Sharp, 1882

1882. *Hydrovatus confertus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 329.

1977. *Hydrovatus confertus*, Vazirani, *Cat. Orient. Dytiscidae* : 27.

Material studied : 1 ex, Medinipur district, 1 ex, Kharagpur, (17-30).6.1911, R. Hodgart coll., 2 exs, Calcutta, 19.10.1906, N. annandale coll., 1 ex, 26.10.1949, A.P. Kapur coll. 2 exs, Bantala, Calcutta, 6.5.87, T. Sengupta coll., 1 ex, 26.10.1949, A.P. Kapur coll.; 1 ex, Botanical garden, Howrah district, 11.12.1956, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta, Howrah, Medinipur); Bihar; Uttar Pradesh; Punjab; Tamil Nadu; Kerala and Rajasthan. Also known from Sri Lanka, Burma, Thailand, Vietnam, China and Indonesia.

24. *Hydrovatus ferrugatus* Regimbert, 1877

1877. *Hydrovatus ferrugatus* Regimbert, *Ann. Soc. ent. Fr.*, Bull. 1877 : 79

1977. *Hydrovatus ferrugatus*, Vazirani, *Cat. Orient. Dytiscidae*, : 27.

Material studied : 15 exs, Calcutta, 26.10.1949, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta); Karnataka and Punjab. Also known from Sri Lanka, Burma, Vietnam, Indonesia, Philippines and New Guinea.

25. *Hydrovatus fuscus* sharp, 1882

1882. *Hydrovatus fuscus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 326.

1977. *Hydrovatus fuscus*, Vazirani, *Cat. Orient. Dytiscidae*, : 28.

Material studied : 2 exs, Puruliya district, 24.2.1955, A.P. Kapur coll. 1 ex, Calcutta, Eden Gardens, 28.3.1957, S. Asli coll.

Distribution : India : West Bengal (Calcutta, Puruliya). Also known from Srilanka, Burma, Nepal, China, formosa and Indonesia.

26. *Hydrovatus picipennis* Motschulsky, 1859

1859. *Hydrovatus picipennis* Motschulsky, *Etudes Entomologiques*, 8 : 40.

1977. *Hydrovatus picipennis*, Vazirani, *Cat. Orient. Dytiscidae*, : 29.

Material studied : 5 exs, Calcutta, 26.10.1949, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta). Also known from Sri Lanka and Indonesia.

27. *Hydrivatus pinguis* Regimbert, 1892

1892. *Hydrovatus pinguis* Regimbert, *Ann. Soc. ent. Belg.* 36 : 114.

1977. *Hydrovatus pinguis*, Vazirani, *Cat. Orient. Dytiscidae*, : 29.

Material studied ; 2 exs, no other data.

Distribution : India : West Bengal; Bihar; Orissa. Also known from Burma and Indonesia.

28. *Hydrovatus sinister* Sharp, 1890

1890. *Hydrovatus sinister* Sharp, *Trans. ent. Soc. Lond.*, 343.

1977. *Hydrovatus sinister*, Vazirani, *Cat. Orient.* : 30.

Material studied: 1 ex, Darjiling district, Victoria point, Munghpur. East Himalayas, E.J. Atkinson.
1 ex, without other data. This specimen was identified by Gschwendt.

Distribution : India : West Bengal (Darjiling). Also known from Sri Lanka and Indonesia.

Genus 7. *Guignotus* Houlbert, 1934

1934. *Bidessus (Guignotus)* Houlbert, *Fauna Ent. Arm.*, Hydrocanthres : 54.

1977. *Gurignotis* Vazirani, *Cat. Orient. Dytiscidae* : 31.

Key to the species of the genus *Guignotus* known from West Bengal.

- 1(4) Latero-basal plica on pronotum not or hardly continued on elytra.
- 2(3) Laterobasal plica of pronotum not continued on elytra at all; length 2.30 - 2.50 mm
..... *G. flammulatus*
- 3(2) Laterobasal plica of pronotum minutely continued (as a small point) on elytra; Length 1.80 - 2.00
mm. *G. Orientalis*
- 4(1) Laterobasal plica on pronotum distinctly continued on elytra.
- 5(6) Length more than 2 mm. Elytra testaceous, with brown markings constituting 2 parallel longitudinal
lines terminating in the form a crochet; punctation moderate. *G. signatellus*
- 6(5) Length less than 2 mm.
- 7(8) Length 1,80 - 2.00 mm. elytra rather grey, with pale yellow markings. *G. fulvescens*

- 8(7) Length 1.50 - 1.80 mm; elytra testaceous with brown markings.
- 9(10) Punctuation on pronotum and elytra fine and dense, separated by about 2-3 times its own diameter; pronotal plica half the length of pronotum; elytral markings consisting two parallel longitudinal lines, terminating in the form of a crochet*G. pendijabensis*
- 10(9) Punctuation on pronotum and elytra stronger and denser, separated by about 1 1/2 - 2 times its own diameter; pronotal plica less than half the length of pronotum; elytral markings vague
.....*G. regimberti*

29. *Guignotus flammulatus* (Sharp), 1882

1882. *Bidessus flammulatus* Sharp, *Sci. Trans. R. Dublin Soc.* **2** : 359.
1892. *Bidessus antennatus* Regimbart, *Ann. Soc. ent. Belg.*, **36** : 116.
1977. *Guignotus flammulatus*, Vazirani, *Proc. zool. Soc. Calcutta.* **25** : 121.

Material studied : 1 ex. Bardhaman district, Asansol, (13-14). 11.1910, Paiva & Caunter coll.; 1 ex, (at light) Calcutta, 14.3.1907, N. Annandale coll.; 1 ex, 6.1914; 1 ex, 8.1914, F.H. Gravely coll.; 2 exs, 5.8.1906, N. Annandale coll.; 1 ex, 31.7.1957, A.P. Kapur coll.; 1 ex, Bandroni ghat, 13.9.1957, A.P. Kapur coll.; 4 exs, Bantala, 9.1.87, M.De coll.; 1 ex, Hugli district, Tarakeswar, 3.8.1965, P. Parui coll.; 2 exs, Chinsura Agric. Farm, Hugli district, 15.3.1978, D.K. Nath coll.

Distribution : India : West Bengal (Bardhaman, Calcutta, Hugli); Bihar; Orissa; Uttar Pradesh; Madhya Pradesh; Tamil Nadu; Maharashtra; Gujrat and Rajasthan. Also known from Indonesia, Vietnam., Thailand, Japan, China, Pakistan, Sri Lanka and Bangladesh.

30. *Guignotus fulvescens* (Zimmerman) 1923.

1923. *Bidessus fulvescens* Zimmermann, *Ent. Blatt.*, **19** : 34.
1970. *Guignotus fulvescens*, Vazirani, *Orient. Ins.*, **4** : 181.

Material studied : 2 exs, Calcutta, 26.10.1949, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta); Andaman and Nicobar Island.

31. *Guignotus orientalis* (Clark), 1863

1863. *Hydroporus orientalis* Clark, *Trans. ent. soc. Lond.* (3) **1** : 427.
1954. *Guignotus orientalis*, Guignot, *Ark. Zool.* (N.S.) **6** : 563.
1969. *Guignotus orientalis* : Vazirani, *Orient. Ins.*, **2** : 316-317.

Material studied ; 1 ex, Calcutta, 26.10.1949, A.P. Kapur coll.; 2 exs, Matiabazar, 14.12.1987, M. De coll.

Distribution : India : West Bengal (Calcutta); Assam; Andaman Island. Also known from China,

Burma, Thailand, Vietnam and Indonesia.

32. *Guignotus pendjabensis* Guignot, 1954

1954. *Guignotus pendjabensis* Guignot, *Opusc. ent., Lund*, **19** : 221.
 1973. *Guignotus pendjabensis*, Vazirani, *Rec. zol. Surv. India*, **67** : 296.

Material studied : 2 exs, Matiabazar, 14.12.87, M. De coll.; 1 ex, 6.8.1950, A.P. Kapur coll. (at light); 1 ex, Calcutta (at light) 26.10.1952, S. Ali coll.

Distribution : India : West Bengal (Calcutta); Orissa; Madhya Pradesh; Maharastra; Goa; Gujarat and Rajasthan. Also known from Bangladsh and Pakistan.

33. *Guignotus regimberti* (Gschwendtner), 1936

1936. *Bidessus regimberti* Gschwendtner, *Rec. Indian Mus.*, **37** : 367.
 1969. *Guignotus regimberti*, Vazirani, *Orient Ins.*, **2** : 321.

Material studied : 1 ex, South 24-Parganas district, Sonarpur, 8.9.1965, K.S. Pradhan coll.

Distribution : India : West Bengal (south 24 Parganas); Orissa.

34. *Guignotus signatellus* (Klug), 1834

1834. *Hydroporus signatellus* Klug, *Symb. Physicae* **4** : 34 f. 3.
 1838. *Bidessus thermalis* Germer, *Faun. Ins. Europe*, **20** : 3.
 1945. *Guignotus signatellus*, Guignot, *Mus. nat. Hist. nat.*, **19** : 45.

Material studied : 1 ex, Calcutta , 13.6.1912, F.H. Gravely coll.

Distribution : India : West Bengal (Calcutta). Also known from Pakistan, Iraq, Europe and Africa.

Genus 8. *Clypeodytes* Regimbart, 1894

1894. *Clypeodytes* Regimbart, *Ann. Sec. ent. Fr.*, **63** : 230.
 1977. *Clypeodytes*, Vazirant, *Cat. Orient, Dyhiscidae* : 37

Key to the species of the genus *Cluypeodytes* known from West Bengal

- 1(2) Elytra feably elevated in the position of the sublateral carina ; length 2.00 mm. *C. bufo*
 2(1) Elytra not elevated in the posdition of the sublateral carina ; length less than 2.00 mm.
 *C. indicus*

35. *Clypeodytes bufo* (Sharp), 1890

1890. *Bidessus bufo* Sharp, *Trans. ent. Soc. Lond.*, : 344.
 1971. *Clypeodytes bufo*, Vazirani, *Orient. Ins.*, 4 : 444.

Material studied : 2exs, Siliguri, base of E. Himalays (3-4). 6.1911. N. Annandale and S.W. Kemp coll.

Distribution : India : West Bengal (Calcutta); Bihar; Orissa; Maharashtra and Goa.

36. *Clypeodytes indicus* (Regimbert), 1892

1892. *Bidessus indicus* Regimbert, *Mem. Soc. ent. Belg.*, 36 : 117.
 1899. *Clypeodytes indicus*, Regimbert, *Ann. soc. ent. Ft.*, 68 : 219.
 1977. *Clypeodytes indicus*, Vazirani, *Cat. Orient. Dytiscidae*, : 39.

Material studied : 1 ex, Calcutta (at light), 6.1914, F.H. Gravely coll.

Distribution : India : West Bengal (Calcutta); Assam; Bihar; Uttar Pradesh; Madhya Pradesh and Maharashtra.

Genus 9. *Uvarus* Guignot, 1959

1959. *Uvarus* Guignot, *Ann. Mus. R. Congo Belg.* (8) 70 : 294.
 1977. *Uvarus*, Vazirani, *Cat. Orient. Dytiscidae*, : 41-42.

37. *Uvarus quadrilineatus* (Zimmermann) 1923

1923. *Bidessus quadrilineatus* Zimmermann, *Ent. Blatter*, 19 : 34.
 1956. *Uvarus bilineatus* Guignot, *Ark. Zool.* (N.S.) 9 : 45.
 1977. *Uvarus quadrilineatus*, Vazirani, *Cat. Orient. Dytiscidae*, : 42.

Material studied : 1 ex, Calcutta, Matiabazar, 14.12.1987, M. De. coll.

Distribution : India : West Bengal (Calcutta); Bihar.

Genus 10. *Hyphoporus* Sharp, 1882

1882. *Hyphoporus* Sharp, *Sci. Trans. R. Dublin, Soc.*, 2 : 390, 859
 1977. *Hyphoporus*, Vazirani, *Cat. Orient. cxytiscidae* : 44.

Key to the species of the genus *Hyphoporus* known from West Bengal.

- 1(2) Protarsi generally black, darker than femora and tibiae; punctation on elytra moderate, ver strong and coalescent *H. aper*
 2(1) Protarsi generally testaceous, concolorous with femora and tibiae; punctation on pronotum distinctly double and more dense *H. bengalensis*

38. *Hyphoprus aper* Sharp, 18821882. *Hyphoporus aper* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 390.1977. *Hyphoporus aper*, Vazirani, *Cat. orient. Dytiscidae*, : 44.*Material studied* : 1 ex, Calcutta, 1907, 1 ex, Puruliya, R. Hallows coll.*Distribution* : India : West Bengal (Calcutta, Puruliya); Bihar; Uttar Pradesh; Punjab; Madhya Pradesh and Maharashtra.39. *Hyphoporus bengalensis* Severin, 18901890. *Hyphoprus bengalensis* Severin, *Ann. Soc. ent. Belg.* 34 : Bull (4) 12 : 191.1977. *Hyphoporus bengalensis*, Vazirani, *Cat. Orient. Dytiscidae*, :*Material studied* : 7 exs, Calcutta, no other data. 18 exs, 1907, Mus. coll. 1 ex, Berhampore Court, Murshidabad, 13.4.1910, S.W. Kemp. coll.*Distribution* : India : West Bengal (Calcutta, Murshidabad); Bihar and Punjab.Genus 11. *Peschetius* Guignot, 19351935. *Peschetius* Guignot, *Rev. ent.*, 2 : 131.1977. *Peschetius*, Vazirani, *Cat. Orient. Dytiscidae*, : 48.40. *Peschetius quadricostaius* (Aube), 18381838. *Deronectes quadricostatus* Aube, in Dejean's Spdcies Coleoperes, 6 : 487.1977. *Peschetius quadricostatus*, Vazirani, *Cat. Orient. Dytiscidae*, : 48.*Material studied* : 6 exs, Manbhum, Puruliya district, K. Hallows coll. no other data.*Distribution* : India : West Bengal (Puruliya); Bihar; Orissa; Uttar Pradesh; Tamil Nadu; Kerala; Goa and Maharashtra.

Subfamily IV. COLYMBETINAE

Key to the genera of subfamily COLYMBETINAE known from West Bengal.

- 1(4) Metafemora with a group of ciliae at the posterior apical angle.
- 2(3) Pronotum short, nearly four times broader than long; base of pronotum convex in middle near the scutellum *Platynectes*
- 3(2) Pronotum not so short; base of pronotum not convex in middle near the scutellum *Agabus*

- 4(1) Metafemora without a group of ciliae at the posterior apical angle.
- 5(10) Posterior claws equal.
- 6(7) Hind coxal lines divergent anteriorly, covering posteriorly and almost touching median line, then turn outwards almost at right angles into hind coxal process; sides of pronotum distinctly margined. **Copelatus**
- 7(6) Hind coxal lines never almost touching median line and then turning outwards almost at right angles on to coxal process, sides of pronotum with very fine edges but not distinctly margined.
- 8(9) Epipleurae quite narrow from middle to apex, meta coxal lines absent or present only in the middle. **Laeconectus**
- 9(8) Epipleurae sufficiently broad from base to 5th abdominal sternite, meta coxal lines not abridged, reaching posterior border of metasternum **Agraphis**
- 10(5) Posterior claws unequal. Elytral sculpture without any transverse striae. **Rhantus**

Genus 12. **Copelatus** Erichson, 1832

1832. *Copelatus* Erichson, *Genera Dytiscidae*, : 18, 38.
 1977. *Copelatus*, Vazirani, *Cat. Orient. Dytiscidae*, 52.

41. **Copelatus freudei** Guignot, 1954.

1954. *Copelatus freudei* Guignot, *Ann. Soc. ent. Fr.*, **123** : 72.
 1970. *Copelatus freudei*, Vazirani, *Orient. Ins.*, **4** : 313.

Material studied : No material was available for study.

Distribution : India : West Bengal. Also known from Sri Lanka.

Remarks : Type of the species is from West Bengal and in Zimmermann collection and Paratypes in Paris Museum. The species has been included in the present work on the basis of record by Vazirani (1977).

Genus 13. **Laeconectus** Motschulsky, 1855

1855. *Laeconectus* Motschulsky, *Etudes Entom.*, **4** : 83.
 1977. *Laeconectus*, Vazirani, *cat. Orient. Dytis.*, P. 58.

Key to the species of the genus **Laeconectus** known from West Bengal.

- 1(2) Normal striae of punctures well impressed, reticulation distinct, size larger, 4.6- 5.2 mm in length **L. ritsemai** Regimbert

- 2(1) Normal striae of punctures feeble, not well impressed reticulation very fine, size smaller. 4.0 - 4.3 mm in length *L. fulvescens* Motschulsky

42. *Lacconetus (s.str.) fulvescens* Motschulsky, 1855

1855. *Lacconectus flavescens* Motschulsky, *Etudes Entomologiques*, 4 : 83
 1970. *Lacconectus fulvescens* Motschulsky, Vazirani, *Orient. Ins.*, 4 : 325.

Material studied : 1 ex., Darjiling district, Kurseong, E. Himalayas, (21-29). 5. 1906, N. Annandale coll.; 1 ex, Near Sureil, E. Himalayas, 18.10.1917, N. Annandale and F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling); Manipur; Sikkim. Also known from Burma, Malaysia and Indonesia.

43. *Lacconectus (S.str.) ritsemai* Regimbert, 1883.

1883. *Lacconectus ritsemae* Regimbert, *Notes Leyden Mus.*, 5 : 299.
 1970. *Lacconectus ritsemai*, Vazirani, *Orient. Ins.*, 4 : 322.

Material studied : No material was available for study.

Distribution : India : West Bengal (Darjiling); Manipur; Also known from Burma and Indonesia.

Remarks : This species has been included in West Bengal fauna. On the basis of two specimens from Kurseong in British Museum and studied by Vazirani (1970).

Genus 14. *Agraphis* Guignot 1954

1954. *Agraphis* Guignot, *Rev. fr. Ent.*, 21(3) : 199.
 1977. *Agraphis*, Vazirani, *Cat. Orient. Dytiscidae*, : 61.

44. *Agraphis kempi* Vazirani, 1970

1970. *Agraphis kempi* Vazirani, *Orient. Ins.*, 4 : 330.

Material studied : No material was available for study.

Distribution : India : West Bengal (Darjiling).

Genus 15. *Agabus* Leach, 1817

1817. *Agabus* Leach, *Zool. Miscell*, 3 : 69.
 1977. *Agabus*, Vazirani, *Cat. Orient. Dytiscidae*, : 61.

Key to the species of genus *Agabus* known from West Bengal.

- 1(2) Prosternal process very large, in the form discoidal or subdiscoidal or subdiscoidal plate; anterior series of punctures on pronotum interrupted in the middle *A. guttatus*
- 2(1) Prosternal process neither discoidal nor a plate; anterior series of punctures on pronotum not interrupted in the middle *A. amoenus sinuaticollis*

45. *Agabus (Dischonactes) guttatus* (Paykul), 1789

1789. *Dytiscus guttatus* Paykul, *Fauna Suecica*, 1 : 211.

1977. *Agabus (Dischonactes) guttatus*, Vazirani, *Cat. Orient. Dytiscidae*, : 62-63.

Material studied : 1 ex, Darjiling district, Lebong, 13.6.1914, F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling); Himachal Pradesh. Also known from Europe.

46. *Agabus amoenus sinuaticollis* Regimbert, 1899

1899. *Agabus sinuaticollis* Regimbert, *Ann. Soc. ent. Fr.*, 68 : 271.

1970. *Agabus (Gaurodytes) amoenus sinuaticollis* Vazirani, *Orient. Ins.*, 4 : 336.

Material studied : 3 exs, Tiger hill (in a poll), Darjiling district, 6.1918, S. Kemp coll; 3 exs, above Mongphu, 3.7.1918, S.Kemp coll. 1 ex, Lebong, 13.6.1914, F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling); Meghalaya; Himachal Pradesh. Also known from China.

Genus 16. *Platynectes* Regimbert, 1887

1887. *Platynectes* Regimbert, *Ann. Soc. ent. Fr.*, (5) 8 : 454, 462.

1970. *Platynectes*, Vazirani, *Orient. Ins.*, 4 : 340.

47. *Platynectes (Gueoragivtes) kashmirenus* Balfour Browne, 1944.

1944. *Platynectus kashmirenus* Balfour Browne. *Ann. Mag. nat. Hist.*, (11) 11 : 352 nom nov.

1844. *Colymbetes lineatus* Reditnbacher, in *Hugel Kashmir*, 4 : 503. fig. 5.

1977. *Platynectes (Gueorguievtes) kashmirenus*, Vazirani, *Cat. Orient. Dytiscidae*, : 68.

Material studied : 1 ex, Darjiling district, Goethal School, Kurseong, E. Himalayas, 9.3.1926, M. Sharif coll. 3 exs, Dowhill, Kurseong, 8.3.1924, B.N. Chopra coll. 2 exs, Kurseong, (21-29). 5.1906, N. Annandale coll. 1 ex, Senchal, 11.7.1918, S. Kemp coll. 1 ex., Near Sureil, 18.10.1977, N. Annandale and F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling); Manipur; Meghalaya; Sikkim; Uttar Pradesh; Himachal Pradesh; Punjab and Kashmir.

Genus 17. *Rhantus* Stephens, 1835.1835. *Rhantus* Stephens, Illustrated Brit. Ent. Mand., 5 app; 395.1977. *Rhantus*, Vazirani, *Cat. Orient, Dytiscidae* : 70.Key to the species of genus *Rhantus* known from West Bengal.

- 1(4) Form elongate, size larger, more than 10.5 mm.
- 2(3) Length 11.4 - 11.8 mm; reticulation on ventral side distinct; normal striae of punctures quite close and fine o anterior claws thicker*R. sikkimensis*
- 3(2) Length 11.4-11.8 mm; reticulation of ventral side not distinct; normal striae of punctures more spaced; o anterior claws thinner*R. taprobanicus*
- 4(1) Form oval, size smaller, less than 10.5 mm; reticulation on pronotum consisting of smaller but strongly impressed areoles; sides of pronotum less oblique*R. ovalis*

48. *Rhantus (S. str.) ovalis* Gschwendtner, 19361936. *Rhantus ovalis* Gschwendtner, *Rec. India Mus.*, 37 : 371.1970. *Rhantus (S. str.) ovalis*, Vazirani, *Orient. Ins.*, 4 : 354.

Material studied : 4 exs, Darjiling district, Jorpokhri, near Darjiling, T.D. La Touche coll. 2 exs, Tiger hill, 6.1918, S. Kemp coll. 1 ex. Senchal water works, near Ghoom, 11.7.1918, S. Kemp coll. 7 exs, Darjiling, H.K. Bhowmick coll. 8 exs, Darjiling, 1.1.1971, J.M. Julka coll. 2 exs, Ghoom, Manbhanjan, 17.3.1973, P.K. Maiti coll.

Distribution : India : West Bengal (Darjiling); Himachal Pradesh.

49. *Rhantus (S. str.) sikkimensis* Regimbert, 18991899. *Rhantus sikkimensis* Regimbert, *Ann. soc. ent. Fr.*, 68 : 306.1970. *Rhantus (S. str.) sikkimensis*, Vazirani, *Orient. Ins.*, 4 : 355.

Material studied : 3 exs, Darjiling district, 2 exs, Siliguri, N. Bengal, (18-20). 1907; 6 exs, Lebong, 13.6.1914, F.H. Gravely coll., 3 exs, Pashok, 26.5-14.6. 1916, F.H. Gravely coll., 1 ex, near Sureil, Darjiling, 18.10.1917, N. Annandale and F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling); Sikkim; Punjab; Himachal Pradesh. Also known from Pakistan, Burma and China.

50. *Rhantus (S. str.) taprobanicus* Sharp, 1890.1890. *Rhantus taprobanicus* Sharp, *Trans. ent. Soc. London*, : 346.1977. *Rhantus (S. str.) taprobanicus*, Vazirani, *Cat. Orient. Dytiscidae*, : 73.

Material studied : 10 exs, Teesta river, Darjiling district, 9.2.1953, 1 ex, Bakyong, Darjiling, 28.5.1930, S.L. Hora coll.; 1 ex, Kalimpong, 24.4.-10.5.1915, F.H. Gravely coll.; 1 ex, Singla, 3.1913, Lord Carmichael coll.

Distribution : India : West Bengal (Darjiling); Meghalaya; Bihar; Uttar Pradesh; Tamil Nadu; Pondicherry; Maharashtra; Karnataka and Rajasthan. Also known from Pakistan and Sri Lanka.

Subfamily V. DYTISCINAE

Key to the genera of subfamily DYTISCINAE known from West Bengal.

- 1(2) Hind margins of the four basal metatarsal segments not fringed with any ciliae *Cybister*
- 2(1) Hind margins of the four basal metatarsal segments on both the anterior and posterior faces fringe with golden-yellow ciliae over-lapping, the base of the next segment
- 3(4) Sides of pronotum rebordered. Lateral borders of the elytra serrated at the posterior half. *Eretes*
- 4(3) Sides of pronotum not rebordered. Lateral borders of the elytra not serrated in the posterior half.
- 5(6) Suture between the metepisternum and metasternal wing straight, apical spurs of the hind tibia simple pointed *Hydaticus*
- 6(5) Suture between the metepisternum and the metasternal wings, curved; apical spurs of the hind tibiae blunt, more or less bifid.
- 7(8) Moderate in size, scarcely 10 mm long; middle femora with short thorn-like bristles usually reaching one-fourth the length of the trochanter *Rhantaticus*
- 8(7) Rather large in size, 13-15 mm long; middle femora with few long ciliae not or scarcely shorter than the trochanters *Sandracottus*

Genus 18. *Eretes* Castelnau, 1833

1833. *Eretes* Castelnau, *Ann. Soc. ent. Fr.*, 2 : 397.
1977. *Eretes*, Vazirani, *Cat. Orient. Dytiscidae*, : 73.

51. *Eretes sticticus* (Linnaeus), 1767

1767. *Dytiscus sticticus* (Linnaeus), *Syst. Nat.*, ed. 12 : 666.
1833. *Eretes sticticus*, Castelnau, *Ann. Soc. ent. Fr.*, (5) 8 : 450.
1977. *Eretes sticticus*, Vazirani, *Cat. Orient. Dytiscidae*, : 73-74.

Material studied : 2 exs, Puruliya District, Mambhum, K.A. Hallows coll.; 1 ex, Darjiling district, Siliguri, (18-20). 7.1907.; 1 ex, Birbhum district, Ramporehat, (2-3).3.1931, S. Ribeiro coll.; 2 exs,

Calcutta.; Dhapa, from a brackish pond, 22.1.1911, S. Kemp coll.; 1 ex, 4.11.1907. 2 exs, Salt Lake, Dhakindara, (23-24). 2.1929, B.N. Chopra coll.; 3 exs, Murshidabad district, Murshidabad.

Distribution : India : West Bengal (Birbhum, Calcutta, Darjiling, Murshidabad, Puruliya); Manipur; Assam; Bihar; Uttar Pradesh; Punjab; Kashmir; Orissa; Tamil Nadu; Maharastra; Karnataka; Rajasthan. Also known from all tropical and subtropical regions of the world.

Genus 19. *Hydaticus* Leach, 1817

1817. *Hydaticus* Leach, *Zool. Miscell.*, 3 : 69, 72.

1977. *Hydaticus*, Vazirani, *Cat. Orient. Dytiscidae* : 75.

Key to the species of genus *Hydaticus* known from West Bengal.

- 1(4) Elytra brown or tawny.
- 2(3) Pronotum with a broad black median stripe, leaving the lateral sides reddish yellow
..... *H. luczonicus*
- 3(2) Pronotum without a black median stripe, black irrotations restricted to apical area only
..... *H. bengalensis*
- 4(1) Elytra black.
- 5(6) Head brown with a transverse black band on the posterior border of vertex, pronotum similarly with
a transverse, median black band along the posterior corner *H. fabricii*
- 6(5) Head and pronotum without any transverse black band *H. ponticus*

52. *Hydaticus (Guignotites) bengalensis* Regimbert, 1899

1899. *Hydaticus bengalensis* Regimbert, *Ann. Soc. ent. Fr.*, 68 : 327.

1977. *Hydaticus (Guignotites) bengalensis*, Vazirani, *Cat. Orient. Dytiscidae*, : 75.

Material studied : No material available for study.

Distribution : India : West Bengal (Calcutta). Also known from Burma.

Remarks : The species was described from Calcutta and types are in the Paris Museum. Vazirani recorded its occurrence from Burma on the basis of four specimens collected from Pegu, Burma, present in Paris Museum.

53. *Hydaticus (Guidnotites) fabricii* Macleay, 1833

1833. *Hydaticus fabricii* Macleay, *Annulossa javanica* : 134.

1838. *Hydaticus rufulus* Aube, in *Dejean's species Coleopt.* 6 : 199.

1858. *Hydaticus confusus* Boheman, *Eugen. Ressiesa. Col.*, : 21.
 1977. *Hydaticus (Guignotetes) fabricii*, Vazirani, *Cat. Orient. Dytiscidae*, : 76-77.

Material examined : 2 exs, Murshidabad, Murshidabad district, E.T. Atkinson coll.; 1 ex, Kurseong, E.A.D. Abrew coll; 1 ex, Rakyong, 28.5.1930, S.L. Hora coll; 1 ex, Siliguri, (18-20).7.1907, 1 ex, Sukna, 2.7.1908, N. Annandale coll; 1 ex, Pashok, 20.12.1926, S.L. Hora coll.; 1 ex, Birbhum district, Rampurhat, (2-3).3.1931, S. Ribeiro coll.; 1 ex, Calcutta, no other data.; 3 exs, Manbhum, Puruliya district, K. Hallows coll.

Distribution : India : West Bengal (Birbhum, Calcutta, Darjiling, Murshidabad, Puruliya); Assam; Manipur; Bihar; Punjab; Himachal Pradesh; Orissa; Tamil Nadu; Maharashtra and Rajasthan. Also known from Phillipines, Indonesia, Vietnam, Burma, Pakistan and Nepal.

54. *Hydaticus (Guignotites) luczonicus* Aube, 1838

1838. *Hydaticus luczonicus* Aube, in *Dejean's species Colepteres*, 6 : 179.
 1977. *Hydaticus (Guignotites) luczonicus*, Vazirani *Cat. Orient. Dytiscidae*, : 79.

Material studied ; 2 exs, Puruliya district, Manbhum, K. Hallows coll.

Distribution : India : West Bengal (Puruliya); Bihar; Uttar Pradesh; Orissa; Madhya Pradesh; Maharashtra; Gujrat and Rajasthan. Also known from Thailand.

55. *Hydaticus (Guignotites) ponticus* Sharp, 1882

1882. *Hydaticus ponticus* Sharp, *Sci. Trans. R. dublin Soc.*, 2 : 662.
 1977. *Hydaticus (Guignotites) ponticus*, Vazirani, *Cat. Orient. Dytiscidae*, : 80.

Material studied : 1 ex, Calcutta (at light), 2.7.1959, A.P. Kapur coll.

Distribution : India : West Bengal (Calcutta). Also known from Egypt, Iraq and Pakistan.

Genus 20. *Rhantaticus* sharp, 1882.

1882. *Rhantaticus* Sharp, *Sci. Trans. R. dublin soc.*, 2 : 691, 911.
 1977. *Rhantaticus*, Vazirani, *Cat. Orient. Dytiscidae*, : 82-83.

56. *Rhantaticus congestus* (Klug), 1832

1832. *Hydaticus congestus* Klug, *Symb. Physicae*, Insectes Madagascar, 3 : 136.
 1834. *Hydaticus signatipennis* Castelnau, *Etud. Ent.*, : 238.
 1864. *Hydaticus rochazi* Montrouz, *Ann. Soc. Linn. Lyon*, 10 : 81.
 1977. *Rhantaticus congestus*, Vazirani, *Cat. Orient. Dytiscidae*, : 83.

Material studied : 1 ex, Calcutta, (At light), 10.10. 1959, A.P. Kapur coll.; 1 ex, 16.12.1907, B.A. Gupta coll. 1 ex, Murshidabad district, Berhampore, C.P.F.S. Compound, 3.11.1974, A.K. Hazra coll.

Distribution : India : West Bengal (Calcutta, Murshidabad); Bihar; Orissa; Andhra Pradesh; Maharashtra and Rajasthan. Also known from Africa, Madagascar, Australia, New Guinea, Phillipines, Formosa and Nepal.

Genus 21. *Sandracottus* Sharp, 1882

1882. *Sandracottus* Sharp, *Sci. Trans. R. dublin Soc.*, **2** : 685, 910.
1977. *Sandracottus*, Vazirani, *Cat. Orient. Dytiscidae*, : 83.

57. *Sandracottus mixtus* (Blanchard), 1853

1853. *Acilius mixtus* Blanchard, *Voy. Pol. Sud.*, **4** : 47.
1775. *Dytiscus fasciatus* 1775, *Syst. ent. App.*, : 825
1872. *Dyliscus hunteri* Crotch, *Cat. Briot. Coleoptera*, **9** : 205.
1908. *Sandracottus cruciatus* Jacobson, *Kaf. Rubl.* : 434.
1977. *Sandracottus mixtus*, Vazirani, *Cat. Orient. dytiscidae*, : 85.

Material studied : 1 ex, Darjiling district : Jorpokhri, Sitong. (22-28). 10.1917. N. Annandale & F. Gravely coll.

Distribution : India : West Bengal (Darjiling); Nagaland; Tamil Nadu. Also known from Indonesia, Vietnam, China and Burma.

Genus 22. *Cybister* Curtis, 1827

Genus *Cybister* Curtis contains about 80 species from all over the world and 16 species are found in Indian region. Of these 12 species are recorded from West Bengal.

1827. *Cybister* Curtis, *Brit. Ent.*, **4** : 151.
1977. *Cybister*, Vazirani, *Cat. Orient. Dytiscidae*, : 85.

Key to the species of genus *Cybister* known from West Bengal.

- 1(6) Female with a rudimentary second claw on hind tarsi.
2(3) Pronotum without lateral reddish margin *sugillatus*
3(2) Pronotum with lateral reddish margin.
4(5) Tibial spurs of the hind leg reaching the two basal tarsal segments combined *convexusus*
5(4) Tibial spurs of the hind leg not reaching the two basal tarsal segments combined *posticus*
6(1) Female without a rudimentary second claw on hind tarsi
7(8) Elytra without yellow lateral stripe *dehaani*

- 8(7) Elytra with yellow lateral stripe.
- 9(10) The curved series of punctures running parallel with the inner margin of the mid coxal cavities peculiarly deep and coarse.
Metasternum distinctly swollen in the anterior part *rugulosus*
- 10(9) The curved series of punctures running parallel with the inner margin of the mid coxal cavities, not peculiarly deep and coarse.
- 11(12) Elytra with yellow lateral stripe extending to and including the epipleurae, species without any sexual sculpture in the female in the form of longitudinal or zig-zag striations
..... *tripunctatus asiaticus*
- 12(11) Elytra with yellow lateral stripe submarginal, not extending to the epipleurae at the base, species generally with elytral sexual sculpture in the form of longitudinal or zig-zag striations.
- 13(18) On the ventral side concolorous (black or brown) or nearly so.
- 14(15) Yellow elytral submarginal stripe narrower, narrowing towards the apex, femora of the anterior and middle legs picaceous with black patches on the middle. Elytra in the male with distinct tubercles (mid-claws shorter than the apical tarsal segment) *guerin*
- 15(14) Yellow elytral submarginal stripe broad, nearly 1 1/2 times as wide as the pronotal yellow stripe, nearly same width throughout its entire length. Elytra with obsolete tubercles in the male.
- 16(17) Mid claws longer than the apical tarsal segment in the male. Female with the sexual sculpture of deep irregular short longitudinal striations. Covering nearly five-sixths of the elytral length and missing along the sutural line except at the base *limbatus*
- 17(16) Mid claws equal to the apical tarsal segment in the male. Female with the longitudinal striations covering three-fifths of the elytral length and absent along the sutural line, leaving larger smooth space along the suture than in *limbatus* *confusus*
- 18(13) On the ventral side variegated with yellow and black.
- 19(20) Abdominal sternites 3-6 with anterior border black *ventralis*
- 20(19) Abdominal sternites 3-6 with anterior borders not black
- 21(22) From oval; male with basal mid tarsal segment completely covered with sexual pubescence and the subsequent segment partially covered; female with elytral sexual sculpture extending to one half the length of the elytra *cognatus*

22(21) Form narrower in front; male with the basal two mid tarsal segments completely covered with sexual pubescence and the subsequent segment with a narrow streak of pubescence; female with elytral sexual sculpture-extending to nearly five-sixths of elytra *javanus*

58. *Cybister (Meganectes) cognatus* Sharp, 1882

1882. *Cybister cognatus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 744.

1977. *Cybister (Meganectes) cognatus*, Vazirani, *Cat. Orient. Dytiscidae*, : 89.

Material studied : No material available from West Bengal in the collection.

Distribution : India : West Bengal; Bihar; Maharashtra and Goa. Also known from Indonesia.

Remarks : The species has been included on the basis of published record of Vazirani (1977).

59. *Cybister (Meganectes) confusus* Sharp, 1882

1882. *Cybister confusus*, Sharp, *Sci. Trans. R. Dublin Soc.*, 68 : 739.

1977. *Cybister (Meganectes) confusus*, Vazirani, *Cat. Orient. Dytiscidae*, : 90.

Material studied : 2 exs., Calcutta, Mus. collector.; 1 ex, Puruliya : Lake at Puruliya, March 26, S. L. Hora coll.; 1 ex, Bardhaman district, Raniganj, June 1910, A. Martin coll.; 1 ex, North 24 Parganas, Brahmani river, 1 mile south of Naihati, (7-8).3.1931, S. Ribeiro coll.

Distribution : India : West Bengal (Bardhaman, Calcutta, North 24-Parganas, Puruliya); Bihar; Manipur; Karnataka; Maharashtra and Orissa. Also known from Pakistan and Sri Lanka.

60. *Cybister (Melanectes) convexus* Sharp, 1882

1882. *Cybister convexus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 718.

1977. *Cybister (Melanectes) convexus*, Vazirani, *Cat. Orient. Dytiscidae*, : 87.

Material studied : 2 exs, Darjiling district, Namting Pokhri, above Sitong, near Munghpu, 2.7.1918, S. Kemp coll.; 1 ex, Joi pokhri, near Sitong, 6.7.1918, S. Kemp coll.

Distribution : India : West Bengal (Darjiling); Assam and Manipur. Also known from China.

61. *Cybister (Melanectes) dehaani* Aube, 1838

1838. *Cybister dehaani* Aube, in *Dejean's species Coleopteres*, 6 : 101.

1977. *Cybister (Melanectes) dehaani*, Vazirani, *Cat. Orient. Dytiscidae*, : 88.

Material studied : 1 ex, Calcutta, 1900 (no other data).

Distribution : India : West Bengal (Calcutta). Also known from Indonesia.

62. *Cybister (Meganectes) guerini* Aube, 1838

1838. *Cybister guerini*, Aube, in *Dejean's species Coleopteres*, 6 : 57.

1977. *Cybister (Meganectes) guerini*, Vazirani, *Cat. Orient. Dytiscidae*, : 90-91.

Material studied : 2 exs, Calcutta, 1900, by Regimbert; 1 ex, North 24 Parganas, Jaganathpur, Barasat, 13.7.1967, Radionovsky coll.

Distribution : India : West Bengal (Calcutta, North 24 Parganas). Also known from Burma, Thailand, Vietnam, Laos and Indonesia.

63. *Cybister (Meganectes) javanus* Aube, 1838

1838. *Cybister javanus* Aube, in *Dejean's species Coleopteres*, 6 : 59.

1977. *Cybister (Meganectes) javanus*, Vazirani, *Cat. Orient. Dytiscidae*, : 91.

Material studied : 2 exs, Calcutta, Mus. collector; 1 ex, Calcutta (at light), 1.6.1908.; 1 ex, Murshidabad district, Berhampur, 1 ex, Birbhum district, Rampurhat, Ponds and jheels, (2-3).3.1931, S. Ribeiro coll.

Distribution : India : West Bengal (Birbhum, Calcutta, Murshidabad); Bihar; Orissa; Tamil Nadu and Kerala. Also known from Sri Lanka and Indonesia.

64. *Cybister (Meganectes) limbatus* (Fabricius), 1775

1775. *Dytiscus limbatus* Fabricius, *Systema Ent.*, 230.

1838. *Cybister limbatus*, Aube, in *Dejean's species Coleopteres*, 6 : 55.

1977. *Cybister (Meganectes) limbatus*, Vazirani, *Cat. Orient. Dytiscidae*, : 91.

Material studied : 3 exs, Calcutta, 1907, Museum collector. 1 ex, Calcutta, at light, 23.6.1908, 1 ex, Calcutta, river Hugli, June 1914; 4 exs, Murshidabad, Berhampore, no other data; 1 ex, Darjiling district, Munghpu, Atkinson coll.; 1 ex, Puruliya district, Manbhum, K. Hallows coll.; 1 ex, Birbhum district, (2-3).3.1931, S. Rebeiro coll.; 2 exs, Calcutta, 18.7.1953, T. G. Vazirani coll.

Distribution : India : West Bengal (Birbhum, Calcutta, Hugli, Darjiling, Puruliya); Arunachal Pradesh; Bihar; Orissa; Madhya Pradesh; Maharashtra; Goa and Kerala. Also known from Japan, China, Vietnam, Formosa, Phillipines.

65. *Cybister (Melanectes) posticus* Aube, 1838

1838. *Cybister posticus* Aube, in *Dejean's species Coleopteres*, 6 : 87.

1977. *Cybister (Melanectes) posticus*, Vazirani, *Cat. Orient. Dytiscidae*, : 88.

Material studied : 1 ex, Calcutta (specimen determined by Geschwendt.), 2 exs, 1907, ex, (at light) 6.12.1907. 1 ex, Indian Museum tank, 16.5.1931, G. Mathews.; 1 ex, Murshidabad district.

Distribution : India : West Bengal (Calcutta, Murshidabad); Assam; Manipur; Mahaashtra. Also

known from Bangladesh.

66. *Cybister (Meganectes) rugulosus* Redtenbacher, 1844

1844. *Cybister rugulosus* Redtenbacher, in Hugel's Kascmir, 4(2) : 502.

1977. *Cybister (Meganectes) rugulosus*, Vazirani, *Cat. Orient. Dytiscidae*, : 92.

Material studied : 1 ex, Calcutta, 1907, 2 exs, Calcutta, 1907 (no other data).

Distribution : India : West Bengal (Calcutta); Kashmir.

67. *Cybister (melanectes) sugillatus* Erichson, 1834

1834. *Cybister sugillatus* Erichson, *Nova Acta Leop. Carol.*, 16 : 227.

1977. *Cybister (Melanectes) sugillatus*, Vazirani, *Cat. Orient. Dytiscidae*, : 89.

Material studied : 1 ex, Darjiling district, Pashok, (1-12). 10.1917. F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling); Manipur; Assam; Sikkim; Orissa; Tamil Nadu; Madhya Pradesh and Maharashtra. Also known from Japan, China, Phillipines and Indonesia.

68. *Cybister tripunctatus asiaticus* Sharp, 1882

1882. *Cybister asiaticus* Sharp, *Sci. Trans. R. Dublin Soc.* 2 : 731.

1889. *Cybister tripunctatus asiaticus*, Regimbart, *Ann. Soc. ent. Fr.*, 68 : 352.

1977. *Cybister tripunctatus asiaticus*, Vazirani, *Cat. Orient. Dytiscidae*, : 92.

Material studied : 2 exs, (at light), Calcutta, 10.11.1905, 3 exs, Calcutta, 1907, no other data.

Distribution : India : West Bengal (Calcutta) Also known from Pakistan, Afghanistan, Nepal, Sri Lanka and Bangladesh.

Remarks : The species has been collected from stagnant water in ponds, lakes and paddy field.

69. *Cybister (meganectes) ventralis* Sharp 1882

1882. *Cybister ventralis* Sharp, *Sci. Trans. R. dublin Soc.*, 2 : 742.

1882. *Cybister crassus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2 : 743.

1977. *Cybister (Meganectes) ventralis*, Vazirani, *Cat. Orient. Dytiscidae*, : 92-93.

Material studied : 1 ex, Murshidabad district, Berhampore Court, 13.4.1910, S. W. Kemp coll.; 1 ex Puruliya district, Manbhum, K.A. Hallows coll.

Distribution : India : West Bengal (Murshidabad, Puruliya); Assam; Bihar; Madhya Pradesh; Maharashtra and Karnataka. Also known from Bangladesh.

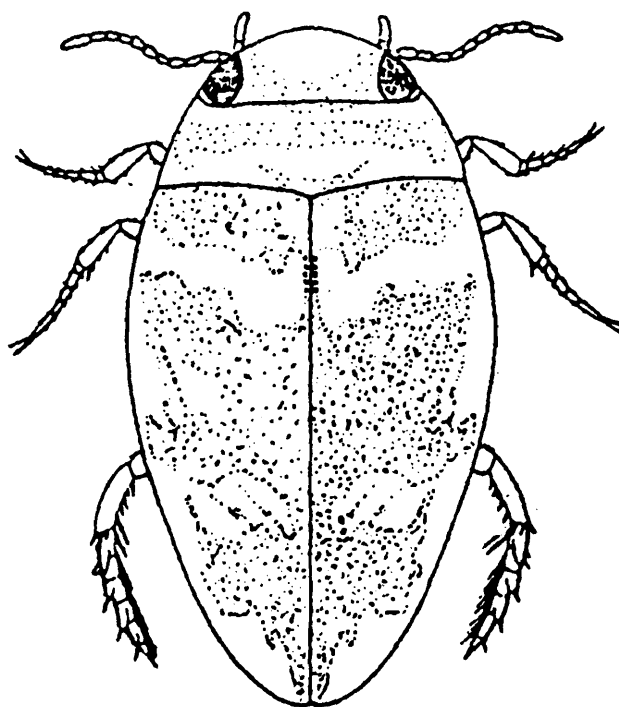
THE CHART SHOWING DISTRICT WISE DISTRIBUTION OF
SPECIES OF THE FAMILY DYTISCIDAE KNOWN FROM WEST BENGAL

Name of the Species	Bankura 1	Bardhaman 2	Birbhum 3	Calcutta 4	Darjiling 5	Haora 6	Hugli 7	Jalpaiguri 8	Koch Behar 9	Maldah 10	Medinipur 11	Murshidabad 12	Nadia 13	24-Parganas (North) 14	24-Parganas(South) 15	Puruliya 16	West Dinajpur 17
<i>Hydrocoptus subvittulus</i> Mots.				+										+		+	
<i>Canthydrus flavus</i> (Motschulsky)														+			
<i>Canthydrus laetabilis</i> (Walker)											+	+				+	
<i>Canthydrus luctuosus</i> (Aube)					+												
<i>Canthydrus morsbachi</i> (Wehncke)				+										+			
<i>Canthydrus ritsemai</i> Regimbert				+	+											+	
<i>Laccophilus anticatus</i> Sharp				+			+					+		+			
<i>Laccophilus basalis</i> Motschulsky				+	+				-	-	-	-		+			
<i>Laccophilus chinensis inefficiens</i> Walker				+	-				-		-	-			+		-
<i>Laccophilus elegans</i> Sharp				+	+												
<i>Laccophilus ellipticus</i> Regimbert				+	+						-		+				-
<i>Laccophilus flexuosus</i> Aube				+							+	-					
<i>Laccophilus kempii</i> Gschwendtner				-	+												-
<i>Laccophilus parvulus</i> Aube											+			+			-

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Laccophilusrufulus</i> Regimbert				+	+	-	-	-	-	-	+			-			
<i>Laccophilus Sharpi</i> Regimbert	-	-	-	+	-	-	-	-		-		+				-	-
<i>Metheless indicus</i> Regimbert	-	-	-	+								-			-		
<i>Hyphydrus (A.) remardi</i> Severin	-	-	-	-	-		-					+			-		
<i>Hydrovatus acuminatus</i> Motschulsky		-		+	-	-	+	-				+					
<i>Hydrovatus bonvouloiri</i> Sharp	-			+	-	-	-	-		-				+			
<i>Hydrovatus cardoni</i> Severin																	
<i>Hydrovatus castaneus</i> Motschulsky				+	+					-	-	-			-	-	
<i>Hydrovatus confertus</i> Sharp				+	-	+		-		-	+	-	-		-		
<i>Hydrovatus ferrugatus</i> Regimbert				+											-		
<i>Hydrovatus fuscus</i> Sharp				+						-					+		
<i>Hydrovatus picipennis</i> Motschulsky			-	+							-						-
<i>Hydrovatus pinguis</i> Regimbert																	
<i>Hydrovatus sinister</i> Sharp					+							-					
<i>Guignotus flammulatus</i> (Sharp)		+		+			+										
<i>Guignotus fulvescens</i> (Zimmermann)				+													
<i>Guignotus orientalis</i> (Clark)				+													
<i>Guignotus pendjabensis</i> Guignot				+				-				-					
<i>Guignotus regimberti</i> (Gscwendtner)																	+

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Güignotus signatellus</i> (Klug)			-	+	-												
<i>Clypeodytes bufo</i> (Sharp)			-	+	-												
<i>Clypeodytes indicus</i> (Regimbert)	-			+													
<i>Uvarus quadrilineatus</i> (Zimmerman)	-	-		+													
<i>Hyphoporus aper</i> Sharp		-		+											+		
<i>Hyphoporus bengalensis</i> Severin			-	+			-		-			+					
<i>Peschetius quadricostatus</i> (Aube)	-	-	-		-									-	+	-	-
<i>Copelatus freudei</i> Guignot																	
<i>Lacconectus fulvescens</i> Motschulsky		-		-	+	-									-		
<i>Lacconectus ritsemai</i> Regimbert	-		-	-	+	-	-							-	-	-	
<i>Agraphis kempi</i> Vazirani	-		-	-	+	-								-	-		
<i>Agabus amoenus sinuaticollis</i> Regimbert		-	-	-	+				-	-	-					-	
<i>Agabus guttatus</i> (paykull)	-	-	-		+	-	-		-	-			-	-	-	-	-
<i>Platynectes kashmirensis</i> Balfour-Browe	-	-	-	-	+				-	-	-	-	-	-	-	-	-
<i>Rhantus Ovalis</i> Gschwendtner	-	-	-	-	+	-			-	-	-	-	-	-	-	-	-
<i>Rhantus sikkimensis</i> Regimbert	-	-	-	-	+				-	-	-	-	-	-	-	-	-
<i>Rhantus taprobanicus</i> Sharp	-	-	-	-	+	-	-		-	-	-	-	-	-	-	-	-
<i>Fretes sticticus</i> (Linnaeus)		-	+	+	+	-	-	-		-	-	+	-	-	+	-	-

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Hydaticus (G.) bengalensis</i> Regumbert	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Hydaticus (G.) fabricii</i> Macleay	-	-	+	+	+	-	-	-	-	-	-	+	-	-	+	-	-
<i>Hydaticus (G.) luzonicus</i> Aube	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Hydaticus (G.) Ponticus</i> Sharp	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhantaticus congestus</i> (Klug)	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	-	-
<i>Sandracottus mixtus</i> (Blanchard)	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cybister (M.) cognatus</i> Sharp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cybister (M.) confusus</i> Sharp	-	+	-	+	-	-	-	-	-	-	-	-	-	+	+	-	-
<i>Cybister (M.) Convexus</i> Sharp	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cybister (M.) dehaani</i> Aube	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cybister (M.) guerini</i> Aube	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-
<i>Cybister (M.) Javanus</i> Aube	-	-	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-
<i>Cybister (M.) limbatus</i> (Fabricius)	-	-	+	+	+	-	+	-	-	-	-	-	-	-	+	-	-
<i>Cybister (M.) posticus</i> Aube	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	-	-
<i>Cybister (M.) rugulosus</i> Redtenbadhor	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cybister (M.) sugillatus</i> Erichson	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cybister tripunctatus asiaticus</i> Sharp	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cybister (M.) Ventralis</i> Sharp	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-



Laccophilus anticatus Sharp

SUMMARY

The present papers deals with 69 species belonging to 22 genera under 5 subfamilies. Of these 24 species have been added to list provided by Vazirani (1977) in his catalogue. Keys to the subfamilies, genera and species have been provided. Informations on distribution and biology have also been provided, wherever possible.

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**INSECTA : COLEOPTERA : ADEPHAGA
FAMILY GYRINIDAE AND FAMILY HALIPLIDAE**

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INTRODUCTION

Of the 18 families of aquatic Coleoptera known from the world, representatives of 13 families, namely :-

(1) Hygrobilidae (2) Dytiscidae (3) Gyrinidae (4) Haliplidae (5) Amphizoidae (6) Hydraenidae (7) Hydrophilidae (8) Georyssidae (9) Helodidae (10) Heteroceridae (11) Dryopidae (12) Elmidae and (13) Psephenidae are known from India. Of the families mentioned above first five belong to suborder Adephaga and rest to Polyphaga. Of the four families of Hydradephaga available in India. Amphizoidae which is restricted to Western Himalayas and Dytiscidae will be dealt with separately. Remaining two families i.e. Gyrinidae and Haliplidae are dealt with in this paper.

The members of the family Gyrinidae are commonly known as 'whirligig beetles' because of their habit of swimming in groups on the surface of ponds and quiet streams. They are aquatic both in the adult and larval stages. They are usually found in fresh water ponds, lake margins, open flowing streams, quiet stream margins, bog, pools, swamps and road side ditches. If any adverse condition comes i.e. after eclosion and when their aquatic habitats dry up, adults fly about in search of new ponds, pools, lake or streams etc. The adults normally swim and feed on the surface but can swim equally beneath water. Usually they are whirling around and around and the congregations of these beetles are usually seen in the later summer and autumn. But, if by any means, become disturbed, they dive beneath the surface of water with an air bubble on their under surface. They are predominantly scavengers, feeding upon live or dead insects trapped or floating on the water surface. The larvae are predacious feeding on other aquatic insects larvae and nymphs. Hatch states that larvae of *Dineutus* feed by sucking. Nowrojee (1912) states that their prey is grasped between mandibles and sharp points inserted into the tissues and juices sucked out. But till now, it is not definitely known whether the larvae only sucked or both sucked and ingested their food. Another interesting feature is that their eyes are divided, due to which they are enabling to see both above and below the water at the same time. This divided vision and quick swimming movements helped them to avoid predators in above or below the water.

Fabricius (1781) described the first species viz. *Gyrinus spinosus* (since placed under *Dineutus*) from India : Coromandel coast. Subsequent workers on the groups are Aube' (1838), Walker, (1858, 1859), Motschulsky (1861), Regimbart (1882-1893), Severin (1890), and Sharp (1891). George Ochs has studied the material present in Zoological Survey of India collection upto 1923 and published a series of papers during (1924-1966). Later Vazirani (1958) worked out the collection present in Z.S.I. upto 1980 and the fauna on the group was published in 1984.

Wiedemann (1821) described the first species, *Orectochilus gangeticus* from Bengal. The second species viz. *Dineutus (Spinosodineutus) spinosus* from Bengal was reported by Perty (1831). Later the species described from Bengal are two species *D. (Protodineutus) indicus* by Aube' (1838) and *Orectochilus (Patrus) discifer* by Walker (1859); three species viz. *O. (P.) productus*, *O. (P.) metallicus* and *O. (P.) andamanicus* by Regimbart (1883) and in 1886 he described further two species viz. *O. (P.) desgodinsi* and *O. (P.) oblongiusculus* and in 1891 he described six more species viz. *O. (s.str.) murinus*, *O. (P.) cuneatus*, *O. (P.) figuratus*, *O.(P.) haemorrhous*, *O. (P.) cylindricus* and *O. (P.) cardoni*. In the present century Regimbart (1907) described *O. (P.) cribratellus metallescens*. Ochs (1929-1933) described *fletcheri*, *similis* and *horni* under *Orectochuilus (Protodineutus)* from West Bengal. Vazirani (1958) described the species *O. (P.) ribeiroi* from near Calcutta and finally bringing out the number of species of Gyrinidae so far described or recorded from West Bengal upto twenty.

In the present study *Dineutes (Spinosodineutus) unidentatus* (Aube) is recorded for the first time from West Bengal (Calcutta, Murshidabad and Darjiling districts) and other eight species are recorded for the first time from different districts of West Bengal.

The members of the family Haliplidae are commonly known as "crawling water beetles" They usually live in at the edge of small ponds, lakes, quiet streams and may be called omnivorous both the adults and larvae i.e. feed upon both plant and animal materials. Among the plant material they usually prefer algae and preyed upon by fishes, though it was not recorded in India. Beier (1929) observed that animal food such as Oligochaets, Nematodes and larvae of *Anopheles*, *Culex* and *Chironomous* were easily accepted by these beetles in addition to plant food. However, like other aquatic beetles they rather crawl, instead of swimming along the pond bottom or upon submerged vegetations or they may be called poor swimmers and the swimming is effected by alternate movement of the legs and is therefore feeble. Due to which their legs are not flattened or fringed with hairs like other aquatic beetles.

The family Haliplidae belongs to the suborder Adephaga under the superfamily Caraboidea. The systematic position of this family is also controversial. Prior to Thomson (1860), Haliplidae were along with Dytiscidae, though both the families are very distinct. Maahtson (1912) stated that Haliplidae is a transition group between Carabidae and Dytiscidae.

So far, five genera viz. *Haliplus* Latreille, *Peldodytes* Regimbert, *Brachius* Thomson, *Algophilus* Zimmerman and *Apteraliplus* Chandler are known from the world. Of which only one genus *Haliplus* Latreille is known from India and is cosmopolitan in distribution.

Regimbart (1892) recorded the first Indian species viz. *Haliplus augustifrons* from Kobir (Bihar) and in 1899 another species, *Haliplus pulchellus* Clark var. *indicus* from Bihar. Later Guignot (1936) recorded the third species from India and first species (*H. arrowi*) from West Bengal (Calcutta). Vazirani (1966-1984) recorded one species under *africanus* group and five species of *maculipennis* group under the subgenus *Liaphlus*.

So far, 7 species are recorded under the genus *Haliplus* from India. In the present study the species viz., *H. (L.) pruthi* Vazirani earlier recorded from Madhya Pradesh (Rewa), is recorded for the first time from West Bengal and it is observed that only the species of *maculipennis* group of *Haliplus* are recorded from West Bengal.

Materials of this study are based on the collection made by various survey parties of Zoological Survey of India from different districts of West Bengal. These surveys were conducted over three years (1985-1987). Besides the material collected during these surveys all previous collections present in Zoological Survey of India were also studied. Distributional data of the species has been given from the published records as well as actual study of the specimens. Important synonymies only have been included. Keys to the subfamilies, genera and species have been provided. Wherever possible remarks on the biology, distribution and other important facts have also been given. A chart showing district wise distribution of the species recorded here is also provided. All together 25 species under 2 families and 5 genera have been dealt with in this paper.

SYSTEMATIC ACCOUNT : LIST OF TAXA

List of species recorded from West Bengal

Family I. GYRINIDAE

Subfamily (A) ENHYDRINAE

Genus 1. *Dineutus* MacLeay, 1825

1. *D. (Spinodineutus) spinosus* (Fabricius)
2. *D. (S.) unidentatus* (Aube)
3. *D. (Protodineutus) indicus* Aube

Subfamily (B) GYRININAE (Not recorded)

Subfamily (C) ORECTOCHILINAE (Not recorded)

Genus 2. *Orectochilus* Eschscholtz

4. *O. (S. str.) murinus* Regimbart
5. *O. (Patrus) desgodinsi desgodinsi* Regimbart
6. *O. (P.) similis* Ochs
7. *O. (P.) productus* Regimbart
8. *O. (P.) cuneatus* Regimbart
9. *O. (P.) descifer* (Walker)
10. *O. (P.) cribratellus metallescens* Regimbart

11. *O. (P.) metallicus* Regimbart
12. *O. (P.) figuratus* Regimbart
13. *O. (P.) horni* Ochs.
14. *O. (P.) oblongiusculus* Regimbart
15. *O. (P.) haemorrhous* Regimbart
16. *O. (P.) fletcheri* Ochs
17. *O. (P.) ribeiroi* Vazirani
18. *O. (P.) cylindricus* Regimbart
19. *O. (P.) gangeticus* (Wiedmann)
20. *O. (P.) cardoni* Regimbart
21. *O. (P.) andamanicus* Regimbart

II. Family HALIPLIDAE

Genus *Haliphus* Latreille 1802

22. *H. (Liaphlus) pulchellus indicus* Regimbart
23. *H. (L.) augustifrons* Regimbart
24. *H. (L.) pruthi* Vzirani
25. *H. (L.) arrowi* Guignot

Family GYRINIDAE

Key to the genera of the family Gyrinidae from West Bengal

1. Episternum of mesothorax not extending upto elytral epipleurae; pronotum and elytra without any pubescence; Scutellum concealed or invisible; elytral striae indistinct; protarsi of male slightly dilated, clothed beneath with dense papillae forming an elongate, narrow brush *Dineutus* Macleay (1825)
- Episternum of mesothorax reaching the base of elytral epipleurae; pronotum and elytra with pubescence; scutellum visible, at least in one sexes; apical segment of protarsi less than 1-1/2 times longer than preceding one *Orectochilus* Eschscholtz (1833)

1. Genus *Dineutus* MacleayType species : *Dineutus politus* Macleay (by original designation)

1825. *Dineutus* Macleay, *Annulosa javanica*, ed.1 : 30.
 1833. *Cyclous* Eschscholtz, in Dejean's, *Cat. Coleopteres*, ed.II : 58 (Type species, *australis* Fabricius).
 1837. *Cyclinus* Kirby, in Richards, *Fauna Bor. Amer.*, 4 : 78 (Type species, *assimilis* Kirby).

Key to the species

1. Elytra with a spine at parasutural angle (*Spinosodineutus* Hatch)2
 – Elytra without any epipleural or para sutural spine (*Protodineutes* Ochs); Elytra black, feebly striated, puncturation double, external apical angle obtuse and rounded; femora in male with a tooth on the internal border, a little before apex *indicus* Aube'
2. Apex of elytra with one spine at epipleural angle *unidentatus* (Aube')
 – Apex of elytra with two spines, one in continuation of epipleural angle and other with parasutural angle which may be reduced in some cases *spinosus* (Fabricius)

1. *Dineutus (spinosodineutus) spinosus* (Fabricius)

1781. *Gyrinus spinosus* Fabricius, *Species Insectorum*, p. 298.
 1984. *Dineutus (spinosodineutus) spinosus* (Fabricius), *Fauna India*, pp. 16-20.

Material studied : WEST BENGAL. 1 ex, Calcutta Maidan, 22.ix.1911, F. H. Gravely colln.; 2 ex, Berhampore in Murshidabad district, E.T. Atkinson colln.; 1 ex, Siliguri in Darjiling district, 3-4.vi.1911, S. Kemp and N. Annandale; 10 ex, Teesta Valley, Darjiling district, .x.1931, S. L. Hora; 42 ex, Mahanadi near Siliguri, Darjiling district, 16.iii.1924, B. N. Chopra; 1 ex, Torsa river near Hasimara, Jalpaiguri district, 7.iv.1987, S. C. Mitra.

Distribution : India : West Bengal (Calcutta, Darjiling, Jalpaiguri, Murshidabad), Bihar, Assam, Meghalaya, Orissa and Uttar Pradesh. Also known from Burma, Thailand, Malaysia, Laos and Vietnam.

Remarks : This species is recorded for the first time from Jalpaiguri district.

2. *Dineutus (spinosodineutus) unidentatus* (Aube)

1838. *Dineutus unidentatus* Aube, *species Coleopteres*, 6 : 788 (Brazil wrongly reported).
 1958. *Dineutus unidentatus* : Vazirani, *Rec. Indian Mus.*, 53 : 16.
 1984. *Dineutus (spinosodineutus) unidentatus* (Aube'); Vazirani, *Fauna India*, 17-22.

Material examined : WEST BENGAL. 4 ex, Calcutta, .viii.1950; 3 ex, Calcutta, 25.vii.1950, T. G. Vazirani; 1 ex, Calcutta, 1927, Berhampore Court, Murshidabad district, 13.iv.1910, S. W. Kemp; 3

ex, Kalijhora Kurseong, Darjiling district, 6.iii.1926, M. Sariff; 1 ex, Bansdroni : Calcutta, 13.viii.1957, A. P. Kapur; 1 ex, Botanical garden : Calcutta, 11.xii.1956, A. P. Kapur.

Distribution : India : West Bengal (Calcutta, Darjiling, Howrah, Murshidabad), Bihar, Kerala, Madhya Pradesh, Meghalaya, Orissa, Rajasthan and Tamil Nadu. Also known from Burma, Srilanka, Indonesia, Malaysia and Thailand.

3. *Dineutus (Protodineutus) indicus* Aube

1838. *Dineutus indicus* Aube, *Species Coleopteres*, 6 : 772 (India-Orient).

1926. *Dineutus (Protodineutus) indicus* : Ochs, *Ent. Z. Frankf.*, 40 : 137.

Material examined : WEST BENGAL. 3 ex, Murshidabad district, E. T. Atkinson, 3953/8; 3 ex, Birbhum district, E. T. Atkinson; 2 ex, Berhampore, Murshidabad district, 2 ex, Raniganj in Barddhaman district, A. Martin; 20 ex, Garbeta, Medinipur district, 23.ix.1985, S. Biswas.

Distribution : India : West Bengal (Birbhum, Barddhaman, Medinipur and Murshidabad district), Bihar, Gujrat, Himachal Pradesh, Karnataka, Kashmir, Kerala, Madhya Pradesh, Maharashtra, Andhra Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh. Also known from Pakistan.

Remarks : Prior to this, it is recorded only in Darjiling proper, in the present study it is recorded from Kalijhora, Singla, Pashok, Teesta Valley of the same district.

2. Genus *Orectochilus* Eschscholtz 1833

Type species : *Orectochilus villosus* O. Muller

1833. *Orectochilus* Eschscholtz, in *Dejean's Catalogue Coleopters*, ed. II : 59.

Key to the species of the genus *Orectochilus* Eschscholtz known from West Bengal

1. Pronotum and elytra densely punctate and pubescent [*Orectochilus* (S.str.)]; species larger in size ranging 5.5-7 mm and epipleurae reddish *murinus* Regimbart
- Puncturation and pubescence on elytra is only on lateral side and glabrous in middle (Patrus) .2
2. Apical margin of labrum truncate and 3-4 times or more broader than long 3
- Apical margin of labrum either semicircular or elliptical and usually less than 3 times broader than long 12
3. Pronotum and elytra black, presence of small spine at external apical angle of elytra with a larger pubescent area on it and touching the suture at about the middle, penis narrower towards apex...
..... *desgodinsi desgodinsi* Regimbart

- Pronotum and elytra black with yellow border 4
- 4. External apical angle of elytra produced into a small spine 5
- External apical angle of elytra not produced into a spine 6
- 5. Species large ranging upto 11 mm in length, black-piceous, labrum semi circular; scutellum in male not visible, ventral surface ferrugineous *similis* Ochs
- Species small ranging from 4.5 to 5 mm in length, black and sometimes with bronze-green iridescence, labrum short and transverse, scutellum triangular, slightly broader than long; ventral surface bronze to black *productus* Regimbart
- 6. Lateral pubescence on elytra broader than on pronotum; scutellum visible, broad and triangular in male, size ranges from 9 - 9.5 mm; labrum short, transverse and 4 times broader than long; pronotum with median small pit *cuneatus* Regimbart
- Lateral pubescence on elytra not broader than on pronotum 7
- 7. Labrum about 3.5 times wider than long; size ranges from 6.5 - 7.25 mm; reticulation on head subtle; lateral pubescence on elytra reaching the suture at about 3/4th length of suture and reticulation on elytra indistinct; pairs much shorter than parameres *disciefer* (Walker)
- Labrum 4 times or more wider than long 8
- 8. Reticulation on elytra more impressed and puncturation on it moderate to very strong 9
- Reticulation on elytra subtle and puncturation on it fine and diffused, size 7.0 mm 10
- 9. Colour bluish black; elytra closely and strongly punctured; scutellum very small in female and two times broader than long in male; penis constricted in the apical 3/4th portion and gradually acuminate at apex *cribratellus metallescence* Regimbart
- Colour bronze black, elytra very closely and moderately punctured; scutellum two times broader than long in both sexes; penis not long in both sexes; penis not constricted but gradually acuminate at apex *metallicus* Regimbart
- 10. Elytra with reticulation consisting of transverse aeroles of meshes 11
- Elytra with reticulation of rounded areoles or meshes or indistinct; lateral pubescence on pronotum reaching inner margin of eyes *oblongiusculus* Regimbart
- 11. Lateral pubescence on elytra dilated just before middle; fronto-clypeal suture on head rather feeble; pronotum brownish; sutural row of black dots on elytra indistinct *figuratus* Regimbart

- Lateral pubescence on elytra dilated behind the middle; fronto-clypeal suture distinct; pronotum reddish brown with black dots along its anterior margin; sutural row of black dots on elytra distinct *horni* Ochs
- 12. External angle of elytra acute but not pointed or produced into spine 13
- External angle of elytra sharp or produced into a spine 16
- 13. Labrum semicircular; epipleural angle not prominent; size less than 6 mm 14
- Labrum semi elliptical; epipleural angle prominent, size more than 6.0 mm 15
- 14. Inner line of pubescent margin on elytra with 3-lobes; head bronze-black and finely punctured; scutellum moderately triangular *haemorrhous* Regimbart
- Inner line of pubescent margin on elytra with a single lobe; head brownish and moderately punctured; scutellum broadly triangular *fletcheri* Ochs
- 15. Pubescence on lateral margin of pronotum reaching middle of eyes on inner side; size 6.5-6.8 mm; reticulation on elytra feeble *rebeiroi* Vazirani
- Pubescence on lateral margin of pronotum broad reaching inner margin of eyes; size 7.5 mm; reticulation on elytra subtle *cylindricus* Regimbart
- 16. Elytra black without any yellow lateral margin; longitudinal carina on elytra present in female... *gangeticus* (Wiedemann)
- Elytra with yellow lateral margin and without any carina marking inner pubescent margin in female 17
- 17. Lateral pubescence on elytra abruptly dilated before middle; head distinctly densely reticulated; pronotum shiny and its lateral margin reddish; epipleurae produced into a moderate spine, length 7.0 mm *cardoni* Regimbart
- Lateral pubescence on elytra dilated just behind middle but with inner margin slightly more convex; head anteriorly with long yellow cilia; Lateral margin of pronotum yellow; epipleura yellowish and produced into a spine, forming right angle with apex, length 8.5 mm .. *andamanicus* Regimbart

4. *Orectochilus* (s. str.) *murinus* Regimbart 1891

1891. *Orectochilus murinus* Regimbart, *Ann. Soc. ent. Fr.*, **60** : 709.

1984. *Orectochilus* (S. str.) *murinus* Vazirani, *Fauna India*, pp.39-40.

Material examined : West Bengal. 6 ex, Kalijhora : Kurseong, Darjiling district, 6.iii.1926, M. Sariff; 4 ex, Singla, Darjiling district, .iv.1923, Lord Carmichael; 1 ex, Kalimpong, Darjiling district,

24.iv.-10.v.1915, F. H. Gravely; 1 ex. Darjiling, 3.vii.1914, Lord Carmichael; 2 ex, Darjiling district, Pashok, 26.v.-14.vi.1916, F. H. Gravely; 3 ex, Kalimpong, Darjiling district, 29.i.1931, S. L. Hora; 1 ex, Teesta Valley, Darjiling district, 9.iv.1933, S. L. Hora.

Distribution : India : West Bengal (Darjiling district), Assam, Himachal Pradesh, Meghalaya, Sikkim, Uttar Pradesh. Also known from Bhutan and Thailand.

Remarks : This species is recorded for the first time from Darjiling proper and Kalijhora, Singla, Pashok and Teesta Valley of Darjiling district.

5. *Orectochilus (Patrus) desgodinsi desgodinsi* Regimbart 1886

1886. *Orectochilus desgodinsi* Regimbart, *Ann. Soc. ent. Fr.*, (6) 6 : 260, pl.4, f.10.

1984. *Orectochilus (Patrus) desgodinsi desgodinsi* Vazirani, *Fauna India*, pp.43-44.

Material examined : West Bengal. 1 ex, Darjiling : Chujhora, Gonour Ram, 1934; 3 ex, v.-vi.1912, Lord Carmichael; 43 ex, Darjiling : Kalimpong, 24.iv.-10.v.1915, F. H. Gravely; 2 ex, Darjiling : Sureil, 11-17.x.1917, N. Annandale & F. H. Gravely; 2 ex, Darjiling : Gumuti, i.-vi.1914, Lord Carmichael; 6 ex, Kalimpong, 26.x.1939.

Distribution : India : West Bengal (Darjiling), Bihar, Sikkim. Also known from Bhutan.

Remarks : First time recorded from the area like Chujhora and Ghumti of Darjiling district.

6. *Orectochilus (Patrus) similis* Ochs 1929

1929. *Orectochilus similis* Ochs, *Rec. Indian Mus.*, 31 : 251.

1984. *Orectochilus (Patrus) similis* : Vazirani, *Fauna India*, pp.49-51.

Material examined : West Bengal. 1 ex, Brahmani river in 24 Parganas district, 7-8.iii.1931, S. Ribeiro.

Distribution : India : West Bengal (24-Parganas), Meghalaya.

Remarks : First time recorded from 24-Parganas district of West Bengal.

7. *Orectochilus (Patrus) productus* Regimbart 1883

1883. *Orectochilus productus* Regimbart, *Ann. Soc. ent. Fr.*, (6) 5 : 422.

1984. *Orectochilus (Patrus) productus* : Vazirani, *Fauna India*, pp.51-52.

Material examined : West Bengal. 14 ex, Brahmani river, 7-8.iii.1931, S. Ribeiro; 7 ex, Calcutta, 26.x.1949, A. P. Kapur; 5 ex, Calcutta, 1907; 1 ex, Calcutta : Eden garden, 14.x.1911, F. H. Gravely, at light; 1 ex, Calcutta : Garia, 13.xii.1910, S. Kemp; 2 ex, Siliguri, 3-4.vi.1919, N. Annandale and S. Kemp; 6 ex, Medinipur : Garbeta, 22.ix.1985, S. Biswas.

Distribution : India : West Bengal (Calcutta, Darjiling, Medinipur, Nadia), Assam, Bihar, Kerala, Madhya Pradesh, Tamil Nadu.

Remarks : This species is recorded for the first time from Calcutta, Darjiling district (Siliguri) and Medinipur district (Garbeta).

8. *Orectochilus (Patrus) cuneatus* Regimbart 1891

1891. *Orectochilus cuneatus* Regimbart, *Ann. Soc. ent. Fr.*, **60** : 702.

1984. *Orectochilus (Patrus) cuneatus*, Vazirani, *Fauna India*, pp.55-56.

Material examined : West Bengal. 2 ex, Kurseong in Darjiling district, .iii.1910, F. H. Gravely; 65 ex, Kalimpong in Darjiling district, 24.iv.-10.v.1915, F. H. Gravely; 3 ex, Sukna in Darjiling district, .iv.1913, Lord Carmichael.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, Punjab, Sikkim, Uttar Pradesh. Also known from Nepal.

Remarks : This species is well recorded from Darjiling district and Sukna is one of the further locality of the same district.

9. *Orectochilus (Patrus) discifer* (Walker) 1859

1859. *Gyrinus discifer* Walker, *Ann. Mag. nat. Hist.* (3) **3** : 51.

1984. *Orectochilus (Patrus) discifer*, Vazirani, *Fauna India*, pp. 60-62.

Material examined : West Bengal. 1 ex, Kurseong, 7.-11.iii.1927, B. N. Chopra.

Distribution : India : West Bengal (Darjiling), Bihar, Madhya Pradesh, Kerala, Maharashtra, Tamil Nadu. Also known from Sri Lanka.

Remarks : This species is recorded for the first time from Darjiling district.

10. *Orectochilus (Patrus) cribratellus metallescens* Regimbart 1907

1907. *Orectochilus cribratellus metallescens* Regimbart, *Ann. Soc. ent. Fr.*, **76** : 206.

1984. *Orectochilus (Patrus) cribratellus metallescens*, Vazirani, *Fauna India*, pp. 65-67.

Material examined : West Bengal. 1 ex, Ghumti in Darjiling district, .vi.1914, Lord Carmichael; 2 ex, Kalimpong in Darjiling district, 24.iv.-10.v.1915, F. H. Gravely; 3 ex, Pashok in Darjiling district, 26.v.-14.vi.1916, F. H. Gravely; 1 ex, Kurseong, 7.iii.1924, B. N. Chopra; 2 ex, Kurseong, 24.ix.1941, H. A. Hafiz.

Distribution : India : West Bengal (Darjiling district), Arunachal Pradesh, Assam, Sikkim. Also known from Bhutan.

Remarks : The species is well represented in Darjiling district and the locality Pashok is further added in the district.

11. *Orectochilus (Patrus) metallicus* Regimbart, 1883

1883. *Orectochilus metallicus* Regimbart, *Ann. Soc. ent. Fr.*, (6) 3 : 418.

1984. *Orectochilus (Patrus) metallicus*, Vazirani, *Fauna India*, pp. 67-68.

Material examined : West Bengal. 2 ex, Darjiling, near Suril, 18.x.1917, N. Annandale and S. Kemp; 1 ex, Kurseong, 6.ix.1909, N. Annandale; 3 ex, Downhills : Kurseong, 8.iii.1924, B. N. Chopra.

Distribution : India : West Bengal (Darjiling), Sikkim, Uttar Pradesh. Also known from Nepal.

Remarks : This species is further recorded from Sureil of Darjiling district.

12. *Orectochilus (Patrus) figuratus* Regimbart, 1891

1891. *Orectochilus figuratus* Regimbart, *Ann. Soc. ent. Fr.*, 60 : 698, pl.18. f.10.

1984. *Orectochilus (Patrus) figuratus*, Vazirani, *Fauna India*, pp. 71-72.

Material examined : West Bengal. 6 ex, Pashok in Darjiling district, 26.v.-14.vi.1916, F. H. Gravely; 1 ex, Kurseong in Darjiling district, 24.ix.1941, H. A. Haiz.

Distribution : India : West Bengal (Darjiling district), Himachal Pradesh, Sikkim. Also known from Nepal.

Remarks : Pashok is another locality of Darjiling district from where the species further recorded.

13. *Orectochilus (Patrus) horni* Ochs, 1933.

1933. *Orectochilus horni* Ochs, *Rec. Indian Mus.*, 35 : 21-22.

1984. *Orectochilus (Patrus) horni*, Vazirani, *Fauna India*, pp. 73-74.

Material examined : No material was available for study.

Distribution : India : West Bengal (Darjiling). Also known from West Bengal.

Remarks : This species is recorded from Darjiling district (Pedong, Kurseong) but no example was found during the present study.

14. *Orectochilus (Patrus) oblongiusculus* Regimbart, 1866

1886. *Orectochilus oblongiusculus* Regimbart, *Ann. Soc. ent. Fr.*, (6) 6 : 262.

1984. *Orectochilus (Patrus) oblongiusculus*. Vazirani *Fauna India*, pp. 74-76.

Material examined : West Bengal. 11 ex, Teesta valley in Darjiling district, 14.vi.1934, S.L. Hora;

1 ex, Kalimpong, 24.iv.-10.v.1915, F.H. Gravely; 2 ex, singla in Darjiling district, v. 1913, Lort Carmichael's collection.; 2 ex, Kurseong, 26.iii. 1910, F.H. Gravely.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, meghalaya, Punjab, Sikkim, Uttar Pradesh. Also known from Nepal, Burma, Thailand and Vietnam.

Remarks : This species is also collected from Singla of Darjiling district.

15. *Orectochilus (Patrus) haemorrhous* Regimbart 1891

1891. *Orectochilus haemorrhous* Regimbart, *Ann. Soc. ent. Fr.*, **60** : 706.

1984. *Orectochilus (Patrus) haemorrhous*, Vazirani, *Fauna India*, pp. 85-87.

Material examined : West Bengal. 3 ex, Brahmani river in 24-Parganas district, 7-8.iii. 1931, S. Ribeiro.

Distribution : India : West Bengal (24-Parganas), Bihar, karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu.

Remarks : This species is so far only recorded from 24 Parganas district in West Bengal.

16. *Orectochilus (Patrus) fletcheri* Ochs, 1925

1925. *Orectochilus fletcheri* Ochs, *Rec. Indian Mus.*, **27** : 201.

1984. *Orectochilus (patrus) fletcheri*, Vazirani, *Fauna India*, pp. 87-88.

Material examined : West Bengal. 7 ex, Brahmani river near Naihati, 7-8.iii, 1931, S. Ribeiro; 1 ex, Garbeta in Medinipur district, 22.ix.1985, S. Biswas.

Distribution : India : West Bengal (Medinipur, Nadia), Bihar, Madhya Pradesh, Maharashtra, Kerala.

Remarks : This species is recorded for the first time from Medinipur district of West Bengal.

17. *Orectochilus (Patrus) ribeiroi* Vazirani 1958

1958. *Orectochilus ribeiroi* Vairani, *Rec. Indian Mus.*, **53** : 14.

1984. *Orectochilus (Patrus) ribeiroi* : Vazirani, *Fauna India*, pp. 90-91.

Distribution : India : West Bengal, Bihar, Uttar Pradesh.

18. *Orectochilus (Patrus) cylindricus* Regimbart 1891

1891. *Orectochilus cylindricus* Regimbart, *Ann. Soc. ent. Fr.*, **60** : 713.

1984. *Orectochilus (Patrus) cylindricus*, Vazirani, *Fauna India*, pp. 91-92.

Material examined : West Bengal, 35 ex, Garbeta in Medinipur district, 22.ix.1985, s. biswas.

Distribution : India : West Bengal (Medinipur), Bihar.

Remarks : This species is recorded for the first time from Medinipur district of West Bengal.

19. *Orectochilus (Patrus) gangeticus* (Wiedemann) 1821

1821. *Gyrinus gangeticus* Widmann, in German, *Magazin d' Ent.*, 4 : 119.

1984. *Orectochilus (Patrus) gangeticus*, Vazirani, *Fauna India*, pp. 92-94.

Material examined : West Bengal. 2 ex, Murshidabad, E.T. Atkinson; 1 ex, Jalpaiguri, 3.vi.1911, A. Anandale and S. Kemp; 1 ex, Berhampore in Murshidabad district, 8 ex, Garbeta in Medinipur district, 22.ix. 1985, S. Biswas.

Distribution : India : West Bengal (Medinipur, Murshidabad), Bihar, Sikkim, Uttar Pradesh. Also known from Bangaldesh and Indonesia.

Remarks : This species is recorded for the first time from Medinipur distict of West Bengal.

20. *Orectochilus (Patrus) cardoni* Regimbart 1891

1891. *Orectochilus cardoni* Regimbart, *Ann. soc. ent. Fr.*, 60:714.

1984. *Orectochilus (Patrus) cardoni*, Vazirani, *Fauna India*, pp. 95-96.

Material examined : No material is available for study.

Distribution : India : West Bengal (Calcutta), Madhya Pradesh.

Remarks : The species has been recorded in the present study on the basis of earlier record.

21. *Orectochilus (Patrus) andamanicus* Regimbart 1883

1883. *Orectochilus andamanicus* Regimbar, *Ann. soc. ent. Fr.*, (6) 3 : 435, pl. 12 f, 138.

1984. *Orectohilus (Pctrus) andamancius*, Vazirani *Fauna India*, pp. 101-102.

Material examined : No material is available for study.

Distribution : India : West Bengal (Calcutta), Andaman Islands, Arunachal Pradesh, Orissa. Also known from Burma.

Remarks : Vazirani recorded the species from Calcutta : West Bengal.

Family HAIPLIDAE

Genus *Halipus* Latreille 1802Type Species : *Dytiscus obliquus* Fabricius

1802. *Halipus* Latreille, *Hist. Nat. Crust. Ins.*, **3** : 77.
 1806. *Hoplitus clairville*, *Ent. Helv.* **2** : 218.
 1808. *Halipus* Gyllenhal, *Faun. Suec.*, **1** : 545.

Key to the species of the genus *Halipus* Latreille known from West Bengal

1. Prosternal process canaliculate and without any distinct pit at apex; elytra with two dilations on either side *pulchellus indicus* Regimbart
 – Prosternal process not canaliculate 2
2. Pronotum with a notch on lateral side before posterior angle *angustifrons* Regimbart
 – Pronotum without notch before posterior angles 3
3. Prosternal process with large pit at apex; pronotum with a ferrugineous spot on disc; meta coxal plate more or less regularly and finely punctate; aedeagus with penis moderately curved
 *pruthii* Vazirani
 – Prosternal process with small pit at apex; pronotum without any ferrugineous spot on disc; meta-coxal plate moderately punctate, puncturation on anterior side small and more or less regulary arranged; aedeagus with penis moderately strongly curved *arrowi* Guignot

22. *Halipus (Liaphlus) pulchellus indicus* Regimbart 1899

1899. *Halipus pulchellus* var. *indicus* Regimbart, *Ann. Soc. ent. Fr.*, **68** : 188-189.
 1984. *Halipus (Liaphlus) pulchellus indicus*, Vazirani, *Fauna India*, pp.119-120.

Material examined : No material is available for study.*Distribution* : India : West Bengal (Calcutta), Bihar, Orissa, Rajasthan.*Remarks* : Vazirani recorded the species from Calcutta, West Bengal.23. *Halipus (Liaphlus) angustifrons* Regimbart 1892

1892. *Halipus angustifrons* Regimbart, *Ann. Soc. ent. Belg.*, **36** : 112.
 1984. *Halipus (Liaphlus) angustifrons* : Vazirani, *Fauna India*, pp. 122-124.

Material examined : West Bengal. 2 ex, Bansdroni, Calcutta, 13.viii.1957, Shaukat Ali.

Distribution : India : West Bengal (Calcutta), Bihar, Himachal Pradesh, Madhya Pradesh, Orissa, Punjab. Also known from Burma.

Remarks : This species is so far recorded from different area of Calcutta in West Bengal.

24. *Haliphus (Liaphlus) pruthii* Vazirani, 1966

1966. *Haliphus (Liaphlus) pruthi* Vazirani, *Proc. zool. Soc. Calcutta*, **19** : 30.

Material examined : West Bengal. 1 ex, Calcutta, 17.ix.1912, F. H. Gravely; 5 ex, Jharkhali: Sundarbans, B. P. Halder.

Distribution : India : West Bengal (Calcutta, South 24-Parganas), Madhya Pradesh.

Remarks : Vazirani (1966) described the species from Rewa (M.P.), in the present study this species is recorded for the first time from West Bengal.

25. *Haliphus (Liaphlus) arrowi* Guignot, 1936

1936. *Haliphus arrowi* Guignot, *Bull. Soc. ent. Fr.*, **41** : 115-118.

1984. *Haliphus (Liaphlus) arrowi*, Vazirani, *Fauna India*, pp. 127-128.

Material examined : West Bengal. 1 ex, Pallysree : Behala, ix.1986, S. Biswas, at light.

Distribution : India : West Bengal (Calcutta), Bihar, Tamil Nadu. Also known from Pakistan.

Remarks : This species is so far recorded only from Calcutta in West Bengal.

**THE CHART SHOWING DISTRICT WISE DISTRIBUTION OF
SPECIES OF THE FAMILY DYTISCIDAE KNOWN FROM WEST BENGAL**

Name of the Species	Bankura	Bardhaman	Birbhum	Calcutta	Darjiling	Haora	Hugli	Jalpaiguri	Koch Behar	Maldah	Medinipur	Murshidabad	Nadia	24-Parganas (North)	24-Parganas(South)	Puruliya	West Dinajpur
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Family GYRINIDAE																	
1. <i>Dineutus (spinosodineutus) spinosus</i> (Fabricius)	-	-	-	+	+	-	-	+				+					-
2. <i>D. (S.) unidentatus</i> (Aube)		-	-	+	+	+				-	-	+			-		
3. <i>D. (Protodineutus) indicus</i> Aube		+	+	-	-	-	-	-	-	-	+	+					-
4. <i>Orectochilus</i> (S. str.) <i>murinus</i> Regimbart	-	-	-	-	+	-	-	-	-	-	-	-		-		-	-
5. <i>O. (Patrus) desgodinsi desgodinsi</i> Regimbert	-	-	-	-	+	-	-	-	-	-	-	-		-		-	-
6. <i>O (P) similis</i> Ochs	-	-	-	-	-	-	-	-	-	-	-	-		+	-	?	-
7. <i>O. (p) productus</i> Regimbart		-	-	+	+	-	-	-	-	-	+	-	+		-	-	-
8. <i>O (P) cuneatus</i> Regimbart	-	-	-	-	+	-	-	-	-	-	-	-		-	-	-	-

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
9. <i>O. (P) discifer</i> (Walker)	-	-		-	+		-		-	-	-		-	-	-		
10. <i>O. (P) cribratellus</i> <i>metallescens</i> Regimbart		-			+		-		-	-							-
11. <i>O. (P) metallicus</i> Regimbart	-				+		-			-							
12. <i>O. (P) figuratus</i> Regimbart	-				+						-						
13. <i>O. (P) horni</i> Ochs					+						-						
14. <i>O. (P) oblongiusculus</i> Regimbart					+												
15. <i>O. (P) haemorrhous</i> Regimbart															+		?
16. <i>O. (P) fletcheri</i> Ochs											+		+				
17. <i>O. (P) ribeiroi</i> Vazirani															+		?
18. <i>O. (P) cylindricus</i> Regimbart													+				

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
19. <i>O. (P) gangeticus</i> (Wiedmann)												+	+				
20. <i>O. (P) cardoni</i> Regimbart																	
21. <i>O. (P) andamanicus</i> Regimbart				+													
Family HALIPLIDAE																	
22. <i>Haliplus (Liaphrus) pulchellus</i> <i>indicus</i> Regimbart					+												
23. <i>H. (L) angustifrons</i> Regimbart					+												
24. <i>H. (L) pruthi</i> Vazirani					+												+
25. <i>H. (L) arrowi</i> Guignot					+												

SUMMARY

All together 25 species under 2 families and 5 genera have been included in this paper. Two species have been recorded for the first from West Bengal. Keys to the subfamilies, genera and species have been provided. Selected synonymies, and distribution are also given.

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INSECTA: COLEOPTERA : HYDROPHILIDAE

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INTRODUCTION

The superfamily Hydrophiloidea of the suborder Polyphaga : Coleoptera, include a dominant family Hydrophilidae and a small family like Georyssidae. Members of the family Hydrophilidae are commonly known as 'water scavenger beetles'. Systematic position of the subfamilies of the family Hydrophilidae is interesting and controversial. Knisoh (1924) divided the family Hydrophilidae into 8-subfamilies viz. Hydraeninae, Limnebiinae, Spercheinae, Helophorinae, Epimentopinae, Hydrochinae, Sphaeridiinae and Hydrophilinae. Of which Helophorinae, Epimentopinae and Limnebiinae does not occur in India. d'Orchymont(1928) considered Palpicorina, a higher rank between the suborder and families and divided the group into two families namely, Hydrophilidae and Hydrenidae. Crowson (1981) divided the superfamily Hydrophiloidea into 5 families viz. Hydraenidae, Sperchaeidae, Hydrochidae, Georyssidae and Hydrophilidae. Lawrence (1982) transferred zhydraenide to the superfamily Staphylinoidea and included SDphaeritidae, Syntelidae and Histeridae under the superfamily Hydrophiloidea. In the present study we have followed Knisch's (1924) classification and treated Hydraeninae, Spercheinae and Hydrochinae as subfamilies of Hydrophilidae.

Majority of this group of insects are truly aquatic in habit and form an important constituent of fresh water ecosystem. Some however, are terrestrial or found in moist places such as dung, decaying vegetable heaps, under crevices in oozing tree trunk, rotten banana stem and such other places. These insects vary from very small to large in size. They can be easily distinguished by its antenna and size of maxillary palpi which is conspicuously large and bigger than antennae in length and due to this extended palpi the group is also called Palpicornia. No comprehensive work on any family belonging to the superfamily Hydrophiloidea has been done in India. Informations on Hydrophiloides has been done in India. Informations on Hydrophilidae are all scattered in different journals. d'Orchymont, (1928) Balfour Browne, (1948) Sharp (1890) are the major workers who have dealt with the Indian fauna. In India this group of insects have been largely neglected and practically no areas have been thoroughly surveyed. d'orchymont(1928) published a check list of the species recorded upto 1920 India and adjoining areas. So far West Bengal fauna is concerned, only 7 species viz. *Paracymus evanescens* Sharp, *Laccobius similans* d'orchymot, *Helochaeres crenatus* Regimbert, *Enochrus flavicans* egimbert, *Hydrophilus sengalensis* Percheron, *Amphiops gibbus* Illiger and *Globaria Lachi* Hope were recorded by d'orchymont in the Catalogue of Indian insects. Very recently Sato (1979) added 9 species under 5 genera from West Bengal. In the present study the total number of species is being increased from 16 (under 10 genera) to 40 species under 19 genera belonging to five subfamilies. Relevant collection data, distributional records within and outside the state of West Bengal have been given. Keys to the subfamilies, genera and species has been given. A districtwise distributional chart of each species is also added.

SYSTEMATIC ACCOUNT : LIST OF TAXA

- Family HYDROPHILIDAE
- Subfamily 1. HYDRAENINAE
- Genus 1. *Hydraena* Kugelann, 1794
- Species 1. *H. tenjikuana* Sato
2. *H. wittmeri* Sato
- Subfamily II. SPERCHEININAE
- Genus 2. *Spercheus* Kugel, 1798
- Species 3. *S. gibbus* Champion
- Subfamily III. HYDROCHINAE
- Genus 3. *Hydrochus* Leach, 1817
- Species 4. *H. binodosus* Motschulsky
- Subfamily IV. SPHAERIDINAE
- Tribe I. SPHAERIDIINI
- Genus 4. *Coelostoma* Brulle, 1835
- Species 5. *C. subditum* d'Orchymont
- Genus 5. *Dactylosternum* Wollaston, 1854
- Species 6. *D. hydrophiloides* M'Leay
- Genus 6. *Sphaeridium* Fabricius, 1775
- Species 7. *S. cameroni* d'Orchymont
8. *S. dimidiatum* Gory
9. *S. quinquemaculatum* Fabricius
10. *S. seriatum* d'Orchymont

11. *S. severini* d'Orchymont

Tribe II CERCYONINI

Genus 7. *Cercyon* Leach, 1817

Species 12. *C. vicinalis* Walker

13. *C. dilutum* Regimbert

14. *C. pseudodilutum* Sato

Tribe III. MEGASTERNINI

Genus 8. *Pachysternum* Motschulsky 1863

Species 15. *P. cardoni* d'Orchymont

16. *P. nigrovittatum* Motschulsky

17. *P. stevensi* d'Orchymont

Subfamily V. HYDROPHILINAE

Tribe I. HYDROBIINI

Genus 9. *Crenetis* Bedel 1881

Species 18. *C. orientalis* Sato

Genus 10. *Paracymus* Thomson, 1867

Species 19. *P. evanescens* Sharp

Genus 17. *Laccobius* Erichson, 1837

Species 20. *L. rotundus* Regimbert

21. *L. simulans* d'Orchymont

Genus 12. *Helochares* Mulsant, 1844

Species 22. *H. ancholaris* Sharp

23. *H. crenatus* Regimbert

24. *H. lentus* Sharp
25. *H. pallens* (Macleay)
- Genus 13. *Enochrus* Thomson, 1859
- Species 26. *E. esuriens* Walker
27. *E. rubrocinctus* (Regimbert)
- Tribe HYDROPHILINI
- Genus 14. *Sternolophus* Solier, 1834
- Species 28. *S. rufipes* (Fabricius)
- Genus 15. *Hydrophilus* Leach, 1815
- Species 29. *H. indicus* (Bedel)
30. *H. bilineatas cashmirensis* Redentenbacher
31. *H. olivaceus* (Fabricius)
32. *H. rufocinctus* (Bedel)
33. *H. senegalensis* Percheron
- Tribe III. AMPHIPINI
- Genus 16. *Amphiops* Erichson, 1843
- Species 34. *A. pedestris* Sharp
35. *A. simplex* Sharp
- Tribe IV. Berosini
- Genus 17. *Berosus* Leach 1817
- Species 36. *B. fairmairei* Zaitsev
37. *B. indicus* Motschulsky
38. *B. pulchelus* M'Leay

Genus 18. *Regimbertia* Zaitev 1908

Species 39. *R. attenuata* (Fabricius)

Genus 19. *Globaria* Latreille 1829

Species 40. *G. leachi* Hope

Family HYDROPHILIDAE

Key to the subfamilies of Hydrophilidae known from West Bengal

- 1(4) Anterior transverse suture of head is not in relation posteriorly with sagittal in the middle. Antennal club composed of 5 pubescent segments. First 4 joints of tarsi very short or more or less subequal in length; fifth longer nearly as long or longer than the 4 preceding joints together.
- 2(3) Only 5 ventral segments. short, very convex form with projecting elytra. Venation cantharidiform
..... Spercheinae
- 3(2) At least 6 ventral segments on abdomen. Elongated, not very convex form. Venation staphyliniform
..... Hydraeninae
- 4(1) Anterior transverse suture of head, when present, directed backwards and connected with a sagittal in the middle. Antennal club composed of less than five pubescent segments. Tarsal joints variable in size, usually last not longer than first 4 joints taken together.
- 5(6) Body contour not uniformly curved and body not regularly convex, the prothorax narrower than the hind body and conspicuously separated therefrom, nearly as wide as head with eyes.....
..... Hydrochinae
- 6(5) Body contour uniformly curved and body regularly convex, the prothorax not narrower than the hind body and not conspicuously separated therefrom.
- 7(8) Antennae normally longer than maxillary palpi, which are never very long, the last glabrous segment obconic, filled more or less tightly against first segment of pubescent club.....
..... Sphaeridinae
- 8(7) Antennae shortened, as long as and often shorter than maxillary palpi; the last glabrous segment more or less asymmetrical, cub like, embracing the first segment of pubescent, always tri-articulate club.....
..... Hydrophilinae

Subfamily 1. HYDRAENINAE

Genus 1. *Hydraena* Kugelann 1794

1794. *Hydraena* Kugel in Scneid., *Mag.*, 5 : 579.

1924. *Hydraena* Kugel in Schneid., *Col. Cat.*, 14 (79) : 33-51.

Key to the species of genus *Hydraena* known from West Bengal

- 1(2) Pronotum black in the middle..... *tenjikuana* Sato
 2(1) Pronotum unicolorous *wittmeri* Sato

1. *Hydraena tenjikuana* Sato

1979. *Hydraena tenjikuana* Sato, *Entomologica Basiliensia* 4 : 45-46.

Material examined : 1 ex, Calcutta Museum tank, 9.vii.1926; 1 ex, Calcutta, 23.ii.1926; 1 ex, Eden gardens, Calcutta, 17.xii.1964, S. Ali Coll.; 2 exs, 11.ix.1964, S. Ali Coll.; 11 exs, Pundoah, Hugli district, 29.i.1966, K. S. Pradhan Coll.

Distribution : India : West Bengal (Calcutta, Hugli & Darjiling District).

Remarks : This species was known only from Darjiling district. This is the first time the species is being recorded from plains of West Bengal.

2. *Hydraena wittmeri* Sato

1979. *Hydraena wittmeri*, Sato, *Entomologica Basiliensia*, 4 : 46-47.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling dist.).

Superfamily II. SPERCHEINAE

Genus 2. *Spercheus* Kugel, 1798

1798. *Spercheus* Kugel in Ill., *Verz. Kaf. Preuss*, P.241.

1924. *Spercheus* Kugel in Ill., *Col. Cat.*, 14 (79) : 62-65.

3. *Spercheus gibbus* Champion

1919. *Spercheus gibbus* Champion, *Ent. Mon. Mag.*, 55 : 238.

Material studied : 1 ex, Eden garden, Calcutta, 19.x.1911, F.H. Gravely coll., at light; 3 exs, Eden gardens, Calcutta, 14.x.1911, F. H. Gravely Coll.; 1 ex, Eden gardens, Calcutta 6.x.1911, F. H. Gravely col.; 1 ex, Dum dum in North 24-Parganas, vii.1909, B. Lord Coll.; 1 ex, Calcutta, 26.x.1949, A. P. Kapur Coll.; 1 ex, Calcutta, 10.x.1959, A. P. Kapur Coll.; 1 ex, 6.viii.1950, A. P. Kapur Coll.

Distribution : India : West Bengal (Calcutta, North 24-Parganas); Bihar.

Subfamily III. HYDROCHINAE

Genus 3. *Hydrochus* Leach, 1817

1817. *Hydrochus* Leach, *Zool. Misc.*, 3 : 90.
 1924. *Hydrochus* Leach, *Col. Cat.*, 14 (79) : 96-104.

4. *Hydrochus binodosus* Motschulsky

1860. *Hydrochus binodosus* Motschulsky, *Schrenka Reis.*, 2 : 104.
 1922. *Hydrochus binodosus*, d'Orchymont, *Rec. Ind. Mus.*, 8 : 624.

Material studied : 1 ex, Museum tank, Calcutta, 31.v.1907; 1 ex, Pundoah, Hugli district, 29.1.1966, K. S. Pradhan Coll.

Distribution : India : West Bengal (Calcutta, Hugli district); Assam. Also known from Annam and Tonkin.

Remarks : So far this species was recorded from Assam, in the present study it is being recorded for the first time from West Bengal.

Subfamily IV. SPHAERIDINAE

Key to the tribes of subfamily SPHAERIDINAE known from West Bengal

- 1(2) Head not narrowed immediately before eyes and outer margin not forming conspicuous angle with the latter. Antennae inserted under a laminated border, very conspicuous from beneath and concealing base of antennae from above..... Sphaeridiini
- 2(1) Head abruptly narrowed before the eyes, outer margin forming a conspicuous angle with the latter. Antennae inserted freely, not under the laminated border.
- 3(4) Mesostitital process longer than wide, as a tablet or lamina. Middle coxae never widely separated Cercyonini
- 4(3) Mesostitital process as a flat tablet atleast as wide as long and always widely in contact with metasternum. Middle coxae very widely separated..... Megasternini

Tribe SPHAERIDIINI

Key to the genera of tribe SPHAERIDIINI known from West Bengal

- 1(2) Apex of abdomen not covered. Scutellum as an elongate triangle. Elytra with a sutural stria. First ventral segment not carinate. Antennae 8 jointed. First joint of posterior tarsi longer than second *Sphaeridium*

- 2(1) Elytra covering the apex of abdomen. Scutellum short triangular.
- 3(4) Antennal club 9 jointed, laxly articulated and very long. Elytra only with a sutural stria, irregularly punctured. Shape very convex, underside less planate, tibiae less enlarged and flattened. Prostium normally developed before anterior coxae, not carinate or with an anteriorly dentate carina (in horni). Posterior tarsi with first joint twice as long as second..... *Coelostoma*
- 4(3) Antennal club shorter and its articulation not so lax. Elytra normally with sutural stria and several other striae or seriatly arranged larger punctures, at least at the sides; exceptionally with coelastomoid appearance but in such cases body more depressed and less convex and with more planate underside. Tibiae more enlarged and flattened and first abdominal segment well developed, usually carinate along its whole length..... *Dactylosternum*

Genus 4. *Coelostoma* Brulle, 1835

1835. *Coelostoma* Brulle, *Hist. Nat. Ins.*, (5) 2 : 293.
1924. *Coelostoma* Brulle, *Col. Cat.*, 14 (79) : 109-113.

5. *Coelostoma subditum* d'orchymont

Material examined : 1ex, Calcutta, 26.x.1949, A. P. Kapur Coll.

Distribution : India : West Bengal (Calcutta).

Remarks : This species has been included here on the basis of a specimen identified by Balfour Brown well known authority of this group, the specimen is present in our National Zoological Collection. Original reference of this species is not seen by present authors.

Genus 5. *Dactylosternum* Woll., 1854

1854. *Dactylosternum* Woll., *Ins. Mader*, P.99, t.3 f.1.
1924. *Dactylosternum* Woll., *Col. Cat.*, 14 (79) : 115-118.

6. *Dactylosternum hydrophiloides* (M'Leay)

1825. *Sphaeridium hydrophiloides* M'Leay. *Annul. Javan.* : 36.
1924. *Dactylosternum hydrophiloides*, Knisch, *Col. Cat. Pars 79* : PP. 116.

Material examined : 2 exs, Calcutta; 2 exs, Bansdroni (Calcutta), 28.x.1959, A. R. Bhowmik Coll.

Distribution : India : West Bengal (Calcutta); Assam. Also known from Indochina, Tokin, Formosa, Sundainseln, Indonesia, Philippines, Laos, Annam, Burma and Singapore.

Genus 6. *Sphaeridium* Fabricius, 1775

1775. *Sphaeridium* Fabricius, *Syst. Ent.*, PP. 66.
1924. *Sphaeridium* Fabricius, *Col. Cat.*, 14 (79) : 119-127.

Key to the species of genus *Sphaeridium* of West Bengal *

- 1(2) Yellow markings extremely narrow, restricted to pronotal border.....*cameroni*
- 2(1) Yellow markings broad, extending beyond pronotal border
- 3(4) Elytra with regularly arranged prominent serial punctures..... *seriatum*
- 4(3) Elytra without regularly arranged serial punctures.
- 5(6) Large species, elytral colouration less variable..... *S. dimidiatum*
- 6(5) Smaller species, elytral colouration more variable, usually with 5 black patch.....
.....*S. quinquimaculatum*

* *S. severini* d'Orchymont could not be included in the Key as neither material nor original description of the species are available.

7. *Sphaeridium cameroni* d'Orchymont

1926. *Sphaeridium cameroni* d'orchymont, *Ann. Bull. Soc. Ent. Belg.*, **66** : 202.

Material examined : 1 ex, Manbhum (Puruliya dist.), A.K. Halwes Coll. (Orchymont det.)

Distribution : India : West Bengal (Puruliya district); Uttar Pradesh. Also known from siwaliks Mohand Rau.

8. *Sphaeridium dimidiatum* Gory

1834(1842). *Sphaeridium dimidiatum* Gory, in guerin. *Icon. Regne Anim. & Ins.* : 73, fig. 15.

Material examined : 2 exs, Murshidabad, no other data, 3 exs, Berhampur, no other data; 1 ex, Calcutta, no other data.

Distribution : India : West Bengal (Murshidabad, Calcutta). Also known from China; Indonesia, Philippine.

Remarks : The species was recorded from India by Orchymont first in 1913 without mentioning exact locality. This is the first time the species is being recorded from India.

9. *Sphaeridium quinquimaculatum* Fabricius

1798. *Sphaeridium quinquimaculatum* Fabricius, *Ent. Syst. suppl.*, P. 39.

Material examined : 1 ex, Murshidabad, no other data.

Distribution : India : West Bengal (Murshidabad). Also known from Pakistan, Sri Lanka, Indonesia, Formosa, Philippines, China.

10. *Sphaeridium seriatum* d'Orchymont

1913. *Sphaeridium seriatum* d'Orchymont, *Suppl. Ent.*, 2 : 12, 14.

Material examined : 1 ex, Darjiling district, vi.1913, Lord Carmichael Coll.

Distribution : India : West Bengal (Darjiling). Also known from Indonesia, Formosa, Tonkin, Fokien, Buru Island.

Remarks : The species is being recorded for the first time from India.

11. *Sphaeridium severini* d'orchymont

1919. *Sphaeridium severini* d'orchymont. *Ann. Soc. ent. France*, 88 : 117.

1979. *Sphaeridium severini*, Sato. *Entomologica Basiliensia*, 4 : 48-49.

Material examined : No material was available for study.

Distribution : India : West Bengal (Darjiling); Meghalaya. Also known from Cambodia and Indonesia.

Tribe CERCYONINI

Seven genera of the tribe Cercyonini are known from India but the single genus *Cercyon* is recorded from West Bengal for first time.

Genus 7. *Cercyon* Leach, 1817

1817. *Cercyon* Leach, *Zool. Misc.*, 3 : 95.

1924. *Cercyon* Leach, *Col. Cat.*, 14 (79) : 127-152.

Key to the species of genus *Cercyon* known from West Bengal.

- 1(2) Pronotum uniformly brown..... *vicinalis*
- 2(1) Pronotum not uniformly brown
- 3(4) Elytral punctures not distinct, mesosternal elevation not broad..... *dilutum*
- 4(3) Elytral punctures more or less distinct mesosternal elevation somewhat broader.. *pseudodilutum*

12. *Cercyon dilutum* Regimbert

1903. *Cercyon dilutus* Regimbert, *Ann. Soc. ent. France*, **72** : 338.
 1979. *Cercyon (Cercyon) dilutum*, Sato, *Antomologia Basiliensia*, **4** : 51.

Material examined : No material was available for study.

Distribution : India : West Bengal (Darjiling); Tamil Nadu. Also known from Bhutan.

13. *Cercyon pseudodilutum* Sato

1979. *Cercyon (Cercyon) pseudodilutum* Sato, *Entomologia Basiliensia*, **4** : 52.

Material examined : No material was available for study.

Distribution : India : West Bengal (Darjiling).

14. *Cercyon vicinalis* Walker

1859. *Cercyon vicinalis* Walker, *Ann. Mag. Nat. Hist.*, **3** : 258.

Material examined : 1 ex, Calcutta, 26.x.1949, A. P. Kapur Coll. (B.B.)

Distribution : India : West Bengal (Calcutta). Also known from Sri Lanka, Indochina, Tonkin, Sunda Is., Sumatra, Formosa, Philippines.

Tribe MEGASTERNINI

Genus 8. *Pachysternum* Motschulsky 1863

1863. *Pachysternum* Motschulsky, *Bull. Soc. Nat. Moscou*, **36**(1) : 446.
 1928. *Pachysternum*, d'Orchymont, *Indian Insects Hydrophilidae*, Part 14 : 83-84.

Key to the species of the genus *Pachysternum* known from West Bengal

- 1(2) Sexual dimorphism strongly developed..... *nigrovittatum*
 2(1) Sexual dimorphism not developed, or vary feebly developed.
 3(4) Elytra distinctly reticulate, not strongly punctate..... *stevensi*
 4(3) Elytra not reticulate, strongly punctate..... *cardoni*

15. *Pachysternum cardoni* d'Orchymont

1926. *Pachysternum cardoni* d'Orchymont, *Bull. Soc. Ent. Belgique*, **66** : 220.
 1979. *Pachysternum cardoni*, Sato, *Entomologica Basiliensia*, **4** : 49-50.

Material examined : No material was available for study.

Ditribution : India : West Bengal (Darjiling); Sikkim..

16. *Pachysternum nigrovittatum* Motschulsky

1863. *Pachysternum cardoni* d'Orchymont, *Bull. Ann. Soc. ent. Belgique*, **66** : 220.
 1979. *Pachysternum cardoni*, Sato, *entomologica Basiliensia*, **4** : 49.

Material examined : No material was available for study.

Distribution : India : West Bengal (Darjiling); Also known from Sri Lanka, Vietnam, singapore and Hongkong.

17. *Pachysternum stevensi* d'orchymont

1926. *Pachysternum cardoni* d'Orchymont, *Bull. Ann. Soc. ent. Belgique*, **66** : 220..
 1979. *Pachysternum cardoni*, Sato, *Entomologica Basiliensia*, **4** : 49.

Material examined : No material was available for study.

Distribution : India : West Bengal (Darjiling); Also known from Sikkim.

Subfamily V. HYDROPHILINAE

Key to the tribes of the subfamily HYDROPHILINAE known from West Bengal

- 1(4) Scutellum not longer or not much longer than its width at base. antennae at most 9 segmented. Pronotum not narrowed behind.
- 2(3) Meso and metasternal carina not reunited intimately..... Hydrobiini
- 3(2) Meso and metasternal carina reunited and forming only one ridge..... Hydrophilini
- 4(1) Scutellum a long triangle. Antennae at most 8 segmented.
- 5(6) Eyes divided by a conspicuous and complete canthus reaching the vertex behind. Posterior legs without swimming hairs..... Amphiopini
- 6(5) Eyes very convex and prominent without complete canthus. Posterior legs with long swiming hairs Berosini

Tribe HYDROBIINI

Key to the genera of tribe HYDROBIINI known from West Bengal.

- 1(4) Maxillary palpi robust and short, nearly as long as antennae or shorter, last joint as long as or longer than penultimate.
- 2(3) Second joint of intermediate and posterior tarsi not specially longer than first, often of same size. Posterior femora not densely pubescent. Eyes not prominent. Elytra with sutural stria, irregularly punctured. Antennae 9-7 segmented..... ***Paracymus***
- 3(2) Second joint of intermediate and posterior tarsi much longer than first, first joint very short. No sutural stria, elytra usually striate punctate. Antennae 8 jointed..... ***Laccobius***
- 4(1) Maxillary palpi more or less slender, longer than antennae, with last joint shorter than penultimate.
- 5(6) Maxillary palpi rather short, never very long, with second joint convex on anterior side and concave posteriorly, the last joint bending outwards. Eyes rounded. A sutural stria atleast. Antennae 9 jointed..... ***Enocrus***
- 6(5) Second joint of maxillary palpi with anterior side concave or straight, convex on posterior side, last joint articulated from the outer to the inner towards mouth. Palpi sometimes very long.....
.....
Helochares

Genus ***Crenetis*** Bedel could not be included in the Key as no material or description of the genus is available with us. A single species has been recorded from Darjiling recently by Sato.

Genus 9. ***Crenetis*** Bedel 1881

1881. *Crenetis* Bedel, *Faune col. Bass seine* 1 : 306.
1924. *Crenetis* Knisch, *Coleopt. Cat.*, 14 (79) : 163-164.

18. ***Crenetis orientalis*** Sato

1979. *Crenetis orientalis* Sato, *Entomologica Basiliensia*, 4 : 54-55.

Material examined : No material was available for study.

Distribution : India : West Bengal (Darjiling).

Genus 10. ***Paracymus*** Thomson, 1867

1867. *Paracymus* Thomson, *Skand. Col.*, 9 : 119, 120.

1924. *Paracymus* Thomson, *Col. Cat.*, 14 (79) : 164-168.

19. *Paracymus evanescens* (Sharp)

1890. *Hydrobius evanescens* Sharp, *Trans. Ent. Soc. London* : 349.

1924. *Paracymus evanescens*, Knisch, *Col. Cat. Pars 79* : 166.

Material examined : No material is available for study.

Distribution : India : West Bengal and Bihar. Also known from Sri Lanka, Tonkin, Sumatra, Philippines.

Genus 11. *Laccobius* Erichson, 1837

1837. *Laccobius* Erichson, *Kaf. Mark Brand.*, 1 : 202.

1924. *Laccobius* Erichson, *Col. Cat.*, 14(79) : 181-192.

Key to the species of *Laccobius* known from West Bengal.

1(2) Primary elytral series more regular, impressed and punctate, secondary series not regular, weakly impressed and scarcely punctate. Size small (less than 2.8 mm). Males without goggles.....
..... *rotundus* Rej.

2(1) Elytral punctures are in longitudinal rows not so regularly alternated; some of them are irregular with mixed large and small punctures. Males normally with goggles. Size large, above 2.8 mm
..... *Simulans* d'Orchymont

20. *Laccobius rotundatus* Regimbert

1903. *Laccobius rotundatus* Regimbert, *Ann. Soc. ent. Fr.*, 72 : 59.

Material examined : 1 ex, Calcutta, 26.10.1949, A.P. Kapur Coll.

Distribution : India : West Bengal (Calcutta); Maharashtra.

21. *Laccobius simulans* d'orchymont

1923. *Laccobius simulans* d'Orchymont, *Mem. Dep. Agr. India*, 8 : 7.

Material examined : 4 exs, Jorpucri, 4800 ft, near Sitong, Darjiling district, Eastern Himalayas, 6.vii.1918, S. Kemp Coll.

Distribution : India : West Bengal (Darjiling); Bihar; Meghalaya and Uttar Pradesh.

Genus 12. *Helochares* Mulsant, 1844

1844. *Helochares* Mulsant, *Palp*, P.197.

1924. *Helochares* Mulsant, *Col. Cat.*, 14 (79) : 192-199.

Key to the species of genus *Helochares* of West Bengal.

- 1(6) Elytra striate punctate
- 2(3) Elytra interval closely but finely punctured.....*ancholaris* Sharp
- 3(2) Elytral interval smooth
- 4(5) Punctures on striae strong, deep.....*crenatus* Regimbert
- 5(4) Punctures on striae weak and superficial.....*lentus* Sharp
- 6(1) Elytra not regularly striate punctate.....*pallens* (Macleay)

22. *Helochares ancholaris* Sharp

1890. *Helochares ancholaris* Sharp, *Trans. Ent. Soc. Lond.*, P. 352.

Material examined : 1 ex, Calcutta, 26.x.1949, A.P. Kapur Coll. 3 exs, Calcutta.

Distribution : India : West Bengal (Calcutta). Also known from Sri Lanka; Indonesia; Indochina.

23. *Helochares crenatus* Regimbert

1903. *Helochares crenatus* Regimbert, *Ann. Soc. ent. France*, **72** : 54.

Material examined : 1 ex, Siliguri, base of Eastern Himalayas (Darjiling district), 3-4.vi.1911, N. Annandale and s. Kemp Coll. 3 exs, Calcutta, no other data.

Distribution : India : West Bengal (Darjiling, Calcutta); Bihar. Also known from Indochina, Sunda Island.

Remarks : The specimen from Madhupur is a teneral one. The place probably is now in Bihar.

24. *Helochares lentus* Sharp

1890. *Helochares entus* Sharp, *Trans. Ent. Soc. Lond.*, P. 352.

Material examined : 4 exs, Barrackpur, 7.x.1961, G. Michael coll.; 1 ex, (at light) Calcutta, 14.x.1911, F.H. Gravely Coll. 1 ex, Manbhum, (Puruliya district).

Distribution : India : West Bengal (North 24-Parganas, Puruliya, Calcutta); Bihar.

25. *Helochares pallens* (Macleay)

1825. *Enhydrus pallens* Macleay, *annul. Javan.*, P.35.

1926. *Helochares pallens*, d'Orchymont, *Ann. Bull. Soc. Ent. Belg.*, **66** : 232.

Material examined : 1 ex, Calcutta, vi.1914, F.H. Gravely Coll. 1 ex, Calcutta, 26.x.1949, A. P. Kapur Coll. 1 ex, Berhampur (Murshidabad district), 13.ix.1910, S. W Kemp Coll.

Distribution : India : West Bengal (Murshidabad, Calcutta); Assam; Bihar. Also known from Indonesia, Tonkin, Phillipine, Egypt.

Genus 13. *Enochrus* Thoms., 1859

1859. *Enochrus* Thoms., *Skand. Col.*, **1** : 18.

1924. *Enochrus* Thoms., *Col. Cat.*, **14** (79) : 200-219.

Key to the species of *Enochrus* known from West Bengal

- 1(2) Smaller species, size around 2.5 mm..... *esuriens* Walker
 2(1) Species above 2.5 mm..... *rubrocinctus* (Regimbert)

26. *Enochrus esuriens* (Walker)

1858. *Philiphydrus esurines* Walker, *Ann. Mag. nat. Hist.*, (3) **2** : 209.

1924. *Enochrus esuriens*, Knisch, *Col. Cat.*, **14** (79) : 209.

Material examined : 1 ex, Port Canning, Lower Bengal, 14.xiii.1910, F. H. Gravely Coll.

Distribution : India : West Bengal (South 24 Parganas). Also known from Sri Lanka, Vietnam, Sunda Island.

27. *Enochrus rubrocinctus* (Regimbert)

1903. *Phihydrus eubrocinctus* Regimbert, *Ann. Soc. ent. France*, **72** : 56.

1924. *Enochrus rubrocinctus*, Knisch, *Col. Cat.*, **14** (79) : 214.

Material examined : 2 exs, Calcutta, no other data.

Distribution : India : West Bengal (Calcutta). Also known from south Asia, Sumatra.

Remarks : The specimens were determined by d'orchymont. As the specimens were subjected to Baruna flood condition of the specimens is poor.

Tribe HYDROPHILINI

Key to the genera of tribe HYDROPHILINI known from West Bengal.

- 1(2) All femora clothed at base with a silky procumbent and dense pubescence. Antennae with normal club, composed of segments not lunulate and not particularly irregular or ciliate. Middle and posterior tarsi compressed and Oarlike. All ventral segments pubescent without shining spot on the middle of posterior margin of fifth.

Prostital carina ridge-like with an anterior brush of long setae and, sometimes, posteriorly with small emargination; a small notch on anterior part of mesostital carina with on the ground a bunch of small setae. maxillary palpi with last joint as long or usually longer than the preceding joint..
*Sternolophus*

- 2(1) The anterior femora only are clothed with pubescence at base, it is wanting or very much reduced on middle and posterior femora. Prostital carina without anterior brush of long setae.

Prostital carina not cultriform, excavate to receive the anterior side widely emarginat, the emargination filled with a short membraneous poorly chitinized sclerite sometimes of yellow colour, the preclypeous. Ante-penultimate joint of maxillary palpi curved, with concavity directed wtowards inner side. Antennal club perfoliate tarsi strongly compressed and Oarlike. Claws of all tarsi dentate at base. Those of anterior tarsi of (M) usually unequal and differently shaped. Size large or very large..... *Hydrophilus*

Genus 14. *Sternolophus* Solier, 1834

1834. *Sternolophus* Solier, *Ann. Soc. ent. Fr.*, 3 : 302, 310.
 1924. *Sternolophus* Solier, *Col. Cat.*, 14 (79) : 226-228.

28. *Sternolophus rufipes* (Fabricius)

1792. *Hydrophilus rufipes* Fabricius, *Entom. Syst.* 1 : 183.
 1840. *Sternolophus rufipes*, Laporte, *Castelanu, Hist. Nat. Ins.* 2 : 54.

Material examined : 1 ex, Asansol, Barddhaman district, 13-14.ii.1910, Paiva & Caunlor Coll. 3 exs, Berhampore, Murshidabad district, 13.iv.1910, s. W. Kemp Coll. 3 exs, Manhum, Puruliya district, 4 exs, Kharagpur, Medinipur district, 17-30.vi.1911, R. Hodgart Coll. 10 exs, Calcutta.

Distribution : India : West Bengal (Barddhaman, Murshidabad, Puruliya, Medinipur and Calcutta).Also known from Asia, East Asia, Sunda Island.

Remarks : This is one of the commonest species found around Calcutta.

Genus 15. *Hydrophilus* Muller 1764

1764. *Hydrophilus* Muller, *Fauna Ins. Fridrichsdalina*, P. 16.
 1980. *Hydrophilus*, Smetna, , *Mem. ent. Soc. Canada*, 111 : 10-11.

Key to the species of genus *Hydrophilus* of West Bengal.

- 1(4) Elytra without spine at apex.
- 2(3) Elytra with lateral pale stripe..... *rufocinctus*
- 3(2) Elytra without pale lateral stripe..... *indicus*

- 4(1) Elytra with spine at apex.
- 5(6) Small species, elytra with regular two longitudinal rows of punctures on elytra.....
 *bilineatus cashmirensis* Redt.
- 6(5) Species moderate to large.
- 7(8) Species moderate at middle, not unusually convex..... *Olivaceous*
- 8(7) Species large, very convex in middle..... *Senegalensis*

29. *Hydrophiluys indicus* (Bedel)

1892. *Stethoxus indicus* Bedel, *Rev. Ent. Caen.* **10** : 310, 316.
 1893. *Hydrophilus indicus*, Kuwert, *Deut. Ent. Zeit.*, p. 88.

Material examined : 1 ex, Calcutta, no other data, 1 ex, (at light), Calcutta, no other data.

Distribution : India : West Bengal (Calcutta).

30. *Hydrophilus bilineatus cashmirensis* Redtenbacher

1844. *Hydrophilus cashmirensis* Redtenbacher, *Hugel. Kashmir.* **4(2)** : 513, Pl. 24, fig. 2.

Material examined : 4 exs, Calcutta, 3.ix.1919, 1 ex, Ranigunj (in Bardhaman), 1 ex, Maldah, 1 ex, Berhampur (in Murshidabad), no other data.

Distribution : India : West Bengal (Bardhaman, Maldah, Murshidabad, Calcutta); Kashmir. Also known from Sri Lanka, Burma, Vietnam, Tonkin, Cambodia, Annam, China, Japan, Kiu-Siou Island, Cagosima Island, Indonesia, Carin, Cheba, Ascieri.

31. *Hydrophilus olivaceus* Fabricius

1781. *Hydrophilus olivaceus* Fabricius, *Spec. Ins.* **1** : 289.

Material examined : 2 exs, Rampurhat (Birbhum district), 2-3.iii.1931, S. Ribeiro Coll.

Distribution : India : West Bengal (Birbhum); N. India.

Remarks : The species was described by Fabricius from North India, without reference to particular locality.

32. *Hydrophilus rufocinctus* (Bedel)

1892. *Stethoxus rufocinctus* Bedel, *Rev. d'Ent. Caen.* **10**:309, 317.
 1893. *Hydrophilus rufocinctus* Kuwert, *Deut. Ent. Zeits.*, P.90.

Material examined : 2 exs, Calcutta tank, no other data, 1 ex, Calcutta, Kasimuddin Coll. 1 ex, (on road at light), Calcutta, ix. 1952, T.G. Vazirani Coll.

Distribution : India : West Bengal (Calcutta); North India (without definite locality).

33. *Hydrophilus senegalensis* Percheron

1835. *Hydrophilus senegalensis* Percheron, *Gen. d.Ins.* 3, Nr. 5, Pl.9, fig.1.

Material examined ; No material is available for study.

Distribution : India : West Bengal (Darjiling); Uttar Pradesh. Also known from Africa.

Tribe AMPHIOPINI

Genus 16. *Amphiops* Erichson, 1843

1843. *Amphiops* Erichson, *Archiv, Naturg*; 9(1) : 229.

1924. *Amphiops* Erichson, *Col. Cat.*, 14(79) : 259-260.

Key to the species of genus *Amphiops* of West Bengal

- 1(2) Larger serial punctures at the side of the elytra absent. Colour dull..... *simplex* Sharp
 2(1) Larger serial punctures at the side of the elytra present. Colour deep..... *pedestris* Sharp.

34. *Amphiops pedestris* Sharp

1890. *Amphiops pedestris* Sharp, *Trans. Ent. Soc. Lond*, P. 354.

Material examined : 2 exs, Calcutta, 26.x.1949, A.P. Kapur Coll. 1 ex, Calcutta, no other data.

Distribution : India; West Bengal (Calcutta); Pondicherry; Tamil Nadu. Also known from Sri Lanka, Indochina, Saigon, Sumatra.

35. *Amphiops simplex* Sharp

1890. *Amphiops simplex* Sharp, *Trans. Ent. Soc. London*, P. 354.

Material examined : 2 exs, Calcutta 26.x.1949, A.P. Kapur Coll.

Distribution : India : West Bengal (Calcutta). Also known from Sri Lanka.

Tribe BEROSINI

Key to the genera of tribe BEROSINI known from West Bengal.

- 1(2) Five ventral not retractile segments. Antennae composed of seven segments (4+3). Upper surface never of a uniform, deep and shining black. Shape elongate. Femora at least in part without dense pubescence. Sutures of ventral segments not deepened. Usually a more or less prominent 6th retractile ventral segment..... **Berosus**
- 2(1) Only four not retractile ventral segments, the first one not invaded by the posterior coxal cavities. Antennae of 8 segments (5+3). Upper surface always of a uniform deep and shining or metallic black. Pronotum narrowly applied within the emargination of anterior side of elytra. The fifth ventral segment is retractile and more or less prominent, emerginate in the (M).
- 3(4) Body convex, elongate and compressed on sides. Elytra everywhere striate punctate and pubescent. Metasternum with a simple carina along the middle. Ventral segments crenate on their posterior margin..... **Regimbertia**
- 4(3) Body also very convex but globular, of a short and broad shape. Elytra glabrous with anteriorly only 2-4 short and oblique series of larger punctures on the sides. Metasternum highly carinate along the middle, the carina deeply excised in its median part; it looks as if two short carinae were placed on a line, one before the other. Ventral sutures as deep gaps separating the segments..... **Globaria**

Genus 17. **Berosus** Leach, 1817

1817. *Berosus* Leach, *Zool. Misc.*, 3 : 92.
1924. *Berosus* Leach, *Col. Cat.*, 14(79) : 261-276.

Key to the Indian species of the genus **Berosus** Leach

- 1(4) Elytra apex with spine.
- 2(3) Larger species, matt upper surface.....*fairmairei* Zaitzev
- 3(2) Smaller species, elytra shining..... *indicus* Motschulsky
- 4(1) Elytra without apical spine. Pronotum with black patch..... *pulchellus* M'Leay

36. **Berosus fairmairei** Zaitzev

1908. *Berosus fairmairei* Zaitzev, *Horae Soc. Ent. Ross.*, 38 : 355.

Material examined ; 1 ex, Calcutta, at light, 16.ix.1907.

Distribution : India : West Bengal (Calcutta). Also known from Indochina, Formosa, Sumatra.

37. *Berosus indicus* Motschulsky

1861. *Berosus indicus* Motschulsky, *Bull. Soc. Imp. Nat. Moscou* 34 : 110.

Material examined ; 1 ex, Calcutta, x.1921, S.W. Kemp Coll.; 11 exs, Calcutta, 1907, 2 exs, Berhampur Court (Murshidabad), 13.iv.1910, S.W. Kemp Coll.

Distribution : India : West Bengal (Murshidabad, Calcutta). Also known from Sri Lanka, South Asia, Sunda Island.

38. *Berosus pulchellus* M'Leay

1825. *Berosus pulchellus* M'Leay. *Annual. Jav.* : 35.

Material examined : 1 ex, Calcutta, 11.iii.1915, F.H. Gravely Coll.; 3 exs, Asansol (Bardhaman dist.), 13-14.ii.1910, Paiva and Counter Coll.; 1 ex, Siiguri (Darjiling dist.), 3-4.vi.1911, N. annandale and S. Kemp Coll.

Distribution : India : West Bengal (Bardhaman, Darjiling, Calcutta). Also known from Sri Lanka, Burma, Tonkin, Indo-China, Annam, Australia, Formosa, Philippine, Borneo, Sumatra, Java.

Genus 18. *Regimbertia* Zaitzev, 1908.

Regimbertia Zaitzev, *Horae Soc. Ent. Ross.*, 38 : 362. *Regimbertia* Zaitzev, *Col. Cat.*, 14(79) : 276-277.

39. *Regimbertia attenuata* Fabricius

1801. *Regimbertia attenuata* Fabricius, *Syst. Eleuth.* 1 : 235 (Hydrophilus).

Material examined ; 2 exs, Calcutta, no other data.

Distribution : India : West Bengal (Calcutta). Also known from Sri Lanka, Indochina, Annam, Cochinchina, Cambodia, Sumatra, Philippine, Formosa, Japan, Australia.

Genus 19. *Globaria* Latr. 1829

1829. *Globaria* Latr. in Cuvier, *Regne Anim. nouv. ed.* 4, P. 521.

1924. *Globaria* Latr. in Cuiver, *Col. Cat.*, 14(79) : 277.

40. *Globaria leachi* Hope

1838. *Globaria leachi* Hope, *Col. Man.* 2 : 167.

Material examined ; 5 exs, Calcutta (all specimens headless), no other data.

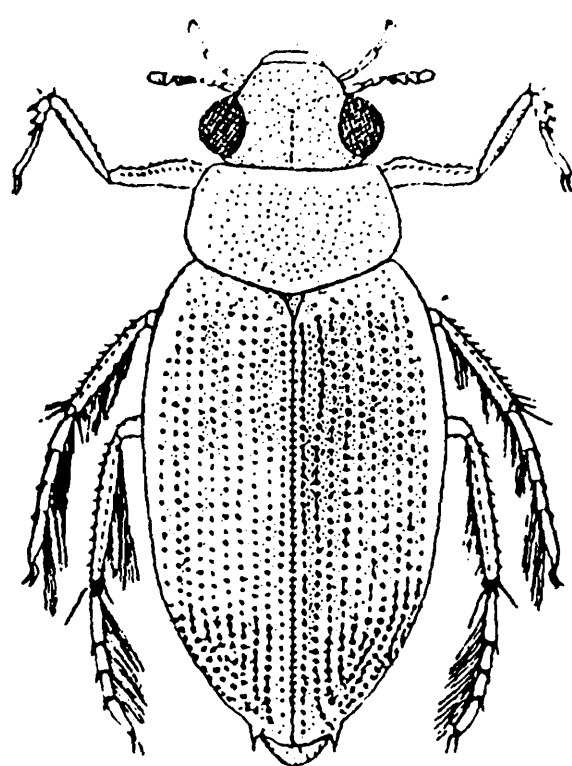
Distribution : India ; West Bengal (Calcutta); Tamil Nadu. Also known from Sri Lanka, Cambodia, Annam, Tonkin, Malacca, Sumatra.

**THE CHART SHOWING DISTRICT WISE DISTRIBUTION OF SPECIES OF
THE FAMILY HYDROPHILIDAE KNOWN FROM WEST BENGAL**

Name of the Species	Bankura	Bardhaman	Birbhum	Calcutta	Darjiling	Haora	Hugli	Jalpaiguri	Koch Behar	Maldah	Medinipur	Murshidabad	Nadia	24-Parganas (North)	24-Parganas(South)	Puruliya	West Dinajpur
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Hydraena tenjikuana</i> Sato				+	+		+										
<i>Hydraena wittmeri</i> Sato					+												
<i>Spercheus gibbus</i> Champion				+										+			
<i>Hydrochus binodosus</i> Motschulsky				+			+										
<i>Coelostoma subditum</i> d'Orchymont				+													
<i>Dactylosternum hydrophiloides</i> M'Leay				+													
<i>Sphaeridium cameroni</i> d'Orchymont																+	
<i>Sphaeridium dimidiatum</i> Gory				+								+					
<i>Sphaeridium quinquemaculatum</i> F.												+					
<i>Sphaeridium seriatum</i> d'Orchymont					+												
<i>Sphaeridium sevrini</i> d'Orchymont					+												
<i>Cercyon vicinalis</i> Walker				+												-	
<i>Cercyon dilutum</i> Regimbart					+				-					-	-		-

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Cercyon pseudodilutum</i> Sato					+												
<i>Pachysternum cardoni</i> d'Orchymont					+												
<i>Pachysternum nigrovittatum</i> Mots.					+												
<i>Pachysternum stevensi</i> d'Orchymont	-				+												
<i>Crenetis orientalis</i> Sato					+												
<i>Paracymus evanescens</i> Sharp																	
<i>Laccobius rotundus</i> Regimbert				+													
<i>Laccobius simulans</i> d'Orchymont					+												
<i>Helochares anchoralis</i> Sharp				+													
<i>Helochares crenatus</i> Regimbert				+	+												
<i>Helochares lentus</i> Sharp				+										+	+		
<i>Helochares pallens</i> (Macleay)				+								+					
<i>Enochrus esuriens</i> Walker																	+
<i>Enochrus rubrocinctus</i> (Regimbert)				+													
<i>Sternolophus rufipes</i> (Fabricius)		+										+					
<i>Hydrophilus indicus</i> (Bedel)				+													
<i>Hydrophilus bilineatus cashmirensis</i> Redt.		+		+						+		+					
<i>Hydrophilus olivaceus</i> (Fabr.)			+														
<i>Hydrophilus rufocinctus</i> (Bedel)				+													

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Hydrophilus senegalensis</i> Perch.					+												
<i>Amphiops pedestris</i> Sharp				+													
<i>Amphiops simplex</i> Sharp				+							-						
<i>Berosus fairmairei</i> Zaitsev				+													
<i>Berosus indicus</i> Motschulsky				+								+					
<i>Berosus pulchelus</i> M'Leay		+		+	+												
<i>Regimbertia attenuata</i> (Fabr.)				+													
<i>Globaria leachi</i> Hope				+													



Berosus indicus Motschulsky

SUMMARY

Forty species under nineteen genera and 5 subfamilies of Hydrophilidae have been dealt with in this paper. Twenty four species are recorded for the first time from West Bengal. keys to the subfamilies, genera and species have been provided. Selected synonymies, collection data and distribution have been given for each species. A chart showing district wise distribution within the state of West Bengal is provided.

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INSECTA : COLEOPTERA : HISTERIDAE

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INTRODUCTION

Family Histeridae belongs to superfamily Histeroidea which consists of three families namely, Sphaeritidae, Synteliidae and Histeridae. Sphaeritidae does not occur in India. Synteliidae is represented by a single species *Syntela indica*. Histeridae is well represented in the Indian sub-continent. Members of this family are very small to medium in size, round, oval or elongated in shape, generally black and shining with hard exoskeleton. They are predacious in habit both in larval and adult form. They occur in a variety of habitats namely in soil, in dung of various animals, in termite and ant nests and under bark. They can be compared in this regard with Nitidulidae of Superfamily Cucujoidea. Members of the subfamily Trypaneinae are predators of wood boring insects, Saprinae and Histerinae occur in dung, leaf litter or carrion feeding on maggots. Some of the Histerinae beetles are predators of the under bark fauna.

The Indian fauna of Histeridae was studied by early workers like Fabricius (1798), Paykul (1811), Wiedmann (1819-21), Erichson (1834), Redtenbacher, (1848), Marseul (1853), Thomson (1862), Lewis (1892-1894) and others. Amongst the above workers Marseul and Lewis studied extensively on the fauna of India and its neighbouring countries and described a large number of Indian species. Later Bickhardt (1913-1921) and Cooman (1932) contributed more to the knowledge about Indian Histeridae. Recently Therond (1970-78), Mazur (1975-1985) and Gomy (1976) contributed further to our knowledge. Biswas & Pal (1985) worked out Histeridae fauna of Namdapha, Arunachal Pradesh.

Till now about 175 species under 34 genera are known from India in comparison to about 200 genera and 3000 species all over the world.

As regards the Histeridae fauna of West Bengal very little attention has been paid so far. Lewis (1892, 1894) published two papers. In both his papers materials were collected from Mandar and Barway which are at present in Bihar.

Gomy (1976) recorded 5 species of the genus *Acritus* from West Bengal. The material was sent to him by Dr. T. Sengupta from Calcutta.

The present paper deals with material accumulated in Coleoptera Section from the beginning of this century and material received from different survey parties carrying out mopping survey of different districts of West Bengal recently. The material belongs to 46 species of 24 genera under 5 subfamilies. Relevant collection data and biological information whenever available have been provided under each species. Distribution in West Bengal and other parts of the country is also provided. An easy working key to the subfamilies and to the species have also been provided. A chart showing districtwise occurrence of the species is also provided. Original reference together with important synonymy and most recent

reference wherever necessary have also been given. Type specimens have been deposited in the collection of Zoological Survey of India, Calcutta.

SYSTEMATIC ACCOUNT : LIST OF TAXA

Family HISTERIDAE

Subfamily I HOLOLEPTINAE

Genus 1. *Hololepta* Paykul 1811

Species 1. *H. elongata* Erichson 1834

2. *H. indica* Erichson 1834

3. *H. laevigata* Guerin 1833

Subfamily II SAPRINAE

Genus 2. *Chalcionellus* Reichardt 1932

Species 4. *C. pulchellus* (Fabricius) 1798

Genus 3. *Hypocacculus* Bickhardt 1916

Species 5. *H. malabaricus* Reichardt 1932

Genus 4. *Saprinus* Erichson 1932

Species 6. *S. chalcites* (Illiger) 1807

7. *S. fortistrius* Marseul 1855

8. *S. optabilis* Marseul 1855

Subfamily III ABRAEINAE

Genus 5. *Abraeus* Leach 1817

Species 9. *A. paria* Marseul 1856

Genus 6. *Acritus* Leconte 1853

Species 10. *A. copricola* Cooman 1932

11. *A. duchainei* Cooman 1932

12. *A. exquisitus* Cooman 1932

13. *A. pascuarum* Cooman 1947

14. *A. tuberisternus* Cooman 1932

Genus 7. *Chaetabraeus* Portevin 1929

Species 15. *C. fakir* (Lewis) 1905

Subfamily IV. DENDROPHILINAE

- Genus 8. *Bacanius* Leconte 1853
 Species 16. *B. atomarius* Sharp 1885
 Genus 9. *Carcinops* Marseul 1855
 Species 17. *C. troglodytes* (Paykul) 1811
 Genus 10. *Platylomalus* Cooman 1948
 Species 18. *P. oblisus* (Lewis) 1885
 19. *P. oceanitis* (Marseul) 1855
 Subfamily V. HISTERINAE
 Tribe I TRIBALINI
 Genus 11. *Parepierus* Bickhardt 1913
 Species 20. *P. corticicola* Bickhardt 1913
 Genus 12. *Tribalus* Erichson 1834
 Species 21. *Tribalus* sp.
 Tribe 2. EXOSTERNINI
 Genus 13. *Cypturus* Erichson 1834
 Species 22. *C. bengalensis* Lewis 1901
 Tribe 3. PLATYSOMINI
 Genus 14. *Apobletes* Marseul 1860
 Species 23. *A. bengalensis* sp. nov.
 24. *A. mainicollis* Lewis 1888
 25. *A. planidorsum* Bickhardt 1912
 Genus 15. *Eurylister* Bickhardt 1919
 Species 26. *E. sincerus* (Schmidt) 1892
 Genus 16. *Hyposolenus* Lewis 1907
 Species 27. *H. bengalensis* (Lewis) 1906
 Genus 17. *Platylister* Lewis 1892
 Species 28. *P. atratus* (Erichson) 1834
 29. *P. borneolus* (Marseul) 1861
 30. *P. cambodjensis* (Marseul) 1864
 31. *P. odiosus* (Marseul) 1861

32. *P. strialis* (Marseul) 1864
- Genus 18. *Platysoma* Leach 1817
- Species 33. *P. brahmani* Lewis 1910
34. *P. brevistriatum* Lewis 1888
35. *P. confucii* Marseul 1857
- Genus 19. *Silinus* Lewis 1907
- Species 36. *S. palmipes* (Lewis) 1889
- Tribe 4. HISTERINI
- Genus 20. *Atholus* Thomson 1862
- Species 37. *A. coelestis* (Marseul) 1857
38. *A. silvicola* (Lew.) 1901
- Genus 21. *Chronus* Lewis 1914
- Species 39. *C. Scaliformis* Desbordes 1923
- Genus 22. *Hister* Linnaeus 1767
- Species 40. *H. javanicus* Paykul 1811
41. *H. luciscus* Lewis 1855
42. *H. pullatus* Erichson 1834
43. *H. punctulatus* Wiedemann 1817
- Genus 23. *Pachylister* Lewis 1904
- Species 44. *P. chinensis* (Quens)
- Genus 24. *Santalus* Lewis 1906
- Species 45. *S. orientalis* (Paykul) 1811
46. *S. parallelus* (Redtenbacher) 1848

Family HISTERIDAE

Key to the subfamilies of Histeridae of West Bengal.

- 1(2) Head much narrower than pronotum, directed horizontally in front, not retractible within pronotum; mandibles long; propygidium and elytra in same plane; body extremely flat..... Hololeptinae
- 2(1) Head inclined, retractible; propygidium and elytra not in the same plane.
- 3(4) Antennae inserted in front, near internal border of eyes, often with a little pit opened in front
..... Abraeinae

- 4(3) Antennae inserted under lateral border of frons, between eyes and base of mandibles.
- 5(6) Prosternum without distinct chin plate, internal groove placed immediately before anterior haunch, elytral striae are oblique lines outwardly and shortened posteriorly.....Saprinae
- 6(5) Prosternum with a distinct chinplate, generally delimited by a transverse sutural line
- 7(8) Antennary groove situated to middle of sides of prosternum in front of hip (hump) chinband provided with a cleft for accepting the antennal funicle Dendrophilinae
- 8(7) Antennary groove situated within the anterior angles of prosternum; chinband not incised.....
..... Histerinae

Subfamily I HOLOLEPTINAE

Genus 1. *Hololepta* Paykul 1811

1811. *Hololepta* Paykul, *Mon. Histeroid* P. 101.
1910. *Hololepta* Bickhard, *Coleopt. Cat. Pars.* 24.P.4.

Key to the species of genus *Hololepta* known from West Bengal.

- 1(2) Long and narrow in shape, pygidium smooth, length 8.19-8.33 mm; width 3.00-3.58 mm.....
..... *Hololepta elongata* Erichson
- 2(1) Broad and oblong in shape. Pygidium not smooth.
- 3(4) Larger in size (length 13.33-13.91; width 5.81-6.19); lateral side of pronotum with distinct punctures.....*Hololepta laevigata* Guerin
- 4(3) Smaller in size (length 8.90-9.14 mm; width 4.14-4.43); pronotum without distinct punctures on the lateral sides.....*Hololepta indica* Erichson

1. *Hololepta elongata* Erichson 1834.

1834. *Hololepta elongata* Erichson, in *klug. Jahrb. Ins.* : 92.
1910. *Hololepta elongata* Brickhard. *coleopt. cat. Pars* 24 : 5.

Material Studied : 2 exs. Rambhi, Darjeeling District, alt. 1200 ft. 6. i. 74, Srivastav & Maiti coll.; 2 exs, Rajabhatkhaowa Forest, Jalpaiguri District, 11. xi. 74, T. Sengupta coll.; 1 ex, Jalgaon, Jalpaiguri District, 25. viii. 1986, T. K. Pal coll.

Distribution : India : West Bengal (Darjiling and Jalpaiguri), Assam. Also known from Java.

2. *Hololepta indica* Erichson 1834

1834. *Hololepta indica* Erichson, in *Klug Jahrb. Ins* : 90.
 1910. *Hololepta indica* Bickhardt, *Coleopt. Cat. Pars* 24 : 6.

Material studied : 1 ex, Rambh, alt. 1200 ft. 6. i. 1974, 1 ex, Reang, 8. i. 1974, Darjeeling district, Srivastava and Maity coll.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Indonesia, New Guinea and Formosa.

3. *Hololepta laevigata* Guerin 1833

1833. *Hololepta laevigata* Guerin. *Voy. Belanger. Zool.*, : 482.
 1910. *Hololepta laevigata*, Bickhardt, *Coleopt. Cat. Pars* 24 : 6.

Material studied : 2 exs; Rambh, Darjeeling district, alt. 1200 ft. 6.i. 1974. Srivastava and Maity coll.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Java, Sumatra, Engano, Nias and Mentawai.

Subfamily II. SAPRINAE

Key to the genera of Saprinae known from West Bengal.

- 1(2) Prosternal apical fovae absent.....Genus *Saprinus* Erich.
 2(1) Prosternal apical fovae present
 3(4) Prosternal apical fovae enclosed by Carinal striae and lateral striae...Genus *Chalcionellus* Reich.
 4(3) Prosternal apical fovae not enclosed.....Genus *Hypocacculus* Bick.

Genus 2. *Chalcionellus* Reichardt 1932

1932. *Chalcionellus* Reichardt, *Mitt. zool. Mus. Berlin*, 18 : 16.

4. *Chalcionellus pulchellus* (Fab.) 1798

1798. *Hister pulchellus* Fabricius, *Ent. suppl.*, : 38.
 1932. *Chalcionellus pulchellus*, Reichardt. *Mitt. Zool. Mus. Berl.*, 18 : 76, 19.

Material studied : 1 ex, Burasanti, Singur, Hooghly district, West Bengal, 26.v.1972, Openheimer coll.

Distribution : India : West Bengal (Hugli); Tamil Nadu; Kerala. Also known from Burma and Srilanka.

Genus 3. *Hypocacculus* Bickhardt 1916

1916. *Hypocacculus* Bickhardt. Fam. Histeridae. In : Genera Insectorum, P. Wytsman, La haye, tase. 166a p.1-112.

5. *Hypocacculus malabaricus* Reichardt 1932

1932. *Hypocacculus (Nessus) malabaricus* Reichardt, Mitt. Zool. Mus. Berl. 18 : 47-48, 122.

Material studied : 1 ex, Nasibpur, singur, Hooghly district, West Bengal, 4.iv.1971, Openheimer coll.

Distribution : India : West Bengal (Hugli); Kerala.

Remarks : The material under study was collected and determined by Openheimer. In this material 3 and 4 dorsal striae entire but in original description, 3 anteriorly interrupted and 4 widely interrupted in middle.

Genus 4. *Saprinus* Erichson, 1834

1834. *Saprinus* Erichson, in Klug, Jahrb. Ins. 2, P. 172.

1910. *Saprinus*, Bickhardt, Coleopt. Cat. Pars. 24. p. 89.

Key to the species of the genus *Saprinus* known from West Bengal.

- 1(2) Elytra bluish in colour, species larger in size.....*S. optabilis* (Mars)
- 2(1) Elytra not bluish in colour, species smaller in size
- 3(4) Internal sub humeral striae shortened, not attaining humeral callus.....*S. chalcites* (Illiger)
- 4(3) Internal sub humeral striae comparatively longer almost attaining the humeral callus
.....*S. frontistrius* (Mars)

6. *Saprinus chalcites* (Illiger) 1807

1807. *Hister chalcites* Illiger, Mag, 10-6 : 40.

1910. *Saprinus chalcites*, Bickhardt; Coleopt. Cat. pars 24 : 92.

Material studied : 7 exs. Gayerkata, Jalpaiguri district, West Bengal; 16.iii.76. 4 exs, 21.iv.77, A. K. Datta coll. Pit-fall-trap, fish bait.

Distribution : India : West Bengal (Jalpaiguri).

Remarks : The species is a new record from India.

7. *Saprinus frontistrius* Marseul 1855

1855. *Saprinus frontistrius* Marseul, *Mon. Hist.* **450**, t.18, f.74.

Material studied : 1 ex, Burasanti, Singur, Hooghly district, West Bengal, 9.vi.1972, Openheimer coll.

Distribution : India : West bengal (Hugli). Also known from Chile, Srilanka.

8. *Saprinus optabilis* Marseul 1855

1855. *Saprinus optabilis* Marseul, *Mon* : **438**, t.17, f.65.

Material studied : 6 exs. Gayerkata, Jalpaiguri district, West Bengal, 22.iii.77 and 1 ex, 6.iv.77, A. K. Datta coll, Pit-fall-trap, fish bait.

Distribution : India : West Bengal (Jalpaiguri district). Also known from East Indies.

Subfamily III. ABRAEINAE

Key to the genera of Subfamily Abraeinae known from West Bengal.

- 1(2) Tarsi four segmented.....Genus *acritus* Leconte
 2(1) Tarsi five segmented
 3(4) Upper surface covered with rows of strong hairs.....Genus *Chaetabraeus* Portevin
 4(3) Upper surface not covered with such hairs..... Genus *Abraeus* Leach

Genus 5. *Abraeus* Leach 1817

1817. *Abraeus* Leach, *Zool. Miscell.* iii : 76.

1910. *Abraeus*, Bickhardt, *Coleopt. Cat. Pars.* **24** : 83.

9. *Abraeus paria* Marseul 1856

1856. *Abraeus paria* Marseul, *Ann. Soc. Ent. Fr.* (3) **4** : 585-586.

1910. *Abraeus paria*, Bickardt, *Coleopt. Cat. Pars.* **24** : 84.

Material studied : 1 ex, Teest, Darjeeling district, West Bengal, 66 km. away from Sukna, 11.iv.1978, A. R. Bhowmik coll., ex. under Cowdung.

Distribution : India : West Bengal (Darjiling); Uttar Pradesh.

Genus 6. *Acritus* Leconte 1853

1853. *Acritus* Leconte, *Proc. Acad. Philad.*, VI : 288.
 1910. *Acritus*, Bickhard, *Coleopt. Cat. Pars.* 24. p. 86.

Key to the species of the genus *Acritus* known from West Bengal

- 1(2) Semicircular rows of prominent punctures absent at base of pronotum.....
 *A. tuberisternus* Cooman
- 2(1) Semicircular rows of prominent punctures present at base of pronotum.
- 3(4) Elytra closely and deeply punctured, punctures rugose posteriorly.....*A. copricola* Cooman
- 4(3) Elytral punctures neither so strong nor close.
- 5(6) Elytra very feebly and closely punctured..... *A. puscuarum* Cooman
- 6(5) Elytra moderately strongly and sparsely punctured.
- 7(8) Median part of prosternum broad, almost rectangular in shape; elytra covered with setigerous umbilicate punctures..... *A. duchainei* Cooman
- 8(7) Median part of prosternum narrow, narrower in middle. Elytral punctures not setigerous umbilicate
 *A. exquisitus* Cooman

10. *Acritus copricola* Cooman 1932

1932. *Acritus copricola* Cooman, *Bull. Mus 2 Serie*, T.iv.no4 : 402.
 1976. *Acritus copricola*, Gomy, *Bull. Soc. ent. Fr.* 81 : 261.

Material studied : 1 ex, Bandel, Hoogly district, West Bengal, 15.viii.72, T. Sengupta coll. 1 ex, Alipur, Calcutta, 10.ix.71, T. Sengupta coll.

Distribution : India : West Bengal (Calcutta, Hugli); U.P.; Kerala; Karnataka. Also know from Vietnam.

11. *Acritus duchainei* Cooman 1935

1935. *Acritus duchainei* Cooman, *Rev. fr. Ent.*, 2 : 92, fig. 1.
 1976. *Acritus duchainei*, Gomy, *Bull. Soc. ent. Fr.*, 81 : 262.

Material studied : 1 ex, Hooghly district, West Bengal, 15.viii.1973, T. Sengupta coll. 1 ex, Alipur, Calcutta, West Bengal, 10.ix.1971, T. Sengupta coll.

Distribution : India : West Bengal (Calcutta, Hugli); Bihar. Also known from Vietnam.

Remarks : Very minute specimens. Gomy 1976 recorded the species for the first time from India.

12. *Acritus exquisitus* Cooman 1932

1932. *Acritus exquisitus* Cooman, *Bull. Museum*, 2o Serie, T.iv.no4 : 399.

1976. *Acritus exquisitus*, Gomy, *Bull. Soc. ent. Fr.*, **81** : 261.

Material studied : 2 exs, Hoogly district, West Bengal, 15.viii.1974, T. Sengupta coll.

Distribution : India : West Bengal (Hugli); U.P. Also known from Vietnam.

Remarks : Very minute specimens. The species was recorded for the first time by Gomy (1976) from India.

13. *Acritus pascuarum* Cooman 1947

1947. *Acritus pascuarum* Cooman, *Notes d'Entomologie Chinoise*, 11(9) : 422, fig. I.

1976. *Acritus pascuarum*, Gomy, *Bull. Soc. ent. Fr.*, **81** : 262.

Material studied : 4 exs, madarihat, New Jalpaiguri, Jalpaiguri district, West Bengal, 8.xi. 1974, T. Sengupta coll.

Distribution : India : West Bengal (Jalpaiguri). Also known from China.

Remarks : Very minute specimens. The species was first recorded by Gomy (1976) from India.

14. *Acritus tuberisternus* Cooman 1932

1932. *Acritus tuberisternus* Cooman, *Bull. soc. Ent. Fr.*, **37** : 134.

1976. *Acritus tuberisternus*, Gomy, *Bull. Soc. Ent. Fr.*, **81**:261-267.

Material studied : 2 exs., Dinhata, Coochbehar district, West Bengal, 16.viii. 1986, T.K. Pal coll. ex. hay stack.

Distribution : India : West Bengal (Koch-Bihar); Kerala.

Genus 7 *Chaetabraeus* Portevin 1929

1929. *Chaetabraeus* Portevin, *Encycl. Ent. Ser. A.12* : 604.

15. *Chaetabraeus fakir* (Lewis) 1905.

1905. *Abraeus fakir* Lewis, *Ann. Mag. Nat. Hist.* (7) **16** : 349.

1989. *Chaetabraeus fakir*, Mazur, *Elytron*, **3** : 33.

Material studied : 2 exs, Gayerkata, Japaiguri district, West Bengal, 16.iii. 76, and 5.ii.1977, A.K.

Datta coll, ex. Pit-fall-trap, dung bait.

Distribution : India : West Bengal (Jalpaiguri).

Remarks : The species was described by Lewis from Khandesh, Maharashtra as the only locality for the species. This is the first record from West Bengal.

Subfamily IV. DENDROPHILINAE

Key to the genera of subfamily Dendrophilinae known from West Bengal.

- 1(2) Elytra with normal dorsal striae, usually with five dorsal and sutural in addition to subhumeral
 Genus *Carcinops* Marseul.*
- 2(1) Elytra punctate, without dorsal striae except vague rudiments usually near base.
- 3(4) Scutellum visible..... Genus *Bacanius* Leconte
- 4(3) Scutellum not visible..... Genus *Platylomalus* Cooman

Genus 8. *Bacanius* Leconte 1853

1853. *Bacanius* Leconte, *Proc. Acad. Philad.* 6 : 291.
 1910. *Bacanius*, Bickhard, *Coleopt. Cat. Pars.* 24 : 85.

16. *Bacanius atomarius* Sharp, 1885

1885. *Bacanius atomarius* Sharp, *Trans. Roy. Dublin Soc.* 3 : 128.
 1910. *Bacanius atomarius*, Bickhard, *Coleopt. Cat. Pars.* 24:85.

Material studied : 1 ex., Madarihat, New jalpaiguri, Jalpaiguri district, West Bengal, 8.ix.1974, T. Sengupta coll.

Distribution : India : West Bengal (Jalpaiguri). Also known from Honolulu.

Remarks : The species is recorded for the first time from India.

Genus 10. *Platylomalus* Cooman 1948

1948. *Platylomalus* Cooman, *Notes Ent. chin.* 12 : 134.

* Not treated in this paper

Key to the species of genus *Platylomalus* known from West Bengal.

- 1(2) Shape oval, smaller in size (length 2.2 mm); mesosternum with a bisinuous almost arched transverse stria..... *P. oceanitis* (Marseul)
- 2(1) Shape sub elliptical, larger in size (length 3.25 mm), mesosternal stria transverse and acutely angulate on either side.....*P. obliquus* (Lewis)

18. *Platylomalus obliquus* (Lewis) Comb. nov.

1885. *Paromalus obliquus* Lewis, *Ann. mag. Nat. Hist.* (5) 15 : 466.

Material studied : 2 exs. Barsingpara, 26.viii.1986, Lankapra, 27.viii. 1986, Jalpaiguri district, West Bengal, T.K. Pal coll.

Distribution : India : West Bengal (Jalpaiguri), Andamans (type locality).

Remarks : This species is first time recorded from main land of India.

19. *Platylomalus oceanitis* (Mars)

1855. *Paromalus oceanitis* Marseul, *Monogr. Hister.* p. 110.;

1970. *Platylomalus oceanitis*, Therond, *Opusc. Zool.*, 10, p. 336.

Material studied : 3 exs, Rambh, Darjeeling district, alt. 1200 ft. 6.i.1974, Srivastava & Maiti coll. 20 exs, Calcutta, no other data.

Distribution : India : West Bengal (Calcutta, Darjeeling). Also known from Philippines and Malacca.

Subfamily V. HISTERINAE

Key to the tribes of Subfamily Histerinae

- 1(2) Mesosternum truncated or feebly rounded in front (rarely broadly but evenly emarginate). True frontal striae absent. Pronotum without lateral striae. Front tibiae with fine spine on external edge (not dented).....Tribe Tribalini
- 2(1) Mesosternum emarginated or produced, rarely truncated in front. Front tibiae dented on external margin. Frontal striae generally present.
- 3(4) Mesosternum in the middle of the front margin with a more or less extend process, prosternum emarginate..... Tribe Exosternini

- 4(3) Mesosternum in the middle of the front margin more or less emarginate, at the base receiving the round prosternum. Pronotum rarely with one or more lateral striae. (except *Macrosternus* Marseul, *A.solenus* Lewis and *Baconia* Lewis)
- 5(6) Tarsal groove of front tibiae straight, only at the inner edge distinctly emarginate (bordered).....
..... Tribe Histerini
- 6(5) Tarsal groove of front tibiae S shaped, strongly cleft, sharply defined..... Tribe Platysomini

Tribe TRIBALINI

Key to the genera of tribe Tribalini known from West Bengal

- 1(2) Elytra without distinct dorsal striae, larger species in size *Tribalus* Erich.
- 2(1) Elytra with distinct dorsal striae, smaller in size *Parepierrez* Bick.

Genus 11. *Parepierrez* Bickhardt 1913

1913. *Parepierrez* Bickhardt, *Rec. Indian Mus.* 8 : 124.

20. *Parepierrez corticicola* Bickhardt 1913

1913. *Parepierrez corticicola* Bickhardt, *Rec. Indian Mus.*, 8 : 124-125.

Material studied : All material from Jalpaiguri district, T. K. Pal Coll., ex. "under bark", as follows-
(i) 5 exs, Dalsingpara, 26.viii.1986; (ii) 1 ex, Lankapara, 27.viii.1986; (iii) 1 ex, Jaldapara Sanctuary, 28.viii.1986.

Distribution : West Bengal (Jalpaiguri); Assam.

Genus 13. *Tribalus* Erichson 1834

1834. *Tribalus* Erichson, in Klug Jahrb. Ins. I, P. 164.

1910. *Tribalus*, Bickardt. *Coleopt. Cat. Pars* 24 : 65.

21. *Tribalus* sp.

Material studied : 3 exs, Dalsingpara, Jalpaiguri district, 26.viii.1986, T. K. Pal Coll., ex "under bark"

Remarks : The species under study appears very close to *T. opimus* Lewis from Borneo, but differs by the structure of prosternal lobe and by the type of transverse stria at the junction between meso- and metasternum.

At present we do not have sufficient information about other species from the Oriental region. This species will be dealt in detail afterwards.

Tribe EXOSTERNINI

Genus 13. *Cypturus* Erichson 1834

1834. *Cypturus* Erichson in *Klug Jahrb. Ins.*, 1 : 125.

1910. *Cypturus*, Bickhardt, *Coleopt. Cat., Pars.* 24 : 32.

22. *Cypturus bengalensis* Lewis 1901

1901. *Cypturus bengalensis* Lewis, *Ann. mag. Nat. Hist.* (7) 7 : 242.

Material studied ; 1 ex, Medinipore district, Belpahari, West Bengal, Sept. 1985, Coll. S. Biswas & party.

Distribution : India : West Bengal (Medinipur).

Tribe PLATYSOMINI

Key to the genera of tribe Platysomini known from West Bengal.

- 1(2) Front tibiae with two prominent stump like teeth at external margin, large species, anterior margin of the mesosternum with a deep groove..... Genus *Hyposolenus* Lewis
- 2(1) Front tibiae with at least three teeth at external margin, small species. Anterior margin of the mesosternum without a deep groove.
- 3(4) Prosternum very large and broad, body evenly depressed..... Genus *Apobletes* Mars.
- 4(3) Prosternum narrower, body not depressed,
- 5(6) Pronotum with a marginal line at base, sometimes interrupted at scutellum, mandible canaliculate at the base..... Genus *Silinus* Lewis
- 6(5) Pronotum only in front and at sides bordered or emarginated.
- 7(8) Pygidium with external margin arched, usually larger species..... Genus *Platylister* Lewis
- 8(7) Pygidium convex or plain at sides, usually smaller species.
- 9(10) Prosternum striated..... Genus *Eurylister* Bich.
- 10(9) Prosternum not striated..... Genus *Platysoma* Leach

Genus 14. *Apobletes* Marseul 18601860. *Apobletes* Marseul, *Ann. Soc. Ent. Fr.* (3) 8 : 852.1910. *Apobletes*, Bickhardt, *Coleopt. Cat. Pars* 24 : 16.Key to the species of the genus *Apobletes* known from West Bengal.

- 1(4) Lateral stria continued with the pronotal margin entirely or at a very short distance from anterior angle.
- 2(3) Lateral stria continued along the margin anteriorly and reaching anterior edge rectangularly.....
..... *A. planidorsum* Bickh.
- 3(2) Lateral stria leaving a small triangular space before reaching anterior edge and thus not rectangular
..... *A. marginicollis* Lewis
- 4(1) Lateral striae separate from the pronotal margin..... *A. bengalensis* sp. nov.

23. *Apobletes bengalensis* sp. nov.

Body oblong-oval, flat, black smooth and shining. Antennae brown, club greyish. Legs brown. Ventral side reddish black.

Head : Frons wide, projecting at the anterior angles of eye, depressed, finely punctate, bordered with a strong almost straight but feebly bisinuous stria, shortened or interrupted before the eyes and strongly impressed over the eyes, epistome concave; Labrum short, transverse and notched anteriorly; mandibles curved into a sharp tip, very finely punctate.

Thorax : Pronotum short, much wider than long, almost straight but a little bisinuous at the base, sides gradually narrowing in front and finely punctate, deeply notched anteriorly, anterior angles lowered and obtuse, lateral stria strong, sinuous, rather close to the border interrupted at the anterior-third, ending a little behind the eyes with a smooth curve. Scutellum small, triangular.

Elytra one and a half time longer than the pronotum, nearly parallel at the sides, obliquely curved and punctate at the end with the external angles rounded; 1-2 dorsal striae well marked, 3 evanescent or faint in the middle, sinuous, interstitial space much narrower posteriorly, 4 reduced to a rudiment apical, almost one-ninth of the elytral length; internal submarginal striae a strong furrow forming an arch below the shoulder; external entire, reduced; border inflected and double grooved; with an impression of oblique humeral.

Prosternum wide, flat, straight with two lateral striae, weakly sinuous at the base, Chin plate extends much beyond the prothoracic angles in the plane of prosternum, marginated, bordered with a fine and entire striae. mesosternum weakly bisinuous in front, marginated, bordered with a fine striae, extending laterally to half of its margin, interrupted at middle.

Abdomen : propygidium transversely hexagonal, a little inclined with an impression on each side, covered with large, spacious punctures, finely punctate medially and posteriorly Pygidium inclined, triangular, convex with a very shallow impression on each side at the base, entirely covered with large punctures, border slightly elevated.

Legs : Tarsi : anterior tibiae with 4 denticles, middle with 4 spines and posterior with only a bifid spine.

Comparison : This species is very close to *A. platysomoides* Lewis from Tenasserim but differs by its strong frontal stria, medially obsolete punctures on the propygidium, triangular shape of the pygidium and medially interrupted mesosternal stria.

Holotype : Lankapara, Jalpaiguri district, West Bengal, 27.8.1986. T.K. Pal. ex. under bark.

Paratypes : 1 ex, data same as holotype; 1 ex, Hasimara, jalpaiguri district, 2.xii.1974, T.Y. Sengupta & Party coll. ex. "under bark of *Lagerstræmia perviflora*"; 3 exs, Jaldapara sanctuary, Jalpaiguri district, 28.vii.1986; 2 exs, Rajabhat Khowa forest, Jalpaiguri district West Bengal, 20.viii.1986; 1 ex, Falakata, Jalpaiguri district, West Bengal, 20.viii.1986, T.K. Pal coll. ex under bark.

24. *Apobletes marginicollis* Lewis 1888

1888. *Apobletes marginicollis* Lew., *Ann. Mus. Genova* (2) 6 : 633.

Material studied : 3 exs, Rajabhatkhaowa forest, Jalpaiguri district, West Bengal, 11.xi.1974, T. Sengupta & party coll. ex. under bark of logs.

Distribution : India : West Bengal (Jalpaiguri), Arunachal Pradesh, Namdapha National Park. Also known from Burma.

25. *Apobletes planidorsum* Bickhardt.

1912. *Apobletes planidorsum* Bickhardt, *Tijdschrift V. Entomol.* 55 : 219.

1913. *Apobletes planidorsum*, Bickhardt, *Rec. Indian Mus.*, 8 : 122.

1985. *Apobletes planidorsum* Biswas S & Pal, T.K., *Rec. zool. Surv. India* 79 (1-4) : 132.

Material studied : 3 exs, Rajabhatkhawa forest, jalpaiguri district, West Bengal, 11.xi.1974, T. Sengupta & party coll. ex. under bark of logs and 1 ex, Sukna, Darjeeling district, West Bengal, 9.iv.1978, A.R. Bhoumik coll. ex. under bark of "Shimal" tree.

Distribution : India : West Bengal (Darjiling, Jalpaiguri); Assam; Arunachal Pradesh. Also known from Borneo.

Genus 15. *Eurylistes* Bickhardt 1919

1919. *Eurylistes* Bickhardt, *Ent. Bl.*, 15 : 213.

26. *Eurylister sincerus* (Schm) 1892

1892. *Platysoma sinerum* Schm, *Ent. Nachr.*, **18** : 20.
 1919. *Eurylister sincerum*, Bickhardt, *Ent. Bl.*, : 214.

Material studied : 5 exs, Bhadreswar, Hooghly district, West Bengal, 5.xi.1964, Joseph & Party;
 1 ex, Gayerkata, Jalpaiguri district, 16.iii.1976, A.K. Datta coll. ex. "Pit-fall-trap, fish bait"

Distribution : India : West Bengal (Hooghly, Jalpaiguri). Also known from Perak and Sumatra.

Remarks : Main locality on the labels are marked "Calcutta"

Genus 16. *Hyposolenus* Lewis 1907

1907. *Hypoolenus* Lewis, *Ann. Mag. Nat. Hist.* (7) **22** : 97.
 1910. *Hyposolenus*, Bickhard, *Coleopt. Cat. pPars* **24** : 15.

27. *Hyposolenus bengalesis* (Lewis)

1906. *Plaesius benglensis* Lewis, *Ann. Mag. nat. Hist.* (7) **17** : 338.
 1907. *Hyposolenus bengalensis* Lewis, *Ann. mag. nat. Hist.* (7) **20** : 97.

Material studied : 1 ex, Singla, Darjeeling district, West Bengal, alt. 1500 ft., iv. 1913, Carmichael coll.

Distribution : India : West Bengal (Darjeeling).

Remarks : The species is endemic to West Bengal and known only from Darjeeling area.

Genus 17. *Platylister* Lewis 1892.

1892. *Platylister* Lewis, *Ent. Month. Mag.*, **28** : 103.
 1916. *Platylister*, Bickhard, *Gen. Ins. fasc.* 166a. :

Key to the species of the genus *Platylister* known from West Bengal.

- 1(2) Pronotal marginal striae interrupted in the middle..... *borneolus* (Marseul)
 2(1) Pronotal marginal striae complete.
 3(6) Sutural striae present.
 4(5) 4th stria reaching almost half of the elytra.....*P. strialis* (Mars.)
 5(4) 4th stria short, apical not reaching half of the elytra..... *P. odiosus* (Mars.)

- 6(3) Sutural striae absent.
- 7(8) Propygidium broad, strongly but sparsely punctured.....*P. atratus* (Er.)
- 8(7) Propygidium narrow, feebly and closely punctured.....*P. cambodjensis* (Mars.)

28. *Platylister atratus* (Erichson)

1834. *Platysoma atratum* Erichson, in Klug, *Jahrb. Ins.* : 110.
1916. *Platylister atratus*, Bickhardt, *Gen. Ins.* 143.

Material studied : 1 ex, Singla, Darjeeling district, West Bengal, 1500 ft, June 1913, Lord Charmichael's coll. 1 ex, Darjeeling district, West Bengal, 1250 ft, 8.i.1974, srivastava and Maiti coll.; 1 ex, Santalbari, Jalpaiguri district, West Bengal, 19.viii.1986, T. K. Pal coll., ex. "on fungus"; 1 ex, Bhadreswar, Hoogly district, West Bengal, 5.xi.1964, A.N.T. Josepj & party coll.; 7 exs, Dhaphdhabi, near Baruipur, South 24-Parganas district, West Bengal, 9.v.1982, S. S. Saha coll., ex. "Drumstick tree stump, under bark"; 1 ex, Bansdroni, Calcutta, 28.x.1959, A. R. Bhowmik & S. Ali coll.

Distribution : India : West Bengal (Calcutta, Hugli, South 24-Parganas, Darjiling); South India.

29. *Platylister borneolus* (Marseul)

1861. *Platysoma borneolum* Marseul, *Mon.* : 143. t.s.f.3.
1916. *Platylister borneolus*, Bickhardt, *Gen. Ins.* : 143.

Material studied : 1 ex, Chunabhati, Darjeeling district, alt. 400 ft. 28.xii.73, Srivastav & Maiti coll.; 1 ex, Teesta, Darjeeling district, West Bengal, 11.iv.1978, A. R. Bhaumik coll., ex. "under leaf litre"

Distribution : India : West Bengal (Darjiling). Also known from Borneo.

30. *Platylister cambodjensis* (Marseul)

1864. *Platysoma cambodjensis* Marseul, *Abeille*, 1. P. 300.
1913. *Platysoma (Platylister) cambodjensis*, Bickhardt, *Rec. Indian Mus*, 8 : 122.
1975. *Platylister cambodjensis*, Thernod, *Entomologica Basiliensia*, 1 : 169.

Material studied : 3 exs, Teesta, alt. 214 m. 66 km. from sukna, Darjeeling district, West Bengal, 11.iv.1978, A. R. bhaumik coll., "under leaf litre".

Distribution : India : West Bengal (Darjiling); Arunachal Pradesh, Nobo; Rotung, Sadiya (N.E. Assam) and Andaman Islands. Also known from Thailand, Vietnam, Formosa, Burma and Bhutan.

31. *Platylister odiosus* (Marseul) 1861

1861. *Platysoma odiosum* Marseul, *Ann. Soc. Ent. Fr.* (4) 1 : 145-146.
1910. *Platylister odiosus*, Bickhardt, *Coleopt. Cat. Pars* 24, P. 19.

Material studied : 2 exs, Santalbari, 19.viii.1986, ex. "Fungusy bark" and 1 ex, Falakata, 24.viii.1986, ex. "under bark", Jalpaiguri district, West Bengal, T. K. Pal coll.

Distribution : India : West Bengal (Jalpaiguri district). Also know from Ceylon.

32. *Platylister strialis* (Marseul)

1864. *Platysoma strialis* Marseul, *Abeille* 1, 301.

1975. *Platylister strialis*, Therond, *Entomologica Basiliensia*, 1 : 169.

Material studied : 1 ex, 3 km. S. of Gorubathan, Darjeeling district, West Bengal, 1150 ft., 14.xii.73; 1 ex, Rambh, Darjeeling district, West Bengal, alt. 1200 ft. 6.i.74, Srivastava and Maiti coll.; 1 ex, Falakata, Jalpaiguri district, West Bengal, 24.viii.1986, T. K. Pal coll., ex. "under bark"

Distribution : India : West Bengal (Darjeeling and Jalpaiguri district); Arunachal Pradesh. Also known from Celebes, Vietnam, Borneo, Sumatra, Sumba Island, Nepal and Bhutan.

Genus 18. *Platysoma* Leach 1817

1817. *Platysoma* Leach, *Zool. Misc.*, 3 : 77.

1910. *Platysoma*, Bickhardt, *Coleopt. Cat. Pars.* 24 : 19

Key to the species of the genus *Platysoma* known from West Bengal

1(4) Sutural striae present.

2(3) Lateral striae on the pronotum reaching base..... *P. brahmani* Lewis

3(2) Lateral stria on the pronotum not reaching base, limited only at the anterior one third.....
.....*P. brevistriatum* Lewis

4(1) Sutural striae absent..... *P. confucii* Mars

33. *Platysoma brahmani* Lewis 1910

1910. *Platysoma brahmani* Lewis, *Ann. Mag. Nat. Hist.* (8) 6 : 51.

Material studied : 1 ex, Sukna, 22.iv.1971, Darjeeling District, West Bengal, T. Sengupta coll., ex. "under bark of logs in Kat godown"; 1 ex, Lodhama, 14 km from Bijanbari, Darjeeling district, West Bengal, 30.iii.1978, A. R. Bhoumik coll., ex. "under bark"; 2 exs, Jalgaon, Japaiguri district, West Bengal, 25.viii.1986, T. K. Pal coll., ex. "under bark"

Distribution : India : West Bengal (Jalpaiguri, Darjeeling); Uttar Pradesh. Also known from Bhutan.

34. *Platysoma brevistriatum* Lewis 1888

1888. *Platysoma brevistriatum* Lewis, *Ann. Mus. Genova*, (2) 6 : 637.

1910. *Platysoma brevistriatum*, Bickhardt, *Coleopt. Cat. Pars* Page 21.

Material studied : 2 exs, Lodhama, 14 km from Bijanbari, Darjeeling district, 30.iii.1978, A. R. Bhoumick coll, ex. "under bark"

Distribution : India : West Bengal (Darjiling). Also known from Burma.

Remarks : The specimens under study agrees well with the description of *P. brevistriatum* but the internal lateral striae is a bit shorter.

35. *Platysoma confucii* Marseul

1857. *Platysoma confucii* Marseul, *Mon.*, : 404, t. 11, f.9.

Material studied : 1 ex, Garubathan, 14.xi.73, 2 exs. Bhuttabari, Darjeeling district, West Bengal, 19.viii.1973, Srivastava and Maiti coll.; 1 ex, Rambhi, Darjeeling district, West Bengal, 6.i.1974, coll. unknown; 1 ex, Lankapara, 27.viii.1986; 4 exs, Jaldapara Santuary, 28.viii.1986; 7 exs, falakata, Jalpaiguri district, West Bengal, 24.viii.1986; T. K. Pal coll. ex. "under bark"; 1 ex, Bankura district, Amarkanan, West Bengal, 9.ix.1986, P. Mukherjee coll., ex. "under bark of Ficus log"

Distribution : India : West Bengal (Bankura, Jalpaiguri, Darjiling); Assam, Andaman Islands. Also known from Burma, China, Sumatra, Philippines and Srilanka.

Genus 19. *Silinus* Lewis 1907

1907. *Silinus* Lewis, *Ann. Mag. Nat. Hist.* (7) 20 : 343.

36. *Silinus palmipes* (Lew.)

1889. *Platysoma palmipes* Lewis, *Ann. Mag. Nat. Hist.* (6) 3 : 278.

1907. *Silinus palmipes* Lewis, *Ann. Mag. Nat. Hist.* (7) 20 : 343.

Material studied : 1 ex, Singla, Darjeeling district, West Bengal, alt. 1500 ft. June, 1913, Carmichael coll.

Distribution : India : West Bengal (Darjiling). Also known from Sumatra.

Tribe HISTERINI

Key to the genera of tribe Histerini known from West Bengal

1(4) Body finely punctated above and below. Anterior margin of mesosternum straight or feebly arcuate.

- 2(3) Upper surface uniformly, closely and microscopically punctated. Pronotum without any impressions.....*Chronus* Lewis
- 3(2) Upper surface not uniformly, closely and microscopically punctated. Pronotum with well defined rounded impression on each side within anterior angle of inner lateral pronotal striae.....
.....*Atholus* Thomson
- 4(1) Body not finely punctated, Anterior margin of mesosternum emarginate.
- 5(6) Middle and hind tibiae strongly flattened, thin, strongly broadened.....*Santalus* Lewis
- 6(5) Middle and hind tibiae both less flattened, gradually flattening towards apex.
- 7(8) Labrum produced and acuminate in the middle; left mandible longer than right.....
.....*Pachylister* Lewis
- 8(7) Labrum straight or little produced; mandibles similar in both sides..... *Hister* Linn.

Genus 20. *Atholus* Thomson 1862

1862. *Atholus* Thomson, *Skand. Coll.*, 4 : 220.
1916. *Atholus*, Bickhardt, *Gen. Ins. Fasc* 166 B : 193.

Key to the species of the genus *Atholus* known from West Bengal.

- 1(2) Anterior impressions on the pronotum sparsely punctate; 1-4 dorsal striae entire, 5 and sutural of same length, reaching the middle, internal sub-humeral stria reduced to an oblong puncture.....
..... *A. coelestis* (Mars.)
- 2(1) Anterior impressions on the pronotum smooth; 1-4 dorsal striae entire, 5 reaching the middle, sutural a little longer than 5, shortened at the base, internal subhumeral long and deep.....
..... *A. silvicola* (Lew.)

37. *Atholus coelestis* (Marseul) 1857

1857. *Hister coelestis* Marseul, *Mon.* : 416, t.10 f.59.
1916. *Atholus coelestis*, Bickhardt, *Genera Insectorum*, P. 193.

Material studied: 1 ex, Singla, Darjeeling district, West Bengal, alt. 1500 ft. June 1913, Carmichael coll.; 3 exs, Dange, 9 km from Bijanbari, Darjeeling district, West Bengal, 1.iv.1978, A. R. Bhaumik coll., ex. "under dung"; 1 ex, Heera Parbat, Bankura district, 29.viii.1986, P. Mukherjee coll., ex, "Cowdung"

Distribution : India : West Bengal (Darjeeling, Bankura). Also known from China and Srilanka.

38. *Atholus silvicola* (Lew.)1901. *Hister silvicola* Lewis, *Ann. Mag. Nat. Hist.* (7) 8 : 376-377.1916. *Atholus sivicola*, Bickhardt, *Gen. Ins.* 166 B : 193.

Material studied : 2 exs, Dange, 9 km from Bijanbari, Darjeeling district, West Bengal, 1 iv.1978, ex. "under dung" and 1 ex, Rangtong, Darjeeling district, West Bengal, 13.iv.1978, ex. "under bark of dead standing tree", A.R. Bhaumik coll.

Distribution : India : West Bengal (Darjeeling); Khasi Hills, meghalaya.

Genus 21 *Chronus* Lewis 1914.1914. *Chronus* Lewis, *Ann. Mag. Nat. Hist.*, (8) 14 : 285.39. *Chronus scaliformis* Desbordes 19231923. *Chronus scaliformis* Desbordes, *Bull. Soc. ent. Fr.* P. 60.

Material studied ; 1 ex, Tollygunge, Calcutta, 23.iv.1950, A.P. Kapur coll. ex. "Banana Stem"; 2 exs, Thepi, Bijanbari, Darjeeling district, West Bengal, 31.iii.1978, A.R. Bhowmik coll. ex. "under spathe of Banana"; 2 exs, Dange, 9 km from Bijanbri, Darjeeling district, i.iv.1978, A.R. Bhowmik coll., ex. "under stone"

Distribution : India : West Bengal (Calcutta, Darjeeling).

Genus 22. *Hister* Linnaeus 17671767. *Hister* Linnaeus, *Syst. Nat. ad.* 12.11, P.566.1910. *Hister*, Bickhardt, *Coleopt. Cat. Pars.* 29. P. 35.

Key to the species of the genus *Hister* known from West Bengal.

- 1(2) Body surface wrinkled dorsally.....*Hister punctulatus* Wiedm.
- 2(1) Body surface not wrinkled dorsally
- 3(4) Frontal striae in the middle producing backwards forming a ridge.....*Hister pullatus* Erichson
- 4(3) Frontal striae straight in the middle
- 5(6) Smaller species, pygidium abruptly bending inwards, and almost smooth in the middle.....
.....*Hister javanicus* Paykul
- 6(5) Larger species. Pygidium not bending inwards, uniformly and strongly punctured.....
.....*Hister luciscus* Lewis.

40. *Hister javanicus* Paykul 1811

1811. *Hister javanicus* Paykul, *Mon.*, : 30, t.4. f.2.

Material studied : 1 ex, Calcutta, no other data; 1 ex, Piardoba, Bankura district, West Bengal, 1.ix.1986, P. Mukherjee coll., ex. "Cowdung"; 1 ex, Simlapal, Bankura district, West Bengal, 31.x.1985, M. Dutta Coll.

Distribution : India : West Bengal (Calcutta, Bankura). Also known from Java.

41. *Hister luciscus* Lewis 1885.

1885. *Hister luciscus* Lewis, *Ann. Mag. nat. Hist.* (5) 15 : 463.

Material studied : 2 exs, Gayerkata, jalpaiguri district, West Bengal, 14.iv.77, A.K. Datta coll., ex. "Pit-fall-trap, fish bait"

Distribution : India : West Bengal (Jalpaiguri). Also known from Burma.

42. *Hister pullatus* Erichson 1834

1834. *Hister pullatus* Erichson, in Klug, *Jahrb. Ins.* 1 : 138.

Material studied : 1 ex, Kamalgachi, Sonarpur, 24-parganas district, West Bengal, 7.i.1957, C. Sarkar coll.; 1 ex, Simlapal, Bankura district, West Bengal, 31.x.1985, M. Dutta coll.

Distribution : India : West Bengal (south 24-Parganas, Bakura).

43. *Hister punctulatus* Wiedemann 1817

1817. *Hister punctulatus* Wiedemann, *Zool. Mag.* 1(3) : 162.

Material studied : 1 ex, Murshidabad, district, West Bengal, no other data.

Distribution : India : West Bengal (Murshidabad). Also known from Java.

Genus 23. *Pachylister* Lewis 1904.

1904. *Pachylister* Lewis, *Ann. Mag. Nat. Hist.* (7) 14 : 145.

44. *Pachylister chinensis* (Quens)

1806. *Hister chinensis* Quens, in *Schönh Syn. Ins.* 1 : 88.

1811. *Hister chinensis* Paykul, *Mon.*, : 16, t2. f.5.

1916. *Pachylister chinensis*, Bickhardt, *Genera Insectorum*, P. 174.

Material studied : 2 exs, Singla, Darjeeling district, alt. 1500 ft. April-May 93. Carmichael coll.; 1 ex, Murshidabad district, West Bengal, no other data.

Distribution : India : West Bengal (Murshidabad, Darjeeling). Also known from China.

Genus 24. *Santalus* Lewis 1906

1906. *Santalus* Lewis, *Ann. Mag. Nat. Hist.*, (7) 17 : 341.

Key to the species of the genus *Santalus* Lewis known from West Bengal.

- 1(2) Propygidium moderately and strongly punctured, 3rd and 4th ventral abdominal suture slightly concave in the middle..... *S. orientalis* Payk.
- 2(1) Propygidium sparsely and feebly punctured. 3rd and 4th ventral abdominal suture running parallel *S. parallelus* Redt.

45. *Santalus orientalis* (Paykul)

1811. *Hister orientalis* Paykul, *Mon.*, : 17, t.13, f.7.

1906. *Santalus orientalis*, Lewis, *Ann. Mag. nat. Hist.* (7) 17 : 341.

Material studied : 1 ex, Singla, Darjeeling district, West Bengal, alt. 1500 ft. May 1913. Carmichael coll.; 9 exs, Belpahari, Midnapore district, West Bengal, Sept. 1985, S. Biswas & Party coll.; 1 ex, Hatirampur, Bankura district, West Bengal, 10.ix.1986, P. Mukherjee coll., ex "under decayed bamboo leaves"

Distribution : India : West Bengal (Medinipur, Bankura and Darjeeling districts). Also known from Sri Lanka.

46. *Santalus parallelus* (Redtenbacher) 1848

1848. *Hister parallelus* Redtenbacher, in *Hugel, Kaschnir*. 4(2) : 514.

1854. *Hister elongatulus*, Marseul, *Mon. P.* 194, t.6. f.15.

1906. *Santalus parallelus* Lewis, *Ann. Mag. Nat. Hist.* (7) 17 : 341.

Material studied : 1 ex, Singla Darjeeling district, West Bengal, Alt. 1500 ft. April 1913. Lord Carmichael's coll.; 1 ex, Heeraparbat, Bankura district, West Bengal, 29.viii. 1986, P. Mukherjee coll. ex. :cowdung"

Distribution : India : West Bengal (Bankura).

THE CHART SHOWING DISTRICTWISE DISTRIBUTION OF THE SPECIES OF
THE FAMILY HISTERIDAE KNOWN FROM WEST BENGAL

Name of the Species	Bankura	Bardhaman	Birbhum	Calcutta	Darjiling	Haora	Hugli	Jalpaiguri	Koch Behar	Maldah	Medinipur	Murshidabad	Nadia	24-Parganas (North)	24-Parganas(South)	Puruliya	West Dinajpur
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Hololepta</i>																	
1. <i>H. elongata</i> Er.					+			+									
2. <i>H. indica</i> Er.					+												
3. <i>H. laevigata</i> Guerin					+												
<i>Chalcionellus</i>																	
4. <i>C. pulchellus</i> F.								+									
<i>Hypocacculus</i>																	
5. <i>H. malabaricus</i> Rich.								+									
<i>Saprinus</i>																	
6. <i>S. chalcites</i> (Illiger)																	
7. <i>S. frontistrius</i> Mars.																	
8. <i>S. optabilis</i> Mars.																	
<i>Abraeus</i>																	
9. <i>A. paria</i> Mars.					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Cyrturus</i>																	
22. <i>C. bengalensis</i> Lewis												+					
<i>Apobletes</i>																	
23. <i>A. bengalensis</i> sp. nov								+									
24. <i>A. marginicollis</i> Lewis								+									
25. <i>A. planidorsum</i> Bickhardt					+			+									
<i>Eurylister</i>																	
26. <i>E. sincerus</i> (Schm.)								+	+								
<i>Hyposolenus</i>																	
27. <i>H. bengalensis</i> (Lewis)					+												
<i>Platylister</i>																	
28. <i>P. atratus</i> (Erichson)				+	+		+	+									+
29. <i>P. borneolus</i> (Mars.)					+												
30. <i>P. cambodjensis</i> (Mars)					+												
31. <i>P. odisus</i> (Mars.)								+									
32. <i>P. strialis</i> (Mars.)					+			+									
<i>Platysoma</i>																	
33. <i>P. brahmani</i> Lewis					+			+									
34. <i>P. brevistriatum</i> Lewis					+												
35. <i>P. confucii</i> Marseul	+				+			+									

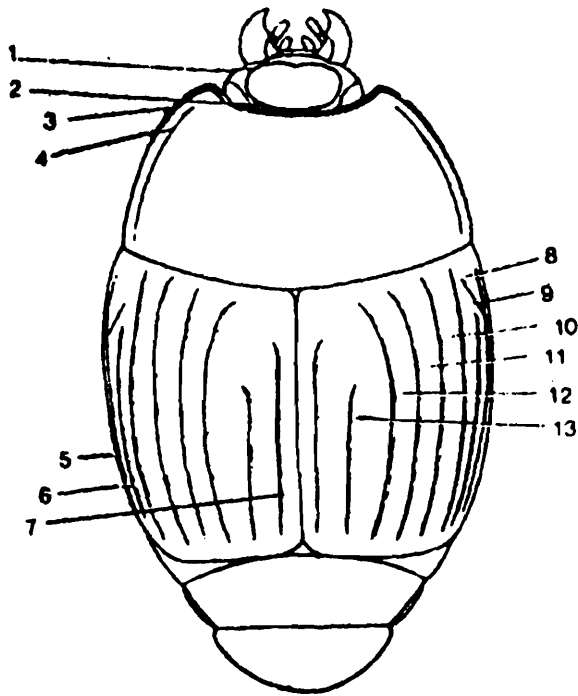


Fig. — 1

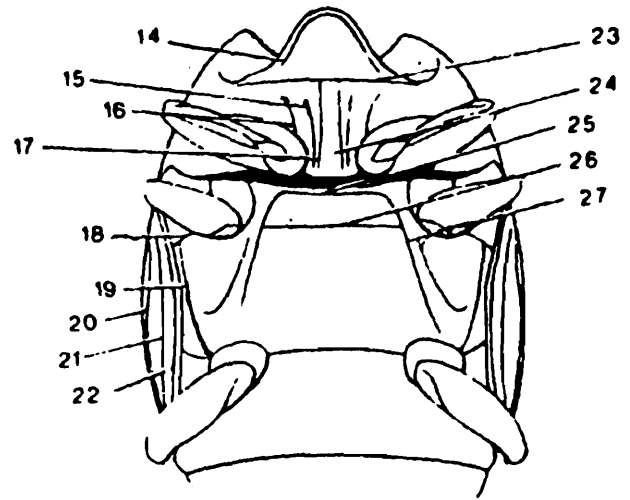


Fig. — 2

Figure - 1. Dorsal view : 1. Frontal stria. 2. Supraorbital stria. 3. Pronotal marginal stria. 4. Pronotal lateral stria. 5. External subhumeral stria. 6. Internal subhumeral stria. 7. Sutural stria. 8. Stria oblique humeral. 9. First dorsal stria. 10. Second dorsal stria. 11. Third dorsal stria. 12. Fourth dorsal stria. 13. Fifth dorsal stria.

Figure 2. Ventral view : 14. Margine of the prosternal lobe. 15. Prosternal lateral stria. 16. Prosternal lateral marginal stria. 17. Prosternal carinal stria. 18. Mesoepimeral metasternal suture. 19. Metaepimeral metasternal suture. 20. External subhumeral stria. 21. Elytral marginal stria. Marginal epipleural stria. 23. Median suture on the prosternal lobe. 24. Prosternal Keel. 25. Mesosternal marginal stria. 26. Meso-metasternal stria. 27. Lateral stria of the metasternum. (Figure from Wenzel 1941)

SUMMARY

The present paper deals with 46 species under 24 genera and 5 subfamilies. One species, *Apobletes bengalensis* has been described as new to science and *Platylomalus obliquus* (Lewis) has been placed in a new combination. All except 5 species of *Acritus* are new addition to the Coleoptera fauna of West Bengal. Keys of the subfamilies, genera and species studied have been provided. Relevant collection data and important references under each species have also been added. A chart showing district wise occurrence of species included has also been given.

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INSECTA : COLEOPTERA : STAPHYLINIDAE

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INTRODUCTION

The Staphylinidae is one of the largest families of the superfamily Staphylinoidea, distributed throughout the world. About 30,000 species are known from the world and more than 2000 species have been recorded so far from India. Motschulsky (1858), Kraatz (1859), Fauvel (1895) and Bernhauer (1915) are the pioneer workers of the family Staphylinidae. Prior to Cameron's work on fauna of British India series (1930, 1931, 1932) major works have been done by authors mentioned above. Since the work of Cameron (1930, 1931, 1932, 1943-1945) no comprehensive work on Indian fauna of Staphylinidae have been done by any authors.

Cameron in his fauna of British India series recorded 210 species from West Bengal. Besides work of Cameron, in recent times workers like, Herman (1975 and 1983) recorded one species and described another species from West Bengal. In 1976 Coiffait recorded two species from West Bengal. In 1977, 1980, 1983 and 1989 Biswas and Sengupta described nine species and recorded another species from West Bengal. In 1985 and 1986 Rougemont described one species and also recorded another two species from West Bengal. In this present work 107 species are newly recorded from West Bengal of which 26 species are first time recorded from India. Thus the total number of species known from West Bengal comes to 339.

The present work on the family Staphylinidae is based on the collection brought from different districts of West Bengal by various recent survey parties from Zoological Survey of India, and other older collections present in the National Zoological Collections. Materials of some species recorded from West Bengal were not available for study, however for the sake of completeness these species are also included in this work. This study is based on 1135 examples comprising 339 species under 90 genera and 8 subfamilies. Key to the subfamilies, tribes, genera and species, and distributional data of each species of the family Staphylinidae for West Bengal have been provided. A chart showing district wise distribution of the species recorded from West Bengal is also given. Under systematic account arrangement of the taxa has been done after Cameron.

The specimens dealt with in this paper are deposited in the collection of Zoological Survey of India, Calcutta.

SYSTEMATIC ACCOUNT

(* denotes new records from West Bengal and ** new records from India)

Subfamily (I) MICROPEPLINAE

1. *Micropeplus* Latreille

1. *sikkimi* Fauvel
2. *vulcanus* Fauvel

Subfamily (II) OXYTELINAE

Tribe I. PIESTINI

2. *Apatetica* Westwood

3. *intermedia* Cameron
4. *javanica* (Sharp)
5. *sikkimi* Fauvel
6. *viridipennis* Fauvel

3. *Eupiestus* Kraatz

7. *sikkimi* Fauvel
8. * *fae* Fauvel
9. * *sculpticollis* Kraatz
10. *angulatus* Fauvel
11. *spinifer* var. *unicolor* Cameron

4. *Siagonium* Kirby & Spence

12. *indicum* Fauvel

5. *Holosus* Motschulsky

13. *rugipennis* Cameron
14. *lopchuensis* Cameron

6. *Lispinus* Erichson

15. ** *coriaceus* Fauvel

7. *Pseudolispinodes* Bernhauer

16. *bistriatus* (Fauvel)

8. *Thoracophorus* Motschulsky

17. *montanus* Cameron

Tribe 2. ELEUSIINI

9. *Eleusis* Castelnau

18. *speculifer* Cameron

- 19. *plagiata* Fauvel
- 20. *rotundiceps* Fauvel
- 21. *sikkimensis* Cameron
- 22. *persimilis* Cameron

Tribe 3. LEPTOCHIRINI

- 10. ***Leptochirus*** Germar
 - 23. (*Strongylochirus*) *quadridens* Motschulsky
 - 24. (*S.*) *laevis* Castelnau
- 11. ***Borolinus*** Bernhauer
 - 25. *sikkimensis* Bernhauer
 - 26. *minutus* (Castelnau)
- 12. ***Priochirus*** Sharp
 - 27. * (*Triacanthochirus*) *bipunctatus* (Fauvel)
 - 28. ** (*Cephalomerus*) *sanguinosus* (Motschulsky)
 - 29. (*C.*) *combustus* (Fauvel)
 - 30. (*C.*) *bengalensis* Cameron
 - 31. (*C.*) *rubiginosus* Cameron
 - 32. ** (*C.*) *hoplites* (Fauvel)
 - 33. * (*Leptarthus*) *longicornis* (Fauvel)
 - 34. (*L.*) *micrognathus* (Fauvel)
 - 35. (*Plastus*) *eucerus* Cameron
 - 36. (*P.*) *sikkimensis* Cameron
 - 37. (*P.*) *gardneri* Cameron

- 13. ***Thoracochirus*** Bernhauer
 - 38. *assamensis* Cameron
 - 39. *denticollis* Cameron

Tribe 4. PSEUDOPSINI

- 14. * ***Pseudopsis*** Newman
 - 40. *suchi* Herman
 - 41. *prolixa* Herman

Tribe 5. PROTEININI

- 15. ***Megarthus*** Stephens
 - 42. * *birmanus* Fauvel

* Herman (1975) regarded this genus as under the subfamily Pseudopsinae

43. * *chatterjeei* Cameron
 44. *umbonatus* Fauvel
 45. * *septempunctatus* Champion
 46. *basicornis* Fauvel
 47. * *bimaculatus* Fauvel
 Tribe 6. OMALIINI
16. *Anthobium* Stephens
 48. (*Eusphalerum*) *sikkimi* Fauvel
17. *Deinopteroloma* Jansson
 49. *notabile* (Cameron)
18. *Tetradelus* Fauvel
 50. *trigonuroides* Fauvel
 Tribe 7. OXYTELINI
19. *Planeustomus* Jacquelin
 51. * *bengalensis* Champion
20. *Trogophloeus* Mannerheim
 52. (*Trogophloeus*) *calcuttanus* Bernhauer
 53. ** (*T.*) *simplex* Motschulsky
 54. (*T.*) *indicus* Kraatz
 55. * (*T.*) *siamensis* Fauvel
21. *Oxytelopsis* Fauvel
 56. *cimicoides* Fauvel
 57. *pseudopsina* Fauvel
 58. *andrewesi* Cameron
 59. *bengalensis* Biswas & Sengupta
22. *Oxytelus* Gravenhorst
 60. (*Caccoporus*) *varipennis* Kraatz
 61. (*C.*) *nigriceps* Kraatz
 62. (*C.*) *ferrugineus* Kraatz
 63. (*C.*) *bengalensis* Erichson
 64. (*s.str.*) *cribrum* Fauvel
 65. (*Tanycraeus*) *lucens* Bernhauer
 66. (*T.*) *punctipennis* Fauvel
 67. (*T.*) *micans* Kraatz

23. ***Anotylus*** Thomson
- 68. * *laetus* (Cameron)
 - 69. * *latiusculus* (Kraatz)
 - 70. *sikkimi* (Fauvel)
 - 71. * *nitidulus* (Gravenhorst)
 - 72. * *frater* (Cameron)
 - 73. *megacephalus* (Fauvel)
 - 74. *gardneri* (Cameron)
 - 75. *pygmaeus* Kraatz
24. ***Bledius*** Leach
- 76. (*s.str.*) *brunnipennis* (Fabricius)
 - 77. (*s.str.*) *hoplites* Fauvel
 - 78. (*Pucerus*) *suravius* Biswas & Sengupta
 - 79. (*P.*) *totius* Biswas & Sengupta
 - 80. (*P.*) *torsius* Biswas & Sengupta
 - 81. (*P.*) *niloticus* Erichson
 - 82. (*Hesperophilus*) *baltus* Biswas & Sengupta
 - 83. (*H.*) *helpferi* Fauvel
- Tribe 8. OSORIINI
25. ***Osorius*** Latreille
- 84. *sikkimensis* Bernhauer
 - 85. *gardneri* Cameron
 - 86. *lopchuensis* Cameron
26. ***Mimogonus*** Fauvel
- 87. *niger* Cameron
- Subfamily (III) OXYPORINAE
27. ***Oxyporus*** Fauvel
- 88. *excellens* Cameron
 - 89. ** *cephalotes* Cameron
 - 90. *terminalis* Cameron
 - 91. *tricolor* Cameron
- Subfamily (IV) STENINAE
28. ***Stenus*** Latreille
- 92. (*s.str.*) *vorticoides* Cameron

93. *(Parastenus) montivagans* Cameron
 94. *confluens* Cameron
 95. *sikkimensis* Cameron
 96. ** *(Hypostenus) barbatus* Niet.
 97. ** *(H.) guttalis* Fauvel
 98. ** *(H.) monomerus* Fauvel
 99. *(H.) pictus* Motschulsky
 100. * *(H.) cursorius* L. Benick
 101. * *(H.) fistulosus* L. Benick
 102. *(H.) kurseonginus* Bernhauer
 103. *(H.) obliteratedus* Cameron
 104. * *(H.) tricarinatus* Kraatz
 105. *(H.) wasmanni* Fauvel
 106. *(Mesostenus) gardneri* Cameron
 107. *(M.) lopchuensis* Cameron
 108. *(M.) tenuimargo* Cameron
 109. *(M.) stigmaticus* Fauvel
 110. *(M.) virgula* Fauvel
 111. *(M.) rubronotatus* Cameron
 112. *(M.) mangpuensis* Cameron
 113. *(M.) separandus* Cameron
 114. *(M.) pseudopictus* Cameron
29. ***Dianous*** Samouelle
 115. *championi* Cameron
 116. *andrewesi* Cameron
 117. *annandalei* Bernhauer
 118. *cameroni* Champion
 119. *versicolor* Cameron
 120. *obliquenotatus* Champion
 121. *adjacens* Cameron
 122. *wettmeri* Rougemont
- Subfamily (V) EUAESTHETINAE
30. ***Edaphus*** Leconte
 123. *binodulus* Cameron

124. ** *major* Fauvel
125. *brevipennis* Cameron
31. ***Aulacasthetus*** Bernhauer
126. *indicus* Cameron
32. ***Stenaesthetus*** Sharp
127. * *quadrisulcatus* Cameron
128. * *sunioides* sharp
- Subfamily (VI) PAEDERINAE
Tribe 9. PINOPHILINI
33. ***Pinophilus*** Gravenhorst
129. * *indicus* Cameron
130. ** *borneensis* Fauvel
131. ** *genalis* Fauvel
132. * *depressus* Kraatz
133. * *leucopus* Kraatz
134. * *javanus* Erichson
34. ***Palaminus*** Erichson
135. * *indicus* Kraatz
136. ** *monticola* Cameron
35. ***Oedichirus*** Erichson
137. * *longipennis* Kraatz
- Tribe 10. PAEDERINI
36. ***Astenus*** Stephens
138. *bisalicus* Biswas & Sengupta
139. *asitus* Biswas & Sengupta
140. * *indicus* (Kraatz)
141. *diversiventris* Cameron
142. * *leptocerus* Eppelsheim
143. *ghumensis* Cameron
144. * *gracilentus* Fauvel
145. * *flavipennis* Cameron
146. * *maculipennis* (Kraatz)
147. * *terminalis* Cameron
148. * *semibrunneus* Cameron

149. *concolor* (Kraatz)
150. * *melanurus* var. *subnotatus* Fauvel
37. ***Paederus*** Fabricius
151. *himalayicus* Bernhauer
152. * *nigripennis* Cameron
153. *nigricornis* Bernhauer
154. * *birmanus* Fauvel
155. * *pubescens* Cameron
156. *atrocyaneus* Champion
157. * *fuscipes* Curtis
158. *hingstoni* Cameron
159. * *melampus* Erichson
160. * *tamulus* Erichson
161. * *conicollis* Motschulsky
38. ***Acanthoglossa*** Kraatz
162. ** *brachycera* Kraatz
163. ** *rufa* Kraatz
164. * *testaceipennis* Kraatz
39. ***Stilicopsis*** Sachse
165. * *pallida* Cameron
166. ** *umbilicata* Fauvel
167. * *indica* Cameron
40. ***Scopaeus*** Erichson
168. * *limbatus* Kraatz
169. * *andrewesi* Cameron
170. ** *nitidulus* Motschulsky
171. * *beesoni* Cameron
172. * *testaceus* Motschulsky
173. * *germanus* Cameron
174. ***bicuspis*** Kraatz
175. * *dilutus* Motschulsky
176. * *pallidulus* Kraatz
41. ***Sclerochiton*** Kraatz
177. *indicus* Motschulsky

42. ***Lobochilus*** Bernhauer
178. *brachypterus* Cameron
179. * *granulicollis* (Cameron)
180. *labralis* Cameron
181. * *fortepuhctatus* (Cameron)
182. *brevipennis* Cameron
43. ***Dibelonetes*** Sahlberg
183. * *sikkimensis* Biswas & Sengupta
184. *bhaumiki* Biswas & Sengupta
185. *indicus* Cameron
186. *bengalensis* Biswas & Sengupta
187. *formosae* Bernhauer
44. ***Thinocharis*** Kraatz
118. ** *birmana* Cameron
189. ** *carinicollis* Kraatz
190. * *debilis* Cameron
45. ***Pachymedon*** Cameron
191. * *assamensis* Cameron
192. * *shugnuensis* Cameron
46. ***Lathrobium*** Gravenhorst
193. * *triste* Cameron
194. *guttula* Fauvel
195. * *unicolor* Kraatz
196. * *cafrum* Boh.
4. ***Stilicus*** Latreille
197. ** *pygmaeus* Kraatz
198. * *parvus* Cameron
199. * *velutinus* Fauvel
48. ***Charichirus*** Sharp
200. ** *chinensis* (Boh.)
201. *immaculatus* Cameron
202. ** *princeps* (Fauvel)
203. ** *ceylonicus* (Cameron)
49. ***Cryptobium*** Mannerheim

204. * *sikkimensis* Cameron
 205. *brachypterum* Cameron
 206. *marginatum* Motschulsky
 207. *abdominal* var. *indicum* Kraatz
 208. * *fluviatile* Champion
50. ***Stiliderus*** Motschulsky
 209. *Cicatricosus* Motschulsky
 210. *variolosus* (Coiffait)
 211. *minor* (Cameron)
 212. * *feae* (Fauvel)
 213. * *umbratus* (Fauvel)
 214. *nepalensis* Rougemont
 215. *malaisei* (Scheerpeltz)
51. ***Dolicaon*** Castelnau
 216. *longipennis* Cameron
 217. * *indicus* Kraatz
52. ***Scimbalium*** Erichson
 218. *waageni* Bernhauer .
53. ***Medon*** Stephens
 219. * *birmanus* Fauvel
 220. * *cinnamopterus* (Kraatz)
 221. * *planatus* Bernhauer
 222. ** *opacellus* Fauvel
54. ***Lithocharis*** Boised
 223. * *penicillata* Cameron
 224. * *nigriceps* Kraatz
 225. * *sororcula* Kraatz
- Subfamily (VII) STAPHYLININAE
 Tribe 11. XANTHOLININI
55. ***Leptacinus*** Erichson
 226. *aethiops* Bernhauer
 227. * *notabilis* Cameron
56. ***Pachycorynus*** Motschulsky
 228. *niger* Cameron

57. **Mitomorphus** Kraatz
229. *brevipennis* Cameron
230. *brachypterus* Cameron
58. **Xantholinus** Serville
231. *parcus* Eppelsheim
232. (*s.str.*) *aeneus* Cameron
233. *ruficaudatus* Cameron
59. **Gauropterus** Thomson
234. *marginalis* Cameron
60. **Indoscitalinus** Heller
235. *dispilus* (Erichson)
61. **Othius** Stephens
236. *monticola* Cameron
62. **Platyprosopus** Mannerheim
237. *biseriatus* Eppelsheim
238. *indicus* Motschulsky
239. *fuliginosus* Erichson
- Tribe 12. STAPHYLININI
69. **Neobisnius** Ganglbauer
240. * *praelongus* (Gemm. et. Har.)
64. **Actobius** Fauvel
241. *monticola* Cameron
242. *mangpuensis* Cameron
243. *major* Cameron
65. **Philonthus** Curtis
244. *industanus* Fauvel
245. *carbonarius* (Gyll.)
246. *rupicola* Cameron
247. *adversus* Bernhauer
248. *gardneri* Cameron
249. *christiei* Bernhauer
250. *imitator* Fauvel
251. *montivagans* Cameron
252. *aeripennis* Cameron

253. * *bengalensis* Bernhauer
254. ** *nigriticulus* (Gravely)
255. * *paederoides* Motschulsky
256. ** *cinctulus* (Gravely)
257. * *quisquiliarius* var. *inquinatus* Stephens
258. * *flavocinctus* Motschulsky
259. * *thermarum* Aube
260. * *longicornis* Stephens
66. ***Hesperus*** Fauvel
261. *wasmanni* Fauvel
262. *feae* Fauvel
67. ***Belonuchus*** Nordmann
263. *gardneri* Cameron
264. *quadratus* (Kraatz)
68. ***Staphylinus*** Linnius
265. (*platydracus*) *asemus* Kraatz
266. (*P.*) *bengalensis* Bernhauer
267. (*P.*) *sparsus* Cameron
268. (*Goerius*) *prainae* (Eppelsheim)
269. (*G.*) *caeruleus* Cameron
270. (*Tasgius*) *wasmanni* Bernhauer
271. (*T.*) *auroguttatus* Cameron
272. (*T.*) *sikkimensis* Bernhauer
273. (*T.*) *stevensi* Cameron
274. (*Abemus*) *marginatus* Cameron
69. ***Ontholestes*** Ganglbauer
275. *aurosparsus* (Fauvel)
70. ***Thoracostrongylus*** Bernhauer
276. *birmanus* (Fauvel)
71. ***Eucibdelus*** Kraatz
277. *angusticeps* Bernhauer
278. *stevensi* Cameron
72. ***Parapalaestrinus*** Bernhauer
279. *mutillarius* (Erichson)

280. *waageni* (Eppelsheim)
73. *Naddia* Fauvel
281. *westermanni* (Erichson)
74. *Wasmannellus* Bernhauer
282. *tristis* Bernhauer
75. *Philomyceta* Cameron
283. *caeruleipennis* Cameron
284. *affinis* Cameron
76. *Philonthopsis* Cameron
285. *antennalis* Cameron
- Tribe 13. QUEDIINI
77. *Heterothops* Stephens
286. *pusillus* Coiffait
78. *Quedius* Stephens
287. (*Microsaurus*) *antennalis* Cameron
288. (*M.*) *apicicornis* Eppelsheim
289. (*M.*) *inquietus* (Champion)
290. (*M.*) *beesoni* Cameron
291. (*M.*) *placidus* Cameron
292. (*Raphirus*) *aureiventris* Bernhauer
293. (*R.*) *tonglu* Smetana
294. (*R.*) *musciola* Cameron
295. (*R.*) *durgaa* Smetana
296. (*R.*) *rugosus* Cameron
297. (*R.*) *himalayicus* Bernhauer
298. (*R.*) *ripicola* Cameron
299. (*R.*) *gardneri* Cameron
300. (*Distichalius*) *deceptor* Cameron
79. *Indoquedius* Cameron
301. *baliyo* Smetana
302. *aberrans* (Cameron)
80. *Paratolmerus* Cameron
303. *pilosiventris* Cameron
81. *Acylophorus* Nordmann

304. *raato* Smetana
 305. *microcephalus* Cameron
 306. ** *ruficollis* (Motschulsky)
 307. *furcatus* Motschulsky
82. ***Anchocerus*** Fauvel
 308. *nepalicus* Smetana
83. ***Atanygnathus*** Jakobson
 309. *terminalis* (Erichson)
 Subfamily (VIII) TACHYPORINAE
 Tribe 14. MEGARTHROPSINI
84. ***Nepaliodes*** Coiffait
 310. *variolosus* Coiffait
 Tribe 15. BOLITOBIIINI
85. ***Mycetoporus*** Mannerheim
 311. *gratiosus* Cameron
86. ***Bolitobius*** Mannerheim
 312. *lambda* (Fauvel)
 313. *femoralis* Cameron
 314. *tarsalis* Cameron
 315. *championi* Cameron
 316. *scapularis* Cameron
 317. *elegans* Cameron
 318. *simulans* Cameron
 319. *biplagiatus* Cameron
 320. *centralis* Cameron
 321. *difficilis* Cameron
 322. *transversulus* Reitter
 Tribe 16. TACHYPORINI
87. ***Conosoma*** Kraatz
 323. *himalayicus* Cameron
 324. *robustum* Cameron
 325. *birmanum* (Fauvel)
 326. *persimile* Cameron
 327. *maculicolle* Cameron

- 328. *quadrimaculatum* Cameron
- 88. ***Tachyporus*** Gravely
 - 329. *flavopictus* Fauvel
 - 330. *undulatus* Cameron
 - 331. *himalayicus* Bernhauer
 - 332. *suturalis* Cameron
- 89. ***Tachinus*** Gravely
 - 333. *lugubris* Cameron
 - 334. *coriaceus* Cameron
 - 335. *piceus* Cameron
 - 336. *limbicollis* Cameron
 - 337. *ornatus* Cameron
- 90. ***Paratachinus*** Cameron
 - 338. *laticollis* Cameron
 - 339. *monticola* Cameron

Key to the subfamilies of the family Staphylinidae

- 1. Thorax excavated below to receive the antennae; these 9-segmented, the last segment large and globose. Tarsi 3-segmented. Thorax and elytra carinate..... Micropeplinae
- Thorax not excavated below for the antennae; these 9,10 or 11 segmented. Tarsi variable..... 2
- 2(1). Prothoracic spiracles concealed [except in *Platystethus* and *Thinobius* (but then the suture dehiscent) and *Lithocharis* and *Cryptobium*] by the triangular epimera, which externally are fused with the pronotal epipleura.....3
- Prothoracic spiracles exposed, or, if concealed, the epimera are free..... 7
- 3(2). Last segment of the labial palpi very large, semilunar..... Oxyporinae
- Last segment of the labial palpi normal..... 4
- 4(3). 1st segment of the maxillary palpi elongate. Posterior coxae conical..... 5
- 1st segment of the maxillary palpi very short..... 6
- 5(4). Tarsi 5,5,5..... Steninae
- Tarsi 4,4,4 or 5,5,4.....Euaesthetinae

- 6(4). Antennae inserted under a thickened marginal border. Tarsi variable Oxytelinae
 Antennae inserted under the prominent anterior angles of the front. Tarsi 5-segmented.....
 Paederinae
- 7(2). Antennae inserted on the front margin of the head. Prothoracic spiracles exposed..Staphylininae
 Antennae inserted at the inner border of the eye. Elytra usually extending beyond the metathorax;
 the epipleura separated by a fine sharp keel; prothoracic spiracles usually exposed or covered by
 a free lying epimeron..... Tachyporinae

Subfamily MICROPEPLINAE

Genus *Micropeplus* Latreille

1809. *Micropeplus* Latreille, *Gen. Crust. Ins.*, 4 : 377.
 1930. *Micropeplus* : Cameron, *Fauna British India*, 1 : 20-21.

Key to the species of *Micropeplus* Latreille

1. 2nd costa of the elytra sinuate; humeral angle with minute tooth; scutellum bifoveolate.....
 *sikkimi* Fauvel
- 1st and 2nd costa of the elytra sinuate; humeral angle without tooth; scutellum not bifoveolate..
 *vulcanus* Fauvel

1. *Micropeplus sikkimi* Fauvel

1902. *Micropeplus sikkimi* Fauvel, *Rev. d'Ent.*, 21 : 8
 1930. *Micropeplus sikkimi* : Cameron, *Fauna British India*, 1 : 22-23.

Material examined : 1 ex., INDIA : West Bengal, Darjiling district, Gorubathan, 1 ex., 10.iv.1976,
 A. R. Bhaumik Coll.

Distribution : INDIA : West Bengal (Darjiling).

2. *Micropeplus vulcanus* Fauvel

1902. *Micropeplus vulcanus* : Cameron, *Fauna British India*, 1 : 23.

Material examined : Not available

Distribution : INDIA : West Bengal (Darjiling).

Subfamily OXYTELINAE

Key to the tribes and genera of the subfamily Oxytelinae

- 1 Head with two ocelli (except occasionally in *Hygrogeus*). First ventral segment of the abdomen keeled in the middle. The posterior trochanters large..... ***Omalini*** 20
- Head without ocelli..... 2
- 2(1) Anterior coxal cavities closed behind..... ***Leptochirini*** 15
- Anterior coxal cavities open behind..... 3
- 3(2) First ventral segment of the abdomen keeled in the middle..... 6
- First ventral segment not keeled (except in *Apocellagria* and 3-segmented tarsi)..... 4
- 4(3) Posterior trochanters large..... 5
- Posterior trochanters small..... ***Oxytelini*** 22
- 5(4) Head, thorax and elytra carinate..... ***Pseudopsini*** 18
- Head, thorax and elytra not carinate..... ***Proteinini*** 19
- 6(3) Anterior coxae very small, not prominent. Tongue at least in part membranous..... 7
- Anterior coxae large, prominent. Tongue entirely corneous; more or less cylindrical species.....
..... ***Osoriini*** 27
- 7(6) Anterior trochantin exposed as a long tongue-shaped process behind the posterior margin of the prosternum and separated from the epipleura by a suture. Parallel depressed species. Tarsi 5-segmented..... ***Eleusiini*** 14
- Anterior trochantin small, not or but slightly exposed..... ***Piestini*** 8
- 8(7) Abdomen bordered..... 9
- Abdomen not bordered..... 12
- 9(8) Thorax keeled..... 10
- Thorax not keeled..... 11
- 10(9) Tarsi 5-segmented. Scutellum concealed..... ***Eupiestus*** Kraatz

- Tarsi 3-segmented. Scutellum visible.....*Thoracophorus* Motschulsky
- 11(9) More or less oblong or oval species, the elytra extending beyond the 3rd ventral segment of the abdomen..... *Apatetica* Westwood
- Elongate depressed species, the elytra not extending to the 3rd ventral segment of the abdomen
.....*Siagonium* Kirby & Spence
- 12(8) Tarsi 4-segmented. Elytra with a fine stria passing from the shoulder to the apical border.....
..... *Pseudolispinodes* Bernhauer
- Tarsi 5-segmented. Elytra without sub-humeral stria..... 13
- 13(12) Abdomen striate at the sides. Fourth segment of the maxillary palpi elongate. More or less convex species..... *Holosus* Motschulsky
- Abdomen rarely striate at the sides. Fourth segment of the maxillary palpi less elongate. More or less parallel, depressed species..... *Lispinus* Erichson
- 14(7) The anterior coxae with a narrow tongue-shaped trochantin separated from the epipleura of the prothorax externally by a distinct suture.....*Eleusis* Castelnau
- 15(2) Anterior coxae separated; the prosternal process dilated behind at its apex....*Leptochirus* Germar
- Anterior coxae contiguous; the prosternal process concealed and not expanded behind..... 16
- 16(15) Outer surface of the mandibles convex, sharply margined below, the front of head usually toothed or lobed..... 17
- Outer surface of the mandibles impressed longitudinally, margined above and below; strongly sculptured species, the front of head rarely toothed.....*Thoracochirus* Bernhauer
- 17(16) Mandibles much elongated, projecting considerably beyond the level of the apices of the frontal horns; longer than the head. Inner lobe of maxilla densely ciliate.....*Borolinus* Bernhauer
- Mandibles normal, not produced much beyond the level of the apices of the frontal armature, shorter than the head. Inner lobe of maxilla furnished with spines.....*Priochirus* Sharp
- 18(5) Costate of head, thorax and elytra is parallel and the bordered abdomen....*Pseudopsis* Newman
- 19(5) Thorax sulcate in the middle line; the sides explanate, the penultimate segments of the antennae scarcely forming a club.....*Megarthrus* Stephens
- 20(1) All the tarsi 4-segmented.....*Tetradelus* Fauvel

- All the tarsi 5-segmented..... 21
- 21(20) Last segment of the posterior tarsi much shorter than the first four segments together.....
.....*Deinopteroloma* Jansson
- Last segment of the posterior tarsi almost as long as or longer than the first four segments together,
all the tarsi dilated and clothed with long hairs at the sides.....*Anthobium* Stephens
- 22(4) Anterior and middle tibiae strongly spinose externally..... 23
- Anterior and middle tibiae ciliate, at most with two small spines before the apex..... 25
- 23(22) Cylindrical species with geniculate antennae.....*Bledius* Leach
- Species not cylindrical; antennae normal..... 24
- 24(23) Middle coxae contiguous.....*Planeustomus* Jacquelin
- Middle coxae separated; abdominal tergum II with basolateral ridge; tarsus with first segment
longer than second.....*Oxytelus* Gravenhorst
- 25(22) Fourth segment of maxillary palpi minute.....*Trogophloeus* Mannerheim
- Fourth segment of maxillary palpi normal..... 26
- 26(25) Tibia with distinct longitudinal grooves; pronotum with lateral margin strongly explanate and
hypomeron extremely deflexed.....*Oxytelopsis* Fauvel
- Tibia without distinct longitudinal grooves; if grooves present, then poorly developed and
pronotum not strongly explanate and hypomeron not extremely deflexed.....*Anotylus* Thomson
- 27(6) Anterior tibiae strongly dentate and spinose.....*Osorius* Latreille
- Anterior tibiae not dentate, usually spinose..... *Mimogonus* Fauvel

Genus *Apatetica* Westwood

1848. *Apatetica* Westwood, *Cab. Or. Ent.*, 86.

Key to the species of *Apatetica* Westwood

1. Species entirely or in greater part black; striae of the elytra finely punctured..... 2
- Species in part metallic; striae of the elytra moderately, coarsely punctured...*viridipennis* Fauvel

- 2(1). Thorax longer than broad and umbonate; the antennal segments 9 and 10 longer than broad.....
 *sikkimi* Fauvel
- Thorax strongly transverse and not umbonate; the antennal segments 9 and 10 about as long as broad
 3
- 3(2). Thorax coarsely, closely and uniformly punctured, except the lateral explanate margins, sides quite
 straight for the anterior two-thirds..... *javanica* (Sharp)
- Thorax behind with large, irregular, impunctate spaces, otherwise rather closely punctured; sides
 feebly rounded for the anterior two-thirds..... *intermedia* Cameron

3. *Apatetica intermedia* Cameron

1930. *Apatetica intermedia* Cameron, *Fauna British India*, **1** : 30-31.

Material examined : Not available.

Distribution : INDIA : West Bengal. *Elsewhere* : Burma

Remarks : The distributional data of this species mentioned only 'Bengal' by Cameron (1930).

4. *Apatetica javanica* (Sharp).

1892. *Trygaeus javanica* Sharp, *Not. Leyd. Mus.*, **14** : 61.

1930. *Apatetica javanica* : Cameron, *Fauna British India*, **1** : 29-30.

Material examined : Not available.

Distribution : INDIA : West Bengal, Assam and Manipur. *Elsewhere* : Java and Sumatra.

Remark : The distributional data of this species mentioned only 'Bengal' by Cameron (1930).

5. *Apatetica sikkimi* Fauvel

1895. *Apatetica sikkimi* Fauvel, *Rev. d'Ent.*, **14** : 193.

1930. *Apatetica sikkimi* : Cameron, *Fauna British India*, **1** : 28.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

6. *Apatetica viridipennis* Fauvel

1895. *Apatetica viridipennis* Fauvel, *Rev. d'Ent.*, **14** : 192.

1930. *Apatetica viridipennis* : Cameron, *Fauna British India*, **1** : 31-32.

Material examined : Not available

Distribution : INDIA : West Bengal (Darjiling), Assam and Manipur. *Elsewhere* : Burma

Genus *Eupiestus* Kraatz

1859. *Eupiestus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 182.

1930. *Eupiestus* : Cameron, *Fauna British India*, **1** : 35-36.

Key to the species of *Eupiestus* Kraatz

1. Penultimate segments of the antennae distinctly longer than broad..... 2
 Penultimate segments of the antennae not distinctly longer than broad..... 3
- 2(1). Larger in size (8-9 mm); the base of the head transversely truncate; elytra uniformly black.....
 *spinifer* var. *unicolor* Cameron
 Smaller in size (3 mm); the base of the head rather deeply arcuate; elytra pitchy.....
 *angulatus* Fauvel
- 3(1). Penultimate segments of the antennae slightly longer than broad; species subopaque
 *feae* Fauvel
 Penultimate segments of the antennae transverse, species rather shining..... 4
- 4(3). Penultimate segments of the antennae less strongly transverse; the anterior keels of the thorax
 scarcely united in front..... *sikkimi* Fauvel
 Penultimate segments of the antennae strongly transverse; the anterior keels of the thorax united
 in front..... *sculpticollis* Kraatz

7. *Eupiestus sikkimi* Fauvel

1902. *Eupiestus sikkimi* Fauvel, *Rev. d' Ent.*, **21** : 30.

1930. *Eupiestus sikkimi* : Cameron, *Fauna British India*, **1** : 39-40.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

8. *Eupiestus feae* Fauvel

1895. *Eupiestus feae* Fauvel, *Rev. d' Ent.*, **14** : 187.

1930. *Eupiestus feae* : Cameron, *Fauna British India*, **1** : 37-38.

Material examined : 2 exs., INDIA : West Bengal, Darjiling dist., Sukna, 1 ex., 7.i.1976, G. K. Srivastava coll.; Jalpaiguri dist., Dalsingpara, 1 ex., 20.viii.1986, D. N. Biswas coll., ex. under bark.

Distribution : INDIA : West Bengal (Darjiling, Jalpaiguri), Arunachal Pradesh. *Elsewhere* : Burma.

Remark : In the present study this species is recorded for the first time from West Bengal.

9. *Eupiestus sculpticollis* Kraatz

1859. *Eupiestus sculpticollis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 182, Taf. 3, fig. 4 a-b.

1930. *Eupiestus sculpticollis* : Cameron, *Fauna British India*, **1** : 38-39.

Material examined : 8 exs., INDIA : West Bengal, Darjiling dist., Sukna, 7.i.1976, G. K. Srivastava coll., ex. under bark.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu and Sikkim. *Elsewhere* : Sri Lanka.

Remark : In the present study this species is recorded for the first time from West Bengal.

10. *Eupiestus angulatus* Fauvel

1902. *Eupiestus angulatus* Fauvel, *Rev. d' Ent.*, **21** : 29.

1930. *Eupiestus angulatus* : Cameron, *Fauna British India*, **1** : 39.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

11. *Eupiestus spinifer* var. *unicolor* Cameron

1895. *Eupiestus spinifer* Fauvel, *Rev. d' Ent.*, **14** : 186.

1930. *Eupiestus spinifer* var. *unicolor* Cameron, *Fauna British India*, **1** : 451.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma.

Genus *Siagonium* Kirby and Spence

1815. *Siagonium* Kirby and spence, *Introd. Ent.*, **1**, pl. I.

12. *Siagonium indicum* Fauvel

1902. *Siagonium indicum* Fauvel, *Rev. d' Ent.*, **21** : 21.

1930. *Siagonium indicum* : Cameron, *Fauna British India*, **1** : 41.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Holosus* Motschulsky

1857. *Holosus* Motschulsky, *Bull. Soc. Mosc.*, 4 : 496.

1930. *Holosus* : Cameron, *Fauna British India*, 1 : 43.

Key to the species of *Holosus* Motschulsky

1. The posterior margins of the abdominal segments narrowly and obscurely ferruginous.....
.....*rugipennis* Cameron

The apex of the abdomen rufescent..... *lopchuensis* Cameron

13. *Holosus rugipennis* Cameron

1945. *Holosus rugipennis* Cameron, *Proc. R. ent. Soc. Lond.*, 14(B) : 64.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

14. *Holosus lopchuensis* Cameron

1945. *Holosus lopchuensis* Cameron, *Proc. R. ent. Soc. Lond.*, 14 (B) : 64.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Lispinus* Erichson

1840. *Lispinus* Erichson, *Gen.s pec. Staph.*, : 828.

15. *Lispinus coriaceus* Fauvel

1895. *Lispinus coriaceus* Fauvel, *Rev. d' Ent.*, 14 : 185.

1930. *Lispinus coriaceus* : Cameron, *Fauna British India*, 1 : 62.

Material examined : 16 exs., INDIA : West Bengal, Jalpaiguri dist., Rajabhatkhawa Forest, 9 exs., 11.xi.1974, T. Sengupta coll.; Darjiling dist., Rambhi, 3 exs., 7.i.1974, G. K. Srivastava coll., Gorubathan, 402 m, 4 exs., 18.xii.1973, G. K. Srivastava coll.

Distribution:INDIA:West Bengal (Darjiling and Jalpaiguri). *Elsewhere* : Burma, Java and Borneo.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

Genus *Pseudolispinodes* Bernhauer

1926. *Pseudolispinodes* Bernhauer, *Philipp, Journ. Sci.*, **21** : 258.

16. *Pseudolispinodes bistrriatus* (Fauvel)

1895. *Lispinodes bistrriatus* Fauvel, *Rev. d' Ent.*, **14** : 185

1914. *Holosus madurensis* Bernhauer, *W.Z.B.*, **64** : 83.

1926. *Pseudolispinodes madurensis* Bernhauer, *Philipp. Journ. Sci.*, **21** : 260.

1930. *Pseudolispinodes bistrriatus* : Cameron, *Fauna British India*, **1** : 66.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Andamans, Bihar, Tamil Nadu and Uttar-Pradesh.

Elsewhere : Burma, Indo-China, Philippines and Sumatra.

Genus *Thoracophorus* Motschulsky

1837. *Thoracophorus* Motschulsky, *Bull. Mosc.*, **5** : 98.

17. *Thoracophorus montanus* Cameron

1945. *Thoracophorus montanus* Cameron, *Proc. R. ent. Soc. Lond.*, **14(B)** : 65.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Eleusis* Castelnau

1835. *Eleusis* Castelnau, *Etud. Ent.*, **1** : 131.

Key to the species of *Eleusis* Castelnau

1. Sides of the thorax with a distinct tooth..... 2
- Sides of the thorax without or with very obsolete tooth..... 3
- 2(1). Head quadrate, as broad as the thorax, with a few fine scattered punctures. Antennae reddish-yellow
..... *speculifer* Cameron
- Head orbicular, a little broader than the thorax, finely, rather closely punctured. Antennae red, the
1st segment except the apex pitchy..... *rotundiceps* Fauvel

- 3(1). Elytra black, with large, sharply defined, yellow marking on each side..... *plagiata* Fauvel
 Elytra otherwise coloured..... 4
- 4(3). Head subquadrate-orbicular. Thorax in the middle with a very fine longitudinal sulcus. Antennae with the segment 5 distinctly shorter..... *persimilis* Cameron
 Head subquadrate. Thorax in the middle with a fine raised line not extending to the anterior border. Antennae with the segment 5 as long as broad..... *sikkimensis* Cameron

18. *Eleusis speculifer* Cameron

1945. *Eleusis speculifer* Cameron, *Proc. R. ent. Soc. Lond.*, **14** (B) : 63.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

19. *Eleusis plagiata* Fauvel

1904. *Eleusis plagiata* Fauvel, *Rev. d'Ent.*, **23** : 83.
 1930. *Eleusis plagiata* : Cameron, *Fauna British India*, **1** : 81.

Matrial examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

20. *Eleusis rotundiceps* Fauvel

1904. *Eleusis rotundiceps* Fauvel, *Rev. d'Ent.*, **23** : 83.
 1930. *Eleusis rotundiceps* : Cameron, *Fauna British India*, **1** : 86-87.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling)

21. *Eleusis sikkimensis* Cameron

1945. *Eleusis sikkimensis* Cameron, *Proc. R. ent. Soc. Lond.*, **14**(B) : 63

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

22. *Eleusis persimilis* Cameron

1945. *Eleusis persimilis* Cameron, *Proc. R. ent. Soc. Lond.*, **14**(B) : 63

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Leptochirus* Germar

1823. *Leptochirus* Germar, *Ins. Spec. Nov.*, : 35.

Key to the species of *Leptochirus* Germar

1. Clypeus continuous with the front on the same plane and not separated from it by a transverse impressed line, its sides not bounded by an impressed line. Thorax red...*quadridens* Motschulsky

Clypeus depressed, not on the same plane as the front and separated from it by a transverse impressed line, the sides bounded by an arcuate impressed line. Entirely black species.....

..... *laevis* Castelnau

23. *Leptochirus (Strongylochirus) quadridens* Motschulsky

1857. *Leptochirus quadridens* Motschulsky, *Bull. Mosc.*, **30** (4) : 501.

1930. *Leptochirus (Strongylochirus) quadridens* : Cameron, *Fauna British India*, **1** : 91.

Material examined : 43 exs., INDIA : West Bengal, Darjiling district, Samsing, 10 exs., 24.xii.1973; Goomti forest, 11 exs., 5.i.1974, Reang, 6 exs., 8.i.1974; Bhutabari, 6 exs., 19.xii.1973; Khumani, 1 ex., 24.xii.1973; Mongpong, 3 exs., 29.xii.1973; Jalpaiguri district, Champamari, 4 exs., 24.xii.1973, G. K. Srivastava coll.; Hasimara, 2 exs., 3.xii.1974, T. Sengupta coll.

Distribution : INDIA : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh, Meghalaya, Nagaland. *Elsewhere* : Burma, Indonesia and Siam.

24. *Leptochirus (strongylochirus) laevis* Castelnau

1840. *Leptochirus laevis* Castelnau, *Hist. Nat.*, **1** : 186.

1840. *Leptochirus laticeps* Erichson, *Gen. spec. Staph.* : 826

1859. *Leptochirus idae* Kraatz, *Arch. Naturgesch.*, **25**(1) : 19.

1930. *Leptochirus (Strongylochirus) laevis* : Cameron, *Fauna British India*, **1** : 91-92.

Material examined : 29 exs., INDIA : West Bengal, Darjiling district, Samsing, 5 exs., 24.xii.1973; Rambh, 21 exs., 6.i.1974; Reang, 3 exs., 8.i.1974, G. K. Srivastava coll.

Distribution : INDIA : West Bengal (Darjiling); Arunachal Pradesh, Meghalaya and Nagaland. *Elsewhere* : Borneo, Indonesia, Singapore and Siam.

Genus *Borolinus* Bernhauer

1903. *Borolinus* Bernhauer, *D. E. Z.*, :133.

1930. *Borolinus* : Cameron, *Fauna British India*, **1** : 92.

Key to the species of *Borolinus* Bernhauer

1. Right mandible behind the apex with a strong simple tooth..... *sikkimensis* Bernhauer
 Right mandible behind the apex with a bicuspid tooth..... *minutus* Castelnau

25. *Borolinus sikkimensis* Bernhauer

1919. *Borolinus sikkimensis* Bernhauer, *D.E.Z.*, : 359.
 1930. *Borolinus sikkimensis* : Cameron, *Fauna British India*, 1 : 94.

Material examined : Not available

Distribution : INDIA : West Bengal (Darjiling), Sikkim. *Elsewhere* : Burma.

26. *Borolinus minutus* (Castelnau)

1840. *Leptochirus minutus* Castelnau, *Hist. Nat.*, 1 : 186
 1840. *Leptochirus bispinus* Erichson, *Gen. Spec. Staph.* : 827
 1930. *Borolinus minutus* : Cameron, *Fauna British India*, 1 : 94-95.

Material examined : 29 exs., INDIA : West Bengal, Darjiling district, Rambhi, 13 exs., 6.i.1974, G. K. Srivastava coll.; Reang, 8 exs., 8.i.1974, G. K. Srivastava coll.; Naxalbari, Bhimgonjgoth, 4 exs., 13.ix.1974, H. K. Bhaumik coll.; Reyang, 1 ex., 30.iii.1973, H. S. sharma coll.; Chunabhati, 2 exs., 27.xii.1973, P. K. Maiti coll.; Jalpaiguri district, Rajabhatkhawa, 1 ex., 11.xi.1974, T. Sengupta coll.

Distribution : INDIA : West Bengal (Darjiling and Jalpaiguri), Nagaland and Sikkim. *Elsewhere* : Burma, Siam, Sumatra, Java, Lombok and Borneo.

Genus *Priochirus* sharp

1887. *Priochirus* Sharp, *Biol. Cent. Amer., Col.* 1(2) : 740.

Key to the subgenera and species of *Priochirus* Sharp

1. Front margin of the head with a more or less distinct tooth in the middle.....*Triacanthochirus* 4
 Front margin of the head without tooth in the middle..... 2
- 2(1). Head in front divided by a deep, narrow, median impression into two large lobes, often themselves dentate.....*Cephalomerus* 5
 Head with a frontal impression which is at least as broad as long..... 3
- 3(2). Front of head unarmed, not produced on either side of the impression into a lobe or horns.....
*Leptarthrus* 10

- Front of head armed.....*Plastus* 11
- 4(1). Front margin of head with three more or less distinct teeth.....*bipunctatus* Fauvel
- 5(2). Penultimate segments of antennae not transverse.....*Combustus* Fauvel
- Penultimate segments of antennae transverse..... 7
- 7(5). Antennal segment 1 impressed at the apex which is emarginate..... *hoplites* Fauvel
- Antennal segment 1 longitudinally sulcate throughout..... 8
- 8(7). Elytra ferruginous red, the base blackish; penultimate segments of antennae distinctly transverse
.....*sanguinosus* (Motschulsky)
- Elytra black, the base more or less broadly reddish; penultimate segments of antennae less
transverse..... 9
- 9(8). Thorax more transverse; frontal excision of the head more deep, the median process moderately
broader..... *rubiginosus* Cameron
- Thorax less transverse; frontal excision of the head much less deep, the median process much
shorter.....*bengalensis* Cameron
- 10(3). Species with distinct coriaceous ground-sculpture, less shining. Antennal segment 1 not sulcate
..... *longicornis* Fauvel
- Species without ground-sculpture, more shining. Antennal segment 1 scarcely sulcate.....
..... *micrognathus* Fauvel
- 11(3). Larger species (11 mm); infra-cornual denticle absent..... *eucerus* Cameron
- Smaller species (7 to 8.5 mm); infra-cornual denticle present..... 12
- 12(11). Free inner edge of frontal horn longer, infra-cornual denticle larger and further from the apex...
..... *sikkimensis* Cameron
- Free inner edge of frontal horn very short, infra-cornual denticle very small and placed immediately
behind the apex.....*gardneri* Cameron

27. *Priochirus (Triacanthochirus) bipunctatus* (Fauvel)

1895. *Leptochirus bipunctatus* Fauvel, *Rev. d' Ent.*, 14 : 180.

1930. *Priochirus (Triacanthochirus) bipunctatus* : Cameron, *Fauna British India*, 1 : 97-98.

Material examined : 2 ex. INDIA : West Bengal, Darjiling district, Samsing, 2 exs., 24.xii.1973, G. K. Srivastava coll.

Distribution : INDIA : West Bengal (Darjiling), Arunachal Pradesh, Meghalaya and Sikkim.
Elsewhere : Burma.

Remark : In the present study this species is recorded for the first time from West Bengal.

28. *Priochirus (Cephalomerus) sanguinosus* (Motschulsky)

1857. *Leptochirus sanguinosus* Motschulsky, *Bull. Mosc.*, 30(4) : 501.

1930. *Priochirus (Cephalomerus) sanguinosus* : Cameron, *Fauna British India*, 1 : 103.

Material examined : 11 exs., INDIA : West Bengal, Darjiling district, Jhalung, 5 exs., 23.xii.1973, Khumani, 1 ex., 21.xii.1973, Mongpong, 1 ex., 29.xii.1973, Ghoomti forest, 1 ex., 5.i.1974, all the specimens are collected by G. K. Srivastava; Jalpaiguri district, Hasimare, 1 ex., 3.xii.1974, T. Sengupta coll., Champamari, 1 ex., 24.xii.1974, G. K. Srivastava coll., Samsing, 1 ex., 24.xii.1973, G. K. Srivastava coll.

Distribution : INDIA : West Bengal (Darjiling and Jalpaiguri). *Elsewhere* : Burma.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

29. *Priochirus (Cephalomerus) combustus* (Fauvel)

1902. *Leptochirus combustus* Fauvel, *Rev. d' Ent.*, 21 : 10.

1930. *Priochirus (Cephalomerus) combustus* : Cameron, *Fauna British India*, 1 : 103-104.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

30. *Priochirus (Cephalomerus) bengalensis* Cameron

1945. *Priochirus (Cephalomerus) bengalensis* Cameron, *Proc. R. ent. Soc. Lond.*, 14(B) : 64.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

31. *Priochirus (Cephalomerus) rubiginosus* Cameron

1930. *Priochirus (Cephalomerus) rubiginosus* Cameron, *Fauna British India*, 1 : 105-106.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Nagaland.

32. *Priochirus (Cephalomerus) hoplites* (Fauvel)

1895. *Leptochirus hoplites* Fauvel, *Rev. d' Ent.* **14** : 182.

1930. *Priochirus (Cephalomerus) hoplites* : Cameron, *Fauna British India*, **1** : 107-108.

Material examined : 1 ex., INDIA : West Bengal, Darjiling district, Samsing, 24.xii.1973, G. K. Srivastava coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma, Malay Peninsula, Singapore, Sumatra and Java.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

33. *Priochirus (Leptarthrus) longicornis* (Fauvel)

1865. *Leptochirus longicornis* Fauvel, *Bull. Soc. Norm.*, **9** : 14.

1914. *Priochirus (Cephalomerus) opacinus* Bernhauer, *W.Z.B.*, **64** : 79.

1930. *Priochirus (Leptarthrus) longicornis* : Cameron, *Fauna British India*, **1** : 110.

Material examined : 1 ex., INDIA : West Bengal : Darjiling district, Darjiling, 2800 M, E. Himalayas, v.1910, R. B. Horsfall coll.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu.

Remarks : In the present study this species is first time recorded from West Bengal.

34. *Priochirus (Leptarthrus) micrognathus* (Fauvel)

1902. *Leptochirus micrognathus* Fauvel, *Rev. d'Ent.*, **21** : 13.

1930. *Priochirus (Leptarthrus) micrognathus* : Cameron, *Fauna British India*, **1** : 111.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

35. *Priochirus (Plastus) eucerus* Cameron

1930. *Priochirus (Plastus) eucerus* Cameron, *Fauna British India*, **1** : 114.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

36. *Priochirus (Plastus) sikkimensis* Cameron1930. *Priochirus (Plastus) sikkimensis* Cameron, *Fauna British India*, 1 : 454.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).37. *Priochirus (plastus) gardneri* Cameron1930. *Priochirus (Plastus) gardneri* Cameron, *Fauna British India*, 1 : 454.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).Genus *Thoracochirus* Bernhauer1903. *Thoracochirus* Bernhauer, *D.E.Z.*, 116, 155.1930. *Thoracochirus* : Cameron, *Fauna British India*, 1 : 118.Key to the species of *Thoracochirus* Bernhauer

1. Sides of thorax with more numerous and longer denticles; segments of the abdomen very finely and closely punctured at the bases..... *assamensis* Cameron

Sides of thorax much more strongly denticles; segments of the abdomen with transverse row of fine punctures at the bases..... *denticollis* Cameron

38. *Thoracochirus assamensis* Cameron1930. *Thoracochirus assamensis* Cameron, *Fauna British India*, 1 : 120.1982. *Thoracochirus assamensis* : Biswas & Sengupta, *Revue Suisse Zool.*, 89(1) : 135-154.

Material examined : 8 exs, INDIA : West Bengal, Darjiling district, Tung, 28 km from Tindharia, 8 exs., 25.iii.1978, A. R. Bhaumik & Party coll.

Distribution : INDIA : West Bengal (Darjiling), Nagaland.39. *Thoracochirus denticollis* Cameron1945. *Thoracochirus denticollis* Cameron, *Proc. R. ent. Soc. Lond.*, 14(B) : 64.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).

Genus *Pseudopsis* Newman1834. *Pseudopsis* Newman, *Ent. Mag.*, 2 : 313.Key to the species of *Pseudopsis* Newman1. Internal sac coiled and at least one-half longer than median lobe..... *prolixa* HermanInternal sac curved at base of median lobe and shorter than or as long as or only slightly longer than median lobe..... *suchi* Herman40. *Pseudopsis suchi* Herman1983. *Pseudopsis suchi* Herman, Jr., *Am. Mus. Novitates*, No. 2755, : 1-6, figs. 1-10.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).41. *Pseudopsis prolixa* Herman1975. *Pseudopsis prolixa* Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 155(3) : 274-275.1983. *Pseudopsis prolixa* Herman, Jr., *Am. Mus. Novitates*, No. 2755, : 1-6, figs. 1-10.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh.Genus *Megarthus* Stephens1832. *Megarthus* Stephens, *Illustrations of British Entomology*, 5 : 320.Key to the species of *Megarthus* Stephens1. Elytra black, with seven testaceous spots posteriorly, one of them sutural.....
..... *septempunctatus* Champion

Elytra without such marking..... 2

2(1). Sides of thorax not or scarcely angulate at or near middle..... 3

Sides of thorax distinctly angulate at or near middle..... 4

3(2). Colour uniform pitchy brown; sides of thorax distinctly emarginate before the posterior angles
..... *chatterjeei* Cameron

Colour fusco-testaceous; elytra testaceous, each with a brown apical spot; sides of thorax very slightly emarginate before the posterior angles.....*bimaculatus* Fauvel

4(2). Sides of thorax between the angulation and the posterior angles bi-emarginate; colour reddish brown, elytra very coarsely punctured..... *umbonatus* Fauvel

Puncturation of the elytra asperate..... 5

5(4). Thorax narrower, the postero-external angles of the elytra are more rounded; species entirely dirty testaceous..... *birmanus* Fauvel

Thorax transverse, the postero-external angles of the elytra are obtuse, species entirely black...
..... *basicornis* Fauvel

42. *Megarthus birmanus* Fauvel

1895. *Megarthus birmanus* Fauvel, *Revue d'Entomologie*, 14 : 194.

1930. *Megarthus birmanus* : Cameron, *Fauna British India*, 1 : 128.

Material examined : 1 ex., INDIA : West Bengal, Darjiling district, Dange, 9 km from Bijanbari, 1.iv.1978, D. N. Biswas coll., Ex. leaf litter.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Burma.

Remark : In the present study this species is recorded for the first time from West Bengal.

43. *Megarthus chatterjeei* Cameron

1924. *Megarthus chatterjeei* Cameron, *Trans. ent. Soc. Lond.* : 162.

1930. *Megarthus chatterjeei* Cameron, *Fauna British India*, 1 : 130.

Material examined : 1 ex., INDIA : West Bengal, Darjiling district, Kalijhora, 28.xii.1980, D. N. Biswas coll., Ex. Dusting the bush.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

44. *Megarthus umbonatus* Fauvel

1895. *Megarthus umbonatus* Fauvel, *Rev. d'Ent.*, 14 : 194.

1930. *Megarthus umbonatus* : Cameron, *Fauna British India*, 1 : 127-128.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh. *Elsewhere* : Burma.

45. *Megarathrus septempunctatus* champion

1925. *Megarathrus septempunctatus* Champion, *Ent. Monthly Mag.*, **61** : 102.
 1930. *Megarathrus septempunctatus* : Cameron, *Fauna British India*, **1** : 132-133.

Material examined : 1 ex., INDIA : West Bengal, Darjiling district, chaikhola, 1 ex., 12.iv.1976, A. R. Bhaumik coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

46. *Megarathrus basicornis* Fauvel

1904. *Megarathrus basicornis* Fauvel, *Rev. d' Ent.*, **23** : 87.
 1930. *Megarathrus basicornis* : Cameron, *Fauna British India*, **1** : 129-130.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Other Indian States : Himachal Pradesh.

47. *Megarathrus bimaculatus* Fauvel

1904. *Megarathrus bimaculatus* Fauvel, *Rev. d' Ent.*, **23** : 87.
 1930. *Megarathrus bimaculatus* : Cameron, *Fauna British India*, **1** : 128.

Material examined : 1 ex., INDIA : West Bengal, Darjiling district, Chaikhola, 12.iv.1976, A. R. Bhaumik coll.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu. *Elsewhere* : Sri Lanka.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Anthobium* Stephens

1832. *Anthobium* Stephens, III *Brit. Ent.*, **5** : 335.

48. *Anthobium (Eusphalerum) sikkimi* Fauvel

1904. *Anthobium sikkimi* Fauvel, *Rev. d'Ent.*, **23** : 88.
 1930. *Anthobium (Eusphalerum) sikkimi* : Cameron, *Fauna British India*, **1** : 135.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Deinopteroloma* Jansson

1946. *Deinopteroloma* Jansson, *Arkiv for Zoologi*, **38**(A) : 15.

49. *Deinopteroloma notabile* (Cameron)

1941. *Lathrimaeum (Prionothorax) notabile* Cameron, *Proc. R. ent. Soc. Lond.*, **10**(B) : 59.

1985. *Deinopteroloma notabile* : Smetana, *Systematic Entomology*, **10** : 471-499.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Nagaland. *Elsewhere* : Nepal.

Genus *Tetradelus* Fauvel

1904. *Tetradelus* Fauvel, *Rev. d' Ent.*, **23** : 90.

50. *Tetradelus trigonuroides* Fauvel

1904. *Tetradelus trigonuroides* Fauvel, *Rev. d' Ent.*, **23** : 91.

1930. *Tetradelus trigonuroides* : Cameron, *Fauna British India*, **1** : 167-168.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Planeustomus* Jacq. du Val.

1859. *Planeustomus* Jacq. du Val., *Gen. Col. d' Eur.*, **2** : 58.

51. *Planeustomus bengalensis* Champion

1919. *Planeustomus bengalensis* Champion, *Ent. Monthly Mag.*, **55** : 155.

1930. *Planeustomus bengalensis* : Cameron, *Fauna British India*, **1** : 174-175.

Material examined : 1 ex., INDIA : West Bengal, Maldah district, Mangalbari, 21.ix.1987, D. N. Biswas coll.

Distribution : INDIA : West Bengal (Maldah), Bihar.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Trogophloeus* Mannerheim

1830. *Trogophloeus* Mannerheim, *Brach.*, : 49.

Key to the species of *Trogophloeus* Mannerheim

1. Eyes very large and prominent, the temples not or scarcely visible..... 2
 Eyes smaller, the temples distinct..... *calcuttanus* Bernhauer
- 2(1). Thorax with four impressions..... 3
 Torax without distinct impression..... *simplex* Motschulsky
- 3(2). Large species (2.75 mm); antennal segment 8 distinctly longer than broad..... *indicus* Kraatz
 Small species (2 to 2.5 mm); antennal segment 8 not longer than broad..... *siamensis* Fauvel

52. *Trogophloeus (Trogophloeus) calcuttanus* Bernhauer

1911. *Trogophloeus calcuttanus* Bernhauer, *Ent. Blatt.*, 7 : 55

1930. *Trogophloeus (Trogophloeus) calcuttanus* : Cameron, *Fauna British India*, 1 : 198.

Material examined : 2 exs., INDIA : West Bengal, Calcutta, 15.ix.1909, C. Paiva coll.

53. *Trogophloeus (Boopinus) simplex* Motschulsky

1857. *Trogophloeus simplex* Motschulsky, *Bull. Mosc.*, 21 (4) : 31.

1930. *Trogophloeus (Boopinus) simplex* : Cameron, *Fauna British India*, 1 : 189.

Material examined : 10 exs., INDIA : West Bengal, Calcutta, Eden Gardens, 17.x.1911, 9 exs., F. H. Gravely coll., Museum compound, 10.vi.1910, 1 ex., F. H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Sri Lanka and Australia.

Remark : First time recorded from India (West Bengal).

54. *Trogophloeus (Boopinus) indicus* Kraatz

1859. *Trogophloeus indicus* Kraatz, *Arch. Naturgesch.*, 25 (1) : 179.

1930. *Trogophloeus (Boopinus) indicus* : Cameron, *Fauna British India*, 1 : 186.

Material examined : 2 exs., INDIA : West Bengal, Calcutta, Eden Garden, 17.ix.1911, F. H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Sri Lanka and Malay Archipelago.

55. *Trogophloeus (Boopinus) siamensis* Fauvel1886. *Trogophloeus siamensis* Fauvel, *Rev. d' Ent.*, 5 : 1441930. *Trogophloeus (Boopinus) siamensis* : Cameron, *Fauna British India*, 1 : 187.

Material examined : 34 exs., INDIA : West Bengal, Calcutta, Eden Garden, 17.x.1911, F. H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta), Bihar. *Elsewhere* : Madagascar

Remark : First time recorded from West Bengal.

Genus *Oxytelopsis* Fauvel1895. *Oxytelopsis* Fauvel, *Rev. d' Ent.*, 14 : 199.Key to the species of *Oxytelopsis* Fauvel

1. Elytra shorter than prothorax; pronotum devoid of any sulcus; elytra impunctate and granulate *bengalensis* Biswas & Sengupta
- Elytra longer than prothorax; pronotum with sulcus; elytra punctate and granulate..... 2
- 2(1). Lateral margins of prothorax not wavy; posterior margin of pronotum broadly emarginate to the lateral margin..... *pseudopsina* Fauvel
- Lateral margins of prothorax wavy..... 3
- 3(2). Elytra 1.5 times longer than prothorax; head and elytra strongly transverse; front margin of head broadly rounded; post-ocular region diverging backwards..... *cimicoides* Fauvel
- Elytra slightly longer than prothorax; head and elytra slightly transverse; front margin of head truncate; post-ocular region not diverging backwards.....*andrewesi* Cameron

56. *Oxytelopsis cimicoides* Fauvel1895. *Oxytelopsis cimicoides* Fauvel, *Revue de Ent.*, 14 : 200.1930. *Oxytelopsis cimicoides* : Cameron, *Fauna British India*, 1 : 205-206.1980. *Oxytelopsis cimicoides* : Biswas & Sengupta, *Oriental Insects*, 14(3) : 391-395

Material examined : 7 exs., INDIA : West Bengal, Darjiling district, Takdah, 20 km from Rangirrom, 2 exs., 6.iv.1976, A. R. Bhaumik & party coll., Tung, 28 km from Tindharia, 1 ex., 28.iii.1978, A. R. Bhaumik and Party coll., ex. Leaf litter; Maldah dist., Nishipur, 3 exs., 23.xi.1987, D. N. Biswas coll., Ramkali, 1 ex., 6.xii.1987, D. N. Biswas coll., ex. Leaf litter.

Distribution : INDIA : West Bengal (Darjiling & Maldah), Nagaland and Uttar Pradesh. *Elsewhere* : Burma.

57. *Oxytelopsis pseudopsina* Fauvel

1895. *Oxytelopsis pseudopsina* Fauvel, *Revue de Ent.*, 14 : 201.
 1930. *Oxytelopsis pseudopsina* : Cameron, *Fauna British India*, 1 : 206-207.
 1980. *Oxytelopsis pseudopsina* : Biswas & Sengupta, *Oriental Insects*, 14 (3) : 391-395.

Material examined : 40 exs., INDIA : West Bengal, Darjiling dist., Kalijhora, 40 km from Sukna, 2 exs., 12.iv.1978, A. R. Bhaumik & Party coll., Takdah, 20 km from Rangirrom, 2 exs., 6.iv.1978, A. R. Bhaumik & Party coll., Dange, 9 km from Bijanbari, 24 exs., 1.iv.1978, Jhepi, 11 km from Bijanbari, 2 exs., 31.xii.1978; Teesta, 66 km from sukna, 1 ex., 11.iv.1978; all the specimens are collected by A. R. Bhaumik & party; Maldah dist., Nishipur, 3 exs., 23.xi.1987, D. N. Biswas coll., Peajbari, 6 exs., 4.xii.1987, D. N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling & Maldah), Meghalaya & Uttar Pradesh. *Elsewhere*: Burma, Malay Peninsula, Sri Lanka, Java, Indonesia, Sumatra, Celebes, Nepal, Thailand, Philippines and Prinsen Is.

58. *Oxytelopsis andrewesi* Cameron

1930. *Oxytelopsis andrewesi* Cameron, *Fauna British India*, 1 : 207-208.
 1980. *Oxytelopsis andrewesi* : Biswas & Sengupta, *Oriental Insects*, 14 (3) : 391-395.

Material examined : 2 exs., INDIA : West Bengal, Darjiling dist., Takdah, 20 km from Rangirrom, 2 exs., 6.iv.1978, A. R. Bhaumik & Party coll., ex. leaf litter.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu.

59. *Oxytelopsis bengalensis* Biswas & Sengupta

1980. *Oxytelopsis bengalensis* Biswas & Sengupta, *Oriental Insects*, 14(3) : 391-395.

Material examined : Holotype and paratypes 2 exs., INDIA : West Bengal, Darjiling dist., 7.iv.1978, A. R. Bhaumik & party coll., locality data of Paratypes same as holotype.

Distribution : INDIA : West Bengal.

Genus *Oxytelus* Gravenhorst

1802. *Oxytelus* Gravenhorst, *Col. Micr. Brunsv.*, 101.

Key to the subgenera and species of *Oxytelus* Gravenhorst

1. Sides of the thorax crenulate or denticulate.....*Oxytelus* (s.str.) 3
 Sides of the thorax even, at least in front..... 2
 2(1). Eyes with fine facets.....*Tanycraeus* Thomson 4

- Eyes with coarse facets.....*Caccoporus* Thomson 6
- 3(1). Sides of the thorax crenulate..... *cribrum* Fauvel
- 4(2). Thorax 3-sulcate..... *micans* Kraatz
- Thorax 5-sulcate.....5
- 5(4). Larger (5 to 5.5 mm). Head larger and sparingly punctured.....*lucens* Bernhauer
- Smaller (4 mm.). Head smaller and closely punctured..... *punctipennis* Fauvel
- 6(2). Subopaque species..... *bengalensis* Erichson
- Shining species..... 7
- 7(6). Head black..... 8
- Head ferruginous-red.....*ferrugineus* Kraatz
- 8(7). Thorax reddish-testaceous, the base and posterior two-third of the sides narrowly black
.....*nigriceps* Kraatz
- Thorax black or pitchy.....*varipennis* Kraatz

60. *Oxytelus (Caccoporus) varipennis* Kraatz

1859. *Oxytelus varipennis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 172.

1930. *Oxytelus (Caccoporus) varipennis* : Cameron, *Fauna British India*, **1** : 234-235.

Material examined : Not available.

Distribution : INDIA : ? West Bengal, Uttar Pradesh. *Elsewhere* : Sri Lanka.

Remark : The distributional data of this species mentioned only Bengal.

61. *Oxytelus (Caccoporus) nigriceps* Kraatz

1859. *Oxytelus nigriceps* Kraatz, *Arch. Naturgesch.*, **30**(1) 171.

1930. *Oxytelus (Caccoporus) nigriceps* : Cameron, *Fauna British India*, **1** : 233-234.

Material examined : Not available.

Distribution : INDIA : ? West Bengal, Uttar Pradesh. *Elsewhere* : Sri Lanka, Malay Peninsula, Singapore, Hongkong and Formosa.

Remark : The distributional data of this species mentioned only Bengal by Cameron (1930).

62. *Oxytelus (Caccoporus) ferrugineus* Kraatz

1859. *Oxytelus ferrugineus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 173.
 1885. *Oxytelus bledioides* Blackb., *Trans. Roy. Dubl. Soc.*, **3**(2) : 125.
 1874. *Oxytelus leavior* Sharp, *Trans. Ent. Soc. Lond.*, 92.
 1893. *Oxytelus laxipennis* Fairmair, *Ann. Soc. Ent. Belge.*, : 527.
 1930. *Oxytelus (Caccoporus) ferrugineus* : Cameron, *Fauna British India*, **1** : 235-236.

Material examined : 2 exs., INDIA : West Bengal, Calcutta, 22.viii.1907, C. Paiva coll.

Distribution : INDIA : West Bengal (Calcutta), Andaman Island. *Elsewhere* : Sri Lanka, Hawaii, Japan, Seychelles, Aden, E. Africa and West Indies.

Remark : First time recorded from West Bengal.

63. *Oxytelus (Caccoporus) bengalensis* Erichson

1840. *Oxytelus bengalensis* Erichson, *Gen. Spec. Staph.*, : 789.
 1859. *Oxytelus bicolor* Walker, *Ann. Mag. Nat. Hist.*, **3** (3) : 52.
 1930. *Oxytelus (Caccoporus) bengalensis* : Cameron, *Fauna British India*, **1** : 232-233.

Material examined : Not available

Distribution : INDIA : ? West Bengal; Uttar Pradesh. *Elsewhere* : Sri Lanka and Malay Peninsula.

Remark : The distributional data of this species mentioned only Bengal by Cameron (1930).

64. *Oxytelus (s.str.) cribrum* Fauvel

1905. *Oxytelus cribrum* Fauvel, *Rev. d' Ent.*, **24** : 114.
 1930. *Oxytelus (s.str.) cribrum* : Cameron, *Fauna British India*, **1** : 214-215.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh. *Elsewhere*: Burma.

65. *Oxytelus (Tanycraeus) lucens* Bernhauer

1903. *Oxytelus lucens* Bernhauer, *Stett. Ent. Zeit.*, **64** : 34.
 1930. *Oxytelus (Tanycraeus) lucens* : Cameron, *Fauna British India*, **1** : 220-221.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Malay Peninsula, Sumatra, Java and Lombok.

66. *Oxytelus (Tanycraeus) punctipennis* Fauvel

1905. *Oxytelus punctipennis* Fauvel, *Rev. d' Ent.*, **24** : 113.

1930. *Oxytelus (Tanycraeus) punctipennis* : Cameron, *Fauna British India*, **1** : 223.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Darjiling, 2450 m, E. Himalayas, 8.viii.1909, J. T. Jenkins coll.

Distribution : INDIA : West Bengal (Darjiling).

67. *Oxytelus (Tanycraeus) micans* Kraatz

1859. *Oxytelus micans* Kraatz, *Arch. Naturgesch.*, **25**(1) : 175.

1859. *Oxytelus puncticeps* Kraatz, (F), *id.*, 176

1919. *Oxytelus monoceros* Cameron, *Entomologists Monthly Mag.*, **55** : 226.

1930. *Oxytelus (Tanycraeus) micans* : Cameron, *Fauna British India*, **1** : 228-230.

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Eden Gardens, 2.xi.1911, F. H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Sri Lanka, Madagascar and Africa.

Genus *Anotylus* Thomson

1859. *Anotylus* Thomson, *Lund*, **1** : 44.

Key to the species of *Anotylus* Thomson

1. Species in great part red or reddish-testaceous.....*laetus* (Cameron)
- Species in great part black or pitchy..... 2
- 2(1). Fourth segment of antennae small, moniliform or transverse..... 3
- Fourth segment of antennae at least as long as broad..... *frater* (Cameron)
- 3(2). Legs more or less pitchy..... *megacephalus* (Fauvel)
- Legs entirely testaceous..... 4
- 4(3). Anterior tibiae emarginate before the apex..... 5
- Anterior tibiae not emarginate..... 6

- 5(4). Larger (3.75 to 4 mm) and more robust; less shining..... *sikkimi* (Fauvel)
 Smaller (2.5 to 3 mm) and narrower; more shining.....*nitidulus* (Gravenhorst)
- 6(4). Intra-ocular ridge distinct and continued back to the base of head.....*latiusculus* (Kraatz)
 Intra-ocular ridge indistinct, not continued to the base..... 7
- 7(6). Head finely striate near the eyes only, behind the antennal tubercles punctured, the vertex smooth
 *gardneri* (Cameron)
 Head finely and closely striate, the vertex foveate..... *pygmaeus* (Kraatz)

68. *Anotylus laetus* (Cameron)

1930. *Oxytelus (Anotylus) laetus* Cameron, *Fauna British India*, 1 : 252-253.
 1970. *Anotylus laetus* : Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 142(5) : 418.

Material examined : 2 exs., INDIA : West Bengal, Jalpaiguri dist., Gayerkata, 30.x.1977, A. K. Dutta coll.

Distribution : INDIA : West Bengal (Jalpaiguri), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

69. *Anotylus latiusculus* (Kraatz)

1859. *Oxytelus latiusculus* Kraatz, *Arch. Naturgesch*, 25(1) : 176.
 1930. *Oxytelus (Anotylus) latiusculus* : Cameron, *Fauna British India*, 1 : 250-251.
 1970. *Anotylus latiusculus* : Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 142 (5) : 418.

Material examined : 2 exs., INDIA : West Bengal, Jalpaiguri dist., Gayerkata, 27.iv.1977, A. K. Dutta coll.

Distribution : INDIA : West Bengal (Jalpaiguri). *Elsewhere* : Sri Lnaka, Malayan Archipelago, Formosa, Australia, Aden, East West and South Africa, Egypt and Syria.

Remark : In the present study this species is recorded for the first time from West Bengal.

70. *Anotylus sikkimi* (Fauvel)

1905. *Oxytelus sikkimi* Fauvel, *Rev. d' Ent.*, 24 : 115.
 1930. *Oxytelus (Anotylus) sikkimi* : Cameron, *Fauna British India*, 1 : 242.
 1970. *Anotylus sikkimi* : Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 142 (5) : 419.

Material examined : 2 exs., INDIA : West Bengal, Jalpaiguri dist., Gayerkata, 30.xi.1977, A. K.

Dutta coll.

Distribution : INDIA : West Bengal (Darjiling and Jalpaiguri)

71. *Anotylus nitidulus* (Gravenhorst)

1802. *Oxytelus nitidulus* Gravenhorst, *Col. Micr. Brunsv.*, 102.
 1930. *Oxytelus (Anotylus) nitidulus* : Cameron, *Fauna British India*, 1 : 247-248.
 1970. *Anotylus nitidulus* : Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 142 (5) : 419.

Material examined : 1 ex., INDIA : West Bengal, Japaiguri dist., Jalpaiguri, 18.x.1977., A. K. Dutta coll.

Distribution : INDIA : West Bengal (Jalpaiguri), Himachal Pradesh and Uttar Pradesh. *Elsewhere* : Malay Peninsula, Europe and North America.

Remark : In the present study this species is recorded for the first time from West Bengal.

72. *Anotylus frater* (Cameron)

1930. *Oxytelus (Anotylus) frater* Cameron, *Fauna British India*, 1 : 262.
 1970. *Anotylus frater* : Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 142 (5) : 418.

Material examined : 1 ex., INDIA : West Bengal, Jalpaiguri dist., Gayerkata, 15.xii.1977, A. K. Dutta coll.

Distribution : INDIA : West Bengal (Jalpaiguri), Himachal Pradesh and Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

73. *Anotylus megacephalus* (Fauvel)

1904. *Oxytelus megacephalus* Fauvel, *Rev. d' Ent.*, 23 : 99.
 1930. *Oxytelus (Anotylus) megacepalus* : Cameron, *Fauna British India*, 1 : 241-242.
 1970. *Anotylus megacephalus* : Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 142 (5) : 418.

Material examined : 4 exs., INDIA : West Bengal, Darjiling dist., Darjiling, 2450 m., 8.viii.1909, 3 exs., J. T. Jenkins coll.; Calcutta, Eden Garden, 23.x.1911, 1 ex., F. H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta, Darjiling), Uttar Pradesh.

74. *Anotylus gardneri* (Cameron)

1930. *Oxytelus (Anotylus) gardneri* Cameron, *Fauna British India*, 1 : 456.
 1970. *Anotylus gardneri* : Herman, Jr., *Bull. Am. Mus. Nat. Hist.*, 142 (5) : 418.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

75. *Anotylus pygmaeus* (Kraatz)

1859. *Oxytelus pygmaeus* Kraatz, *Arch. Naturgesch.*, **25** (1) : 176
 1859. *Oxytelus tenuis* Motschulsky, *Et. Ent.*, **8** : 70.
 1930. *Oxytelus (Anotylus) pygmaeus* : Cameron, *Fauna British India*, **1** : 248-249.
 1970. *Anotylus pygmaeus* : Herman, Jr. *Bull. Am. Mus. Nat. Hist.*, **142** (5) : 419.

Material examined : 15 exs., INDIA : West Bengal, Calcutta, 24.ii.1910, C. Paiva Coll.

Distribution : INDIA : West Bengal (Calcutta).

Elsewhere : Sri Lanka, Indo-Malay region, Annam, Hawaii, Aden.

Genus *Bledius* Leach

1819. *Bledius* Leach *The entomologist's useful compendium*. London : 496.

Key to the subgenera and species of *Bledius* Leach

1. Prosternum with small, well-defined, setigerous pit anterior to procoxa..... *Bledius*, s.str.3
 Prosternum without such pit, only an ill-defined depression anterior to Procoxa.....2
- 2(1). Pro coxal fissure closed or slightly open, protrochantin concealed or narrowly exposed and small; clypeus devoid of any dentate or tuberculate..... *Hesperophilus* Mulsant and Rey 7
 Procoxal fissure open, protrochantin widely exposed and large; clypeus dentate or tuberculate...
*Pucerus* Mulsant and Rey 4
- 3(1). Supra antennal horns armed with a pair of additional horns at its base; mandible tridentate.....
*brunnipennis* (Fabricius)
 Supra antennal horns different; mandible bidentate..... *hoplites* Fauvel
- 4(2). First segment of antennae markedly long..... 5
 First segment of antennae normal..... 6
- 5(4). Front margin of clypeus with a median tooth.....*niloticus* Erichson

- Front margin of clypeus with two widely separated teeth..... *suravius* Biswas & Sengupta
- 6(4). Mandibles bidentate; elytra with membranous lobe on posterior margin and unicolour.....
..... *torsius* Biswas & Sengupta
- Mandibles tridentate; elytra without such lobe on posterior margin and bicolour.....
..... *totius* Biswas & Sengupta
- 7(2). Lateral margin of mandibles in male near base distinctly produced apically; elytral epipleural ridge present along the entire length of elytron..... *helferi* Fauvel
- Lateral margin of mandibles in male near base normal; elytral epipleural ridge present only one-third length of elytron..... *baltus* Biswas & Sengupta

76. *Bledius (s.str.) brunnipennis* (Fabricius)

1801. *Staphylinus brunnipennis* Fabricius, *Syst. Eleuth.*, 2 : 596.
1839-40. *Staphylinus brunnipennis* : Erichson, *Gen. Spec. Staph.* 779
1859. *Staphylinus brunnipennis* : Kraatz, *Arch. Naturgesch.*, 25 (1) : 168 (note).
1903. *Staphylinus brunnipennis* : Fauvel, *Rev. d' Ent.*, 12 : 151.
1858. *Staphylinus productus* Walker, *Ann. Mag. nat. Hist.*, 3 (2) : 205, *Staphylinus rudis* Walker, *ibid.* : 208.
1930. *Bledius (s.str.) brunnipennis* : Cameron, *Fauna British India*, 1 : 273-274.
1989. *Bledius (s.str.) brunnipennis* : Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. paper no. 122 : 1-46.

Material examined : 70 exs., INDIA : West Bengal, Calcutta, Eden Garden, 13 exs., 16.x.1911, F. H. Gravely coll.; South 24-Parganas dist., Sagar Island, 57 exs., 15.v.1977, R. C. Basu coll.

Distribution : INDIA : West Bengal (Calcutta and South 24-Parganas), Orissa, Tamil Nadu and Maharashtra. *Elsewhere* : Burma and Sri Lanka.

77. *Bledius (s.str.) hoplites* Fauvel

1886. *Bledius hoplites* Fauvel, *Rev. d' Ent.*, 5 : 146.
1930. *Bledius (s.str.) hoplites* : Cameron, *Fauna British India*, 1 : 274.
1989. *Bledius (s.str.) hoplites* : Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. paper no. 122 : 1-46.

Material examined : 24 exs., INDIA : West Bengal, South 24-Parganas dist., Sagar Island, Bamankhali, nr. research station, 24 exs., 16.vii.1977, R. C. Basu coll., ex. at light.

Distribution : INDIA : West Bengal (South 24-Parganas), Orissa. *Elsewhere* : Siam and Philippines

78. *Bledius (Pucerus) suravius* Biswas & Sengupta

1989. *Bledius (Pucerus) suravius* Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. paper no. 122 : 1-46.

Material examined : 1 ex. (Holotype), INDIA : West Bengal, Nadia dist. Suravisthan, Badkulla, 10

km South from Krishnagar, 23.vi.1976, D. N. Biswas coll.

Distribution : INDIA : West Bengal (Nadia).

79. *Bledius (Pucerus) totius* Biswas & Sengupta

1989. *Bledius (Pucerus) totius* Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. Paper no. 122 : 1-46.

Material examined : 1 ex. (Holotype) & 32 exs. (Paratypes), INDIA : West Bengal, Jalpaiguri dist., Rajabhatkhawa, 4.xii.1974, T. Sengupta coll., ex. under the sand of Teesta River.

Distribution : INDIA : West Bengal (Jalpaiguri).

80. *Bledius (Pucerus) torsius* Biswas & Sengupta

1989. *Bledius (Pucerus) torsius* Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. paper no. 122 : 1-46.

Material examined : 1 ex. (Holotype) & 32 exs. (Paratypes), INDIA : West Bengal, Jalpaiguri dist., Rajabhatkhawa, 4.xii.1974, T. Sengupta coll., ex. under the sand of Teesta River.

Distribution : INDIA : West Bengal (Jalpaiguri).

81. *Bledius (Pucerus) niloticus* Erichson

1939-40. *Bledius (Pucerus) niloticus* Erichson, *Gen. Spec. Staph.* : 776.

1902. *Bledius (P.) niloticus* : Fauvel, *Rev. d' Ent.*, 21 : 71.

1885. *Bledius nitidicollis* Eppelsheim (not Leconte), *Deutsche Ent. Zeitschr.*, 29 : 142

1989. *Bledius (P.) niloticus* : Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. Paper No. 122 : 1-46.

Material examined : 13 exs., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 13 exs., 23.vi.1976, D. N. Biswas coll.

Distribution : INDIA : West Bengal (Nadia), Bihar, Sikkim and Punjab. *Elsewhere* : Egypt, Algeria, Syria, West Africa and Madagascar.

82. *Bledius (Hesperophilus) baltus* Biswas & Sengupta

1989. *Bledius (Hesperophilus) baltus* Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. paper no. 122 : 1-46.

Material examined : 20 exs. (Holotype & Paratypes), INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 11.vi.1976, D. N. Biswas coll., ex. at light.

Distribution : INDIA : West Bengal (Nadia).

83. *Bledius (Hesperophilus) helferi* Fauvel

1904. *Bledius helferi* Fauvel, *Rev. d' Ent.*, **23** : 112.
 1930. *Bledius (Hesperophilus) helferi* : Cameron, *Fauna British India*, **1** : 284.
 1989. *Bledius (Hesperophilus) helferi* : Biswas & Sengupta, *Rec. zool. Surv. India*, Occ. paper no. 122 : 1-46.

Material examined : 43 exs., INDIA : West Bengal, South 24 Parganas dist., Sagar Island, 43 exs., 24.viii.1983, T. K. Podder coll., ex. Sandy river bed.

Distribution : INDIA : West Bengal (South 24-Parganas). *Elsewhere* : Burma.

Genus *Osorius* Latreille

1829. *Osorius* Latreille, *Regne Anim.*, **4** : 438.

Key to the species of *Osorius* Latreille

1. Head finely striate near the eyes only, behind the antennal tubercles punctured.....
*gardneri* Cameron
- Head between the eyes uniformly striate..... 2
- 2(1). Thorax less closely punctured..... *sikkimensis* Bernhauer
- Thorax more closely punctured.....*lopchuensis* Cameron

84. *Osorius sikkimensis* Bernhauer

1918. *Osorius sikkimensis* Bernhauer, *Arch. Naturgesch.*, **84** : 177.
 1930. *Osorius sikkimensis* : Cameron, *Fauna British India*, **1** : 294-295.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

85. *Osorius gardneri* Cameron

1930. *Osorius gardneri* Cameron, *Fauna British India*, **1** : 456-457.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

86. *Osorius lopchuensis* Cameron

1930. *Osorius lopchuensis* Cameron, *Fauna British India*, **1** : 457.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Mimogonus* Fauvel

1903. *Mimogonus* Fauvel, *Rev. d' Ent.*, 22 : 261.

87. *Mimogonus niger* Cameron

1930 *Mimogonus niger* Cameron, *Fauna British India*, 1: 457.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Subfamily OXYPORINAE

This subfamily is represented by the single genus *Oxyporus* Fauvel.

Genus *Oxyporus* Fauvel

1775. *Oxyporus* Fauvel, *Syst. Ent.*, : 267.

Key to the species of *Oxyporus* Fauvel

1. Head, Thorax and elytra black.....3
- Head, thorax and elytra otherwise..... 2
- 2(1). Head and thorax red ; elytra yellowish-red, the posterior-external region from the middle of the side to the apex of the suture black; abdominal segment 6 black with the posterior half yellow.....
..... *tricolor* Cameron
- Head and thorax yellowish-red ; elytra-yellow with a black triangular mark extending from the apex of the suture to the middle of the reflexed margin ; abdominal segment 6 entirely reddish yellow
..... *cephalotes* Cameron
- 3(1). Elytra with a broad yellow oblique fascia extending from the humeral region nearly to the suture beyond the middle ; the last two abdominal segments yellow.....*excellens* Cameron
- Elytra near the postero-external angles with a narrow oblique yellow streak ; the posterior third of the abdominal segment of yellow..... *terminalis* Cameron

88. *Oxyporus excellens* Cameron

1943. *Oxyporus excellens* Cameron, *Proc. R. ent. Soc Lond.*, 12(B) : 1.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling-).

89. *Oxyporus cephalotes* Cameron

1930. *Oxyporus cephalotes* Cameron, *Fauna British India*, 1 : 313.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., v. 1910, R.B. Horsfall coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma

Remark : In the present study this species is recorded for the first time from India (West Bengal).

90. *Oxyporus terminalis* Cameron

1943. *Oxyporus terminalis* Cameron, *Proc.R. ent. Soc. Lond.*, 12(B) : 1.

Material examined : Not available.

Distribution : INDIA: West Bengal (Darjiling).

91. *Oxyporus tricolor* Cameron

1943. *Oxyporus tricolor* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 1.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Subfamily STENINAE

Key to the genera of the subfamily Steninae

1. Eyes very large, occupying the entire side of the head, temples wanting ; seventh abdominal segment with a short spine or short bunch of hairs on each side.....*Stenus* Latreille

Eyes not occupying the entire side of the head, temples present ; seventh abdominal segment with a tuft of long fine hairs on each side.....*Dianous* Samouelle

Key to the subgenera and species of *Stenus* Latreille

1. Fourth tarsal segment at most slightly emarginate..... .2
 Fourth tarsal segment distinctly bilobed.....3
- 2(1). Abdomen completely margined throughout..... *Stenus*, s. str. 5
 Abdomen not or only first and second segments very finely margined*Parastenus* Rey 4
- 3(1). Abdomen not, or very indistinctly margined on 1st, 5th and 6th segments only.....
*Hypostenus* Rey 8
 Abdomen completely and distinctly margined..... *Mesostenus* Rey 17
- 4(2). Abdomen very finely margined ; legs reddish-yellow.....*motivagans* Cameron
- 5(2). Abdomen normally margined; legs entirely black..... 6
- 6(5). Smaller species (2.2 to 4 mm) ; elytra behind more or less transverse rugae.....
 *confluens* Cameron
 Larger species (5 to 6.75 mm) ; elytra behind not transverse rugae.....
 7
- 7(6). The antennae pitchy, the first two segments black ; abdomen coarsely punctured.....
*sikkimensis* Cameron
 The antennae brownish-yellow and the intermediate segments are black ; abdomen very much
 coarsely punctured..... *vorticosis* Cameron
- 8(3). Abdomen bicolours.....*pictus* Motschulsky
 Abdomen unicolour.....9
- 9(8). Elytra unicolour.....11
 Elytra dark, with yellow or orange markings.....10
- 10(9). Each elytron behind near the lateral margin with a very obscure, indeterminate orange marking ;
 antennae yellow and its club infuscate.....*obliteratus* Cameron
 Each elytron with moderate, rounded, orange-red spot which is equidistant from the suture and
 lateral margins ; antennae reddish-testaceous *guttalis* Fauvel
- 11(9). Base of the antennae black or pitchy.....12

- Base of the antennae testaceous or reddish testaceous..... 13
- 12(11).First segment of antennae only dark..... *monomerus* Fauvel
- First two segments of antennae dark..... *cursorius* L. Benick
- 13(11).Antennae short, the penultimate segments not or but little longer than broad..... 14
- Antennae long and slender, the penultimate segments much longer than broad..... 15
- 14(13).Head at the base with three large raised impunctate shining plaques..... *tricarinatus* Karaatz
- Head at the base without such plaques.....*fistulosus* L. Benick
- 15(13).Head completely excavated, without or with scarcely perceptible elevation in the middle.....
.....*barbatus* Niet.
- Head more or less bisulcate and more or less elevated along the middle..... 16
- 16(15).Head uniformly punctured all over..... *wasmanni* Fauvel
- Head with more or less distinct shining median space or line.....*kurseonginus* Bernhauer
- 17(3). Each elytron with a reddish or yellowish marking..... 20
- Elytra unicolour..... 18
- 18(17).Thorax sulcate in the middle ; legs reddish-yellow..... *mangpuensis* Cameron
- Thorax not sulcate in the middle ; legs reddish testaceous..... 19
- 19(18).The puncturation of the fore-parts is not quite so coarse ; legs and palpi entirely testaceous.....
.....*gardneri* Cameron
- The puncturation of the fore-parts is quite coarser ; legs and palpi reddish-testaceous.....
..... *separandus* Cameron
- 20(17).Narrower ; thorax not sulcate, cylindrical.....*tenuimargo* Cameron
- Robust ; thorax sulcate, not cylindrical.....21
- 21(20).Elytral marking round.....22
- Elytral marking otherwise..... 23

- 22(21). Elytral spot large and orange-yellow.....*stigmaticus* Fauvel
 Elytral spot small and orange-red.....*rubronotatus* Cameron
- 23(21). Thorax even and median sulcus more deep.....*virgula* Fauvel
 Thorax uneven and median sulcus not so deep..... 24
- 24(23). Elytral spot larger ; puncturation of head less coarse..... *lopchuensis* Cameron
 Elytral spot smaller ; puncturation of head more coarse.....*pseudopictus* Cameron

Genus *Stenus* Latreille

1796. *Stenus* Latreille, *Prec. Car. gen. Ins.*, : 77

92. *Stenus (s. str.) vorticosus* Cameron

1943. *Stenus (s. str.) vorticosus* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 2.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

94. *Stenus confluens* Cameron

1918. *Stenus (s. str.) confluens* Cameron, *Entomologist's Monthly Mag.*, **54** : 102.

1930. *Stenus confluens* Cameron, *Fauna British India*, **1** : 325-326.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

95. *Stenus sikkimensis* Cameron

1928. *Stenus (s. str.) sikkimensis* Cameron, *Ann. Mag. nat. Hist.* **10** (2) : 559.

1930. *Stenus sikkimensis* Cameron, *Fauna British India*, **1** : 324-325.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

96. *Stenus (Hypostenus) barbatus* Niet.

1857. *Stenus barbatus* Niet., *Ann. Mat. nat. Hist.*, **19**(2): 381

1902. *Stenus arachuipe* Bernhauer, *D. E. Z.*, : 42.

1930. *Stenus (Hypostenus) barbatus* : Cameron, *Fauna British India*, **1** : 373-374.

Material examined : 2 exs., INDIA : West Bengal, Darjiling dist., Darjiling, E. Himalaya, 2450m., 10. viii. 1909, C. Paiva Coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Sri Lanka.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

97. *Stenus (Hypostenus) guttalis* Fauvel

1895. *Stenus guttalis* Fauvel, *Rev. d' Ent.*, **14** : 212.

1930. *Stenus (Hypostenus) guttalis* : Cameron, *Fauna British India*, **1** : 352-353.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Chaikhola, 12. iv. 1976, A.R. Bhaumik coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma.

Remark : In the present study this species is rcordeed for the first time from India (West Bengal).

98. *Stenus (Hypostenus) monomerus* Fauvel

1895. *Stenus monomerus* Fauvel, *Rev. d' Ent.*, **14** : 214.

1930. *Stenus (Hypostenus) monomerus* : Cameron, *Fauna British India*, **1** : 380.

Material examined : 4 exs., INDIA : West Bengal, Darjiling dist., Chaikhola, 12. iv. 1976, A.R. Bhaumik coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma and Malay Peninsula.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

99. *Stenus (Hypostenus) pictus* Motschulsky

1857. *Stenus pictus* Motschulsky, *Bull. Mosc.*, **30**(4) : 515.

1924. *Hypostenus pictus* Champion, *Entomologist's Monthly Mag.*, **60** : 160.

1930. *Stenus (Hypostenus) pictus* : Cameron, *Fauna British India*, **1** : 351-352.

Material examined : 13 exs., INDIA : West Bengal, Darjiling dist., Teesta Bazar, 25. ii. 1979, S.K. Saha coll., Ex. Beeting the bush.

Distribution : INDIA ; West Bengal (Darjiling), Tamil Nadu.

100. *Stenus (hypostenus) cursorius* L. Benick

1889. *Stenus planifrons* Fauvel, *Rev. d' Ent.*, **8** : 253.

1921. *Stenus cursorius* : L. Benick, (nom. nov.), *Ent. Mitt.*, **10** : 193.

1930. *Stenus planifrons* : Cameron, *Fauna British India*, **1** : 382.

1976. *Stenus cursorius* : Puthz, *Dtsch. ent. Z., N.F.*, **23** : 4
 1981. *Stenus cursorius* : Rougemont, *Ann. Mus. Civ. St. Nat. Genova*, **83** : 378.

Material examined : 1 ex., INDIA : West Bengal, Maldah dist., Peajbari, 4. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Maldah), Uttar Pradesh. *Elsewhere* : New Caledonia, N.W. Australia and Celebes.

Remark : In the present study this species is recorded for the first time from West Bengal.

101. *Stenus (Hypostenus) fistulosus* L. Benick

1925. *Stenus fistulosus* L. Benick, *Mitt. Much. Ent. Ges.*, **15** : 78.
 1930. *Stenus (Hypostenus) fistulosus* : Cameron, *Fauna British India*, **1** : 381-382.

Material examined : 1 ex., INDIA : West Bengal, Maldah dist., Sodhlapur, 22. xi. 1987, D.N. Biswas coll., ex. leaf litter.

Distribution : INDIA : West Bengal (Maldah), Tamil Nadu.

Remark : In the present study this species is recorded for the first time from West Bengal.

102. *Stenus (hypostenus) kurseonginus* Bernhauer

1911. *Stenus (hypostenus) kurseonginus* Bernhauer, *Ent. Blatt.*, **7** : 58.
 1930. *Stenus (Hypostenus) kurseonginus* : Cameron, *Fauna British India*, **1** : 362-363.

Material examined : 8 exs., INDIA : West Bengal, Darjiling dist., Kurseong, 1645m., 1 ex., 25. vi. 1910, N. Annandale coll., Chaikhola, 6 exs., 12. iv. 1976, A.R. Bhaumik coll., Kurseong, 1 ex., 25. vi. 1910, N. Annandale coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

103. *Stenus (hypostenus) obliterated* Cameron

1930. *Stenus (Hypostenus) obliterated* Cameron, *Fauna British India*, **1** : 458-459.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

104. *Stenus (hypostenus) tricarinatus* Kraatz

1859. *Stenus tricarinatus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 164
 1930. *Stenus (Hypostenus) tricarinatus* : Cameron, *Fauna British India*, **1** : 380-381.

Material examined : 12 exs., INDIA : West Bengal, Calcutta, Museum Compound, 6 exs., 7. iv. 1910, F.H. Gravely coll., Calcutta, 6 exs., 24. iii. 1948, N. Annandale coll.

Distribution : INDIA : Wst Bengal (Calcutta), Bihar and Maharashtra. *Elsewhere* : Australia, Java and Sri Lanka.

Remark : In the present study this species is recorded for the first time from West Bengal.

105. *Stenus (hypostenus) wasmanni* Fauvel

1895. *Stenus wasmanni* Fauvel, *Rev. d' Ent.*, **14** : 214.

1930. *Stenus (Hypostenus) wasmanni* : Cameron, *Fauna British India*, **1** : 376-377.

1975. *Stenus wasmanni* : Puthz, *Entomologica Basiliensia*, **1** : 189.

1980. *Stenus wasmanni* : Rougemont, *Entomologica Basiliensia*, **5** : 181-182.

1981. *Stenus wasmanni* : Rougemont, *Ann. Mus. Civ. St. Nat. Genova*, **83**: 378.

Material examined : 4 exs., INDIA : West Bengal, Maldah dist., Mahadipur, 1 ex., 5. xii. 1987, Nishipur, 1 ex., 23. xi. 1987, Ramkali, 1 ex., 6. xii. 1987, Manikchak, 1 ex., 9. xii. 1987, all the specimens are collected by D.N. Biswas, ex. leaf litter of Sonajhuri.

Distribution : INDIA : West Bengal (Darjiling and Maldah), Himachal Pradesh, Nagaland and Uttar Pradesh. *Elsewhere* : Burma, Bhutan, Nepal and Thailand.

106. *Stenus (mesostenus) gardneri* Cameron

1930. *Stenus (Mesostenus) gardneri* Cameron, *Fauna Btritish India*, **1** : 460.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

107. *Stenus (Mesostenus) lopchuensis* Cameron

1930. *Stenus (Mesostenus) lopchuensis* Cameron, *Fauna British India*, **1** : 460.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

108. *Stenus (Mesostenus) tenuimargo* Cameron

1930. *Stenus (Mesostenus) tenuimargo* Cameron, *Fauna British India*, **1** ; 459-460.

1981. *Stenus (Parastenus) tenuimargo* : Rougemont, *Ann. Mus. Civ. St. Nat. Genova*, **83** : 382.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma, Viétnam, Yunan and Thailand.

109. *Stenus (Mesostenus) stigmaticus* Fauvel

1895. *Stenus stigmaticus* Fauvel, *Rev. d'Ent.*, **14** : 210.

1930. *Stenus (Mesostenus) stigmaticus* : Cameron, *Fauna British India*, **1** : 389-390.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Nagaland. *Elsewhere* : Burma, Tonkin and Hong-kong.

110. *Stenus (Mesostenus) virgula* Fauvel

1895. *Stenus virgula* Fauvel, *Rev. d' Ent.*, **4** : 210.

1930. *Stenus (Mesostenus) virgula* : Cameron, *Fauna British India*, **1** : 394-395.

1981. *Stenus virgula* : Rougemont, *Ann. Mus. Civ. St. Nat. Genova*, **83** : 339.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Burma, Nepal and Taiwan.

111. *Stenus (Mesostenus) rubronotatus* Cameron

1943. *Stenus (Mesostenus) rubronotatus* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 3.

1980. *Stenus (Parastenus) rubronotatus* : Rougemont, *Ent. Bas.*, **5** : 184.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Nepal.

112. *Stenus (Mesostenus) mangpuensis* Cameron

1943. *Stenus (Mesostenus) mangpuensis* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 3.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

113. *Stenus (Mesostenus) separandus* Cameron

1943. *Stenus (Mesostenus) separandus* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 3.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

114. *Stenus (Mesostenus) pseudopictus* Cameron

1943. *Stenus (Mesostenus) pseudopictus* Camero, *Proc. R. ent. Soc. Lond.*, **12**(B) : 4.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Dianous* Samouelle

1819. *Dianous* Samouelle, *Ent. Comp.* : 173

Key to the species of *Dianous* Samouelle

- | | | |
|-------|--|--------------------------------|
| 1. | Fourth tarsal segment bilobed..... | 5 |
| | Fourth tarsal segment not bilobed..... | 2 |
| 2(1): | Fourth tarsal segment simple..... | 3 |
| | Fourth tarsal segment at most a little emarginate..... | 4 |
| 3(2). | Elytra with reddish-yellow spot on each, greenish blue..... | <i>obliquenotatus</i> Champion |
| | Elytra without-such marking, black with dark leaden blue..... | <i>wittmeri</i> Rougemont |
| 4(2). | Dark bronze-green, less shining ; first segment of the posterior tarsi obviously longer than last
..... | <i>andrewesi</i> Cameron |
| | Black with slight greenish reflex, moderately shining ; first segment of the posterior tarsi not much
longer than the last..... | <i>adjacens</i> Cameron |
| 5(1) | Thorax coriaceous..... | 6 |
| | Thorax coarsely punctured..... | 7 |
| 6(5). | Thorax distinctly coriaceous, the base punctured; elytra green, with obscure blue fascia | <i>annandalei</i> Bernhauer |
| | Thorax scarcely perceptibly coriaceous, the base practically impunctate ; elytra violaceous,
variegated with green..... | <i>versicolor</i> Cameron |
| 7(5). | Black species, very shining, rosette uniform with the rest of the surface, rugae of rosette very coarse;
first segment of the posterior tarsi not much longer than the last | <i>championi</i> Cameron |

Bronze-black, resette more or less purplish or coppery, rugae of rosette fine ; first segment of the posterior tarsi much longer than the last *cameroni* Champion

115. *Dianeous championi* Cameron

1920. *Dianeous championi* Cameron, *Entomologist's Monthly Mag.*, **56** : 145.
 1930. *Dianeous championi* Cameron, *Fauna British India*, **1** : 433.
 1943. *Dianeous sikkimi* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 4.
 1980. *Dianeous championi* : Rougemont, *Entomologica Basiliensia*, **5** : 174.

Material examined : Not available

Distribution : INDIA : West Bengal (Darjiling).

117. *Dianeous annandalei* Bernhauer

1911. *Dianeous annandalei* Bernhauer, *Ent. Blatt.*, **7** : 57.
 1930. *Dianeous annandalei* : Cameron, *Fauna British India*, **1** : 410-411.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

118. *Dianeous cameroni* Champion

1919. *Dianeous cameroni* Champion, *Entomologist's Monthly Mag.* **55**: 50.
 1930. *Dianeous cameroni* : Cameron, *Fauna British India*, **1** ; 432-433.

Material examined : Not available.

Distribution : INDIA ; West Bengal (Darjiling), Manipur and Nagaland.

119. *Dianeous versicolor* Cameron

1914. *Dianeous versicolor* Cameron, *Trans. Ent. Soc. Lond.*, 533
 1919 *Dianeous versicolor* : Champion, *Entomologist's Monthly Mag.*, **55** : 43.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

120. *Dianeous obliquenotatus* Champion

1921. *Dianeous obliquenotatus* Champion, *Entomologist's Monthly Mag.*, **57** : 183.
 1930. *Dianeous obliquenotatus* : Cameron, *Fauna British India*, **1** : 414

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

121. *Dianous adjacens* Cameron

1943. *Dianous adjacens* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 4.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

122. *Dianous wittmeri* Rougemont

1985. *Dianous wittmeri* Rougemont, *Entomologica Basiliensia*, 10 : 33.134

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling)

Subfamily EUAESTHETINAE

Key to the genera of the subfamily Euaesthetinae

- 1. Tarsi 4-segmented.....*Edaphus* Le Conte
- Front and middle tarsi 5 segmented, hind tarsi 4-segmented2
- 2(1) Prothorax very distinctly and uniformly punctate, on the disc without furrow, lateral sides of prothorax not or scarcely indistinctly margined ; elytra 1/2 as long as prothorax. Antennae slender, the last three segments a little thicker.....*Stenaesthetus* Sharp
- Prothorax not or only very scatterly punctate, on the disc with two longitudinal furrow, lateral sides of prothorax very sharply margined ; elytra 1/4 as long as prothorax. Antennae slender, towards the apex not thickend *Aulacosthaetus* Bernhauer

Genus *Edaphus* Leconte

- 1861. *Edaphus* J. Leconte, *Class. Col. N. Amer.*, 1 : 67.
- 1930. *Edaphus* : Cameron, *Fauna British India*, 1 : 447-448.

Key to the species of *Edaphus* Le Conte

- 1. Size larger, almost impunctate..... *major* Fauvel

Size smaller, almost punctured..... 2

- 2(1) Elytra longer than the thorax, closely and distinctly punctured ; at the base of the thoarax with six small foveae, finely and sparingly punctured.....*binodulus* Cameron

Elytra as long as the thorax, sparingly and obsoletely punctured ; at the base of the thorax with four small fossa, rather coarsely and closely punctured..... *brevipennis* Cameron

123. *Edaphus binodulus* Cameron

1943. *Edaphus binodulus* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 5.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

124. *Edaphus major* Fauvel

1895. *Edaphus major* Fauvel, *Rev. d' Ent.*, 14 : 205.
1930. *Edaphus major* : Cameron, *Fauna British India*, 1 : 448.

Material examined : 1 ex., INDIA : West Bengal, Jalpaiguri dist., Santalbari, 9. viii. 1986, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Jalpaiguri). *Elsewhere* : Burma.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

125. *Edaphus brevipennis* Cameron

1945. *Edaphus brevipennis* Cameron, *Proc. R. ent. Soc. Lond.*, 14(B) : 5.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Aulacosthaetus* Bernhauer

1939. *Aulacosthaetus* Bernhauer, *Ann. Mag. nat. Hist.* 4(11) ; 210-216.

126. *Aulacosthaetus indicus* Cameron

1943. *Aulacosthaetus indicus* Cameron, *Proc. R. ent. Sc. Lond.*, 14(B) : 5

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Remark : This genus is represented by single species in India.

Genus *Stenaesthetus* Sharp

1874. *Stenaesthetus* Sharp, *Trans. ent. Soc. Lond.*, : 79.

1930. *Stenaesthetus* : Cameron, *Fauna British India*, 1 : 445-446.

Key to the species of *Stenaesthetus* Sharp

1. Thorax without sulcate, with umbilicate punctures..... *sunioides* Sharp
 Thorax quadrisulcate, without umbilicate punctures..... *quadrisulcatus* Cameron

127. *Stenaesthetus quadrisulcatus* Cameron

1930. *Stenaesthetus quadrisulcatus* Cameron, *Fauna British India*, 1 : 446 - 447.

Material examined : 2 exs., INDIA : West Bengal, Darjiling dist., Pashoke, 7. iv. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

128. *Stenaesthetus sunioides* Sharp

1874. *Stenaesthetus sunioides* Sharp, *Trans. Ent. Soc. Lond.*, : 80

1930. *Stenaesthetus sunioides* : Cameron, *Fauna British India*, 1 : 446.

Material examined : 2 ex., INDIA : West Bengal, Darjiling dist., Sukna, 1 ex., 9. iv. 1978, D.N. Biswas coll. ; Jalpaiguri dist., Madarihat, Khairbari, 1 ex., 9. xi. 1974, T. Sengupta coll.

Distribution : INDIA : West Bengal (Darjiling and Jalpaiguri), Uttar Pradesh. *Elsewhere* : Sri Lanka

Remark : In the present study this species is recorded for the first time from West Bengal.

Subfamily PAEDERINAE

Key to the Tribes and genera of the subfamily Paederinae

1. 4th segment of the maxillary palpi large and more or less fusiform or securiform.....
 *Pinophilini* 2

- 4th segment of the maxillary palpi small, subulate or papilose *Paederini* 4
- 2(1). Abdomen bordered..... *Pinophilus* Gravenhorst
- Abdomen not bordered..... 3
- 3(2). Post-ocular region rounded. Abdomen punctured. First four segments of the anterior tarsi separately dilated, not patellate..... *Oedichirus* Erichson
- Post-ocular region truncate. Abdomen with imbricate sculpture. First four segments of the anterior tarsi dilated and patellate..... *Palaminus* Erichson
- 4(1). Antennae strongly geniculate..... *Cryptobium* Mannerheim
- Antennae not geniculate..... 5
- 5(4). Fourth tarsal segment bilobed..... 6
- Fourth tarsal segment simple..... 10
- 6(5). Fourth segment of maxillary palpi short, broad, and wart like..... *Paederus* Fabricius
- Fourth segment of maxillary palpi very slender, subulate..... 7
- 7(6). Labrum bidentate in the middle 8
- Labrum bilobed..... *Stiliderus* Motschulsky
- 8(7). Labrum emarginate in the middle, the fundus with two small teeth. Head oblong.....
..... *Astenus* Stephens
- Labrum produced in the middle..... 9
- 9(8). The produced part of the labrum with two long teeth..... *Dibelonetes* Sahlberg
- The produced part of the labrum with two short teeth..... *Stilicopsis* Sachse
- 10(5). First two segments of antennae very stout, the following very slender..... *Thinocharis* Kraatz
- Antennae normal..... 11
- 11(10). Neck very slender..... 12
- Neck at least a fourth as broad as the base of the head..... 14

- 12(11).Sculpture scabrous; labrum slightly emarginate in the middle.....*Sclerochiton* Kraatz
 Sculpture not scabrous; labrum dentate..... 13
- 13(12).Labrum 4-dentate; tongue corneous, trifid.....*Scopaeus* Erichson
 Labrum 2-dentate; tongue membranous, bilobed.....*stilicus* Latreille
- 14(11).Eyes very large, temples scarcely indicated. Labrum feebly emarginate in front, endentate.....
 *Lobochilus* Bernhauer
 Eyes normal, temples well-developed..... 15
- 15(14).Last segment of maxillary palpi wart-shaped, short and broad. Neck very broad.....
*Dolicaon* Castelnau
 Last segment of maxillary palpi slender, subulate..... 16
- 16(15).First segment of the posterior tarsi not longer than the second; thorax oblong.....
*Lathrobium* Gravenhorst
 First segment of the posterior tarsi longer than the second; thorax transverse..... 17
- 17(16).Labrum emarginate in the middle, or more or less bilobed..... 18
 Labrum dentate..... 19
- 18(17).First segment of the posterior tarsi much longer than the second.....*Scimbalium* Erichson
 First segment of the posterior tarsi slightly longer than the second.....*Pachymedon* Cameron
- 19(17).5th tarsal segment inserted near the base of the 4th segment, and overlying it that the latter appears
 bilobed when seen from above.....*Acanthoglossa* Kraatz
 5th tarsal segment normally inserted at the pex of 4th segment..... 20
- 20(19).Labrum bidentate in the middle or at least trisinate; prosternal epimera present, the stigma
 concealed. Eyes shorter than the temples..... *Medon* Stephens
 Labrum unidentate in the middle; prosternal epimera absent, the stigma exposed..... 21
- 21(20).Prosternal process very short; abdomen not keeled at the middle of the sternite.....
*Lithocharis* Boised
 Prosternal process moderately long; abdomen distinctly keeled at the middle of the sternite.....
*Charichirus* sharp

Genus *Pinophilus* Gravenhorst1802. *Pinophilus* Gravenhorst, *Col. Micr. Brunsv.* : 201.Key to the species of *Pinophilus* Gravenhorst

1. Species uniformly ferruginous or reddish testaceous..... *genalis* Fauvel
 Species black or pitchy in greater part..... 2
- 2(1). Penultimate abdominal segment with dense transverse fascia of silvery pubescence, the preceding with silvery pubescence close at the sides.....*borneensis* Fauvel
 Abdomen uniformly pubescent..... 3
- 3(2). Sculpture of the thorax uniform, consisting of a simple or umbilicate puncturation..... 4
 Sculpture of the thorax consisting of larger punctures, their fundi and interspaces finely punctured 5
- 4(3) Head with a scattered and sparing puncturation, not at all rugose at the base.....*indicus* Cameron
 Head especially at the base, closely more or less rugosely punctured..... *leucopus* Kraatz
- 5(3) Larger species (15 mm.)..... *javanus* Erichson
 Smaller species (9 to 11 mm.).....*depressus* Kraatz

129. *Pinophilus indicus* Cameron1931. *Pinophilus indicus* Cameron, *Fauna British India*, 2 : 7-8.

Material examined : 1 ex., INDIA : West Bengal, Bankura dist., Gonga Jachati, 8.ix.1986, P. Mukhopadhyay & party coll.

Distribution : INDIA : West Bengal (Bankura).

Remark : In the present study this species is recorded for the first time from West Bengal.

130. *Pinophilus borneensis* Fauvel1895. *Pinophilus borneensis* Fauvel, *Rev. d' Ent.*, 14 : 221.1931. *Pinophilus borneensis* : Cameron, *Fauna British India*, 2 : 13.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Kurseong, 24.iii.1910, Annandale coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma, Singapore, Sarawak and Celebes.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

131. *Pinophilus genalis* Fauvel

1895. *Pinophilus genalis* Fauvel, *Rev. d'ent.*, **14** : 219.

1931. *Pinophilus genalis* : Cameron, *Fauna British India*, **2** : 14.

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Eden garden, F. H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Burma, Bangladesh and Siam.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

132. *Pinophilus depressus* Kraatz

1859. *Pinophilus depressus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 157.

1895. *Pinophilus verticalis* Fauvel, *Rev. d' Ent.*, **14** : 219.

1931. *Pinophilus depressus* : Cameron, *Fauna British India*, **2** : 9-10.

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Eden Garden, 6.x.1911, F. H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

133. *Pinophilus leucopus* Kraatz

1859. *Pinophilus leucopus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 158.

1931. *Pinophilus leucopus* : Cameron, *Fauna British India*, **2** : 10-11.

Material examined : 1 ex., INDIA : West Bengal, South 24-Parganas, Canning, 4.xii.1910, F. H. Gravely coll.

Distribution : INDIA : West Bengal (South 24-Parganas), Kerala and Uttar Pradesh. *Elsewhere* : Siam

Remark : In the present study this species is recorded for the first time from West Bengal.

134. *Pinophilus javanus* Erichson

1839-40. *Pinophilus javanus* Erichson, *Gen. Spec. Staph.*, : 672

1859. *Pinophilus pallipes* Kraatz, *Arch. naturgesch.*, **25** (1) : 156.

1874. *Pinophilus insignis* Sharp, *Trans. ent. Soc. Lond.* : 77
 1931. *Pinophilus javanus* : Cameron, *Fauna British India*, 2 : 5.

Material examined : 3 exs., INDIA : West Bengal, Calcutta, 24.iii.1908, Mus. coll.

Distribution : INDIA : West Bengal (Calcutta), Tamil Nadu. *Elsewhere* : Sri Lanka, Bangladesh, Java, Sumatra, China and Japan.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Palaminus* Erichson

1839-40. *Palaminus* Erichson, *Gen. Spec. Staph.*, : 681

Key to the species of *Palaminus* Erichson

1. Larger species (5 mm.). Elytra more closely punctured.....*indicus* Kraatz
 Smaller species (3 mm.). Elytra less closely punctured and narrower build....*monticola* Cameron

135. *Palaminus indicus* Kraatz

1859. *Palaminus indicus* Kraatz, *Arch. Naturgesch.*, 25(1) : 153.
 1931. *Palaminus indicus* : Cameron, *Fauna British India*, 2 : 24.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Kurseong, 5.ix.1909, N. Annandale coll.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu.

Remark : In the present study this species is recorded for the first time from West Bengal.

136. *Palaminus monticola* Cameron

1931. *Palaminus monticola* Cameron, *Fauna British India*, 2 : 24.

Material examined : 3 exs., INDIA : West Bengal, Darjiling dist., Kalimpong, 1 ex., 16.iii.1979, S. K. Saha coll., Rangpo, 1 ex., 26.ii.1979, S. K. Saha coll.; Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 1 ex., 19.vi.1978, D. N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Nadia). *Elsewhere* : Sri Lanka

Remark : In the present study this species is recorded for the first time from India (West Bengal).

Genus *Oedichirus* Erichson

1939-40. *Oedichirus* Erichson, *Gen. Spec. Staph.*, : 684.

137. *Oedichirus longipennis* Kraatz

1859. *Oedichirus longipennis* Kraatz, *Arch. Naturgesch.*, 25(1) : 154.
 1931. *Oedichirus longipennis* : Cameron, *Fauna British India*, 2 : 26-27.

Material examined : 4 exs., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 8.xii.1981, D. N. Biswas coll.; Maldah dist., Mahadipur, 1 ex., 5.xii.1987, D. N. Biswas coll., Peajbari, 1 ex., 4.xii.1987, D. N. Biswas coll., Manikchak, 1 ex., 9.xii.1987, D. N. Biswas coll.

Distribution : INDIA : West Bengal (Maldah, Nadia), Tamil Nadu, Uttar Pradesh.

Remark : First time recorded from West Bengal..

Genus *Astenus* Stephens

1832. *Astenus* Stephens, *III. Brit. Ent. Mand.*, 5 : 275.

Key to the species of *Astenus* Stephens

1. Last segment of the antennae about 4-times longer than segment 10.....
 *asitus* Biswas & Sengupta
- Last segment of the antennae slightly longer than segment 10..... 2
- 2(1). Abdomen with the first three (visible) segments red, the following black.....
 *diversiventris* Cameron
- Abdomen otherwise..... 3
- 3(2). Elytra with a large sinuate yellow mark occupying the posterior margin from the middle of the suture to the postero-external angle..... *leptocerus* (Eppelsheim)
- Elytra otherwise marked..... 4
- 4(3). Abdomen entirely reddish-testaceous or brown..... 5
- Abdomen reddish testaceous, the 7th and 8th segments more or less black or pitchy..... 7
- 5(4). Abdomen entirely brown..... *semibrunneus* Cameron
- Abdomen entirely reddish-testaceous..... 6
- 6(5). Larger (4-mm.). Penultimate segment of the antennae about three times broad; sides of the elytra with several black setae..... *flavipennis* Cameron

- Smaller (3 mm). Penultimate segment of the antennae a little longer than broad ; sides of the elytra without black setae..... *concolor* Kraatz
- 7(4). 7th and 8th abdominal segments black, their posterior margin scarcely lighter ; elytra usually with a spot on each..... 8
- 7th and 8th abdominal segments blackish, their posterior margin more or less broadly lighter...10
- 8(7). Larger (7.65) and robust. Elytra black, each elytron with a small oblong red patch at apex near suture..... *bisalicus* Biswas & Sengupta
- Smaller (3.75 to 4 mm) and narrower. Elytra testaceous, each elytron with an oblong black spot on the middle..... 9
- 9(8). Sculpture of head and thorax of normal size..... *macuzlipennis* (Kraatz)
- Sculpture of head and throax notably larger than normal..... *terminalis* Cameron
- 10(7). Sides of the elytra with black setae either outstanding or decumbent..... 11
- Sides of elytra without black setae..... 12
- 11(10). Elytra shorter ; 5th (visible) abdominal segment broadly black at the base.....
- *ghumensis* Cameron
- Elytra longer ; 5th (visible) abdominal segment reddish-yellow..... *gracilentus* Fauvel
- 12(10). Sides of thorax with five long black setae..... *indicus* Kraatz
- Sides of thorax with only two long black setae..... *melanurus* Kust

138. *Astenus bisalicus* Biswas & Sengupta

1983. *Astenus bisalicus* Biswas & Sengupta, *Bull. Zool. Surv. India*, 5(1) : 1-9.

Material examined : (M), Holotype, INDIA : West Bengal, Darjiling dist., Tung, 28 km. from Tindharia, 25.iii. 1978, D.N. Biswas coll. Paratypes : 2 (F), 1(F), West Bengal, Darjiling dist., Sevoke, 33 km. from Sukna, 10.iv. 1978, D.N. Biswas coll., 1 (F), Darjiling dist., Rangtong, 8 km. from Sukna, 13.iv. 1978, D.N. Biswas coll. Ex. Leaf litter.

Distribution : INDIA : West Bengal (Darjiling).

139. *Astenus asitus* Biswas & Sengupta

1983. *Astenus asitus* Biswas & Sengupta, *Bull. Zool. Surv. India*, 5(1) : 1-9.

Material examined : 1 (M), Paratype, INDIA : West Bengal, Darjiling dist., Sevoke, 29. xii. 1980,

D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Sikkim.

140. *Astenus indicus* (Kraatz)

1859. *Sunius indicus* Kraatz, *Arch. Naturgesch.*, 25(10) : 148.

1864. *Sunius pallidulus* Woll., *Cat. Can.* : 591

1874. *Sunius oculus* Sharp, *Trans. Ent. Soc. Lond.*, : 72

1891. *Sunius parviceps* Ragusa, *Nat. Soc.*, 10 ; 239

1931. *Astenus indicus* : Cameron, *Fauna British India*, 2 : 88.

Material examined : 7 ex., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 1 ex., 16. v. 1978, D.N. Biswas coll., Darjiling dist., Tung, 28 km from Tindharia, 3 exs., 25.iii. 1978, D.N. Biswas Coll., Teesta Bazar, 2 exs., 25.ii. 1979, S.K. Saha coll., Rangpo, 1 ex., 26.ii. 1979, S.K. Saha Coll.; Maldah dist., Peajbari, 3 exs., 4. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Maldah and Nadia), Maharashtra. *Elsewhere* : Sri Lanka, Burma, Canaries, Mediterranean, East and West Africa.

Remark : In the present study this species is rcordeed for the first time from West Bengal.

141. *Astenus diversiventris* Cameron

1943. *Astenus diversiventris* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 32

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

142. *Astenus leptocerus* (Eppelsheim)

1895. *Sunius leptocerus* Eppelsheim, *W.E.Z.*, 14 : 64.

1931. *Astenus leptocerus* : Cameron, *Fauna British India*, 32 : 75-76.

Material examined : 34 exs., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km South from Krishnagar, 1 ex., 13. iv. 1974, D.N. Biswas coll., Suravisthan, 1 ex., 28. xii. 1981. D.N. Biswas coll.; Medinipur dist., Kankrajhor Forest, 2 ex., 19. xii. 1985, A.K. Hazra coll. ; Maldah dist., Mangalbari, 8 exs., 13. xii. 1987, D.N. Biswas coll., Sodhlapur, 7 exs., 22. xii. 1987, D.N. Biswas coll., Ramkali, 3 exs., 6. xii. 1987, D.N. Biswas coll., Nishipur, 8 exs., 23. xii. 1987, D.N. Biswas coll.; Bankura dist., Amdangra, 2 exs., 30. viii. 86, P. Mukhopadhyay coll.; West Dinajpur dist., Karandighi, 2 exs., 29.xi.1987, D. N. Biswas coll.

Distribution : INDIA : West Bengal (Bankura, Maldah, Medinipur, Nadia and West Dinajpur), Madhya Pradesh, Tamil Nadu and Uttar Pradesh. *Elsewhere* : Sri Lanka, Rodriguez Islands.

Remark : In the present study this species is rcordeed for the first time from West Bengal.

143. *Astenus ghumensis* Cameron

1943. *Astenus ghumensis* Cameron, *Proc. R. ent. Soc. Lond.*, **12**(B) : 32-33.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

144. *Astenus gracilentus* Fauvel

1859. *Sunius gracilis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 147.

1879-80. *Astenus gracilentus* Fauvel, *Ann. Mus. Civ. Gen.*, **15** : 83.

1931. *Astenus gracilentus* : Cameron, *Fauna British India*, **2** : 84-85.

Material examined : 3 exs., INDIA : West Bengal, Darjiling dist., Sukna, 3 exs., 9. iv. 1976, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu, Uttar Pradesh. *Elsewhere* : Bangladesh and Singapore

Remark : In the present study this species is recorded for the first time from West Bengal.

145. *Astenus flavipennis* Cameron

1931. *Astenus flavipennis* Cameron, *Fauna British India*, **2** : 80.

Material examined : 2 exs., INDIA : West Bengal, Jalpaiguri dist., Santalbari, 2 exs., 19. viii. 1986, D.N. Biswas coll. Ex. Leaf garbage.

Distribution : INDIA : West Bengal (Jalpaiguri), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

146. *Astenus maculipennis* (Kraatz)

1859. *Suius maculipennis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 148.

1920. *Sunius maculipennis* var. *maculatus* Cameron, *E.M.M.*, **56** : 146.

1931. *Astenus maculipennis* : Cameron, *Fauna British India*, **2** : 83-84.

Material examined : 5 exs., INDIA : West Bengal, Medinipur dist., Kankrajhor Forest, 2 ex., 19. xii. 1985, A. K. Hazra coll. ; Maldah dist., Mahadipur, 2 exs., 5. xii. 1987, D.N. Biswas Coll., Ramkali, 1 ex., 6. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Maldah and Medinipur), Tamil Nadu. *Elsewhere* : Sri Lanka and Philippines.

147. *Astenus terminalis* Cameron

1931. *Astenus terminalis* Cameron, *Fauna British India*, 2 : 84.

Material examined : 1 ex., INDIA : West Bengal, Maldah dist., Ramkali, 1 ex., 6.xii.1987, D. N. Biswas Coll. Ex. Leaf litter.

Distribution : INDIA : West Bengal (Maldah), Tamil Nadu.

Remark : In the present study this species is recorded for the first time from West Bengal.

148. *Astenus semibrunneus* Cameron

1931. *Astenus semibrunneus* Cameron, *Fauna British India*, 2 : 87-88.

Material examined : 4 exs., INDIA : West Bengal, Darjiling dist., Kalijhora, 1 ex., 25. xii. 1980, D.N. Biswas coll., Teesta Bazar, 1 ex., 25. ii. 1970, S.K. Saha coll., Sukna, 1 ex., 9. iv. 1976, A.R. Bhaumik coll.; Nadia dist., Suravisthan, Badkulla, 10 km south from krishnagar, 1 ex., 13. iv. 1974, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Nadia), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

149. *Astenus concolor* (Kraatz)

1859. *Sunius concolor* Kraatz, *Arch. Naturgesch.*, 25(1) : 149.

1931. *Astenus concolor* : Cameron, *Fauna British India*, 2: 88.

Material examined : 2 exs., INDIA : West Bengal, Maldah dist., Sodhlapur, 1 ex., 22. xi. 1987, D.N. Biswas coll., Nishipur, 1 ex., 23. xi. 1987, D.N. Biswas coll. Ex. leaf litter.

Distribution : INDIA : West Bengal (Maldah).

Remark : The distribution data of this species is not mentioned clearly, mentioned only India. It's may be first time recorded from West Bengal.

150. *Astenus melanurus* var. *Subnotatus* Fauvel

1853. *Sunidus melanurus* Kust., *Kaf. Eur.*, 26 : 76.

1858. *Sunius melanurus* Kraatz, *Berl. Ent. Zeitg.*, 2 : 67.

1872. *Sunius melanurus* Fauvel, *Fauna Gallo-Rhen*, 3 : 296.

1860. *Sunius apicalis* Motschulsky, *Bull. Mosc.*, 33(2) : 560.

1904. *Astenus apicalis* var. *subnotatus* Fauvel, *Rev. d' Ent.*, 23 : 51.

1931. *Astenus melanurus* var. *subnotatus* : Cameron, *Fauna British India*. 2 : 86-87.

Material examined : 3 exs., INDIA : West Bengal, Dum Dum Air Port, 1 ex., 1 xii. 1972, L.C. Panda coll. ; Maldah dist., Ramkali, 1 ex., 6. xii. 1987, D.N. Biswas coll., Manikchak, 1 ex., 9. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Calcutta, Maldah), Maharashtra, Uttar Pradesh.
Elsewhere : Mediterranean, Canary Islands, South Africa and Java.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Paederus* Fabricious

1775. *Paederus* Fabricious, *Syst. Ent.*, : 268.

Key to the species of *Paederus* Fabricious

1. Unicolours species, at most with the apex of the abdomen lighter.....*atrocyaneus* Champion
Bicolours species..... 2
- 2(1). Head entirely or in great part red..... 3
Head entirely black or blue black..... 4
- 3(2). Apterous ; elytra shorter than the thorax and dilated behind..... *hingstoni* Cameron
Winged : elytra at least as long as the thorax and parallel..... *nigripennis* Cameron
- 4(2). Head black..... 5
Head blue or blue black..... 7
- 5(4). Legs (including the coxae) dark..... *nigricornis* Bernhauer
Legs (in part at least) testaceous..... 6
- 6(5). Anterior femora entirely testaceous ; posterior margin of sternite 5 of male with a small, shallow, scarcely perceptible emargination..... *fuscipes* Curtis
Anterior femora dark at appex ; posterior margin of sternite 5 of male without such emargination
.....*himalayicus* Bernhauer
- 7(4). Base of 1st visible abdominal segment blackish.....*birmanus* Fauvel
Base of 1st visible abdominal segment concolours..... 8

- 9(7). Scutellum black..... 9
 Scutellum reddish..... 10
- 9(8). Elytra dark blue ; head blue, antennae black, the first two segments reddish-yellow.....
 *tamulus* Erichson
- Elytra steel-blue ; head blue-black ; antennae black, the first two segments testaceous below, more
 or less pitchy above.....*melampus* Erichson
- 10(8). Larger (8mm). Elytra densely punctured with thick grey pubescence..... *pubescens* Cameron
- Smaller (5.5 mm). Elytra less closely punctured and normally pubescent
*conicollis* Motschulsky

151. *Paederus himalayicus* Bernhauer

1914. *Paederus himalayicus* Bernhauer, *W.Z.B.*, 64 : 98.
 1911. *Paederus indicus* Bernhauer, *Ent. Blatt.*, 7 : 61
 1931. *Paederus himalayicus* : Cameron, *Fauna British India*, 2 : 39-40.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh, Uttar Pradesh.

152. *Paederus nigripennis* Cameron

1904. *Paederus nigripennis* Cameron, *Trans. ent. Soc. Lond.*, : 180
 1931. *Paederus nigripennis* Cameron, *Fauna British India*, 2 : 57-58.

Material examined : 2 exs., INDIA : West Bengal, Jalpaiguri dist., Dalsingpara, 1 ex., 20. viii.
 1986, D.N. Biswas coll., Jainti, 1 ex., 21. viii. 1986, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Jalpaiguri), Uttar Pradesh.

Remark : First time recorded from West Bengal.

153. *Paederus nigricornis* Bernhauer

1911. *Paederus nigricornis* Bernhauer, *Ent. Blatt.*, 7 : 61.
 1931. *Paederus nigricornis* : Cameron, *Fauna British India*, 2 : 47-48.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Nepal.

154. *Paederus birmanus* Fauvel

1895. *Paederus birmanus* Fauvel, *Rev. d' Ent.*, **14** : 233
 1931. *Paederus birmanus* : Cameron, *Fauna British India*, **2** : 46-47.

Material examined: 11 exs., INDIA : West Bengal, West Dinajpur dist., Kaliagong, 11 exs., 1 xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (West Dinajpur), Nagaland. *Elsewhere* : Burma.

Remark : In the present study this species is recorded for the first time from West Bengal.

155. *Paederus pubescens* Cameron

1914. *Paederus pubescens* Cameron, *Trans. ent. Soc. Lond.*, : 539.
 1931. *Paederus pubescens* Cameron, *Fauna British India*, **2** : 44-45.

Material examined : 8 exs., INDIA : West Bengal, Jalpaiguri dist., Damanpur, Alipurduar, 8 exs., 9.i. 1987, V.D. Srivastava coll.

Distribution : INDIA : West Bengal (Jalpaiguri), Assam. *Elsewhere* : Bangladesh, Pakistan.

Remark : In the present study this species is recorded for the first time from West Bengal.

156. *Paederus atrocyaneus* Champion

1927. *Paederus atrocyaneus* Champion, *Ent. Monthly Mag.*, **63** : 50.
 1931. *Paederus atrocyaneus* : Cameron, *Fauna British India*, **2** ; 50.

Material examined: 11 exs., INDIA : West Bengal, Jalpaiguri dist., Buxaduar, 11 exs., 11. i. 1987, V.D. Srivastava coll.

Distribution : INDIA : West Bengal (Jalpaiguri).

157. *Paederus fuscipes* Curtis

- 1823-40. *Paederus fuscipes* Curtis, *Ent. Brit.*, **3** : 108.
 1839-40. *Paederus aestuans* Erichson, *Gen. Spec. Staph.* : 655
 1843. *Paederus angolensis* Erichson, *Arch. Naturgesch.*, **9**(1) : 222.
 1861. *Paederus corsicus* Gant., *Ann. Soc. Ent. Fr.*, **4**(1) : 393.
 1867. *Paederus erichsoni* Woll., *Col. Hesperid.*, : 247
 1931. *Paederus fuscipes* : Cameron, *Fauna British India*, **2** : 40-41.

Material examined : 120 exs., INDIA : West Bengal, Calcutta, Lake Garden, 10 exs., 10.9.1981, T. Sengupta coll.; South 24-Parganas, Sonarpur, 3 exs., 15.i. 1975, Rajaram Coll., Canning, 1 ex., 15. xi. 1965, G.S. Arora coll., Budge-Budge, 1 ex., 19.1. 1966, H.L. Paul coll.; Medinipur dist., Sankarpur Forest,

2 exs., 25. xii. 1985, A.K. Hazra coll., Digha, 12 exs., 22. xii. 1985, A.K. Hazra coll.; Jalpaiguri dist., Santalbari, 1 ex., 19. viii. 1986, D.N. Biswas coll., Lankapara, 1 ex., 27. viii. 1986, D.N. Biswas coll., Boxaduar, 2 exs., 11.i. 1987, V.D. Srivastava coll., Damanpur, 1 ex., 9.i. 1987, V.D. Srivastava coll.; Maldah dist., Nalakhokson, 2 exs., 20. vi. 1987, K.P. Mukherjee coll., Chancal, 6 exs., 16. vi. 1987, K.P. Mukherjee coll., Alal, 1 ex., 19. vi. 1987, K.P. Mukherjee coll. ; Murshidabad dist., Dhulian, 6 exs., 17. vi. 1987, K.P. Mukherjee coll. ; Maldah dist., Tulshihata, 4 exs., 25. vi. 1987, K.P. Mukherjee Coll. Medinipur dist., Chelkigarh Forest, Jhargram, 5 exs., 20. xii. 1985, A.K. Hazra coll. ; Howrah dist., Kamina, 3 exs., 22.i.1986, B. Datta coll.; West Dinajpur dist., Rampur, 1 ex., 25. xi. 1987, D.N. Biswas coll.; Bankura dist., Amdangra, 2 exs., 30. viii. 1986, P. Mukhopadhyay coll. ; West Dinajpur dist., Rampur, 1 ex., 25.xi. 1987, D.N. Biswas coll.; Medinipur dist., Kharagpur, 1 ex., 10. vi. 1911, R. Hodgart coll.; Calcutta Maidan, 51 exs., 20. viii. 1909, Mus. Coll. ; Darjiling dist., Rongtong, 2 exs., 13. iv. 1978, D.N. Biswas coll., Kalijhora, 1 ex., 28. xii. 1980, D.N. Biswas coll.

Distribution: INDIA : West Bengal (Bankura, Calcutta, Darjiling, West Dinajpur, Howrah, Jalpaiguri, Maldah, Medinipur, Murshidabad, South 24-Parganas), Bihar, Karnataka, Madhya Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

158. *Paederus hingstoni* Cameron

1928. *Paederus hingstoni* Cameron, *Ann. Mag. nat. Hist.*, **10** (2) : 561.

1931. *Paederus hingstoni* Cameron, *Fauna British India*, **2** : 62.

Material examined : 14 exs., INDIA : West Bengal, Darjiling dist., Kurseong, 3 exs., 20.ii.1979, S. K. Saha coll., Ghoombhanjan, 6 exs., 16.iii.1973, P. K. Maiti Coll., Tiger Hills, 5 exs., 1.v.1990, A. K. Biswas Coll.

Distribution : INDIA : West Bngal (Darjiling).

159. *Paederus melampus* Erichson

1839-40 *Paederus melampus* Erichson, *Gen. Spec. Staph.*, : 660.

1931. *Paederus melampus* : Cameron, *Fauna British India*, **2** : 43.

Material examined : 7 exs., INDIA : West Bengal, Darjiling dist., Rangtong, 8 km from Sukna, 1 ex., 13. iv. 1978, D.N. Biswas coll.; Jalpaiguri dist., Alipurdurar, Netaji colony, 6 exs., 18.i.1987, V.D. Srivastava coll.

Distribution : INDIA : West Bengal (Darjiling, Jalpaiguri), Maharashtra. *Elsewhere :* Bangladesh.

Remark : In the present study this species is rcordeed for the first time from West Bengal.

160. *Paederus tamulus* Erichson

1839-40. *Paederus tamulus* Erichson, *Gen. Spec. Staph.* : 661.

1859. *Paederus dubius* Kraatz, *Arch. Naturgesch.*, **25** (1) : 151.
 1874. *Paederus mixtus* Sharp, *Trans. ent. Soc. Lond.* : 75
 1859. *Paederus rugipennis* Motschulsky, *Et. ent.*, **8** : 74.
 1931. *Paederus tamulus* : Cameron, *Fauna British India*, **2** : 43-44.

Material examined : 5 exs., INDIA : West Bengal, Barddhaman dist., Asansol, 5 exs., 14. xi. 1910, C. Paiva coll.

Distribution : INDIA : West Bengal (Barddhaman). *Elsewhere* : Sri Lanka, Burma, Sumatra, Java, Singapore, Tonkin, China and Southern Japan.

Remark : The locality data of this species mentioned only India. It's may be first time recorded from West Bengal.

161. *Paederus conicollis* Motschulsky

1859. *Paederus conicollis* Motschulsky, *Et. ent.*, **8** : 73.
 1931. *Paederus conicollis* : Cameron, *Fauna British India*, **2** : 51-52.

Material examined : 1 ex., INDIA : West Bengal, Medinipur dist., Keyagaria, 1 ex., 27. xii. 1985, A.K. Hazra coll.

Distribution : INDIA : West Bengal (Medinipur), Maharashtra, Tamil Nadu.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Acanthoglossa* Kraatz

1859. *Acanthoglossa* Kraatz, *Arch. Naturgesch.*, **25**(1) : 144.

Key to the species of *Acanthoglossa* Kraatz

1. Sculpture of thorax consisting of granules..... *rufa* Kraatz
 Sculpture of thorax consisting of punctures..... 2
- 2(1) Head and thorax with reticulate umbilicate sculpture..... *brachycera* Kraatz
 Head and thorax with umbilicate punctures..... *testaceipennis* Kraatz

162. *Acanthoglossa brachycera* Kraatz

1859. *Acanthoglossa brachycera* Kraatz, *Arch. Naturgesch.*, **25**(1) : 145.
 1931. *Acanthoglossa brachycera* : Cameron, *Fauna British India*, **2** : 122.

Material examined : 2 exs., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 1 ex., 15.x.1976, D.N. Biswas coll., Same locality, 1 ex., 7. vi. 1989, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Nadia). *Elsewhere* : Java, Sri Lanka.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

163. *Acanthoglossa rufa* Kraatz

1859. *Acanthoglossa rufa* Kraatz, *Arch. Naturgesch.*, **25**(1) : 146

1931. *Acanthoglossa rufa* : Cameron, *Fauna British India*, **2** : 121.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Sevoke, 1 ex., 10. iv. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Aden, East Africa and Sri Lanka.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

164. *Acanthoglossa testaceipennis* Kraatz

1859. *Acanthoglossa testaceipennis* Kraatz, *Arch. Nuturgesch.*, **25**(1) : 145.

1931. *Acanthoglossa testaceipennis* : Cameron, *Fauna British India*, **2** : 121-122.

Material examined : 70 exs., INDIA : West Bengal, Darjiling dist., Dange, 8 exs., 1. iv. 1978, D.N. Biswas coll., Sukna, 2 exs., 5 v. 1976, A.R. Bhaumik coll., Tung, 1 ex., 25.iii. 1978, D.N. Biswas coll., Jheepi, 1 ex., 31. iii. 1978, D.N. Biswas coll. ; Jalpaiguri dist., Madarihat, 1 ex., 9. xi. 1974, T. Sengupta coll. ; Nadia dist., Suravisthan, Badkulla, 10 km south from krishnagar, 12 exs., 13. iv. 1974, D.N. Biswas coll. ; Calcutta, 1 ex., 27. vi. 1977, D.N. Biswas coll. ; Maldah dist., Malda, 1 ex., 9. xii. 1987, D.N. Biswas coll. ; West Dinajpur dist., Tunidighi, 2 exs., 26. xi. 1987, D.N. Biswas coll. ; Jalpaiguri dist., Santalbari, 2 exs., 19. viii. 1986, D.N. Biswas coll. ; Maldah dist., Manikchak, 14 exs., 9. xii. 1987, D.N. Biswas coll., Ramkali, 13 exs., 6. xii. 1987, D. N. Biswas coll., Nishipur, 1 ex., 23. xi. 1987, D.N. Biswas coll. Sodhlapur, 1 ex., 22. xi. 1987, D.N. Biswas coll., Mangalbari, 1 ex., 13. xii. 1987, D.N. Biswas coll. ; West Dinajpur dist., Rampur, 6 exs., 25. xi. 1987, D.N. Biswas coll., Karandighi, 2 exs., 29. xi. 1987, D.N. Biswas coll. ; Bankura dist., Amdangra, 2 exs., P. Mukhopadhyay coll.

Distribution : INDIA : West Bengal (Bankura, Calcutta, Darjiling, Jalpaiguri, Maldah, Nadia, West Dinajpur), Tamil Nadu, Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Stilicopsis* Sachse

1852. *Stilicopsis* Sachse, *Stett. Ent. Zeit.*, **22** : 144.

Key to the species of *Stilicopsis* Sachse

1. Abdomen in great part black or brown..... *indica* Cameron
 Abdomen otherwise coloured 2
- 2(1). Abdomen entirely reddish-yellow..... *pallida* Cameron
 Abdomen ferruginous-red, the 4th (visible) segment black..... *umbilicata* Fauvel

165. *Stilicopsis pallida* Cameron

1931. *Stilicopsis pallida* Cameron, *Fauna British India*, 2 : 98

Material examined : 5 exs., INDIA : West Bengal, Darjiling dist., Rangpo, 3 exs., 21. xii. 1980, D. N. Biswas coll.; Maldah dist., Mangalbari, 2 exs., 13. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling and Maldah), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

166. *Stilicopsis umbilicata* Fauvel

1895. *Stilicopsis umbilicata* Fauvel, *Rev. d' Ent.*, 14 : 223

1931. *Stilicopsis umbilicata* : Cameron, *Fauna British India*, 2 : 94-95

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Eden Garden, 19. x. 1911, F.H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Burma, Penag, Philippines, Sumatra.

Remark : This species is recorded for the first time from India (West Bengal).

167. *Stilicopsis indica* Cameron

1931. *Stilicopsis indica* Cameron, *Fauna British India*, 2 : 98.

Material examined : 20 exs., INDIA : West Bengal, Darjiling dist., Bijanbari, 1 ex., 29. iii. 1978, D.N. Biswas Coll., Bijanbari, 1 ex., 1 iv. 1978, D.N. Biswas coll., Darjiling, 2 exs., 21. ii. 1979, S.K. Saha coll., Teesta Bazar, 2 exs., 25. ii. 1979, S.K. Saha coll., Kalijhora, Teesta River bed, 14 exs., 28. xii. 1980, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remarks : This species is recorded for the first time from West Bengal. Cameron described this

species on female example. In the present study the male is first time recorded.

Genus *Scopaeus* Erichson

1839-40 *Scopaeus* Erichson, *Gen. Spec. Staph.*, : 604.

Key to the species of *Scopaeus* Erichson

1. Head subquadrate, the posterior angles briefly rounded, sometimes a little widened behind..... 2
 - Head suborbicular, the posterior angles broadly rounded, never widened behind..... 8
- 2(1). The base of the head emarginate 3
 - The base of the head not emarginate..... 5
- 3(2). Larger (5 mm); robust species, head and thorax black.....*andrewesi* Cameron
 - Smaller (under 5 mm); not robust, head and thorax not concolours..... 4
- 4(3). Larger (4 mm) ; sculpture of head and thorax finely granular..... *testaceus* Motschulsky
 - Smaller (2.5 mm); sculpture of head and thorax not granular..... *germanus* Cameron
- 5(2). Elytra unicolour.....*pallidulus* Kraatz
 - Elytra bicolour..... 6
- 6(5). Elytra black, the posterior margin narrowly reddish-testaceous..... *limbatus* Kraatz
 - Elytra otherwise marked.....7
- 7(6). Elytra yellowish-red, with more or less broad transverse pitchy-brown fascia extending from the epipleura almost to the suture ; penultimate segments of the antennae slightly transverse.....*nitidulus* Motschulsky
 - Elytra usually infuscate, the base, suture and apical margin narrowly reddish, occasionally entirely reddish ; penultimate segments of the antennae almost as long as broad.....*dilutus* Motschulsky
- 8(1). Head ferruginous red, thorax bright yellowish red *beesoni* Cameron
 - Head and thorax dark brown.....*bicuspis* Kraatz.

168. *Scopaeus limbatus* Kraatz

1859. *Scopaeus limbatus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 130.
 1931. *Scopaeus limbatus* : Cameron, *Fauna British India*, **2** : 177-178.

Material examined : 11 exs., INDIA : West Bengal, Darjiling dist., Kalimpong, 2 exs., 17. iii. 1979, S.K. Saha coll., Kalijhora, 2 exs., 12. iv. 1978, D.N. Biswas coll., Teesta Bazar, 1 ex., 25. ii. 1979, S.K. Saha coll., Rangtong, 1 ex., 13. iv. 1978, A.R. Bhaumik coll., Sukna, 1 ex., 12. xii. 1980, D.N. Biswas coll., Kalijhora, 1 ex., 28. xii. 1980, D. N. Biswas coll.; Medinipur dist., Kankrajhor Forest, 1 ex., 19. xii. 1985, A.K. Hazra coll.; Calcutta, Eden Garden, 1 ex., 25. iv. 1975, S.K. Mitra coll.; Jalpaiguri dist., Santalbari, 1 ex., 19. viii. 1986, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Calcutta, Darjiling, Jalpaiguri, Medinipur), Bihar, Karnataka, Uttar Pradesh. *Elsewhere* : Sri Lanka, Malaysia, Singapore and Penang.

Remark : In the present study this species is recorded for the first time from West Bengal.

169. *Scopaeus andrewesi* Cameron

1931. *Scopaeus andrewesi* Cameron, *Fauna British India*, **2** ; 172.

Material examined : 1 ex., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 1 ex., 24. ix. 1976, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Nadia), Tamil Nadu.

Remarks : In the present study this species is recorded for the first time from West Bengal.

170. *Scopaeus nitidulus* Motschulsky

1858. *Scopaeus nitidulus* Motschulsky, *Bull. Mosc.*, **31**(2) : 643.
 1859. *Scopaeus subfasciatus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 129.
 1931. *Scopaeus nitidulus* : Cameron, *Fauna British India*, **2** : 174-175.

Material examined : 16 exs., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 3 exs., 15. i. 1970, D.N. Biswas coll.; Darjiling dist., Kalijhora, 1 ex., 28. xii. 1980, D.N. Biswas coll.; Jalpaiguri dist., Gayerkata, 1 ex., 18. ii. 1977, A.K. Dutta coll.

Distribution : INDIA : West Bengal (Darjiling, Jalpaiguri, Nadia). *Elsewhere* : Malaysia, Sumatra, Philippines.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

171. *Scopaeus beelsoni* Cameron

1931. *Scopaeus beelsoni* Cameron, *Fauna British India*, **2** : 185-186.

Material examined : 6 exs., INDIA: West Bengal, Darjiling dist., Sevoke, 1 ex., 10. iv. 1978. D.N. Biswas coll.; Jalpaiguri dist., Santalbari, 4 exs., 19. viii. 1986, D.N. Biswas coll.; West Dinajpur dist., Tunidighi, 1 ex., 26. xi. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Jalpaiguri, West Dinajpur), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

172. *Scopaeus testaceus* Motschulsky

1858. *Scopaeus testaceus* Motshulsky, *Bull. Mosc.*, **31**(2) : 642.

1859. *Scopaeus rubrotestaceus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 128 (M).

1859. *Scopaeus semifuscus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 128(F).

1931. *Scopaeus testaceus* : Cameron, *Fauna British India*, **2** : 173.

Material examined : 1 ex., INDIA : West Bengal, Medinipur dist., Jhargram, 1 ex., 11. ix. 1985, S. Biswas coll.

Distribution : INDIA : West Bengal (Medinipur), Maharashtra, Uttar Pradesh. *Elsewhere* : Sri Lanka, Singapore and New Guinea.

Remark : In the present study this species is recorded for the first time from West Bengal.

173. *Scopaeus germanus* Cameron

1931. *Scopaeus germanus* Cameron, *Fauna British India*, **2** : 179-180.

Material examined : 8 exs., INDIA : West Bengal, Darjiling dist., Teesta, 3 exs., 11. iv. 1978, D.N. Biswas coll., Lodhama, 1 ex., 30. iii. 1978, D.N. Biswas coll., Lava, 1 ex., 9. iv. 1976, A.R. Bhaumik coll.; Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 2 exs., 15.i.1979, D.N. Biswas coll.; Darjiling dist., Bijanbari, 1 ex., 1.iv.1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Nadia), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal..

174. *Scopaeus bicuspis* Kraatz

1859. *Scopaeus bicuspis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 129.

1931. *Scopaeus bicupis* : Cameron, *Fauna British India*, **2** : 185.

Material examined : 1 ex., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 1 ex., 20. v. 1979, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Nadia).

Remark : The locality data of this species mentioned only India by Cameron (1931).

175. *Scopaeus dilutus* Motschulsky

1858. *Scopaeus dilutus* Motschulsky, *Bull. Mosc.*, **31**(2) : 642.
 1859. *Scopaeus suturalis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 130.
 1931. *Scopaeus dilutus* : Cameron, *Fauna British India*, **2** ; 176-177.

Material examined : 1 ex., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 1 ex., 15. i. 1979, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Nadia), Tamil Nadu. *Elsewhere* : Sri Lanka, Burma, Malay Peninsula, Penang, Sumatra, Java, Philippines, Hongkong and New Guinea.

Remark : In the present study this species is recorded for the first time from West Bengal.

176. *Scopaeus pallidulus* Kraatz

1859. *Scopaeus pallidulus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 131.
 1931. *Scopaeus pallidulus* : Cameron, *Fauna British India*, **2** : 180-181.

Material examined : 18 exs., INDIA : West Bengal, Darjiling dist., Sukna, 1 ex., 9. iv. 1978, D.N. Biswas coll.; Nadia dist., Suravisthan, Badkulla, 19 Km south from Krishnagar, 1 ex., 4.v.1978, D.N. Biswas coll. ; Calcutta, Indian Museum Compound, 16 exs., 27.v.1910 , C. Paiva coll.

Distribution : INDIA : West Bengal (Calcutta, Darjiling, Nadia), Uttar Pradesh. *Elsewhere* : Sri Lanka and Singapore.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Sclerochiton* Kraatz

1859. *Sclerochiton* Kraatz, *Arch. Naturgesch.*, **25**(1) : 133.

177. *Sclerochiton indicus* (Motschulsky)

1858. *Echiaster indicus* Motschulsky, *Bull. Mosc.*, **31**(2) : 637.
 1859. *Sclerochiton ochraceus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 134, tab. 2 fig. 8 a-c.
 1931. *Sclerochiton indicus* : Cameron, *Fauna British India*, **2** : 99-100.

Material examined : 2 exs., INDIA : West Bengal, Jalpaiguri dist., Santalbari, 2 exs., 19. viii. 1986, D.N. Biswas coll., Ex. leaf garbage.

Distribution : INDIA : West Bengal (Jalpaiguri).

Remark : The locality data of this species mentioned only India by Cameron (1931).

Genus *Lobochilus* Bernhauer1918. *Lobochilus* Bernhauer, *Arch. Naturgesch.*, 84(A) : 179.1924. *Neosclerus* Cameron, *Trans. ent. Soc. Lond.*, : 188Key to the species of *Lobochilus* Bernhauer

1. Sculpture of thorax consisting of granules.....*granulicollis* Cameron
 Sculpture of thorax consisting of punctures..... 2
- 2(1). Thorax as long as broad..... 3
 Thorax slightly longer than broad..... 4
- 3(2). Elytra shorter than thorax ; puncturations of head and thorax less coarse and close ; elytra a little fine and less deeply punctured. The eyes very large but do not occupying the whole side of the head, the temple about half as long as the eye..... *brachypterus* Cameron
 Elytra distinctly longer than thorax ; puncturations of head and thorax very coarse and close ; elytra closely, moderately finely punctured. Eyes very large and prominent, temples scarcely indicated *fortepunctatus* Cameron
- 4(2). Smaller (3 mm). Elytra dark brown, the base and apical margin narrowly and obscurely lighter ; eyes large, occupying the whole side of the head..... *brevipennis* Cameron
 Larger (4 mm). Elytra black ; eyes very large, do not occupy the whole side of the head.....
*labralis* Cameron

178. *Lobochilus brachypterus* Cameron1943. *Lobochilus brachypterus* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 33-34*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).179. *Lobochilus granulicollis* (Cameron)1924. *Neoclerus granulicollis* Cameron, *Trans. ent. Soc. Lond.*, : 190.1931. *Lobochilus granulicollis* Cameron, *Fauna British India*, 2 : 125.*Material examined* : 4 exs., INDIA : West Bengal, Darjiling dist., Kalijhora, 3 exs., 28. xii. 1980, D.N. Biswas coll., Sevoke, 1 ex., 29. xii. 1980, D.N. Biswas coll.*Distribution* : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

180. *Lobochilus labralis* Cameron

1943. *Lobochilus labralis* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 33

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

181. *Lobochilus fortepunctatus* (Cameron)

1924. *Neosclerus fortepunctatus* Cameron, *Trans. ent. Soc. Lond.*, : 189

1931. *Lobochilus fortepunctatus* Cameron, *Fauna British India*, **2** : 124.

Material examined : 3 exs., INDIA : West Bengal, Darjiling dist., Mirik, 3 exs. , 17. xii. 1980, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Assam, Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

182. *Lobochilus brevipennis* Cameron

1943. *Lobochilus brevipennis* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 33

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Dibelonetes* Sahlberg

1844. *Dibelonetes* Sahlberg, *Act. Soc. Fenn.*, **2** : 791.

Key to the species of *Dibelonetes* Sahlberg

- | | | |
|-------|--|--------------------------------------|
| 1. | Elytra bicolour..... | 2 |
| | Elytra unicolour..... | 4 |
| 2(1). | Elytra with a large reddish-yellow mark occupying the posterior margin from the middle of the suture to the postero-external angle..... | <i>formosae</i> Bernhauer |
| | Elytra coloured otherwise..... | 3 |
| 3(2). | Elytra short and its posterior margin broadly ferruginous red ; apex of femora narrowly infuscate, segments 4 and 5 of abdomen black | <i>bengalensis</i> Biswas & Sengupta |

Elytra long and its middle near lateral margin with an elongated black spot ; apex of femora not infusate; segment 5 of abdomen black..... *indicus* Cameron

4(1). Elytra short, surface covered with dense and moderately coarse setiferous punctures, lateral margins devoid of any long setae..... *sikkimensis* Biswas & Sengupta

Elytra long and covered with moderately dense and coarse setiferous punctures, lateral margins with four pairs of long setae..... *bhaumiki* Biswas & Sengupta

183. *Dibelonetes Sikkimensis* Biswas & Sengupta

1980. *Dibelonetes sikkimensis* Biswas & Sengupta, *Oriental Insects*, 14(2) : 253-262.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., kalijhora, 1 ex., 28. xii. 1980, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Sikkim.

Remark : In the present study this species is recorded for the first time from West Bengal.

184. *Dibelonetes bhaumiki* Biswas & Sengupta

1980. *Dibelonetes bhaumiki* Biswas & Sengupta, *Oriental Insects*, 14(2) : 261.

Material examined : Holotype, INDIA : West Bengal, Darjiling dist., Sevoke, 33 Km. from Sukna, 10. iv. 1978, A.R. Bhaumik coll. ; Paratype, 1 ex., collection data same as holotype, Ex. under leaf litter, Forest Rest House, Rangpo, 1 ex., 21. xii. 1980, D.N. Biswas coll. Ex. leaf litter of sal.

Distribution : INDIA : West Bengal (Darjiling).

185. *Dibelonetes indicus* Cameron

1931. *Dibelonetes indicus* Cameron, *Fauna British India*, 2 : 63-64.

1980. *Dibelonetes indicus* : Biswas & Sengupta, *Oriental Insects*, 14 (2) : 257-259

Material examined : 4 exs., INDIA : West Bengal, Darjiling dist., Tung, 28 Km from Tindharia, 1 ex., 25.iii. 1978, A.R. Bhaumik coll., on grass roots, Tindharia, 1 ex., 26.iii. 1978, A.R. Bhaumik coll., on curry-leaf flower , Mahanadi, 13 Km from Tindharia, 2 exs., 26. iii. 1978, A.R. Bhaumik coll., under vegetable debritus.

Distribution : INDIA : West Bengal (Darjiling).

186. *Dibelonetes bengalensis* Biswas & Sengupta

1980. *Dibelonetes bengalensis* Biswas & Sengupta, *Oriental Insects*, 14(2) : 253-262.

Material examined : 36 exs., INDIA : West Bengal, Darjiling dist., Mahanadi, 13 Km from Tindharia, 5 exs., 26. iii. 1978, Rangpo, 1 ex., 27. iii. 1978 ; Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 4 exs., 13. iv. 1974, all the specimens are collected by D.N. Biswas. Holotype, West Bengal, Darjiling dist., Mahanadi, 13 Km from Tindharia, 1 ex., 26.iii. 1978, A.R. Bhaumik coll., ex. vegetable debris. Paratypes 5 exs., Calcutta, 1 ex., 27. vi. 1977, S.K. Chatterjee coll.; Darjiling dist., Lodhama, 1 ex., 30.iii. 1978, A.R. Bhaumik coll., ex. haystack, Tung, 1 ex., 25.iii. 1978, A.R. Bhaumik coll., ex. on grass roots ; Nadia dist., Suravisthan, Badkulla, 1 ex. (on slide), 17. x. 1977, D.N.Biswas coll., ex. leaf litter ; Maldah dist., Nishipur, 6 exs., 23. xi.1987, Ramkali, 3 exs., 6. xii. 1987, all the specimens are collected by D.N. Biswas, Ex. leaf litter.

Distribution : INDIA : West Bengal (Calcutta, Darjiling, Maldah, Nadia), Uttar Pradesh.

187. *Dibelonetes formosae* Bernhauer

1922. *Dibelonetes formosae* Bernhauer, *Arch. Nature. Abt. A*, **88** : 228.

1988. *Dibelonetes formosae* : Biswas & Sengupta, *Oriental Insects*, **14**(2) ; 253-262.

Material examined : 2 exs., INDIA : West Bengal, Calcutta, Eden Garden, 1 ex., 26. x. 1911, F.H. Gravely coll. Ex. at light ; West Dinajpur dist., Rampur, 1 ex., 25. xi. 1987, D.N. Biswas coll., Ex. Leaf litter.

Distribution : INDIA : West Bengal (Calcutta, West Dinajpur).

Genus *Thinocharis* Kraatz

1859. *Thinocharis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 125.

Key to the species of *Thinocharis* Kraatz

1. Larger (2.1 to 2.5 mm) and more robust ; head reddish brown.....2
Smaller (1.8 mm) and narrower ; head black..... *debilis* Cameron
- 2(1). Larger and more robust (2.5 mm) ; elytra longer, extensively infusate.....*birmana* Cameron
Smaller and narrower (2.1 mm) ; elytra shorter, yellow.....*carinicollis* Kraatz

188. *Thinocharis birmana* Cameron

1931. *Thinocharis birmana* Cameron, *Fauna British India*, **2** : 118.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Takdah, 1 ex., 6. iv. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

189. *Thinoharis carinicornis* Kraatz

1859. *Thinoharis carinicornis* Kraatz, *Arch. Naturgesch.*, 25(10) : 143

1931. *Thinoharis carinicornis* : Cameron, *Fauna British India*, 2 : 118.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Dange, 1 ex., 1.iv. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Sri Lanka, Singapore and Malay Peninsula.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

190. *Thinoharis debilis* Cameron

1931. *Thinoharis debilis* Cameron, *Fauna British India*, 2 : 119.

Material examined : 8 exs., INDIA : West Bengal, Jalpaiguri dist., Gayarkata, 4 exs., 22. vii. 1977, A.K. Dutta coll.; Darjiling dist., Bijanbari, 2 exs., 1. iv. 1978, D.N. Biswas coll. ; Jalpaiguri dist., Santalbari, 1 ex., 19. viii. 1986, D.N. Biswas coll. ; Maldah dist., Ramkali, 1 ex., 6. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Jalpaiguri and Maldah), Nagaland.

Remark : In the present study this species is recorded for the first time from West Bengal.

192. *Pachymedon shugnuensis* Cameron

1931. *Pachymedon shugnuensis* Cameron, *Fauna British India*, 2 : 127-128.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Kalijhora, 1 ex., 28. xii. 1980, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Manipur.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Lathrobium* Gravenhorst

1802. *Lathrobium* Gravenhorst, *Col. Micr. Brunsv.*, : 51

Key to the species of *Lathrobium* Gravenhorst

1. Head orbicular ; thorax and elytra irregularly puncted..... 2
 Head subquadrate ; thorax and elytra serially punctured..... 3
- 2(1). Elytra black, often with slightly bluish reflex, the apex of each with a large, round, yellow spot; legs dark, the posterior femora sometimes testaceous except at apex..... *guttula* Fauvel
 Elytra unicoloured ; legs reddish-brown..... *triste* Cameron
- 3(1). Head and elytra black, thorax red ; in front of head more coarsely and more sparingly punctured*cafrum* Boh.
 Species unicoloured reddish-testaceous; in front of head more sparingly and more strongly punctured *unicolor* Kraatz

193. *Lathrobium triste* Cameron

1924. *Lathrobium (Lobrathium) triste* Cameron, *Trans. ent. Soc. Lond.*, : 193.
 1931. *Lathrobium triste* Cameron, *Fauna British India*, 2 : 199-201.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Neora valley, 1 ex., 29. xi. 1982, R.K. Kacker coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

194. *Lathrobium guttula* Fauvel

1895. *Lathrobium guttula* Fauvel, *Rev. d' Ent.*, 14 : 234
 1931. *Lathrobium guttula* : Cameron, *Fauna British India*, 2 : 201-202.

Material examined : Not available

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Burma.

195. *Lathrobium unicolor* Kraatz

1859. *Lathrobium unicolor* Kraatz, *Arch. Naturgesch.*, 25(1) : 117
 1931. *Lathrobium unicolor* : Cameron, *Fauna British India*, 2 ; 210.

Material examined : 34 exs., INDIA : West Bengal, South 24-Parganas dist., Sagar Islands, Bamankhali, 24 exs., 15. vi. 1977, R.C. Basu coll. ; Nadia dist., Suravisthan, Badkulla, 10 Km south from

Krishnagar, 2 exs., 15.i. 1979, D.N. Biswas coll. ; Calcutta, 1 ex., 10. x. 1950, A.P. Kapur coll., Calcutta, 1 ex., 26. x. 1949, A.P. Kapur coll., Eden Garden, Calcutta, 4 exs., 6. ix. 1911, F. H. Gravely coll. ; Nadia dist., Suravisthan, Badkulla, 1 ex., 26. iv. 1976, D.N. Biswas coll., 1 ex., 16.v. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Calcutta, Nadia, South 24-Parganas), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

196. *Lathrobium cafrum* Boh.

1848. *Lathrobium cafrum* Boh., *Ins. caffr.*, 1 : 116.

1859. *Lathrobium pulchellum* Kraatz, *Arch. Naturgesch.*, 25(1) : 116.

1931. *Lathrobium cafrum* : Cameron, *Fauna British India*, 2 : 209-210.

Material examined : 2 exs., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 1 ex., 15. i. 1979, D.N. Biswas coll. ; West Dinajpur dist., Karandighi, 1 ex., 29. xi. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Nadia and West Dinajpur), Tamil Nadu, Uttar Pradesh.
Elsewhere : Sri Lanka, Burma, East and West Africa.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Stilicus* Latreille

1825. *Stilicus* Latreille, *Encyc. Meth.*, 10 : 495

Key to the species of *Stilicus* Latreille

1. Elytra uniformly punctured, elytra black, the posterior margin narrowly and postero-external angles more broadly reddish testaceous..... *velutinus* Fauvel
- Elytra with larger and smaller punctures, elytra otherwise coloured..... 2
- 2(1). Head subquadrate, nearly as broad as the elytra, the posterior angles rounded.....
..... *pygmaeus* Kraatz
- Head suborbicular, narrower than the elytra, the posterior angles more broadly rounded.....
..... *parvus* Cameron

197. *Stilicus pygmaeus* Kraatz

1859. *Stilicus pygmaeus* Kraatz, *Arch. Naturgesch.*, 25(1) : 126

1931. *Stilicus pygmaeus* : Cameron, *Fauna British India*, 2 ; 109.

Material examined : 3 exs., INDIA : West Bengal, Jalpaiguri dist., Rajabhatkhawa Forest, 2 exs., 11. xi. 1974, T. Sengupta coll. ; Darjiling dist., Teesta, 1 ex., 11. iv. 1978, S.K. Saha coll.

Distribution : INDIA : West Bengal (Darjiling, Jalpaiguri). *Elsewhere* : Sri Lanka, Malaysia, Saigon and Timor.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

198. *Stilicus parvus* Cameron

1931. *Stilicus parvus* Cameron, *Fauna British India*, 2 : 109-110.

Material examined : 3 exs., INDIA : West Bengal, Darjiling dist., Rangpo, 3 exs., 26. ii. 1979, S.K. Saha coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

199. *Stilicus velutinus* Fauvel

1895. *Stilicus velutinus* Fauvel, *Revue d' Ent.*, 14 : 226.

1931. *Stilicus velutinus* : Cameron, *Fauna British India*, 2 : 103-104.

Material examined ; 6 exs., INDIA : West Bengal, Darjiling dist., Lodhama, 3 exs., 30 iii. 1978, A.R. Bhaumik coll., Teesta, 1 ex., 11. iv. 1978, A.R. Bhaumik coll., Kalijhora, 1 ex., 12. iv. 1978, D.N. Biswas coll., Kalijhora, 1 ex., 28. xii. 1980, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Sikkim, Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Charichirus* Sharp

1889. *Charichirus* Sharp, *Ann. Mag. Nat. Hist.*, 2(6) : 262.

Key to the species of *Charichirus* Sharp

1. Elytra black, the suture and posterior margin narrowly, the postero external angles more broadly reddish-yellow..... *princeps* Fauvel
Elytra otherwise..... 2
- 2(1). Elytra black, the humeral angles reddish..... *immaculatus* Cameron
Elytra otherwise..... 3

3(2). Elytra black, with a broad red fascia posteriorly which extends forwards along the suture nearly to the scutellum..... *chinensis* Boh.

Elytra brown, the reflexed and posterior margins indeterminately reddish testaceous.....
.....*ceylonicus* Cameron

200. *Charichirus chinensis* (Boh.)

1858. *Lathrobium chinensis* Boh., *Resa Eugen.* : 32
 1858. *Lithocharis dimidiatus* Motschulsky, *Bull. Mosc.*, 31(2) : 645.
 1859. *Lithocharis obliquus* Walker, *Ann. Mag. Nat. Hist.*, 3 (3) : 52.
 1859. *Lithocharis spectabilis* Kraatz, *Arch. Naturgesch.*, 25(1) : 135.
 1931. *Charichirus chinensis*: Cameron, *Fauna British India*, 2 : 167-168.

Material examined : 5 exs., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 3 exs., 15. x. 1976, D.N. Biswas Coll.; Darjiling dist., Rongtong, 1 ex., 13. iv. 1978, A.R. Bhaumik coll. ; Bankura dist., Radhanagar, 1 ex., 31. viii. 1986, P. Mukhopadhyay coll.

Distribution : INDIA : West Bengal (Bankura, Darjiling, Nadia). *Elsewhere* : Sri Lanka and Japan.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

201. *Charichirus immaculatus* Cameron

1943. *Charichirus immaculatus* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 35.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

202. *Charichirus princeps* (Fauvel)

1895. *Medon princeps* Fauvel, *Revue d' Ent.*, 14 : 225.
 1931. *Charichirus princeps* : Cameron, *Fauna British India*, 2 : 166.

Material examined : 4 exs., INDIA : West Bengal, Darjiling dist., Sevoke, 1 ex., 10. iv. 1978, A.R. Bhaumik coll., Teesta River bed, Kalijhora, 1 ex., 28. xii. 1980, D.N. Biswas Coll., Rangpo, 2 exs, 21. xii. 1980, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

203. *Charichirus ceylonicus* (Cameron)

1919. *Medon (Charichirus) ceylonicus* Cameron, *Ent. Monthly Mag.*, **55** : 228.
 1931. *Charichirus ceylonicus* Cameron, *Fauna British India*, **2** : 168.

Material examined : 1 ex., INDIA : West Bengal, Bankura dist., Amdangra, 1 ex., 30. viii. 1986, P. Mukhopadhyay coll.

Distribution : INDIA : West Bengal (Bankura). *Elsewhere* : Sri Lanka.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

Genus *Cryptobium* Mannerheim

1830. *Cryptobium* Mannerheim, *Brach.*, : 38.

Key to the species of *Cryptobium* Mannerheim

1. Elytra unicolour..... 4
 Elytra bicoloures 2
- 2(1). Elytra black, posterior half of the elytra red..... *sikkimense* Cameron
 Elytra black, posterior msargin narrowly reddish..... 3
- 3(2). Posterior margin of elytra indeterminately reddish ; head oblong, coarsely, closely and rugosely punctured ; elytra as long as the thorax..... *fluviatile* Champion
 Posterior margin of elytra narrowly reddishyellow ; head broader, puncturation coarse, close and umbilicate ; elytra scarcely longer than thorax..... *marginatum* Motschulsky
- 4(1). Elytra entirely red ; head oblong, the post-ocular region broadly rounded and not dilated behind *abdominal* var. *indicum* Kraatz
 Elytra dark reddish-brown ; head as long as broad, the post-ocular region rounded and slightly dilated behind..... *brachypterum* Cameron

204. *Cryptobium sikkimense* Cameron

1931. *Cryptobium sikkimense* Cameron, *Fauna British India*, **2** : 240.

Material examined : 1 ex.; INDIA : West Bengal, Darjiling dist., Rangtong, 8 Km from Sukna, 1 ex., 13. iv. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Sikkim.

Remark : In the present study this species is recorded for the first time from West Bengal.

205. *Cryptobium brachypterum* Cameron

1943. *Cryptobium brachypterum* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 36.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

206. *Cryptobium marginatum* Motschulsky

1858. *Cryptobium marginatum* Motschulsky, *Bull. Mosc.*, 31(2) : 652

1859. *Cryptobium limbatum* Kraatz, *Arch. Naturgesch.*, 25(2) : 652.

1931. *Cryptobium marginatum* : Cameron, *Fauna British India*, 2 ; 240-241.

Material examined : 2 exs., INDIA : West Bengal, Darjiling dist., Chaikhola, 1 ex., 12. iv. 1976, A.R. Bhaumik coll., ; Medinipur dist., Kankrajhor Forest, 1 ex., 19. xii. 1985, A.K. Hazra coll.

Distribution : INDIA : West Bengal (Darjiling, Medinipur), Tamil Nadu, Uttar Pradesh.
Elsewhere : Sri Lanka.

207. *Cryptobium abdominal* var. *indicum* Kraatz

1858. *Cryptobium abdominal* var. *rufipenne* Motschulsky, *Bull. Mosc.*, 31 (2) : 651.

1859. *Cryptobium pygiale* Kraatz, *Arch. Naturgesch.*, 25(1) : 121.

1859. *Cryptobium pygiale* var. *discoideum* Eppelsheim, *D. E. Z.* : 402.

1859. *Cryptobium pygiale* var. *indicum* Kraatz, *Arch. Naturgesch.*, 25(1) : 121

1931. *Cryptobium abdominal* var. *indicum* : Cameron, *Fauna British India*, 2 : 243-244.

Material examined : 23 exs., INDIA : West Bengal, Darjiling dist., Rambh, 420m., 2 exs., 6. i. 1974, G.K. Srivastava coll., Reany, 1 ex., 8. i. 1974, G.K. Srivastava coll., Semana, 22 Km from Mirik, 2 exs., 16. xii. 1980, D.N. Biswas coll., Kalijhora, 1 ex., 31. xii. 1980, D.N. Biswas coll. ; Jalpaiguri dist., Hasimara, 1 ex., 4. xii. 1974, T. Sengupta coll., Rajabhatkhawa, 4 exs., 20. viii. 1986 D.N. Biswas Coll. ; Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 3 exs., 20. v. 1979, D.N. Biswas coll. ; Medinipur dist., Bholabheda, 2 exs., 12. ix. 1985, S. Biswas coll. ; Nadia dist., Suravisthan, Badkulla, 7 exs., 7. vi. 1989, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Jalpaiguri, Medinipur, Nadia). *Elsewhere* : Sri Lanka.

Remark : The distributional data of this species mentioned in fauna only India by Cameron (1931).

208. *Cryptobium fluviatile* Champion1921. *Cryptobium fluvidtile* Champion, *Ent. Monthly Mag.*, **57** : 181.1931. *Cryptobium fluviatile* : Cameron, *Fauna British India*, **2** : 244.

Material examined : 1 ex., INDIA : West Bengal, South 24-Parganas dist., Budge-Budge, 1 ex., 15. ix. 1984, S.K. Raut coll.

Distribution : INDIA : West Bengal (South 24-Parganas), Uttar Pradesh.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Stiliderus* Motschulsky1858. *Stiliderus* Motschulsky, *Bull. Mosc.*, **31**(2) : 639.Key to the species of *Stiliderus* Motschulsky

1. Fourth tarsal segments deeply bilobed ; head usually strongly bordered below ; 9th sternite not emarginate..... *cicatricosus* Motschulsky
- Tarsi simple, the 4th segment sometimes slightly dilated, but never bilobed ; 9th sternite deeply emarginate..... 2
- 2(1). Elytra unicolour..... 6
- Elytra bicolours..... 3
- 3(2). Elytra black, each elytron with a large obscure reddish ; legs dark..... *minor* (Cameron)
- Elytra otherwise marked..... 4
- 4(3). Elytra ferruginous - red, about the scutellum and postero-external angles infuscate ; legs dark red
..... *feae* (Fauvel)
- Elytra otherwise marked..... 5
- 5(4). Elytra castaneous, anterior, posterior and lateral borders entirely infuscate ; legs pitchy-brown
..... *malaisei* (Scheerpeltz)
- Elytra black, each elytron with an indeterminate reddish spot in front ; legs reddish-brown.....
..... *umbratus* (Fauvel)
- 6(2). The postocular region regularly arcuate to neck, granulose punctation of elytra fine and sparse, the foveate punctures large, both types of punctation more distinct..... *variolosus* (Coiffait)

The postocular region more strongly constricted ; granules of elytra obsolete, the minute puncturation between the large foveate punctures simple..... *nepalensis* Rougemont

209. *Stiliderus cicatricosus* Motschulsky

1858. *Stiliderus cicatricosus* Motschulsky, *Bull. Mosc.*, **31** (2) : 639.
 1931. *Stiliderus cicatricosus* : Cameron, *Fauna British India*, **2** : 101.
 1859. *Psilotrachellus sculptipennis* Kraatz, *Arch. Naturgesch.*, **25** : 125.
 1939. *Stiliderus sculptipennis* : Blackwelder, *Proc. U.S. Nat. Mus.*, **87** : 107.
 1985. *Stiliderus sculptipennis* : Rougemont, *Rev. Suisse de Zool.*, **92** (1) : 217-228.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling) *Elsewhere* : Burma, Thailand, Malaysia

210. *Stiliderus variolosus* (Coiffait)

1975. *Stilicoderus variolosus* Coiffait, *Nouv. Revue Ent.* **5**(2) : 174.
 1982. *Stilicoderus variolosus* Coiffait, *Senkenbergiana Biol.*, **62** : 37.
 1986. *Stiliderus variolosus* : Rougemont, *Ent. Abh. Mus. Tierk. Dresden.*, **49** (8) : 158.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Assam, Meghalaya. *Elsewhere* : Nepal.

211. *Stiliderus minor* (Cameron)

1931. *Stilicoderus minor* Cameron, *Fauna of British India*, **2** : 252.
 1978. *Stilicoderus radjah* Coiffait, *Ent. Basil.*, **3** : 133
 1986. *Stiliderus minor* : Rougemont, *Ent. Abh. Mus. Tierk. Dresden.*, **49**(8) : 162.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Bhutan, Malaysia.

212. *Stiliderus feae* (Fauvel)

1895. *Stilicoderus feae* Fauvel, *Rev. d' Ent.*, **14** : 224.
 1931. *Stilicoderus feae* : Cameron, *Fauna British India*, **2** : 110-112.
 1986. *Stiliderus feae* : Rougemont, *Ent. Abh. Mus. Tierk. Dresden.*, **49**(8) : 177.

Material examined : 3 exs., INDIA : West Bengal, Darjiling dist., Tung, 28 Km from Tindharia, 2 exs., 25. iii. 1978, D.N. Biswas coll., Mahanadi, 1 ex., 26. iii. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Burma, Thailand, Nepal.

Remark : In the present study this species is recorded for the first time from West Bengal.

213. *Stiliderus umbratus* (Fauvel)

1904. *Stilicoderus umbratus* Fauvel, *Rev. d'Ent.*, **23** : 52.
 1931. *Stilicoderus umbratus* : Cameron, *Fauna British India*, **2** : 114.
 1986. *Stiliderus umbratus* : Rougemont, *Ent. Abh. Mus. Tierk. Dresden*, **49(8)**: 183-184.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Lava, 2534 m., 1 ex., 9. iv. 1974, A.R. Bhaumik coll.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu.

Remark : In the present study this species is recorded for the first time from West Bengal.

214. *Stiliderus nepalensis* Rougemont

1986. *Stiliderus nepalensis* Rougemont, *Ent. Abh. Mus. Tierk. Dresden*, **49(8)** : 72-173.
 1986. *Stiliderus nepalensis* Rougemont, *Annl. Hist. nat. Mus. natu. Hung.*, **78** : 80.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Sikkim *Elsewhere* : Indo-China

215. *Stiliderus malaisei* (Scheerpeltz)

1965. *Stilicoderus malaisei* Scheerpeltz, *Ark. Zool.*, **17** : 177.
 1985. *Stiliderus malaisei* : Rougemont, *Revue Suisse Zool.*, **92(1)** : 221.
 1986. *Stiliderus malaisei* : Rougemont, *Ent. Abt. Mus. Tierk., Dresden*, **49(8)** : 181-182.

Material examined : Not available

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Malaysia, Burma, Thailand.

Genus *Dolicaon* Castelnau

1835. *Dolicaon* Castelnau, *Etud. Ent.*, **1** : 119

Key to the species of *Dolicaon* Castelnau

1. Elytra longer than the thorax. Length 6 mm..... *longipennis* Cameron
 Elytra as long as the thorax. Length 7 mm..... *indicus* Kraatz

216. *Dolicaon longipennis* Cameron

1931. *Dolicaon longipennis* Cameron, *Fauna British India*, 2 : 219.

Material examined : 1 ex., INDIA : West Bengal, Nadia dist., Suravisthan, Badkulla, 10 Km south from Krishnagar, 1 ex., 28. xii. 1981, D.N. Biswas coll., Ex. leaf litter.

Distribution : INDIA : West Bengal (Nadia).

Remark : The locality data of this species mentioned only India by Cameron (1931).

217. *Dolicaon indicus* Kraatz

1859. *Dolicaon indicus* Kraatz, *Arch. Naturgesch.*, 25(1) : 118.

1859. *Dolicaon vicinus* Kraatz, *Arch. Naturgesch.*, 25(1) : 118.

1881. *Dolicaon angolensis* Qued., *Berl. Ent. Zeit.*, 25 : 294.

1885. *Dolicaon castaneus* Eppelsheim, *D.E.Z.*, 114.

1931. *Dolicaon indicus* : Cameron, *Fauna British India*, 2 : 218.

Material examined : 1 ex., INDIA : West Bengal, Calcutta, 7. ii. 1908, N. Annandale coll.

Distribution : INDIA : West Bengal (Calcutta), Uttar Pradesh. *Elsewhere* : Sri Lanka, China, East and West Africa.

Remark : In the present study this species is recorded for the first time from West Bengal.

Genus *Scimbalium* Erichson

1839-40. *Scimbalium* Erichson, *Gen. Spec. Staph.*, : 579

218. *Scimbalium waageni* Bernhauer

1927. *Scimbalium waageni* Bernhauer, *Ark. Zool.*, 19(A) : 13.

1932. *Scimbalium waageni* : Cameron, *Fauna British India*, 3 : V

Material examined : Not available.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Sumatra.

Genus *Medon* Stephens

1832. *Medon* Stephens, *Brit. Ent. Mand.*, 3 : 273

Key to the species of *Medon* Stephens

1. Sides of thorax before the middle with distinct emargination.....*planatus* Bernhauer

- Sides of thorax straight..... 2
- 2(1). Head entirely covered with granules3
- Head at least with the disc punctured, the rest granular ; ferruginous red species.....
..... *cinnamopterus* Kraatz
- 3(2). Smaller (3.75 mm) ; thorax and elytra brownish red..... *opacellus* Fauvel
- Larger (5.5. to 5.75 mm) ; thorax pitchy-black and elytra ferruginous-red.....*birmanus* Fauvel

219. *Medon birmanus* Fauvel

1895. *Medon birmanus* Fauvel, *Rev. d' Ent.*, 14 : 228
1924. *Medon asperulus* Cameron, *Trans. ent. Soc. Lond.*, : 186
1931. *Medon birmanus* : Cameron, *Fauna British India*, 2 : 135-136.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Tung, 1 ex., 25. iii. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Sikkim, Uttar Pradesh. *Elsewhere* : Burma.

Remasrk : In the present study this species is recorded for the first time from West Bengal.

220. *Medon cinnamopterus* (Kraatz)

1859. *Lithocharis cinnamopterus* Kraatz, *Arch. Naturgesch.*, 25(1) : 141.
1920. *Medon orientalis* Cameron, *Trans. ent. Soc. Lond.*, : 281.
1924. *Medon chatterjeei* Cameron, *Trans. ent. Soc. Lond.*, : 188.
1931. *Medon cinnamopterus* : Cameron, *Fauna British India*, 2 : 138.

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Eden Garden, 1 ex., 25.i. 1974, S.K. Mitra coll.

Distribution : INDIA : West Bengal (Calcutta), Uttar Pradesh. *Elsewhere* : Malay Peninsula, Sumatra and Borneo.

Remark : In the present study this species is recorded for the first time from West Bengal.

221. *Medon planatus* Bernhauer

1916. *Medon planatus* Bernhauer, *W.E.Z.*, 66 : 419.
1931. *Medon planatus* : Cameron, *Fauna British India*, 2 : 142-143.

Material examined : 17 ex., INDIA : West Bengal, Darjiling dist., Singla Bazar, 10 exs., 5.i. 1976, S.K. Saha coll., Kalimpong, 3 exs., 16. iii. 1979, S.K. Saha coll., Rambi, 1 ex., 6.i. 1974, G.K.. Srivastava

coll. ; Nadia dist., Suravisthan, Badkulla, 10 Km south from krishnagar, 1 ex., 28. xii. 1981, D.N. Biswas coll. ; Medinipur dist., Kapra, 5 km east of Digha, 1 ex., 25.i. 1985, A.K Hazra coll.; Hugli dist., Bhadreswar, 1 ex., 5. xi. 1964, A.N.T. Joseph Coll.; Maldah dist., Ramkali, 1 ex., 6. xii. 1987, D.N. Biswas coll., Manikchak, 1 ex., 9. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Hugli, Maldah, Medinipur, Nadia), Bihar, Nagaland. *Elsewhere* : Philippines.

Remark : In the present study this species is recorded for the first time from West Bengal.

222. *Medon opacellus* Fauvel

1895. *Medon opacellus* Fauvel, *Rev. d' Ent.*, **14** : 231.

1931. *Medon opacellus* : Cameron, *Fauna British India*, **2** : 134-135.

Material examined : 3 exs., INDIA : West Bengal, Darjiling dist., Danga, 2 exs., 1 iv. 1978, D.N. Biswas coll., Mahanadi Valley, 1 ex., 9.i. 1976, G.K. Srivastava coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma, Singapore, Sumatra and Annam.

Remark : In the present study this species is recorded for the first time from India (West Bengal).

Genus *Lithocharis* Boised

1835. *Lithocharis* Boised and Lacord., *Faun. Ent. Par.*, **1** : 431.

Key to the species of *Lithocharis* Boised

1. Head more quadrate, more parallel behind the eyes, the posterior angles more briefly rounded....
..... 2
- Head less quadrate, more rounded behind the eyes, the posterior angles more broadly rounded
..... *nigriceps* Kraatz
- 2(1). Median smooth line of thorax much more sharply defined, Sub-carinate.....*penicillata* Cameron
- Median smooth line of thorax ill-defined..... *sororcula* Kraatz

223. *Lithocharis penicillata* Cameron

1928. *Lithocharis penicillata* Cameron, *Ent. Mothly Mag.*, **64** : 244, 247, Fig. 2.

1931. *Lithocharis penicillata* Cameron, *Fauna British India*, **2** : 161-162

Material examined : 1 ex., INDIA : West Bengal, Jalpaiguri dist., Rajabhatkhawa Forest, 1 ex.,

11. xi. 1974, T. Sengupta coll.

Distribution : INDIA : West Bengal (Jalpaiguri), Uttar Pradesh. *Elsewhere* : Malaysia, Singapore and South China.

Remarks : In the present study this species is recorded for the first time from West Bengal.

224. *Lithocharis nigriceps* Kraatz

1859. *Lithocharis nigriceps* Kraatz, *Arch. Naturgesch.*, **25**(1) : 139.

1874. *Lithocharis parviceps* Sharp, *Trans. ent. Soc. Lond.*, : 66.

1931. *Lithocharis nigriceps* : Cameron, *Fauna British India*, **2** : 159.

Material examined : 21 ex., INDIA : West Bengal, Darjiling dist., Lodhama, 2 exs., 30. iii. 1978, A.R. Bhaumik coll., Rangpo, 2 exs., 26. ii. 1979, S.K. Saha coll. ; Nadia dist., Suravisthan, Badkulla, 10 km south from Krishnagar, 1 ex., 29. vi. 1977, D.N. Biswas coll.; West Dinajpur dist., Tunidighi, 14 exs., 26. xi. 1987, D.N. Biswas coll. ; Maldah dist. Ramkali, 2 exs., 6. xii. 1987, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling, Maldah, Nadia), Bihar, Himachal Pradesh, Uttar Pradesh. *Elsewhere* : Sri Lanka, Singapore, Sumatra, South China and Japan.

Remarks : In the present study this species is recorded for the first time from West Bengal.

225. *Lithocharis sororcula* Kraatz

1859. *Lithocharis sororcula* Kraatz, *Arch. Naturgesch.*, **25**(1) : 140.

1931. *Lithocharis sororcula* : Cameron, *Fauna British India*, **2** : 162.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Bijanbari, 1 ex., 29. iii. 1978, D.N. Biswas coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Sri Lanka, Singapore and West Indies.

Remark : In the present study this species is recorded for the first time from West Bengal.

Subfamily STAPHYLININAE

Key to the tribes and genera of the subfamily Staphylininae

1. Prosternum with a transverse plate usually united to it by membrane ; sometimes fused with it, but in that case the head is scarcely constricted behind, and the 3rd segment of the labial palpi is dilated towards apex and truncate. Antennae at base less distant from each other than from the eye, mostly geniculate.....*Xantholinini* 3

- Prosternum without such plate. Antennae at base nearer to the eyes than to each other, rarely geniculate..... 2
- 2(1). Anterior angles of the pronotum not or scarcely extending beyond the anterior angles of the prosternum ; pronotal epipleura moderately reflexed, more or less horizontal. Infra-orbital crest absent or rudimentary.....*Staphylinini* 10
- Anterior angles of the pronotum distinctly produced beyond the anterior angles of the prosternum; pronotal epipleura strongly reflexed. Infra-orbital crest usually well developed, at least behind*Quediini* 21
- 3(1). Suture of the elytra straight, not imbricate; antennae slightly geniculate..... 4
- Suture of the elytra more or less imbricate ; antennae strongly geniculate.....5
- 4(3). Head scarcely constricted behind ; labrum produced and divided into two narrow pointed lobes *Platyprosopus* Mannerheim
- Head distinctly constricted behind ; labrum transverse, emarginate in the middle.....*Othius* Stephens
- 5(3). Mandibles externally with a sulcus extending from the base nearly to the apex.....6
- Mandibles at the base externally with a short sulcus or small fovea only..... 9
- 6(5). Frontal sulci very short, foveate..... *Mitomorphus* Kraatz
- Frontal sulci long, more or less parallel..... 7
- 7(6). 5th segment of the posterior tarsi as long as the four preceding together ; posterior tibiae not spinose*Pachycorynus* Motschulsky
- 5th segment of the posterior tarsi shorter than the four preceding together ; posterior tibiae spinose. Thorax with at least a dorsal row of punctures on each side..... 8
- 8(7). 4th segment of the maxillary palpi stout, conical. Species usually larger and more robust.....*Xantholinus* Serville
- 4th segment of the maxillary palpi slender, subulate. Species usually smaller and less robust....*Leptacinus* Erichson
- 9(5). Thorax on either side with a punctured sulcus extending to and including the puncture near the anterior angles. Head parallel, with coarse, more or less confluent punctures.....*Gauropterus* Thomson

- Thorax without punctured sulcus on each side, the puncture near the anterior angles free. Head usually transversely orbicular or subtriangular, the disc without coarse confluent punctures.....
*Indoscitalinus* Heller
- 10(2). 2nd segment of antennae dilated ; prosternal epimera present.....*Actobius* Fauvel
 2nd segment of antennae not dilated..... 11
- 11(10).3rd segment of labial palpi securiform..... *Wasmannellus* Bernhauer
 3rd segment of labial palpi cylindrical or pointed.....12
- 12(11).All the tibiae pubescent, without spines.....*Eucibdelus* Kraatz
 At least the posterior tibiae spinose..... 13
- 13(12).Anterior tibiae very strongly dilated, clavate or spatulate.....*Parapalaestrinus* Bernhauer
 Anterior tibiae normally dilated, not clavate..... 14
- 14(13).Tongue simple.....15
 Tongue emarginate or more or less bilobed.....19
- 15(14).Superior lateral line of thorax strongly deflexed, the large anterior setiferous puncture distant from it..... 16
 Superior lateral line of thorax slightly deflexed, the large anterior setiferous puncture on or near it..... 18
- 16(15).Mesosternal process narrow and pointed, the middle coxae contiguous but narrowly separated...
 *Neobisnius* Ganglbauer
 Mesosternal process broad, rounded or truncate behind, the middle coxae widely separated....17
- 17(16).Palpi elongate ; 2nd segment of labial palpi twice as long as the 1st ; 1st segment of the posterior tarsi elongate, longer than the two following together. Convex species.....*Hesperus* Fauvel
 Palpi short ; 2nd segment of labial palpi scarcely longer than the 1st ; 1st segment of the posterior tarsi not longer than the two following together. Depressed species*Belonuchus* Nordmann
- 18(15).Palpi long and slender ; 2nd segment of labial palpi twice as long as the 1st ; mesosternum process truncate behind and its rather widely separated..... *Philonthopsis* Cameron

Palpi short ; 2nd segment of labial palpi about as long as the 1st ; mesosternum process rounded behind or contiguous behind and its rather moderately separated.....*Philonthus* Curtis

19(14).Head quadrate, the base deeply and broadly emarginate.....*Naadia* Fauvel

Head variable, the base at most a little emarginate20

20(19).Mesosternum keeled*Thoracostrongylus* Bernhauer

Mesosternum not keeled..... *Staphylinus* Linnius

21(20).Antennae not geniculate..... 22

Antennae geniculate..... 24

22(21).Last segment of maxillary palpus very small, thin and sharp, subulate; at base only about half as broad as penultimate segment at apical margin and much shorter than penultimate segment.....

.....*Heterothops* Stephens

Last segment of maxillary palpus not subulate, at base more than half as broad as penultimate segment at apical margin and about as long or longer than penultimate segment..... 23

23(22).Two or three setiferous puncturs between anterior and posterior frontal punctures situated directly at median margin of eye. Dorsal rows of pronotum each with two punctures.....

.....*Indoquedius* Cameron

No setiferous punctures between anterior and posterior frontal punctures. Dorsal rows of punctures on pronotum absent..... *Quedius* Stephens

24(21).Middle and hind tarsus with empodial setae short, hardly visible between claws and considerably shorter than claws.....25

Middle and hind tarsus with empoidal setae long, distinctly protruding between claws and at least as long as claws, but usually longer.....*Acylophorus* Nordmann

25(24) Middle tinbia with numerous strong and long spines on lateral face. First antennal segment lacking fine and dense pubescence..... *Anchocerus* Fauvel

Middle tibia with one or two fine and short spines on lateral face. First antennal segment with fine and dense pubescence.....*Paratolmerus* Cameron

Genus *Leptacinus* Erichson

1839. *Leptacinus* Erichson, *Kaf Mark Brand.*, : 429.

226. *Leptacinus aethiops* Bernhauer

1918. *Leptacinus aethiops* Bernhauer, *Arch. Naturgesch.*, **84** : 180.

1932. *Leptacinus aethiops* : Cameron, *Fauna British India*, **3** : 14.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

227. *Leptacinus notabilis* Cameron

1926. *Leptacinus notabilis* Cameron, *Trans. ent. Soc. Lond.*, **76** : 342.

1932. *Leptacinus notabilis* Cameron, *Fauna British India*, **3** : 11.

Material examined : 3 ex., INDIA : West Bengal, Calcutta, 13. vi. 1910, S. Kemp coll.

Distribution : INDIA : West Bengal (Calcutta), Uttar Pradesh. *Elsewhere* : Sri Lanka, Singapore and West Indies.

Remarks : First time recorded from West Bengal.

Genus *Pachycorynus* Motschulsky

1858. *Pachycorynus* Motschulsky, *Bull. Mosc.*, **31**(3) : 204.

1859. *Holisomorphus* Kraatz., *Arch. Naturgesch.*, **25**(1) : 100.

228. *Pachycorynus niger* Cameron

1932. *Pachycorynus niger* Cameron, *Fauna British India*, **3** : 16.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Mitomorphus* Kraatz

1859. *Mitomorphus* Kraatz, *Arch. Naturgesch.*, **25** (1) : 105.

Key to the species of *Mitomorphus* Kraatz

1. Thorax with a row of six small punctures on each side of the middle..... *brevipennis* Cameron

Thorax with a row of nine or ten moderate punctures on each side of the middle.....
*brachypterus* Cameron

229. *Mitomorphus brevipennis* Cameron

1943. *Mitomorphus brevipennis* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 127.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

230. *Mitomorphus brachypterus* Cameron

1943. *Mitomorphus brachypterus* Cameron, *Proc. R. ent. Soc. Lond.*, 12 (B) : 127.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Xantholinus* Serville

1825. *Xantholinus* Serville, *Encyc. Meth.*, 10 : 475.

Key to the species of *Xantholinus* Serville

1. Larger (13 mm) ; thorax with a dorsal row of eleven or twelve punctures ; last abdominal segment bright reddish-yellow..... *ruficaudatus* Cameron

Smaller (5.7 to 7.5 mm) ; thorax otherwise punctures ; last abdominal segment at most pitchy or obscure..... 2

2(1). Thorax with a dorsal row of eight or nine fine punctures.....*parcus* Eppelsheim

Thorax with a dorsal row of ten large punctures..... *aeneus* Cameron

231. *Xantholinus parcus* Eppelsheim

1895. *Xantholinus parcus* Eppelsheim, *D.E.Z.*, : 397

1932. *Xantholinus parcus* : Cameron, *Fauna British India*, 3 : 26-27.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Burma.

232. *Xantholinus (s. str.) aeneus* Cameron

1943. *Xantholinus (s. str.) aeneus* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 127.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

233. *Xantholinus ruficaudatus* Cameron

1932. *Xantholinus ruficaudatus* Cameron, *Fauna British India*, **3** : 27.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Gauropterus* Thomson

1860. *Gauropterus* Thomson, *Skand. Col.*, **2** : 187.

234. *Gauropterus marginalis* Cameron

1932. *Gauropterus marginalis* Cameron, *Fauna British India*, **3** : 32.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Indoscitalinus* Heller

1900. *Indoscitalinus* Heller, *Abh. Mus. Dresd.*, **9(5)** : 5

235. *Indoscitalinus dispilus* (Erichson)

1830-40. *Xantholinus dispilus* Erichson, *Gen. Spec. Staph.*, : 37.

1932. *Indoscitalinus dispilus* : Cameron, *Fauna British India*, **3** : 39-40.

Material examined : Not available.

Distribution : INDIA : West Bengal, Uttar Pradesh.

Remarks : The distributional data of this species mentioned in fauna only 'Bengal' by Cameron (1932).

Genus *Othius* Stephens1832. *Othius* Stephens, III. *Brit. Ent.*, 5 : 253236. *Othius monticols* Cameron1943. *Othius monticola* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 128.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).Genus *Platyprosopus* Mannerheim1830. *Platyprosopus* Mannerheim, *Brachely.*, : 36Key to the species of *Platyprosopus* Mannerheim

1. Smaller species (10.5 mm); thorax with dorsal row of six punctures on each side.....
 *biseriatus* Eppelsheim
- Larger species (11 to 18 mm); thorax without such dorsal row of punctures..... 2
- 2(1). Thorax as long as broad ; elytra black..... *indicus* Motschulsky
- Thorax longer than broad ; elytra brownish-black..... *fuliginosus* Erichson

237. *Platyprosopus biseriatus* Eppelsheim1895. *Platyprosopus biseriatus* Eppelsheim, *D.E.Z.*, : 4001932. *Platyprosopus biseriatus* : Cameron, *Fauna British India*, 3 : 52.*Material examined* : 3 ex., INDIA : West Bengal, Calcutta, 1 ex., 22.v. 1907, C. Paiva coll., Calcutta, 1 ex., 17. xi. 1907, Mus. coll., Eden Garden, Calcutta, 1 ex., 14. xi. 1911, F.H. Gravely Coll.*Distribution* : INDIA : West Bengal (Calcutta). *Elsewhere* : Burma.238. *Platyprosopus indicus* Motschulsky1858. *Platyprosopus indicus* Motschulsky, *Bull. Mosc.*, 31 : 212.1859. *Platyprosopus laevicollis* Kraatz, *Arch. Naturgesch.*, 25(1) : 114.1932. *Platyprosopus indicus* : Cameron, *Fauna British India*, 3 : 49.*Material examined* : 2ex., INDIA : West Bengal, Calcutta, 1 ex., Moti Ram coll., Calcutta, Bhowbanipur, 1 ex., 26. vii. 1925, H.S. Pruthi coll.

Distribution : INDIA : West Bengal (Calcutta), Bihar, Uttar Pradesh.

239. *Platyprosopus fuliginosus* Erichson

- 1839-40. *Platyprosopus fuliginosus* Erichson, *Gen. Spec. Staph.*, : 923
 1858. *Platyprosopus orientalis* Motschulsky, *Bull. Mosc.*, 31(3) : 212.
 1932. *Platyprosopus fuliginosus* : Cameron, *Fauna British India*, 3 : 51.

Material examined : 13 ex., INDIA : West Bengal, Calcutta , Eden Garden, 4 exs., 16.v. 1911, F.H. Gravely coll., Calcutta, 1 ex., 22.v. 1909, C. Paiva coll., Calcutta, 1 ex., 8. xi. 1907, Mus. coll. ; Medinipur dist., Kharagpur, 7 exs., 17. vi. 1911, R. Hodgart coll.

Distribution : INDIA : West Bengal (Calcutta, Medinipur), Bihar.

Genus *Neobisnius* Ganglbauer

1895. *Neobisnius* Ganglbauer, *Kaff. Mitt. Eur.*, 2 : 464.

240. *Neobisnius praelongus* (Gemm. et Har.)

1868. *Philonthus praelongus* Gemm. et Har., *Cat. Col.*, 2 : 591.
 1859. *Philonthus longulus* Kraatz, *Arch. Naturgesch.*, 25(1) : 99.
 1932. *Neobisnius praelongus* : Cameron, *Fauna British India*, 3: 57

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Eden Garden, 14.x. 1911, F.H., Gravely coll.

Distribution : INDIA : West Bengal (Calcutta), Bihar, Nagaland, Uttar Pradesh. *Elsewhere* : Penang, Singapore, Java, Philippines.

Remark : First time recorded from West Bengal.

Genus *Actobius* Fauvel

1874. *Actobius* Fauvel, *Fauna Gallo-Rhen.*, 3 (Suppl.) : 72

Key to the species of *Actobius* Fauvel

1. Antennae blackish, the last two segments reddish-yellow..... *mangpuensis* Cameron
 Antennae blackish, the first two and last two segments reddish-yellow..... 2
 2(1). Larger species (7 to 8 mm) and more robust ; head slightly longer than broad ; legs pitchy.....
 *major* Cameron

Smaller species (6 mm) and narrower ; head as broad as long; legs reddish-yellow.....
*monticola* Cameron

241. *Actobius monticola* Cameron

1943. *Actobius monticola* Cameron, *Proc. R. ent. Soc. Lond.*, 12(B) : 128.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

242. *Actobius mangpuensis* Cameron

1953. *Actobius mangpuensis* Cameron, *Proc R. ent. Soc. Lond.*, 12(B) ; 128.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

243. *Actobius major* Cameron

1943. *Actobius major* Cameron, *Proc.R. ent. Soc. Lond.*, 12(B) : 128-129.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Philonthus* Curtis

1825. *Philonthus* Curtis, *Brit. Ent.*, 13 : 610.

Key to the species of *Philonthus* Curtis

- 1. Thorax with dorsal row of 3 punctures..... 2
- Thorax with dorsal row of more than 3 punctures.....3
- 2(1). Antennae reddish ; elytra coppery.....*Cinctulus* Kraatz
- Antennae black ; elytra greenish bronze.....*industanus* Fauvel
- 3(1). Thorax with dorsal row of 4 punctures..... 4
- Thorax with dorsal row of more than 4 punctures..... 9

- 4(3). Legs lentirely or in greater part yellow.....*bengalensis* Bernhauer
 Legs black or pitchy..... 5
- 5(4). Penultimate segments of the antennae as long as broad.....*aeripennis* Cameron
 Penultimate segments of the antennae transverse..... 6
- 6(5). Thorax black..... 7
 Thorax distinctly metallic.....*carbonarius* (Gyll.)
- 7(6). Antennae black, penultimate segments less transverse ; legs pitchy.....*montivagans* Cameron
 Antennae black, 1st and 2nd segments pitchy, penultimate segments distinctly transverse ; legs brownish-yellow..... 8
- 8(7). Larger (6 mm) ; elytra with strong greenish-bronze reflex and more coarsely punctured ; head as broad as the thorax..... *gardneri* Cameron
 Smaller (5 mm) ; elytra with feeble bronze reflex and more finely punctured ; head a little broader than the thorax..... *adversus* Bernhauer
- 9(3). Thorax with dorsal row of 5 punctures..... 10
 Thorax with dorsal row of more than 5 punctures..... 14
- 10(9). Thorax bright red.....*paederoides* Motschulsky
 Thorax black or brown..... 11
- 11(10).Penultimate segments of antennae transverse.....12
 Penultimate segments of antennae not transverse..... 13
- 12(11) Penultimate segments of antennae strongly transverse ; the suture and apical margin of the elytra more broadly reddish-yellow..... *flavocinctus* Motschulsky
 Penultimate segments of antennae slightly transverse ; elytra brownish-yellow, often a little infusate about the scutellum..... *thermarum* Aube
- 13(11).Penultimate segments of antennae as long as broad; elytra yellowish-red, only the base narrowly blackish.....*quisquiliarius* var *inquinatus* Stephens

- Penultimate segments of antennae longer than broad ; elytra black..... *longicornis* Stephens
- 14(9).Antennae reddish-yellow, the intermediate segments infusate.....*imitator* Fauvel
- Antennae otherwise..... 15
- 15(14).Antennae black, the first two segments reddish ; head oblong.....*nigritulus* (Gravely)
- Antennae black ; head not oblong..... 16
- 16(15).Head subquadrates; 1st segments of antennae pitchy ; elytra uniformly reddish-brown.....
- *christiei* Bernhaur
- Head subovate ; 1st segments of antennae black ; elytra dark-blue.....*rupicola* Cameron

244. *Philonthus industanus* Fauvel

1903. *Philonthus industanus* Fauvel, *Rev. d' Ent.*, **22** : 158.
1932. *Philonthus industanus* : Cameron, *Fauna British India*, **3** : 78.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Sikkim and Tamil Nadu.

245. *Philonthus carbonarius* (Gyll.)

1810. *Staphylinus carbonarius* Gyll., *Ins. Suec.*, **2** : 319.
1862. *Philonthus punctiventris* Janson, *Ent. Ann.*, : 82
1853. *Philonthus tenuicornis* Mulsant and Rey, *Opusc., Ent.*, **2** : 71.
1932. *Philonthus carbonarius* : Cameron, *Fauna British India*, **3** : 81.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

246. *Philonthus (Gabrius) rupicola* Cameron

1943. *Philonthus (Gabrius) rupicola* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 131.

Material examined :Not available.

Distribution : INDIA : West Bengal (Darjiling).

247. *Philonthus adversus* Bernhauer

1914. *Philonthus adversus* Bernhauer, *Cat. Col. Staph.*, **4** : 327.

1895. *Philonthus misellus* Fauvel, *Rev. d' Ent.*, **14** : 262
 1933. *Philonthus adversus* : Cameron, *Fauna British India*, **3** : 100-101.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Nagaland. *Elsewhere* : Burma.

248. *Philonthus gardneri* Cameron

1932. *Philonthus gardneri* Cameron, *Fauna British India*, **3** : 101.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

249. *Philonthus christiei* Bernhauer

1918. *Philonthus christiei* Bernhauer, *Arch. Naturgesch.*, **84(A)** : 181.
 1926. *Philonthus masuriensis* Cameron, *Trans. ent. Soc. Lond.*, : 358.
 1932. *Philonthus christiei* : Cameron, *Fauna British India*, **3** : 139-140.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh.

250. *Philonthus imitator* Fauvel

1895. *Philonthus imitator* Fauvel, *Rev. d' Ent.*, **14** : 265
 1932. *Philonthus imitator* : Cameron, *Fauna British India*, **3** : 149-150.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh. *Elsewhere* :
 Burma

251. *Philonthus montivagans* Cameron

1943. *Philonthus montivagans* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 129

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

252. *Philonthus aeripennis* Cameron

1943. *Philonthus aeripennis* Cameron, *Proc. R. ent. Soc. Lond.*, **12(B)** : 130.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

253. *Philonthus bengalensis* Bernhauer

1911. *Philonthus bengalensis* Bernhauer, *Ent. Blatt.* : 91.

1932. *Philonthus bengalensis* : Cameron, *Fauna British India*, 3 : 87-88.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Darjiling, E. Himalaya, v. 1910, R.B. Horsfall coll.

Distribution : INDIA : West Bengal (Darjiling), Bihar, Sikkim, Tamil Nadu, Uttar Pradesh.

Remark : First time recorded from West Bengal.

254. *Philonthus nigrutilus* (Gravely)

1802. *Staphylinus nigrutilus* Gravely, *Col. Micr. brunsv.*, : 41

1932. *Philonthus nigrutilus* : Cameron, *Fauna British India*, 3 : 147-148.

Material examined : 2 exs., INDIA : West Bengal, Darjiling dist., Darjiling, E. Himalaya, 2450 m., 1 ex., 8. viii. 1909, C. Paiva coll., Kurseong, E. Himalaya, 1750 m., 1 ex., 15. viii. 1909, J.T. Jepkins coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Sri Lanka.

Remark : First time recorded from India (West Bengal).

255. *Philonthus paederoides* Motschulsky

1858. *Philonthus paederoides* Motschulsky, *Bull. Mosc.*, 31(2) ; 662.

1859. *Philonthus bellus* Kraatz, *Arch. Naturgesch.*, 25(1) : 83.

1932. *Philonthus paederoides* ; Cameron, *Fauna British India*, 3 : 114.

Material examined : 3 exs., INDIA : West Bengal, Calcutta, Eden Gardens, 16.x. 1911, F.H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta), Tamil Nadu. *Elsewhere* : Sri Lanka, China, Philippines, Sumatra.

Remark : First time recorded from West Bengal.

256. *Philonthus cinctulus* (Gravely)

1802. *Staphylinus cinctulus* Gravely, *Col. Micr. Brunsv.*, : 167.
 1932. *Philonthus cinctulus* ; Cameron, *Fauna British India*, 3 : 77-78.

Material examined : 4 exs. INDIA : West Bengal, Calcutta, 3 exs., 17. xii. 1906, Calcutta, 1 ex., 19. xii. 1906

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Sri Lanka, Annam

Remark : First time recorded from India (West Bengal).

257. *Philonthus quisquiliarius* var. *inquinatus* Stephens

1832. *Philonthus quisquiliarius* Gyll., var. *inquinatus* Stephens, III. *Brit. Ent.*, 5 : 223.
 1932. *Philonthus quisquiliarius* var. *inquinatus* : Cameron, *Fauna British India*, 3 : 123.

Material examined : 22 exs., INDIA : West Bengal, Calcutta, 2 exs., 18. xi. 1907, Calcutta, 1 ex., 27. ix. 1910, Calcutta, Eden Garden, 18 exs., 7 x. 1911, F.H. Gravely coll., Calcutta, 14. ix. 1909, Iex., C. Paiva coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Sri Lanka

Remark : First time recorded from West Bengal.

258. *Philonthus flavocinctus* Motschulsky

1858. *Philonthus flavocinctus* Motschulsky, *Bull. Mosc.*, 31(2) ; 663
 1859. *Philonthus rufomarginatus* Kraatz, *Arch. Naturgesch.*, 25(1) : 90
 1932. *Philonthus flavocinctus* : Cameron, *Fauna British India*, 3 : 116-117.

Material examined : 2 exs., INDIA : West Bengal. Darjiling dist., Darjiling, E. Himalaya, 2450 m., 1 ex., 8. viii. 1909, J.T. Jenkins coll. ; Calcutta, 1 ex., 11. viii. 1909, Mus. coll.

Distribution : INDIA : West Bengal (Calcutta, Darjiling). *Elsewhere* : Rest of the oriental region, Mauritius, Reunion.

Remark : First time recorded from West Bengal.

259. *Philonthus thermarum* Aube

1850. *Philonthus thermarum* Aube, *Ann. Soc. Ent. Fr.*, 8(2): 316.
 1932. *Philonthus thermarum* : Cameron, *Fauna British India*, 3 : 134.

Material examined : 5 exs., INDIA : West Bengal, Calcutta, Eden Garden, 17. x. 1911, F.H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Sri Lanka

Remark : First time recorded from West Bengal

260. *Philonthus longicornis* Stephens

1832. *Philonthus longicornis* Stephens, III. *Brit. Ent.*, 5 : 237.

1932. *Philonthus longicornis* : Cameron, *Fauna British India*, 3 : 127-128.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Darjiling, E. Himalaya, C. Lynch coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Remark : First time recorded from West Bengal.

Genus *Hesperus* Fauvel

1872. *Hesperus* Fauvel, *Fauna Gallo-Rhen.*, 3 : 426.

Key to the species of *Hesperus* Fauvel

1. Elytra red, the posterior margin yellow ; abdomen black, the visible abdominal segments 3 and 4 red..... *wasmanni* Fauvel

Elytra black, the postero-external angles and posterior margins testaceous ; visible abdominal segments 1-3 red..... *feae* Fauvel

261. *Hesperus wasmanni* Fauvel

1895. *Hesperus wasmanni* Fauvel, *Rev. d' Ent.*, 14 : 260.

1932. *Hesperus wasmanni* : Cameron, *Fauna British India*, 3 : 158.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Burma.

262. *Hesperus feae* Fauvel

1895. *Hesperus feae* Fauvel, *Rev. d' Ent.*, 14 : 260.

1926. *Hesperus feae* Fauvel var. *cingulatus* Cameron, *Trans. ent. Soc. Lond.*, : 361.

1932. *Hesperus feae* : Cameron, *Fauna British India*, 3 : 158-159.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh. *Elsewhere*:
Burma

Genus *Belonuchus* Nordmann

1837. *Belonuchus* Nordmann, *Symbol.*, : 129.

Key to the species of *Belonuchus* Nordmann

1. Antennae with the 11th segment reddish-yellow ; legs black.....*gardneri* Cameron
Antennae black, the base of the first three segments narrowly reddish ; legs pitchy black.....
.....*quadratus* kraatz

263. *Belonuchus gardneri* Cameron

1932. *Belonuchus gardneri* Cameron, *Fauna British India*, 3 : 173.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

264. *Belonuchus quadratus* (Kraatz)

1859. *Philonthus quadratus* Kraatz, *Arch. Naturgesch.*, 25 (1) : 96

1932. *Belonuchus quadratus* : Cameron, *Fauna British India*, 3 : 172.

Material examined : 1 ex., INDIA : West Bengal, Calcutta.

Distribution : INDIA : West Bengal (Calcutta), Bihar, Nagaland.

Genus *Staphylinus* Linnius

1758. *Staphylinus* Linnius, *Syst. nat. ed.*, 10 : 421

Key to the species of *Staphylinus* Linnius

1. Antennae rather long and slender, the intermediate segments much longer than broad, the penultimate at least as long as broad..... 2
Antennae shorter and stouter, the penultimate segments transverse..... 8
- 2(1). Abdomen with one or more large transverse tomentose golden patches..... *prinae* Eppelsheim

- Abdomen without such patches..... 3
- 3(2). Abdominal segments normally pubescence.....5
- Abdominal segments with patch of yellow pubescence..... 4
- 4(3). 4th and 5th (visible) abdominal segments with median triangular patch of greyish-yellow pubescence extending from the base to the posterior margin. Last four segments of antennae yellow.....*stevensi* Cameron
- On the first five (visible) abdominal segments with small patch of short golden - yellow pubescence in the middle. Antennae dark brown, the 1st segment reddish-yellow.....*marginatus* Cameron
- 5(3). Shining ; fore-parts blue. Legs and antennae red.....*caeruleus* Cameron
- Otherwise coloured 6
- 6(5). Antennae and legs bright reddish-yellow; elytral patch very large..... *wasmanni* Bernhauer
- At least the first five segments of antennae and legs dark ; elytral patch much smaller..... 7
- 7(6). Head and thorax blue black ; elytra dark blue.....*auroguttatus* Cameron
- Head and thorax black ; elytra brilliant steel-blue..... *sikkimensis* Bernhauer
- 8(1). Head and thorax very shining, not rugose (except the post-ocular region in *sparsus*) ; abdomen not bifariate..... *sparsus* Cameron
- Head and thorax less shining, rugosely punctured ; abdomen usually bifariate..... 9
- 9(8). Elytra coppery..... *asemus* Kraatz
- Elytra brassy.....*bengalensis* Bernhauer

265. *Staphylinus (Platydacus) asemus* Kraatz

1859. *Staphylinus asemus* Kraatz, *Arch. Naturgesch.*, 25(1) : 77

1911. *Staphylinus aeneicollis* Bernhauer, *Ent. Blatt.*, 7 : 87

1932. *Staphylinus (Platydacus) asemus* : Cameron, *Fauna British India*, 3 : 194.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Meghalaya and Uttar Pradesh.

266. *Staphylinus (Platydracus) bengalensis* Bernhauer1914. *Staphylinus bengalensis* Bernhauer, *W.Z.B.*, 64 : 1001932. *Staphylinus (Platydracus) bengalensis* : Cameron, *Fauna British India*, 3 : 194-195.*Material examined* : Not available.*Distribution* : INDIA (? West Bengal).*Remark* : The distributional data of this species mentioned in fauna only 'Bengal' by Cameron (1932).267. *Staphylinus (Platydracus) sparsus* Cameron1932. *Staphylinus (Platydracus) sparsus* Cameron, *Fauna British India*, 3 : 199.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).268. *Staphylinus (Goerius) prainae* (Eppelsheim)1895. *Trichocosmetes prainae* Eppelsheim, *W.E.Z.*, 14 : 58.1932. *Staphylinus (Goerius) prainae* : Cameron, *Fauna British India*, 3 : 201-202.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling), Meghalaya.269. *Staphylinus (Goerius) caeruleus* Cameron1932. *Staphylinus (Goerius) caeruleus* Cameron, *Fauna British India*, 3 : 203.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).270. *Staphylinus (Tasgius) wasmanni* Bernhauer1918. *Staphylinus (Tasgius) wasmanni* Bernhauer, *Arch. Naturgesch.*, 84(A) : 1841932. *Staphylinus (Tasgius) wasmanni* : Cameron, *Fauna British India*, 3 : 205.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).

271. *Staphylinus (Tasgius) auroguttatus* Cameron1932. *Staphylinus (Tasgius) auroguttatus* Cameron, *Fauna British India*, **3** : 206.*Material examined* : Not available.*Distribution* : INDIA : (? West Bengal).*Remark* : The distributional data of this species mentioned in fauna only 'Bengal' by Cameron (1932).272. *Staphylinus (Tasgius) sikkimensis* Bernhauer1918. *Staphylinus (Tasgius) sikkimensis* Bernhauer, *Arch. Naturgesch.*, **84(A)** : 185.1932. *Staphylinus (Tasgius) sikkimensis* : Cameron, *Fauna British India*, **3** : 206.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).273. *Staphylinus (Tasgius) stevensi* Cameron1932. *Staphylinus (Tasgius) stevensi* Cameron, *Fauna British India*, **3** : 208*Material examined* : 1 ex. (damage), INDIA : West Bengal Darjiling dist., Kurseong, E. Himalaya, 4. x. 1909, D' Abreu coll.*Distribution* : INDIA : West Bengal (Darjiling).274. *Staphylinus (Abemus) marginatus* Cameron1944. *Staphylinus (Abemus) marginatus* Cameron, *Proc. R. ent. Soc. Lond.*, **13** : 11.*Material examined* : Not available.*Distribution* : INDIA : West Bengal (Darjiling).Genus *Ontholestes* Ganglbauer1895. *Ontholestes* Ganglbauer, *Kaf. Mitt. Eur.*, **2** : 417.275. *Ontholestes aurosparsus* (Fauvel)1895. *Leistotrophus aurosparsus* Fauvel, *Rev. d' Ent.*, **14** : 245.1932. *Ontholestes aurosparsus* : Cameron, *Fauna British India*, **3** : 211.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Assam and Uttar Pradesh. *Elsewhere* : Burma.

Genus *Thoracostrongylus* Bernhauer

1915. *Thoracostrongylus* Bernhauer, *Tijdsch. Ent.*, **58** : 233.

276. *Thoracostrongylus birmanus* (Fauvel)

1895. *Leistotrophus birmanus* Fauvel, *Rev. d' Ent.*, **14** : 246.

1932. *Thoracostrongylus birmanus* : Cameron, *Fauna British India*, **3** : 214.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma.

Genus *Eucibdelus* Kraatz

1858. *Eucibdelus* Kraatz, *Arch. Naturgesch.*, **25**(1) : 70, tab. 2, fig. 3.

Key to the species of *Eucibdelus* Kraatz

1. Antennae long and slender, the penultimate segments not transverse ; elytra ferruginous, variegated with black and with spots and lines of yellow.....*angusticeps* Bernhauer

Antennae shorter, clavate, the penultimate segments transverse ; elytra greenish-bronze, reflexed margin, suture and posterior margin narrowly reddish..... *stevensi* Cameron

277. *Eucibdelus angusticeps* Bernhauer

1918. *Eucibdelus angusticeps* Bernhauer, *Arch. Naturgesch.*, **84**(A) : 186

1932. *Eucibdelus angusticeps* : Cameron, *Fauna British India*, **3** : 219-220.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

278. *Eucibdelus stevensi* Cameron

1932. *Eucibdelus stevensi* Cameron, *Fauna British India*, **3** : 222.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Parapalaestrinus* Bernhauer

1923. *Parapalaestrinus* Bernhauer, *W.E.Z.*, 40 : 63.

Key to the species of *Parapalaestrinus* Bernhauer

1. Elytra red ; abdomen with silvery pubescence.....*mutillarius* (Erichson)
 Elytra metallic ; abdomen with silver-grey pubescence.....*waageni* (Eppelsheim)

279. *Parapalaestrinus mutillarius* (Erichson)

1839-40. *Palaestrinus mutillarius* Erichson, *Gen. Spec. Staph.*, : 924

1932. *Parapalaestrinus mutillarius* : Cameron, *Fauna British India*, 3 : 235-236.

Material examined : Not available.

Distribution : INDIA : (? West Bengal), Uttar Pradesh.

Remark : The distributional data of this species mentioned in fauna only 'Bengal' by Cameron (1932).

280. *Parapalaestrinus waageni* (Eppelsheim)

1895. *Palaestrinus waageni* Eppelsheim, *D.E.Z.*, : 396.

1932. *Parapalaestrinus waageni* : Cameron, *Fauna British India*, 3 : 236-237.

Material examined : Not available.

Distribution : INDIA : West Bengal (Calcutta).

Genus *Naddia* Fauvel

1867. *Naddia* Fauvel, *Col. Hefte*, 2 : 117.

281. *Naddia westermanni* (Erichson)

1839-40. *Caranistes westermanni* Erichson, *Gen. Spec. Staph.*, : 925.

1932. *Naddia westermanni* : Cameron, *Fauna British India*, 3 : 242.

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Kurseong, E. Himalaya, 28. vi. 1910, N. Annandale coll.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Burma.

Genus *Wasmannellus* Bernhauer

1918. *Wasmannellus* Bernhauer, *Arch. Naturgesch.*, **84(A)** : 186.

282. *Wasmannellus tristis* Bernhauer

1918. *Wasmannellus* Bernhauer, *Arch. Naturgesch.*, **84(A)** : 187.

1932. *Wasmannellus tristis* : Cameron, *Fauna British India*, **3** : 247.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Philomyceta* Cameron

1944. *Philomyceta*, Cameron, *Proc. R. ent. Soc. Lond.*, **13** : 12.

Key to the species of *Philomyceta* Cameron

1. Head transverse, surface closely and moderately umbilicate punctures ; elytra with purple reflex here and there; legs yellowish-red.....*caeruleipennis* Cameron

Head less transverse, a shining plaque on the vertex ; elytra with greenish reflex at the base and apical margin ; legs black..... *affinis* Cameron

283. *Philomyceta caeruleipennis* Cameron

1944. *Philomyceta caeruleipennis* Cameron, *Proc. R. ent. Soc. Lond.*, **13** : 12.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

284. *Philomyceta affinis* Cameron

1944. *Philomyceta affinis* Cameron, *Proc. R. ent. Soc. Lond.*, **13** : 13.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Philonthopsis* Cameron

1932. *Philonthopsis* Cameron, *Fauna British India*, **3** : 261-262.

285. *Philonthopsis antennalis* Cameron

1932. *Philonthopsis antennalis* Cameron, *Fauna British India*, 3 : 262.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Heterothops* Stephens

1832. *Heterothops* Stephens, III. *Brit. Ent.*, 5 : 256.

286. *Heterothops pusillus* Coiffait

1982. *Heterothops pusillus* Coiffait, *Senckenbergiana biol.*, 62 : 21-179.

1988. *Heterothops pusillus* : Smetana, *Quaest. Ent.*, 24(2) : 323-324.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh. *Elsewhere*:
Nepal

Genus *Quedius* Stephens

1832. *Quedius* Stephens, III. *Brit. Ent.*, 5 : 214.

Key to the subgenera and species of *Quedius* Stephens

- 1. Two additional setiferous punctures between anterior frontal punctures.....
.....*Distichalius* Casey (*Q. deceptor* Cameron)
- No additional setiferous punctures between anterior frontal punctures..... 2
- 2(1). Two or rarely three setiferous punctures between posterior frontal puncture and posterior margin
of head. Eyes small to moderately large, only occasionally distinctly larger than tempora.....
.....*Miscrosaurus* Djean 3
- Only one puncture between posterior frontal puncture and posterior margin of head. Eyes large,
distinctly to considerably longer than tempora.....*Raphirus* Stephens 8
- 3(2). Antennae markedly incrassate, segment 4 transverse, outer segments sub-serrate.....
.....*inquietus* (Champion)
- Antennae not markedly incrassate, segment 4 about as long as broad, outer segments not sub-serrate
..... 4

- 4(3). Scutellum with sculpture consisting of irregular transverse rugae in the middle of basal portion 5
- Scutellum smooth, without sculpture of irregular transverse rugae on basal portion..... 6
- 5(4). Abdominal tergite 3 (first visible) with smooth impunctate area in middle. Sublateral rows on pronotum each with two to four punctures..... *beesoni* Cameron
- Abdominal tergite 3 (first visible) evenly punctate. Sublateral rows on pronotum each with one or two punctures..... *antennalis* Cameron
- 6(4). Punctuation of elytra not uniform, each elytron with three inconspicuous longitudinal rows of three or four coarser punctures..... *placidus* Cameron
- Punctuation of elytra uniform, without longitudinal rows of coarser punctures..... 7
- 7(6). Sublateral rows on pronotum each with no more than two punctures.....*apicicornis* Eppelsheim
- Sublateral rows on pronotum each with at least three punctures..... *ripicola* Cameron
- 8(2). First three abdominal tergites with elevated median keel.....*gardneri* Cameron
- None of abdominal tergites with elevated median keel..... 9
- 9(8). Scutellum and neck impunctate..... *rugosus* Cameron
- Scutellum punctate..... 10
- 10(9). Elytra with coarse and rather irregularly distributed punctures intermixed with distinctly finer punctures..... *durgaa* Smetana
- Elytra with simple punctuation..... 11
- 11(10).Segment 3 of antennae distinctly longer than segment 2. Size large, form robust.....
..... *himalayicus* Bernhauer
- Segment 3 of antennae about as long as segment 2. Size small, more or less slender.....12
- 12(11).Abdomen at the sides of the segments with tufts of yellowish pubescence..... 13
- Abdomen without such tufts..... *tonglu* Smetana
- 13(12).Legs dark. Elytra more closely and more finely punctured.....*aureiventris* Bernhauer
- Legs yellow. Elytra less closely and less finely punctured.....*musvicola* Cameron

287. *Quedius (Microsaurus) antennalis* Cameron

1932. *Quedius (Microsaurus) antennalis* Cameron, *Fauna British India*, 3 : 285.
 1988. *Quedius (M.) antennalis* : Smetana, *Quaest. Ent.*, 24(2) : 201-202.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

288. *Quedius (Microsaurus) apicicornis* Eppelsheim

1895. *Quedius apicicornis* Eppelsheim, *D.E.Z.*, : 391.
 1932. *Quedius (Microsaurus) apicicornis* : Cameron, *Fauna British India*, 3 : 286-287.
 1932. *Quedius (Microsaurus) flavoterminalis* Cameron, *Fauna British India*, 3 : 290.
 1976. *Quedius cyanopterus* Scheerpeltz, *Khumbu Himal, Innsbruck*, 5 : 77-173.
 1982. *Quedius sherpai* Coiffait, *Senckenbergiana biologica*, 62 : 21-179.
 1988. *Quedius (Microsaurus) apicicornis* : Smetana, *Quaest. Ent.*, 24 (2) : 192-196.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Sikkim. *Elsewhere* : Nepal, Bhutan.

289. *Quedius (Microsaurus) inquietus* (Champion)

1925. *Velleius inquietus* Champion, *Ent. Monthly Mag.*, 61 : 107.
 1932. *Velleius inquietus* : Cameron, *Fauna British India*, 3 : 279.
 1982. *Quedius leptcephalus* Coiffait, *Entomologica Basiliensis* 7 : 231-302.
 1988. *Quedius (Microsaurus) inquietus* : Smetana, *Quaest. Ent.*, 24(2) : 189-192.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Nepal.

290. *Quedius (Microsaurus) beelsoni* Cameron

1932. *Quedius (Microsaurus) beelsoni* Cameron, *Fauna British India*, 3 : 285.
 1932. *Quedius (M.) mimeticus* Cameron, *Fauna British India*, 3 : 286.
 1932. *Quedius (M.) notabilis* Cameron, *Fauna British India*, 3 : 286.
 1932. *Quedius (M.) peraffinis* Camewron, *Fauna British India*, 3 : 286.
 1988. *Quedius (M.) beelsoni* : Smetana, *Quaest. Ent.*, 24(2) : 196-200.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Nepal.

291. *Quedius (Microsaurus) placidus* Cameron

1932. *Quedius (Ediquus) placidus* Cameron, *Fauna British India*, 3 : 282.
 1988. *Quedius (Microsaurus) placidus* : Smetana, *Quaest. Ent.*, 24(2) : 210-211.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Bhutan.

292. *Quedius (Raphirus) aureiventris* Bernhauer

1915. *Quedius (Raphirus) aureiventris* Bernhauer, *Col., Rundsch.*, 4 : 56
 1932. *Quedius (R.) aureiventris* : Cameron, *Fauna British India*, 3 : 294-295.
 1944. *Quedius decipiens* Cameron, *Proc. R. ent. Soc. Lond.*, 13 : 14.
 1988. *Quedius (R.) aureiventris* : Smetana, *Quaest. Ent.*, 24(2) : 250-253.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Kashmir, Uttar Pradesh. *Elsewhere* : Pakistan, Nepal, Bhutan.

293. *Quedius (Raphirus) tonglu* Smetana

1988. *Quedius (Raphirus) tonglu* Smetana, *Quaest. Ent.*, 24(2) : 268.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

294. *Quedius (Raphirus) muscicola* Cameron

1932. *Quedius (Raphirus) muscicola* Cameron, *Fauna British India*, 3 : 295.
 1932. *Quedius (Raphirus) dohertyi* Cameron, *Fauna British India*, 3 : 297.
 1944. *Quedius heterogaster* Cameron, *Proc. R. ent. Soc. Lond.*, 13(B): 14.
 1988. *Quedius (R.) muscicola* : Smetana, *Quaest. Ent.*, 24(2) : 253-256.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh. *Elsewhere*: Burma, Nepal and Bhutan.

295. *Quedius (Raphirus) durgaa* Smetana

1988. *Quedius (Raphirus) durgaa* Smetana, *Quaest. Ent.*, 24(2) : 273-274.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling)

296. *Quedius (Rephirus) rugosus* Cameron

1921. *Quedius (Rephirus) Rugosus* Cameron, *Ent. Monthly Mag.*, **57** : 273
 1932. *Quedius (R.) rogosus* Cameron, *Fauna British India*, **3** : 298-299.
 1932. *Quedius (R.) mussooriensis* Cameron, *Fauna British India*, **3** : 299.
 1988. *Quedius (R.) rogosus* : Smetana, *Quaest. Ent.*, **24(2)** : 292-295.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Nagaland and Uttar Pradesh. *Elsewhere* : Burma, Nepal.

297. *Quedius (Raphirus) himalayicus* Bernhauer

1915. *Quedius (Sauridus) himalayicus* Bernhauer, *Col. Rundsch.*, **4** : 55.
 1932. *Quedius (Raphirus) himalayicus* : Cmeron, *Fauna British India*, **3** ; 293.
 1988. *Quedius (R.) himalayicus* : Sametana, *Quaest. Ent.*, **24(2)** : 285-287..

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Nagaland, Himachal Pradesh and Uttar Pradesh. *Elsewhere* : Nepal.

298. *Quedius (Raphirus) ripicola* Cameron

1926. *Quedius (Sauridus) ripicola* Cameron. *Trans. R. ent. Soc. Lond.*, : 369.
 1932. *Quedius (Raphirus) ripicola* Cameron, *Fauna British India*, **3**: 291.
 1988. *Quedius (Raphirus)ripicola* : Sametna, *Quaest. Ent.*, **24(2)** : 215-217.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh. *Elsewhere* : Nepal

299. *Quedius (Raphirus)gardneri* Cameron

1932. *Quedius (Sauridus) gardneri* Cameron, *Fauna British India*, **3** : 292.
 1977. *Quedius coeruleus* Coiffait, *Entomologica Basiliensia*, **2** : 241.
 1988. *Quedius (Raphirus)gardneri*: Smetana, *Quaest. Ent.*, **24(2)** : 295-297.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Nepal.

300. *Quedius (Distichalius) deceptor* Cameron

1944. *Quedius (Sauridus) deceptor* Cameron, *Proc. R. ent. Soc. Lond.*, **13** : 14.

1988. *Quedius (Distichalius) deceptor* : Smetana, *Quaest. Ent.*, **24**(2) : 231.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

Genus *Indoquedius* Cameron

1988. *Indoquedius* : Smetana, *Quaest. Entr.*, **24**(2) : 300.

1932. *Quedius (Indoquedius)* Cameron, *Fauna British India*, **3** : 281.

Key to the species of *Indoquedius* Cameron

1. Lateral pronotal groove with dense, almost granulose microsculpture, opaque. Anterior angles of pronotum finely punctate ; dorsal surface of head and pronotum with micropunctuation.....
..... *aberrans* Cameron

Lateral pronotal groove smooth and shiny, without any microsculpture. Anterior angles of pronotum impunctate ; dorsal surface of head and pronotum without micropunctuation.....
..... *baliyo* Smetana .

301. *Indoquedius baliyo* Smetana

1988. *Indoquedius baliyo* Smetana, *Quaest. Ent.*, **24**(2) : 304-305.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Nepal.

302. *Indoquedius aberrans* (Cameron)

1932. *Quedius aberrans* Cameron, *Fauna British India*, **3**: 299-300.

1988. *Indoquedius aberrans* : Smetana, *Quaest. Ent.*, **24**(2) : 311-314.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Paratolmerus* Cameron

1932. *Paratolmerus* Cameron, *Fauna British India*, **3** : 169-170.

303. *Paratolmerus pilosiventris* Cameron

1932. *Paratolmerus pilosiventris* Cameron, *Fauna British India*, 3: 170.
 1988. *Paratolmerus pilosiventris* : Smetana, *Quaest. Ent.*, 24(2) : 336-337.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Acylophorus* Nordmann

1837. *Acylophorus* Nordmann, *Symbolae ad monographiam Staphylinorum* : 127.

Key to the species of *Acylophorus* Nordmann

1. Thorax bright red..... *ruficollis* Motschulsky
 Thorax in greater part black or pitchy..... 2
- 2(1). Head, pronotum and elytra rufo-testaceous ; abdomen dark piceous with apical margin of tergiotes and apex paler..... *raato* Smetana
 Fore body not rufo-testaceous and not cotrasting in colour with abdomen 3
- 3(2). Elytra brownish-yellow ; antennae reddish-yellow, segment 1 towards apex and segments 2-6 infusate..... *furcatus* Motschulsky
 Elytra black ; antennae with segment 1 reddish-yellow, infusate towards apex, segments 2-11 blackish..... *microcephalus* Cameron

304. *Acylophorus raato* Smetana

1988. *Acylophorus raato* Smetana, *Quaest. Ent.*, 24(2) : 351-352.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Meghalaya. *Elsewhere* : Nepal.

305. *Acylophorus microcephalus* Cameron

1932. *Acylophorus microcephalus* Cameron, *Fauna British India*, 3: 305.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

306. *Acylophorus ruficollis* (Motschulsky)

1858. *Rhegmacera ruficollis* Motschulsky, *Bull. Mosc.*, **31**(2) : 657
 1859. *Acylophorus ruficollis* Kraatz, *Arch. Naturgesch.*, **25**(1) : 65.
 1932. *Acylophorus ruficollis* : Cameron, *Fauna British India*, **3** : 303.

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Chowranghee, 15. vi. 1911, F.H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta), Sri Lanka.

Remarks : First time recorded from India (West Bengal).

307. *Acylophorus furcatus* Motschulsky

1858. *Acylophorus furcatus* Motschulsky, *Bull. Mosc.*, **31** (1) : 657.
 1988. *Acylophorus furcatus* : Smetana, *Quaest. Ent.*, **24** (2) : 345-348.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Assam, Meghalaya, Sikkim and Uttar Pradesh.

Genus *Anchocerus* Fauvel

1905. *Achocerus* Fauvel, *Rev. d' Ent.*, **24**: 141.

308. *Anchocerus nepalicus* Smetana

1988. *Anchocerus nepalicus* Smetana, *Quaest. Ent.*, **24**(2) : 366-367.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling). *Elsewhere* : Nepal.

Genus *Atanygnathus* Jacobson

1909. *Atanygnathus* Jacobson, *Kaf. Russl.*, **7** : 521.

309. *Atanygnathus terminalis* (Erichson)

1839. *Tanygnathus terminalis* Erichson, *Kaf. Mark Brand* : 418.
 1932. *Atanygnathus terminalis* : Cameron, *Fauna British India*, **3**: 309-310.

Material examined : 1 ex., INDIA : West Bengal, Calcutta, Eden Garden, 19. x. 1911, F.H. Gravely coll.

Distribution : INDIA : West Bengal (Calcutta). *Elsewhere* : Nepal.

Remark : This species is widely distributed in India.

Subfamily TACHYPORINAE

Key to the tribes and genera of the subfamily Tachyporinae

1. Head with distinct postocular ridge. Lateral portions of pronotum conspicuously explanate. Head, pronotum and elytra with deep and coarse, pit-like punctation..... Megarthropsini 3
 Head without postocular ridge. Lateral portions of pronotum not explanate. Head and pronotum with no more than fine punctation, usually impunctate..... 2
- 2(1). Head with distinct infraorbital ridge ; elytra with sutural stria..... Bolitobiini 4
 Head without infraorbital ridge ; elytra without sutural stria..... Tachyporini 5
- 3(1). Eyes situated on short lateral processes of head. Antennal scape distinctly narrowed anteriorly, second segment about half as long as third segment..... *Nepaliodes* Coiffait
- 4(2). Last segment of the maxillary palpi subulate, much shorter and narrower than the third segment..
 *Mycetoporus* Mannerheim
 Last segment of the maxillary palpi as long as or longer than the third segment.....
 *Bolitobius* Mannerheim
- 5(2). Last segment of the maxillary palpi as long as or longer than the third segment..... 6
 Last segment of the maxillary palpi small and subulate..... 7
- 6(5). Mesosternum keeled or tuberculate in the middle..... *Paratachinus* Cameron
 Mesosternum not keeled..... *Tachinus* Gravenhorst
- 7(5). Abdomen finely and indistinctly bordered, the whole surface very finely and closely pubescent ; anterior tibiae with fine comb like teeth externally..... *Conosoma* Kraatz
 Abdomen broadly and distinctly bordered ; the head and thorax at least glabrous ; anterior tibiae without comb..... *Tachyporus* Gravenhorst

Genus *Nepaliodes* Coiffait

310. *Nepaliodes variolosus* Coiffait

1976. *Nepaliodes variolosus* Coiffait, *Bull. Soc. Hist. nat. Toulouse*, **112** : 272-275.
 1983. *Nepaliodes variolosus* : Smetana, *Senckenbergiana biol.*, **64**(1/3) : 141-155.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Nepal.

Genus *Mycetoporus* Mannerheim

1830. *Mycetoporus* Mannerheim, *Brachel.*, : 62

311. *Mycetoporus gratiosus* Cameron

1932. *Mycetoporus gratiosus* Cameron, *Fauna British India*, **3**: 331.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Bolitobius* Mannerheim

1830. *Bolitobius* Mannerheim, *Brachel.*, : 11

Key to the species of *Bolitobius* Mannerheim

- | | | |
|-------|---|--------------------------|
| 1. | Thorax entirely or in greater part black | 2 |
| | Thorax otherwise, reddish or fusco-testaceous..... | 8 |
| 2(1). | Thorax entirely black..... | 3 |
| | Thorax with lateral margins yellow..... | <i>tarsalis</i> Cameron |
| 3(2). | Elytra brownish-yellow, a little infusate behind..... | <i>championi</i> Cameron |
| | Elytra otherwise..... | 4 |
| 4(3). | Elytra with a yellow fascia extending from the shoulder to the postero-external region along the side margin..... | 5 |
| | Elytra othersise..... | 6 |

- 5(4) Only the anterior femora and tibiae yellow, all the coxae and rest of the legs black.....
 *femorialis* Cameron
- All the femora yellow, tibiae and tarsi pitchy..... *lambda* Fauvel
- 6(4). Penultimate segments of antennae fully as long as broad ; larger species (6 mm).....
 *elegans* Cameron
- Penultimate segments of antennae distinctly transverse ; smaller species (4-5mm) 7
- 7(6). Elytra bright yellow, the base and sutural region to the apex, a pear-shaped free spot posteriorly and the reflex margin black.....*simulans* Cameron
- Elytra black, with posterior margin distinctly and the postero-external angle more broadly yellow
*scapularis* Cameron
- 8(1). Penultimate segments of antennae fully as long as broad.....9
- Penultimate segments of antennae transverse 10
- 9(8). Thorax and abdomen yellowish-red ; the abdominal segments 5 and 6 (visible) blackish except behind.....*biplagiatus* Cameron
- Thorax yellowish-red, with broad, pitchy fascia along the middle; abdomen pitchy black.....
 *centralis* Cameron
- 10(8) Elytra brownish-yellow, with blackish indeterminate round spot posteriorly, smaller (3 mm) and narrower..... *difficilis* Cameron
- Elytra yellowish-red, with a large triangular black spot occupying the whole postero-external region, larger (5 mm).....*transversulus* Reitter

312. *Bolitobius lambda* (Fauvel)

1895. *Megacronus lambda* Fauvel, *Rev. d' Ent.*, 14 : 277.
 1932. *Bolitobius lambda* : Cameron, *Fauna British India*, 3: 338.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling)

313. *Bolitobius femoralis* Cameron

1932. *Bolitobius femoralis* Cameron, *Fauna British India*, 3 : 339.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

314. *Bolitobius tarsalis* Cameron

1932. *Bolitobius tarsalis* Cameron, *Fauna British India*, 3 : 339-340.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

315. *Bolitobius championi* Cameron

1932. *Bolitobius championi* Cameron, *Fauna British India*, 3 : 340.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

316. *Bolitobius scapularis* Cameron

1932. *Bolitobius scapularis* Cameron, *Fauna British India*, 3 : 342.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

317. *Bolitobius elegans* Cameron

1932. *Bolitobius elegans* Cameron, *Fauna British India*, 3 : 344

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

318. *Bolitobius simulans* Cameron

1932. *Bolitobius simulans* Cameron, *Fauna British India*, 3 : 344.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

319. *Bolitobius biplagiatus* Cameron

1932. *Bolitobius biplagiatus* Cameron, *Fauna British India*, 3 : 345-346.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

320. *Bolitobius centralis* Cameron

1932. *Bolitobius centralis* Cameron, *Fauna British India*, 3 : 346.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

321. *Bolitobius difficilis* Cameron

1932. *Bolitobius difficilis* Cameron, *Fauna British India*, 3 : 346.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

322. *Bolitobius transversulus* Reitter

1909. *Bolitobius transversulus* Reitter, *Faun. Germ.*, 2 : 105

1932. *Bolitobius transversulus* : Cameron, *Fauna British India*, 3 : 348-349.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh.

Genus *Conosoma* Kraatz

1856-58. *Conosoma* Kraatz, *Naturgesch. Ins. Deutschl.*, 2 : 431.

Key to the species of *Conosoma* Kraatz

1. Sides of elytra with long setae.....2
- Sides of elytra without setae..... 3
- 2(1). Thorax reddish-yellow, at the base on each side with a round black spot; elytra yellow, with transverse black spot not extending on to the epipleura or reaching the suture.....

- *maculicolle* Cameron
 Thorax brownish-yellow ; elytra yellow, each side with two oval blackish spot placed side by side
 *quadrimaculatum* Cameron
- 3(1). Penultimate segments of antennae fully as long as or longer than broad..... *robustum* Cameron
 Penultimate segments of antennae distinctly transverse..... 4
- 4(3). Antennae black, antennal segments otherwise..... 5
 Antennae reddish-yellow, antennal segments 5-9 blackish..... *birmanus* (Fauvel)
- 5(4). Antennal segments 1-3 yellow, penultimate segments distinctly transverse... *persimile* Cameron
 Antennal segments 1-2 yellow, penultimate segments slightly transverse.....
 *himalayicum* Cameron

323. *Conosoma himalayicum* Cameron

1932. *Conosoma himalayicum* Cameron, *Fauna British India*, 3 : 357-358.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh.

324. *Conosoma robustum* Cameron

1919. *Conosoma robustum* Cameron, *Trans. ent. Soc. Lond.*, 233.

1932. *Conosoma robustum* Cameron, *Fauna British India*, 3 : 362.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Singapore and Malaya.

325. *Conosoma birmanus* (Fauvel)

1895. *Conurus birmanus* Fauvel, *Rev. d' Ent.*, 14 : 284.

1932. *Conosoma birmanus* : Cameron, *Fauna British India*, 3 : 365.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu and Uttar Pradesh. *Elsewhere* :
 Burma

326. *Consoma persimile* Cameron

1932. *Conosoma persimile* Cameron, *Fauna British India*, **3** : 366
Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

327. *Conosoma maculicolle* Cameron

1926. *Conosoma maculicolle* Cameron, *Trans. ent. Soc. Lond.*, : 181.
 1932. *Conosoma maculicolle* Cameron, *Fauna British India*, **3** : 371-372.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Tamil Nadu and Uttar Pradesh.

328. *Conosoma quadrimaculatum* Cameron

1926. *Conosoma quadrimaculatum* Cameron, *Trans. ent. Soc. Lond.*, : 181
 1932. *Conosoma quadrimaculatum* Cameron, *Fauna British India*, **3** : 372.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh.

Genus *Tachyporus* Gravenhorst

1806. *Tachyporus* Gravenhorst, *Col., Micro.*; 1.

Key to the species of *Tachyporus* Gravenhorst

1. Species entirely or in greater part yellowish or reddish testaceous..... 2
 Species in greater part black..... 3
- 2(1). Each elytron with distinct oval blackish spot on the middle ; antennae blackish, antennal segments 1-3 testaceous..... *himalayicus* Bernhauer
 Each elytron with a common oval black spot along the suture from the base to the posterior third; antennae blackish, antennal segments 1-2 yellow..... *suturalis* Cameron
- 3(1). Elytra black with triangular yellow marking extending from the posterior margin towards the shoulder, the base behind, the sutural region triangularly and entirely black.....*flavopictus* Fauvel
 Elytra yellow or reddish-yellow, with a transverse undulating black fascia across the middle, the sutural region broadly black in front of it *undulatus* Cameron

329. *Tachyporus flavopictus* Fauvel

1895. *Tachyporus flavopictus* Fauvel, *Rev. d' Ent.*, **14** : 282.
 1932. *Tachyporus flavopictus* : Cameron, *Fauna British India*, **3** : 379

Material examined : 1 ex., INDIA : West Bengal, Darjiling dist., Darjiling, E. Himalaya, 2450 m.,
 10. iii. 1909, C. Paiva coll.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh. *Elsewhere* : Burma.

330. *Tachyporus undulatus* Cameron

1926. *Tachyporus undulatus* Cameron, *Trans. ent. Soc. Lond.*, : 181
 1932. *Tachyporus undulatus* Cameron, *Fauna British India*, **3** : 379-380.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Himachal Pradesh.

331. *Tachyporus himalayicus* Bernhauer

1918. *Tachyporus himalayicus* Bernhauer, *Arch. Naturgesch.*, **84(A)** : 187.
 1926. *Tachyporus nigromaculatus* Cameron, *Trans. ent. Soc. Lond.*, : 183.
 1932. *Tachyporus himalayicus* : Cameron, *Fauna British India*, **3** : 382.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Sikkim and Uttar Pradesh.

332. *Tachyporus suturalis* Cameron

1932. *Tachyporus suturalis* Cameron, *Fauna British India*, **3** : 328-383.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Tachinus* Gravenhorst

1802. *Tachinus* Gravenhorst, *Col. Micr. Brunsv.*, : 134

Key to the species of *Tachinus* Gravenhorst

1. Elytra unicolour..... 2
 Elytra bicolour..... 4

- 2(1). Species at most with fine ground-sculpture, shining..... *lugubris* Cameron
 Species strongly coriaceous, gresy lustrous..... 3
- 3(2). Larger (7.75 mm) ; ground sculpture stronger..... *coriaceus* Cameron
 Smaller (5.2 mm) ; ground sculpture finer..... *piceus* Cameron
- 4(1). Elytra with a large yellow marking on each disc and posterior margin narrowly yellow ; antennae black, the 1st segment yellow, the 2nd brownish-yellow..... *ornatus* Cameron
- Eytra with a small oval yellow spot at the shoulders and posterior margin very narrowly and obscurely yellow ; antennae black, the first two segments reddish-yellow... *limbicollis* Cameron

333. *Tachinus lugubris* Cameron

1928. *Tachinus lugubris* Cameron, *Ann. Mag. Nat. Hist.*, 10(2) : 568.
 1932. *Tachinus lugubris* Cameron, *Fauna British India*, 3 : 391.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

334. *Tachinus coriaceus* Cameron

1926. *Tachinus coriaceus* Cameron, *Trans. ent. Soc. Lond.*, : 185.
 1932. *Tachinus coriaceus* Cameron, *Fauna British India*, 3 : 387-388.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling), Uttar Pradesh.

335. *Tachinus piceus* Cameron

1932. *Tachinus piceus* Cameron, *Fauna British India*, 3 : 389.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

336. *Tachinus limbicollis* Cameron

1944. *Tachinus limbicollis* Cameron, *Proc. R. ent. Soc. Lond.*, 13 : 49.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling)

337. *Tachinus ornatus* Cameron

1944. *Tachinus ornatus* Cameron, *Proc. R. ent. Soc. Lond.*, **13** : 49-50.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

Genus *Paratachinus* Cameron

1932. *Paratachinus* Cameron, *Fauna British India*, **3** : 396.

Key to the species of *Paratachinus* Cameron

1. Thorax much broader than elytra ; abdomen closely and distinctly punctured.....
 *laticollis* Cameron
- Thorax not broader than elytra ; abdomen sparingly and obsolete punctured.....
 *monticola* Cameron

338. *Paratachinus laticollis* Cameron

1932. *Paratachinus laticollis* Cameron, *Fauna British India*, **3** : 397.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

339. *Paratachinus monticola* Cameron

1932. *Paratachimus monticola* Cameron, *Fauna British India*, **3** : 397-398.

Material examined : Not available.

Distribution : INDIA : West Bengal (Darjiling).

**THE CHART SHOWING DISTRICT WISE DISTRIBUTION OF SPECIES
STAPHYLINIDAE KNOWN FROM WEST BENGAL**

Name of the Species	Bankura	Bardhaman	Birbhum	Calcutta	Darjiling	Haora	Hugli	Jalpaiguri	Koch Behar	Maldah	Medinipur	Murshidabad	Nadia	24-Parganas (North)	24-Parganas(South)	Puruliya	West Dinajpur
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. <i>Micropeplus sikkimi</i> Fauvel					+												
2. <i>M. Vulcanus</i> Fauvel					+												
3. <i>Apatetica intermedia</i> Cameron																	
4. <i>A. javanica</i> (Sharp)																	
5. <i>A. sikkimi</i> Fauvel					+												
6. <i>A. viridipennis</i> Fauvel					+												
7. <i>Eupiestus sikkimi</i> Fauvel					+												
8. <i>E. feae</i> Fauvel					+			+									
9. <i>E. sculpticollis</i> Kraatz					+												
10. <i>E. angulatus</i> Fauvel					+												
11. <i>E. spinifer</i> var. <i>unicolor</i> Cameron					+												
12. <i>Siagonium indicum</i> Fauvel					+												
13. <i>Holusus rugipennis</i> Cameron					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
14. <i>H. lopchuensis</i> Cameron					+												
15. <i>Lispinus coriaceus</i> Fauvel					+			+									
16. <i>Pseudolispinodes bistratus</i> (Fauvel)					+												
17. <i>Thoracophorus montanus</i> Cameron					+												
18. <i>Eleusis specularifer</i> Cameron					+												
19. <i>E. plagiata</i> Fauvel					+												
20. <i>E. rotundiceps</i> Fauvel					+												
21. <i>E. sikkimensis</i> Cameron					+												
22. <i>E. persimilis</i> Cameron					+												
23. <i>Leptochirus (Strongylochirus) quadridens</i> Motschulsky					+			+									
24. <i>L. (S.) laevis</i> Castelnau					+												
25. <i>Borolinus sikkimensis</i> Bernhauer					+												
26. <i>B. minutus</i> (Castelnau)					+			+									
27. <i>Priochirus (Triacanthochirus) bipunctatus</i> (Fauvel)					+												
28. <i>P. (Cephalomerus) sanguinosus</i> Motschulsky					+			+									
29. <i>P. (C.) combustus</i> Fauvel					+												
30. <i>P. (C.) bengalensis</i> Cameron					+												
31. <i>P. (C.) rubiginosus</i> Cameron					+												
32. <i>P. (C.) hoplites</i> (Fauvel)					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
33. <i>P. (Leptarthus) longicornis</i> (Fauvel)					+												
34. <i>P. (L.) micrognathus</i> (Fauvel)					+												
35. <i>P. (Plastus) eucerus</i> Cameron					+												
36. <i>P.(P.) sikkimensis</i> Cameron					+												
37. <i>P. (P.) gardneri</i> Cameron					+												
38. <i>Thoracochirus assamensis</i> Cameron					+												
39. <i>T. denticollis</i> Cameron					+												
40. <i>Pseudopsis suchi</i> Herman					+												
41. <i>P. prolixa</i> Herman					+												
42. <i>Megarthus birmanus</i> Fauvel					+												
43. <i>M. chatterjeei</i> Cameron					+												
44. <i>M. umbonatus</i> Fauvel					+												
45. <i>M. septempunctatus</i> Champion					+												
46. <i>M. basicornis</i> Fauvel					+												
47. <i>M. bimaculatus</i> Fauvel					+												
48. <i>Anthobium (Eusphalerum) sikkimi</i> Fauvel					+												
49. <i>Deinopteroloma notabile</i> (Cameron)					+												
50. <i>Tetradelus trigonuroides</i> Fauvel					+												
51. <i>Planeustomus bengalensis</i> Champion																	+

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
52. <i>Trogophloeus (Trogophloeus) calcuttanus</i> Bernhauer				+													
53. <i>T.(T.) simplex</i> Motschulsky				+													
54. <i>T.(T.) indicus</i> Kraatz				+													
55. <i>T.(T.) siamenis</i> Fauvel				+													
56. <i>Oxytelopsis cimicoides</i> Fauvel					+						+						
57. <i>O. pseudopsina</i> Fauvel					+						+						
58. <i>O. andrewesi</i> Cameron					+												
59. <i>O. bengalensis</i> Biswas & Sengupta					+												
60. <i>Oxytelus (Caccoporus) varipennis</i> Kraatz																	
61. <i>O. (C.) nigriceps</i> Kraatz																	
62. <i>O. (C.) ferrugineus</i> Kraatz				+													
63. <i>O. (C.) bengalensis</i> Erichson																	
64. <i>O. (s. str.) cribrum</i> Fauvel								+									
65. <i>O. (Tanycraeus) lucens</i> Bernhauer								+									
66. <i>O. (T.) punctipennis</i> Fauvel								+									
67. <i>O. (T.) micans</i> Kraatz					+												
68. <i>Anotylus laetus</i> (Cameron)											+						
69. <i>A. latiusculus</i> (Kartaatz)											+						
70. <i>A. sikkimi</i> (Fauvel)										+							

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
71. <i>A. nitidulus</i>							+										
72. <i>A. frater</i> (Cameron)							+										
73. <i>A. megacephalus</i> (Fauvel)				+	+												
74. <i>Anotylus gardneri</i> (Cameron)					+												
75. <i>A. pygmaeus</i> Kraatz				+													
76. <i>Bledius</i> (<i>s. str.</i>) <i>brunnipennis</i> (Fabricius)				+													+
77. <i>B.</i> (<i>s. str.</i>) <i>hoplites</i> Fauvel																	+
78. <i>B.</i> (<i>Pucerus</i>) <i>suravius</i> Biswas & Sengupta													+				
79. <i>B.</i> (<i>P.</i>) <i>totius</i> Biswas & Sengupta								+									
80. <i>B.</i> (<i>P.</i>) <i>torsius</i> Biswas & Sengupta								+									
81. <i>B.</i> (<i>P.</i>) <i>niloticus</i> Erichson													+				
82. <i>B.</i> (<i>Hesperophilus</i>) <i>baltus</i> Biswas & Sengupta													+				
83. <i>B.</i> (<i>H.</i>) <i>helferi</i> Fauvel																	+
84. <i>Osorius sikkimensis</i> Bernhauer				+													
85. <i>O. gardneri</i> Cameron				+													
86. <i>O. lopchuensis</i> Cameron				+													
87. <i>Mimogonus niger</i> Cameron				+													
88. <i>Oxyporus excellens</i> Cameron				+													
89. <i>O. cephalotes</i> Cameron				+													

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
90. <i>O. terminalis</i> Cameron				+													
91. <i>Ó. tricolor</i> Cameron				+													
92. <i>Stenus (s. str.) yorticosus</i> Cameron				+													
93. <i>Stenus (Parastenus) montivagans</i> Cameron				+													
94. <i>S. confluens</i> Cameron				+													
95. <i>S. sikkimensis</i> Cameron				+													
96. <i>S. (Hypostenus) barbatus</i> Niet.				+													
97. <i>Stenus (Hypostenus) guttalis</i> Fauvel					+												
98. <i>S. (H.) monomerus</i> Fauvel					+												
99. <i>S. (H.) pictus</i> Motschulsky					+												
100. <i>S. (H.) cursorius</i> L. Benick										+							
101. <i>S. (H.) fistulosus</i> L. Benick										+							
102. <i>S. (H.) kurseonginus</i> Bernhauer					+												
103. <i>S. (H.) obliteratedus</i> Cameron					+												
104. <i>S. (H.) tricarinatus</i> Kraatz				+													
105. <i>S. (H.) wasmanni</i> Fauvel					+												
106. <i>S. (Mesostenus) gardneri</i> Cameron					+												
107. <i>S. (M.) lopchuensis</i> Cameron					+												
108. <i>S. (M.) tenuimargo</i> Cameron					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
109. <i>S. (M.) stigmaticus</i> Fauvel					+												
110. <i>S. (M.) virgula</i> Fauvel					+												
111. <i>S. (M.) rubronotatus</i> Cameron					+												
112. <i>S.(M.) mangpuensis</i> Cameron					+												
113. <i>S. (M.) separandus</i> Cameron					+												
114. <i>S. (M.) pseudopictus</i> Cameron					+												
115. <i>Dianous championi</i> Cameron					+												
116. <i>D. andrewesi</i> Cameron					+												
117. <i>D. annandalei</i> Bernhauer					+												
118. <i>D. cameroni</i> Champion					+												
119. <i>D. versicolor</i> Cameron					+												
120. <i>D. obliquenotatus</i> Champior					+												
121. <i>D. adjacens</i> Cameron					+												
122. <i>D. wettmeri</i> Rougemont					+												
123. <i>Edaphus binodulus</i> Cameron					+												
124. <i>E. major</i> Fauvel									+								
125. <i>E. brevipennis</i> Cameron					+												
126. <i>Aulacasthetus indicus</i> Cameron					+												
127. <i>Stenaesthetus quadrisulcatus</i> Cameron					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
128. <i>S. sunioides</i> Sharp					+												
129. <i>Pinophilus indicus</i> Cameron	+																
130. <i>P. borneensis</i> Fauvel					+												
131. <i>P. genalis</i> Fauvel				+													
132. <i>P. depressus</i> Kraatz				+													
133. <i>P. leucopus</i> Kraatz																+	
134. <i>P. javanus</i> Erichson				+													
135. <i>Palaminus indicus</i> Kraatz					+												
136. <i>P. monticola</i> Cameron					+												
137. <i>Oedichirus longipennis</i> Kraatz										+			+				
138. <i>Astenus bisalicus</i> Biswas & Sengupta					+												
139. <i>A. asitus</i> Biswas & Sengupta					+												
140. <i>A. indicus</i> (Kraatz)					+					+			+				
141. <i>A. diversiventris</i> Cameron					+												
142. <i>A. leptocerus</i> Eppelsheim	+									+	+		+				
143. <i>A. ghumensis</i> Cameron					+												
144. <i>A. gracilentus</i> Fauvel					+												
145. <i>A. flavipennis</i> Cameron								+									
146. <i>A. maculipennis</i> (Kraatz)										+	+						

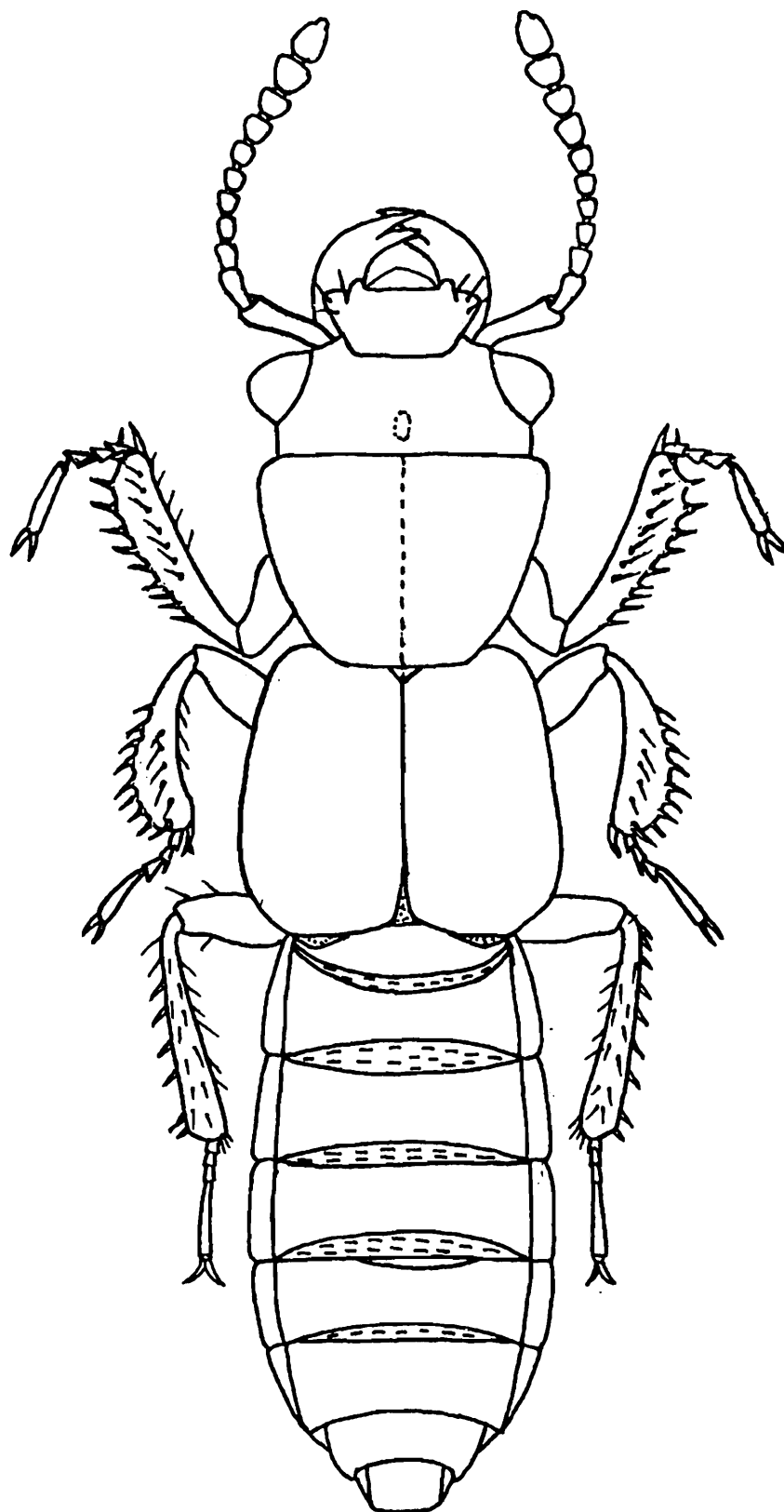
Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
147. <i>A. terminalis</i> Cameron										+							
148. <i>A. semibrunneus</i> Cameron					+								+				
149. <i>A. concolor</i> (Kraatz)										+							
150. <i>A. melanurus</i> var. <i>subnotatus</i> Fauvel				+						+							
151. <i>Paederus himalayicus</i> Bernhauer					+												
152. <i>P. nigripennis</i> Cameron								+									
153. <i>P. nigricornis</i> Bernhauer					+												
154. <i>P. birmanus</i> Fauvel																	+
155. <i>P. pubescens</i> Cameron								+									
156. <i>P. atrocyaneus</i> Champion								+									
157. <i>P. fuscipes</i> Curtis	+			+	+	+		+		+	+	+				+	+
158. <i>P. hingstoni</i> Cameron					+												
159. <i>P. melampus</i> Erichson					+		+										
160. <i>P. tamulus</i> Erichson	+																
161. <i>P. conicollis</i> Motschulsky										+							
162. <i>Acanthoglössa brachycera</i> Kraatz													+				
163. <i>A. rufa</i> Kraatz					+												
164. <i>A. testaceipennis</i> Kraatz	+			+	+			+		+			+				
165. <i>Stilicopsis pallida</i> Cameron					+					+							

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
185. <i>D. indicus</i> Cameron					+												
186. <i>D. bengalensis</i> Biswas & Sengupta				+	+					+		+					
187. <i>D. formosae</i> Bernhauer				+													+
188. <i>Thonocharis birmana</i> Cameron					+												
189. <i>T. carinicornis</i> Kraatz					+												
190. <i>T. debilis</i> Cameron					+			+		+							
191. <i>Pachymedon assamensis</i> Cameron					+												
192. <i>P. shugnuensis</i> Cameron					+												
193. <i>Lathrobium triste</i> Cameron					+												
194. <i>L. guttula</i> Fauvel					+												
195. <i>L. unicolor</i> Kraatz				+									+			+	
196. <i>L. cafrum</i> Boh.													+				+
197. <i>Stilicus pygmaeus</i> Kraatz					+			+									
198. <i>S. parvus</i> Cameron					+												
199. <i>S. velutinus</i> Fauvel					+												
200. <i>Charichirus chinensis</i> (Boh.)	+				+								+				
201. <i>C. immaculatus</i> Cameron					+												
202. <i>C. princeps</i> (Fauvel)					+												
203. <i>C. ceylonicus</i> (Cameron)	+																

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
223. <i>Lithocharis penicillata</i> Cameron								+									
224. <i>L. nigriceps</i> Kraatz					+					+			+				
225. <i>L. sororcula</i> Kraatz					+												
226. <i>Leptacinus aethiops</i> Bernhauer					+												
227. <i>L. notabilis</i> Cameron					+												
228. <i>Pachycorynus niger</i> Cameron					+												
229. <i>Mitomorphus brevipennis</i> Cameron					+												
230. <i>M. brachypterus</i> Cameron					+												
231. <i>Xantholinus parvus</i> Eppelsheim					+												
232. <i>X. (s.str.) aeneus</i> Cameron					+												
233. <i>X. ruficaudatus</i> Cameron					+												
234. <i>Gauropterus marginalis</i> Cameron								+									
235. <i>Indoscitalinus dispilus</i> (Erichson)																	
236. <i>Othius monticola</i> Cameron					+												
237. <i>Platyprosopus biseriatus</i> Eppelsheim				+													
238. <i>P. indicus</i> Motschulsky				+													
239. <i>P. fuliginosus</i> Erichson				+							+						
240. <i>Neobisnius praelongus</i> (Gemm. et Har.)				+													
241. <i>Actobius monticola</i> Cameron					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
262. <i>H. feae</i> Fauvel					+												
263. <i>Belonuchus gardneri</i> Cameron					+												
264. <i>B. quadratus</i> (Kraatz)				+													
265. <i>Staphylinus (Platydracus) asemus</i> Kraatz					+												
266. <i>S. (P.) bengalensis</i> Bernhauer																	
267. <i>S. (P.) sparsus</i> Cameron					+												
268. <i>S. (Goerius) prainae</i> (Eppelsheim)					+												
269. <i>S. (G.) caeruleus</i> Cameron					+												
270. <i>S. (Tasgius) wasmanni</i> Bewrnhauer					+												
271. <i>S. (T.) auroguttatus</i> Cameron																	
272. <i>S. (T.) sikkimensis</i> Bernhauer					+												
273. <i>S. (T.) stevensi</i> Cameron					+												
274. <i>S. (Abemus) marginatus</i> Cameron					+												
275. <i>Ontholestes aurosparsus</i> (Fauel)					+												
276. <i>Thoracostrongylus birmanus</i> (Fauel)					+												
277. <i>Eucibdelus angusticeps</i> Bernhauer					+												
278. <i>E. stevensi</i> Cameron					+												
279. <i>Parapalaestrinus mutillarius</i> (Erichson)																	
280. <i>P. waageni</i> (Eppelsheim)				+													
281. <i>Naddia westermanni</i> (Erichson)					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
302. <i>I. aberrans</i> (Cameron)																	
303. <i>Paratolmerus pilosiventris</i> Cameron																	+
304. <i>Acylophorus raato</i> Smetana																	+
305. <i>A. microcephalus</i> Cameron																	+
306. <i>A. ruficollis</i> (Mostchulsky)																	+
307. <i>A. furcatus</i> Motschulsky																	+
308. <i>Anchocerus nepalicus</i> Smetana																	+
309. <i>Atanygnathus terminalis</i> (Erichson)																	
310. <i>Nepaliodes variolosus</i> Coiffait																	+
311. <i>Mycetoporus graciosus</i> Cameron																	+
312. <i>Bolitobius lambda</i> (Fauvel)																	+
313. <i>B. femoralis</i> Cameron																	+
314. <i>B. tarsalis</i> Cameron																	+
315. <i>B. championi</i> Cameron																	+
316. <i>B. scapularis</i> Cameron																	+
317. <i>B. elegans</i> Cameron																	+
318. <i>B. simulans</i> Cameron																	+
319. <i>B. biplagiatus</i> Cameron																	+
320. <i>B. centralis</i> Cameron																	+
321. <i>B. difficilis</i> Cameron																	+



Bledius (Pucerus) torsius Biswas & Sengupta

SUMMARY

339 species consisting of 90 genera distributed in 8 sub-families are represented in this paper, 107 species are newly recorded from West Bengal of which 26 species are first time recorded from India. Key to the subfamilies, tribes, genera, species and distributional data of the family Staphylinidae for West Bengal have also been provided. A chart showing district wise distribution of the species recorded from West Bengal is also given.

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**COLEOPTERA : SCARABAEIDAE : CETONIINAE
DYNASTINAE : RUTELINAE**

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INTRODUCTION

Beetles of the family Scarabaeidae, commonly known as dung beetles, belong to the superfamily Scaraboidea (Lamellicornia). Lamellicornia contains six families, namely (1) Lucanidae, (2) Passalidae, (3) Trogidae, (4) Acanthoceridae, (5) Geotrupidae and (6) Scarabaeidae. Scarabaeidae is one of the largest families of Coleoptera and contains about 25000 described species under 2000 genera from all over the world. In India about 1590 species under 203 genera are known. Scarabid beetles are generally heavily build and small to large in size. They can easily be recognised by characteristic form of antennae.

The group is very important economically and some of the most serious pest of agriculture, forestry and fruit trees belong to this family. *Oryctes rhinoceros* is a well known pest of coconut plantation *Phyllognathus dionysius* feeds on the roots of paddy, rose chaufers are known for their damage to forest and fruit trees. Larvae of some of the melolonthid beetles are serious pest ground nut cultivation in some parts of India. The majority of the members of this family are nocturnal in habit and come out at dusk and hide during day time, but some are diurnal. A large section of the species are foliage feeder or coprophagus in nature. Larvae generally develop in soil rich in organic matters, some are root feeders and many are found in dung or rotting animal matters. A few of the species are restricted to specific fungus in hilly regions.

The knowledge of Indian Scarabaeidae is based mainly on the valuable contribution of Brenske (1897,'98), Arrow (1910, 1917, 1931), Balthasar (1963, 1964) and Miksic (1976, 1977). In recent years regional faunal work has been initiated by Mittal (1976) and Biswas (unpublished thesis) from North and North eastern India. In the present study four subfamilies namely (1) Cetoniinae, (2) Dynastinae and (3) Rutelinae Eucivinae have been studied. All available material present in the Zoological Survey of India have been studied. Arrow in his monographic work on Indian Scarabaeidae in Fauna of British India series recorded 142 species from areas now under West Bengal. Since Arrow's work no comprehensive work on Scarab fauna of West Bengal is available. During the present work 25 species have been added to the list of fauna of West Bengal and 4 species have been added to Indian fauna.

Relevant synonymies, collection data and biological observation, if available, have been provided under each species. keys to the subfamilies, genera and species have been given. Details of the material studied have been incorporated under each species. Some species which were recorded earlier but material of which could not be studied during the present work have also been included for the sake of completeness. A chart showing district wise distribution of the species have been provided. Species recorded for the first time from West Bengal have been marked with single asterisks and from India with double asterisks.

SYSTEMATIC ACCOUNT : LIST OF TAXA
Family SCARABAEIDAE

- Subfamily I CETONIINAE
- Genus I. *Dicranocephalus* Westwood
- Species 1. *D. wallichi* Hope
- Genus 2. *Mycteristes* Castelnau
- Species 2. *M. microphyllus* Wood-Mason
- Genus 3. *Macronota* Hoffmanssegg
- Species 3. *M. penicillata* (Hope)
4. *M. westwoodi* (Thomson)
- ** 5. *M. ursus* (Westwood)
- * 6. *M. nigricollis* (Janson)
7. *M. quadrilineata* Hope
- * 8. *M. virgata* (Janson)
9. *M. antennata* Wallichi
- Genus 4. *Clerota* Burmeister
- Species 10. *C. vittigera* (Hope)
- Genus 5. *Diceros* Lacordaire
- Species 11. *D. childreni* (Westwood)
- Genus 6. *Jumnos* Saunders
- Species 12. *J. ruckeri* Saunders
- Genus 7. *Torynorrhina* Arrow
- Species* 13. *T. apicalis* (Westwood)

14. *T. opalina* (Hope)

Genus 8. *Rhomborrhina* Hope

Species 15. *R. microcephala* Westwood

16. *R. mellyi* (Gory & Percheron)

17. *R. glaberrima* (Westwood)

18. *R. heros* (Gory & Percheron)

19. *R. mearesi* (Hope)

Genus 9. *Euchloropus* Arrow

Species 20. *E. laetus* (Fabricius)

Genus 10. *Heterorrhina* Westwood

Species* 21. *H. mutabilis* (Hope)

22. *H. dispar* Arrow

23. *H. elegans* (Fabricius)

24. *H. punctatissima* Westwood

25. *H. nigratarsis* (Hope)

Genus 11. *Trigónophorus* Hope

Species 26. *T. nepalensis* Hope

27. *T. saundersi* Westwood

28. *T. gracilipes* Westwood

29. *T. scintillans* Arrow

Genus 12. *Anthracophora* Burmeister

Species * 30. *A. crucifera* Olivier

31. *A. dalmanni* (Hope)

- Genus 13. ***Glycyphana*** Burmeister
- Species 32. *G. horsfieldi* (Hope)
33. *G. catena* Arrow
34. *G. nepalensis* Kraatz
- Genus 14. ***Glycosia*** Arrow
- Species 35. *G. tricolor* Olivier
36. *G. luctifera* (Fairmaire)
- Genus 15. ***Cetonia*** Fabricius
- Species 37. *C. rutilans* (Janson)
38. *C. rhododendri* Gestro
- Genus 16. ***Protaetia*** Burmeister
- Species* 39. *P. auripes* (Hope)
40. *P. montana* (Nonfried)
41. *P. aurichalcea* (Fabricius)
42. *P. peregrina* (Harb)
43. *P. fusca* (Herbst)
44. *P. caudata* Arrow
45. *P. inanis* (Wallace)
46. *P. cariana* (Gestro)
- * 47. *P. neglecta* (Hope)
- Genus 17. ***Oxycetonia*** Arrow
- Species 48. *O. versicolor* (Fabricius)

- * 49. *O. albopunctata* (Fabricius)
- 50. *O. jucunda* (Faldermann)
- Genus 18. *Chiloloba* Burmeister
- Species* 51. *C. acuta* (Wiedemann)
- Genus 19. *Clinteria* Burmeister
- Species 52. *C. oberthuri* Arrow
- 53. *C. spilota* (Hope)
- 54. *C. haffmeisteri* White
- 55. *C. pumila* (Swartz)
- Genus 20. *Thaumastopeus* Kraatz
- Species 56. *T. pullus* (Billberg)
- Genus 21. *Spilophorus* Lacordaire
- Species 57. *S. cretosus* (Hope)
- Genus 22. *Cymophorus* Kirby
- Species 58. *C. pulchellus* Arrow
- Genus 23. *Coenochilus* Schaum
- Species 59. *C. campbelli* Saund
- Genus 24. *Callinomes* Westwood
- Species 60. *C. pusillus* Arrow
- Genus 25. *Macroma* Gory & Percheron
- Species 61. *M. javanica* Gory & Percheron
- 62. *M. xanthorrhina* (Hope)

Genus 26. *Dasyvalgus* Kolbe

Species 63. *D. carbonarius* Arrow

Subfamily II. DYNASTINAE

Genus 27. *Xylotrupes* Hope

Species 64. *X. gideon* (Linnaeus)

Genus 28. *Eupatorus* Burmeister

Species 65. *E. hardwickei* (Hope)

Genus 29. *Oryctes* Illiger

Species 66. *O. rhinoceros* (Linnaeus)

Genus 30. *Eophileurus* Arrow

Species *67. *E. planatus* (Wiedemann)

Genus 31. *Heteronychus* Burmeister

Species 68. *H. lioderes* Redtenbacher

69. *H. annulatus* Bates

Genus 32. *Alissonotum* Arrow

Species 70. *A. piceum* (Fabricius)

*71. *A. simile* Arrow

*72. *A. crassum* Arrow

Genus 33. *Phyllognathus* Eschscholtz

Species 73. *P. dionysius* (Fabricius).

Subfamily III. RUTELINAE

Genus 34. *Peperonota* Westwood

Species 74. *P. harringtoni* Westwood

Genus 35. *Parastasia* Westwood

Species 75. *P. rufopicta* Westwood

76. *P. ochracea* (Waterhouse)

Genus 36. *Dactylopopillia* Arrow

Species 77. *D. virescens* (Hope)

Genus 37. *Popillia* Serville

Species 78. *P. cyanea* Hope

79. *P. nitida* Hope

80. *P. laevicollis* Kraatz

81. *P. cupricollis* Hope

82. *P. nottrotti* Kraatz

* 83. *P. feae* Kraatz

84. *P. pilicollis* Kraatz

Genus 38. *Callistopopillia* Ohaus

Species 85. *C. iris* (Candeze)

Genus 39. *Spilopopillia* Kraatz

Species 86. *S. sexguttata* (Fairmaire)

Genus 40. *Mimela* Hope

Species 87. *M. passerinii* Hope

88. *M. vernicata* (Fairmaire)

89. *M. sericea* Ohaus

90. *M. horsfieldi* Hope
91. *M. fulgidivittata* Blanchard
92. *M. vittaticollis* Burmeister
93. *M. princeps* Hope
94. *M. laevigata* Arrow
95. *M. heterochropus* Blanchard
96. *M. rugicauda* Arrow
- * 97. *M. glabra* Hope
98. *M. dehani* (Hope)
99. *M. marginalis* Arrow
100. *M. bicolor* Hope
- Genus 41. ***Anomala*** Samouelle
- Species 101. *A. tenella* (Blanchard)
102. *A. dorsalis* (Fabricius)
103. *A. bengalensis* Blanchard
104. *A. rugosa* Arrow
105. *A. varicolor* Gyllenthal
106. *A. bilobata* Arrow
107. *A. tristris* Arrow
108. *A. aegrota* Arrow
109. *A. macrophylla* (Wiedemann)
110. *A. propinqua* Arrow

- 111. *A. anthracina* Arrow
- 112. *A. marginipennis* Arrow
- 113. *A. viridilatera* Arrow
- 114. *A. siliguria* Arrow
- 115. *A. angusta* Arrow
- 116. *A. variegata* Hope
- 117. *A. comma* Arrow
- 118. *A. cinderella* Arrow
- 119. *A. fulviventris* (Blanchard)
- * 120. *A. signaticollis* Nonfried
- 121. *A. galerucina* Arrow
- 122. *A. agilis* Arrow
- 123. *A. bella* Arrow
- 124. *A. flavofasciata* Arrow
- 125. *A. flaviventris* Arrow
- 126. *A. flavopicta* Arrow
- 127. *A. flavonotata* Arrow
- * 128. *A. lineatopennis* Blanchard
- 129. *A. protea* Arrow
- * 130. *A. cantori* (Hope)
- * 131. *A. xanthoptera* Blanchard
- 132. *A. perplexa* (Hope)

133. *A. dimidiata* (Hope)
134. *A. rufiventris* Redtenbacher
135. *A. auronitens* (Hope)
136. *A. pterygophora* (Ohaus)
137. *A. stoliezkae* (Sharp)
138. *A. tumidicauda* (Arrow)
139. *A. festiva* Arrow
140. *A. erythroptera* (Kraatz)
141. *A. pussila* Arrow
142. *A. lateralis* Hope
- * 143. *A. transversa* Burmeister
144. *A. elata* (Fabricius)
145. *A. bilunata* Fairmaire
146. *A. clerica* Arrow
- Genus 42. *Adorrhinyptia* Arrow
- Species* 147. *A. dorsalis* (Burmeister)
148. *A. ruficollis* (Kraatz)
- Genus 43. *Adoretus* Castelnau
- Species* 149. *A. excisus* Ohaus
150. *A. limbatus* Blanchard
- * 151. *A. bombinator* Burmeister
152. *A. bicaudatus* Arrow

153. *A. lacustris* Arrow
- * 154. *A. flavus* Arrow
- ** 155. *A. fraterculus* Arrow
156. *A. gemmifer* Arrow
157. *A. costopilosus* Ohaus
158. *A. serratipes* Arrow
159. *A. bimarginatus* Ohaus
- ** 160. *A. testaceus* (Hope)
- * 161. *A. nephriticus* (Ohaus)
- ** 162. *A. posticalis* Arrow
163. *A. lasius* Ohaus
164. *A. duvauceli* Blanchard
165. *A. bicolor* Brenske
166. *A. lasiopygus* Burmeister
167. *A. varsutus* Harold
168. *A. caliginosus* Burmeister
- * 169. *A. bengalensis* Brenske

Subfamily IV. EUCHIRINAE

Genus 44. *Propomacrus* Newman

Species 170. *P. macleayi* (Hope)

171. *P. parryi* (Gray)

Key to the subfamilies of Scarabaeidae

- 1(14) Posterior spiracles situated in the dorsal part of the chitinous ventral segments.
- 2(5) Labrum membranous, not visible externally.

- 3(4) Mandibles not visible externally, front coxae vertical..... 1 Cetoniinae
- 4(3) Mandibles visible externally, front coxae transverse..... 2 Dynastinae
- 5(2) Labrum thick more or less exposed.
- 6(7) Labrum (and maxillae) degenerate, scarcely chitinous..... 3 Desmonychinae
- 7(6) Labrum well-developed.
- 8(13) 6th ventral segment not retractile.
- 9(10) Claws unequal, separately movable, the shorter one always undivided.....4 Rutelinae
- 10(9) Claws equal (or if unequal, both cleft) and not separately movable.
- 11(12) External lamellae of the antenna l club enclosing the middle one..... ..
..... 5 Euchirinae
- 12(11) Externally lamellae of the antennal club not enclosing the middle one... .. 6 Melolonthinae
- 13(8) 6th ventral segment retractile..... 7 Hoplinae
- 14(1) Posterior spiracles situated in the membrane between dorsal and ventral segments.
- 15(22) Labrum and mandibles very prominent, horizontal.
- 16(17) Eyes entire..... 8 Ochodaeinae
- 17(16) Eyes divided in front
- 18(21) Antennae 10 segmented
- 19(20) Antennal club simple..... 9 Orphinae
- 20(19) Antennal club telescopic.. 10 Hybosorinae
- 21(18) Antennae 9 segmented..... 11 Chironinae
- 22(15) Labrum and mandibles reduced and concealed
- 23(24) Hind tibia with two spurs, middle coxae not widely separated..... 12 Aphodiinae
- 24(23) Hind tibia with one spur middle coxae widely separated... 13 Coprinae

Subfamily CETONIINAE

Key to the genera of Cetoniinae known from West Bengal

- 1(48) Mesosternal epimera dilated above and reaching the dorsal surface, base of the pronotum not meeting ridges upon scutellum and elytra (*Dicranocephalus* exception).
- 2(39) Mandibles thin and not sharp-pointed nor adapted for biting, furnished with a free membranous inner lobe.
- 3(4) Hind coxae and abdomen completely covered by the elytra. *Dicranocephalus*
- 4(3) Hind coxae and abdomen partially visible from above.
- 5(36) Sides of the scutellum straight, convex or sinuous.
- 6(11) Base of the pronotum lobed in the middle.
- 7(10) Mesoternum not produced into long process; body more or less clothed with hair, setae or opaque bloom.
- 8(9) Clypeus of the male produced into horn or horns in female bidentate..... *Mycterestes*
- 9(8) Clypeus similar in both sexes rounded or gently bilobed *Macronota*
- 10(7) Mesosternum produced into long process; body entirely smooth and shining..... *Clerota*
- 11(6) Base of the pronotum not lobed in the middle.
- 12(23) Base of the pronotum in a transverse line.
- 13(14) Hind angles of the pronotum a little produced..... *Diceros*
- 14(13) Hind angles of the pronotum not produced.
- 15(20) Front margin of the clypeus simple.
- 16(17) Clypeus small and transverse..... *Eucloropus*
- 17(16) Clypeus large and elongate.
- 18(19) Sternal process transverse dilated in front..... *Torynorrhina*
- 19(18) Sternal process not transverse not dilated in front *Rhomborrhina*

- 20(15) Front margin of the clypeus not simple.
- 21(22) Front margin of the clypeus notched or toothed..... **Heterorrhina**
- 22(21) Front margin of the clypeus bearing a horn dilated at the end **Trigonophorus**
- 23(12) Base of the pronotum not in a transverse line.
- 24(25) Sides of elytra not distinctly sinuated behind the shoulders.....**Anthracophora**
- 25(24) Sides of the elytra distinctly sinuated behind the shoulders.
- 26(27) Pronotum not abruptly emarginate behind **Glycyphana**
- 27(26) Pronotum abruptly emarginate behind.
- 28(31) Sternal process laterally compressed.
- 29(30) Metallic; hind tibia digitated..... **Cetonia**
- 30(29) Not metallic : hind tibia not digitate sternal process usually vertical..... **Glycosia**
- 31(28) Sternal process broad and flat or absent.
- 32(33) Clypeus not elongate, rather broad in front..... **Protaetia**
- 33(32) Clypeus elongate, narrow in front.
- 34(35) Clypeus flat..... **Oxycetonia**
- 35(34) Clypeus keeled, with produced angle..... **Chiloloba**
- 36(5) Sides of Scutellum concave, apex extremely sharp.
- 37(38) Clypeus not forming two sharp angles in front..... **Clinteria**
- 38(37) Clypeus forming two sharp angles in front..... **Thaumastopeus**
- 39(2) Mandibles strong and sharp, without a free membranous inner lobe.
- 40(43) Base of pronotum sharply excised before the scutellum.
- 41(42) Terminal spiracles sharply spinose..... **Cymophorus**
- 42(41) Terminal spiracles slightly elevated, not spinose, pygidium vertical..... **Spilophorus**

- 43(40) Base of pronotum not sharply excised before the scutellum.
- 44(45) Body very compact; prothorax very broad at base..... *Macroma*
- 45(44) Body not very compact; prothorax not very broad at base.
- 46(47) Tarsi 4-jointed..... *Callinomes*
- 47(46) Tarsi-5 jointed, body naked, black or very dark red..... *Coenochilus*
- 48(1) Mesosternal epimera not dilated nor reaching the dorsal surface; base of the pronotum meeting ridges upon scutellum and elytra..... *Dasyvalgus*

Genus 1. *Dicranocephalus* Westwood 1841

1841. *Dicranocephalus* Westwood, *Arcana Ent.* 1 : 5.

1. *Dicranocephalus wallichii* Hope, 1831.

1831. *Dicranocephalus wallichii* Hope, *Gray's Zool. Misc.*, P. 24.

1910. *Dicranocephalus wallichii*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 34-35.

Material examined : 2 exs., Kalimpong (Darjiling Dist.), 24.iv.-10.v. 1915, F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling), Assam, Sikkim, Also known from Nepal.

Genus 2. *Mycteristes* Castelnau 1840.

1840. *Mycteristes* Castelnau, *Hist. Nat.*, 2 : 162.

1871. *Prigenia Mohnike*, *Arch. f. Natur.*, 27 : 228.

1895. *Cephalocosmus* Kraatz, *Deutsche Ent. Zeitschr.*, P. 106.

1910. *Mycteristes*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 36.

2. *Mycteristes microphyllus* Wood-Mason 1881.

1881. *Mycteristes microphyllus* Wood-Mason, *Ann. Nat. Hist.*, (5) 7 : 411.

1895. *Cephalocosmus moewisii* Kraatz, *Deutsche Ent. Zeitscher*, P. 106.

1910. *Mycteristes microphyllus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 37-38.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Sikkim. Also known from Bhutan.

Genus 3. *Macronota* Hoffmanssegg 1817

1817. *Macronota* Hoffmanssegg, *Zool. Mag.* I, 1 : 15.
 1910. *Macronota*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 41-42.

Key to the species of Genus *Macronota* known from West Bengal.

- 1(2) Prothorax dilated from apex to base.....*penicillata* Hope
 2(1) Prothorax not dilated from apex to base
 3(12) Middle tibia bearing a strong spine near the middle of the outer edge.
 4(7) Body densely clothed with long hairs
 5(6) Middle tibia armed with one lateral spine..... *westwoodi* Thomson
 6(5) Middle tibia armed with two lateral spines..... *ursus* Westwood
 7(4) Body not clothed with dense hairs
 8(9) Upper surface metallic *nigricollis* Janson
 9(8) Upper surface not metallic
 10(11) Elytra feebly serrated at the apex, antennal club of the male long..... *quadrilineata* Hope
 11(10) Elytra strongly serrated at the apex, antennal club of the male short.....*virgata* Janson
 12(3) Middle tibia without a spine at the middle of the outer edge..... *antennata* Wallace

3. *Macronota penicillata* (Hope) 1831

1831. *Coilodera penicillata* Hope, *Gray's Zool. Misc.*, P. 24.
 1842. *Macronota penicillata* Burmister, *Hanb.*, 3 : 321.
 1910. *Macronota penicillata* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 44-45.

Material examined : 7 exs.; 1 ex, Kurseong, 24.viii.1907; 1 ex, C. Lynch coll.; 1 ex, no other locality data; 1 ex, Darjiling, 4000 ft., vii. 1917, F.H. Gravely coll.; 1 ex, purchased and 2 exs, Z.S.I. coll.

Distribution : India : West Bengal (Darjiling), Manipur, Meghalaya. Also known from Burma.

4. *Macronota westwoodi* (Thomson) 1857

1857. *Bombodes westwoodi* Thomson, *Arch. Ent.*, 1 : 284, pl. 14, fig. 2.
 1910. *Macronota westwoodi*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 49.

Material examined : 1 ex, Kurseong, 5000 ft., B. Johans Coll.

Distribution : India : West Bengal (Darjiling).

5. *Macronota ursus* (Westwood) 1848

1848. *Bombodes ursus* Westwood, *Cab. of Orient. Ent.*, P. 36, pl. 17, fig. 4.
 1910. *Macronota ursus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 48-49

Material examined : 1 ex., Pesloke spur (Darjiling dist.), B.S. Lister coll.

Distribution : India : West Bengal (Darjiling). Also known from Burma.

Remarks : The species is recorded for the first time from India.

6. *Macronota nigricollis* (Janson) 1881

1881. *Ataenia nigricollis* Janson, *Cist. Ent.*, 2 : 604.
 1910. *Macronota nigricollis*, Arrow, *Fauna Brit. India* (Coleoptera : Lemellicornia), 1 : 51.

Material examined : 1 ex, Mungphu (Darjiling Dist.), Ind. Mus. Coll.

Distribution : India : West Bengal (Darjiling).

Remarks : First time recorded from West Bengal.

7. *Macronota quadrilineata* Hope 1831

1831. *Macronota quadrilineata* Hope, *Gray's Zool. Miscellany*, P. 24.
 1910. *Macronota quadrilineata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1:61.

Material examined ; 1 ex, Ghumti (Darjiling Dist.), 4000 ft., vii. 1911, F.H. Gravely coll., 1 ex, Darjiling, purchased.

Distribution : India : West Bengal (Darjiling), Nagaland, Manipur. Also known from Nepal.

8. *Macronota virgata* (Janson) 1892

1892. *Taeniodera virgata* Janson, *Notes, Leyd. Mus.*, 14 : 59.
 1910. *Macronota virgata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1:62.

Material examined : 1 ex, Mangphu (Darjiling Dist.) Ind. Mus Coll.

Distribution : India : West Bengal (Darjiling), Monipur. Also known from Bangladesh and Burma.

Remarks ; First time recorded from West Bengal.

9. *Macronota antennata* Wallich 1868

1868. *Macronota antennata* Wallich, *Trans. Ent. Soc. Lond.*, (3) 4 : 560.

1910. *Macronota antennata* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1:65.

Material examined : 4 exs; 1 ex, Pashok (Darjiling Dist.), 4000 ft, 26.v.-14.vi.1916, F.H. Gravely coll.; 1 ex, Kurseong (Darjiling Dist.), 5000 ft., C. Lynch coll.; 1 ex, Ghoom (Darjiling Dist.), 4000-5000 ft., 16.vi.1914, F.H. Gravely coll., 1 ex, Kurseong (Darjiling Dist.), 5000 ft., C. Lynch coll.

Distribution : India : West Bengal (Darjiling), Sikkim. Also Known from Penang.

Genus 4. *Clerota* Burmeister 1842

1842. *Clerota* Burmeiser, *Handb. Ent.*, 3 : 317.

1856. *Clerota* Lacordaire, *Gen. Col.*, 3 : 504.

10. *Clerota vittigera* (Hope) 1841

1841. *Macronota vittigera* Hope, *Proc. Ent. Soc. London*, P. 34.

1842. *Clerota buddha* var.d. Burmeister, *Handb., Ent.*, 3 : 317 & 807.

1910. *Clerota vittigera*, Arrow, *Fauna Brit. India* (Cleoptera ; Lamellicornia), 1 : 66-67.

Material examined : No material is available for study.

Distribution : India ; West Bengal (Darjiling). Also known from Bangladesh and Bhutan.

Genus 5. *Diceros* Lacordaire 1856

1833. *Dicheros* Gory & Percheron, *Monogr. Cat.*, P. 40.

1856. *Diceros* Lacordaire, *Genera des Coleopt.*, 3 : 486.

1910. *Diceros*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 71-72.

11. *Diceros childreni* (Westwood) 1842

1842. *Heterorrhina childreni* Westwood, *Arcana Ent.*, 1:139, pl. 36, fig. 3.

1910. *Diceros childreni*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 74-75.

Material examined : 1 ex, Bengal, Ind. Mus. Coll.

Distribution : India : West Bengal (Calcutta), Meghalaya.

Genus 6. *Jumnos* Saunders 1839

1839. *Jumnos* Saunders, *Trans. Ent. Soc. London*, 2 : 176, pl. xvi, fig. 1.

12. *Jumnos ruckeri* Saunders 1839

1839. *Jumnos ruckeri* Saunders, *Trans. Ent. Soc. London*, 2 : 176, pl. xvi, fig. 1.

1910. *Jumnos ruckeri*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 79.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Manipur and Sikkim. Also known from Burma.

Genus 7. *Torynorrhina* Arrow 1907.

1907. *Torynorrhina* Arrow, *Ann. mag. Nat. Hist.*, (7) 19 : 433.

Key to the species of Genus *Torynorrhina* known from West Bengal.

1(2) Elytra with dark posterior border.....*apicalis* Westwood

2(1) Elytra without dark posterior border.....*opalina* Hope

13. *Torynorrhina apicalis* (Westwood) 1842

1842. *Rhomborrhina apicalis* Westwood, *Arcana Ent.*, 1 : 118, pl. 30, fig. 2.

1910. *Torynorrhina apicalis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 83.

Material examined : 6 exs; 5 exs, Kurseong (Darjiling Dist.) no other information, 1 ex, Darjiling (Darjiling Dist.), B.K. Tikadar coll.

Distribution : India : West Bengal (Darjiling), Sikkim. Also known from Nepal.

Remarks : First time recorded from West Bengal.

14. *Torynorrhina opalina* (Hope) 1831

1831. *Cetonia opalina* Hope, *Gray's Zool. Misc.*, p. 24.

1910. *Torynorrhina opalina*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1:84.

Material examined : 5 exs; 1 ex, Kurseong (Darjiling Dist.), 5000 ft, C. Lynch Coll.; 3 exs, Gopaldhara (Darjiling Dist.), Rungbong Valley, 1911, W.K. Webb coll; 1 ex, Ghumti Darjiling Dist.), 4000 ft., vii.1911, F.H. Gravely coll.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh, Punjab, Sikkim. Also known from Nepal.

Genus 8. *Rhomborrhina* Hope 1837

1837. *Rhomborrhina* Hope, *Coleop. Man.*, 1 : 120.
 1842. *Anomalocera* Westwood, *Arcana Ent.*, 1 : 120.
 1843. *Diprhyllomorpha* Hope, *Trans. Linn. Soc.*, 19(2) : 107.
 1910. *Rhomborrhina*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 84.

Key to the species of genus *Rhomborrhina* known from West Bengal.

- 1(6) Mesosternal process narrow and tapering
 2(3) Head relatively small.....*microcephala* Westwood
 3(2) Head relatively large
 4(5) Elytra extremely glossy, without puncturation..... *glaberrima* Westwood
 5(4) Elytra punctured, not very glossy..... *mearesi* Hope
 6(1) Mesosternal process broad, not tapering
 7(8) Green, with a black sutural patch..... *heros* G&P.
 8(7) Uniformly coloured, brought apple green..... *mellyi* G&P.

15. *Rhomborrhina microcephala* Westwood 1842

1842. *Rhomborrhina microcephala* Westwood, *Arcana Ent.* 1 : 119, pl. 30, fig. 3.
 1910. *Rhomborrhina microcephala*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 87.

Material examined : 2 exs, Darjiling, Purchased, Ind. Mus. Coll.

Distribution : India : West Bengal (Darjiling).

16. *Rhomborrhina mellyi* (Gory and Percheron) 1833

1833. *Goliathus mellyi* Gory and Percheron, *Monogr. Cet.*, P. 156, pl. 26, fig.4.
 1910. *Rhomborrhina mellyi*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 86.

Material examined : 2 exs, Darjiling, no other information.

Distribution : India : West Bengal (Darjiling), Assam, Meghalaya, Manipur. Also known from Burma.

17. *Rhomorrhina glaberrima* (Westwood) 1842

1842. *Anomalocera glaberrima* Westwood, *Arcana Ent.*, 1 : 136, Pl. 34, fig. 1.
 1910. *Rhomorrhina glaberrima*, Arrow, *Fauna Brit. India* (Coleoptera ; Lamellicornia), 1 : 87.

Material examined : 6 exs; 2 exs, Kurseong (Darjiling Dist.), E. Himalayas, 5000ft, N.B. Jalan Coll.; 2 exs, Darjiling, Purchased; 1 ex, Darjiling, Ind. Mus. Coll.; 1 ex, Darjiling, E. Himalayas, 7000 ft, Purchased.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh and Punjab.

18. *Rhomorrhina heros* (Gory and Percheron) 1833

1833. *Goliathus heros* Gory and percheron, *Monogr. Cet.*, P. 155, pl. 26, fig. 3.
 1910. *Rhomorrhina heros*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1:85.

Material examined : 2 exs, Darjiling, Ind. Mus. Coll.; Purchased.

Distribution : India : West Bengal (Darjiling). Also known from Vietnam.

19. *Rhomorrhina mearesi* (Hope) 1843

1843. *Diphylomorpha mearesi* Hope, *Trans. Linn. Soc.*, 19(2) p. 107, pl. 10, fig. 1.
 1910. *Rhomorrhina mearesi*, Arrow, *Fauna Brit. India* (Coeloptera : Lamellicornia), 1 : 88.

Material examined : 3 exs; 2 exs, Kurseong, E. Himalayas, 5000 ft, N.B. Johans coll.; 1 ex, Darjiling, Purchased.

Distribution : India : West Bengal (Darjiling).

Genus 9. *Euchloropus* Arrow 1907

1907. *Euchloropus* Arrow, *Ann. Mag. Nat. Hist.*, (7) 19 : 350 and 433.

20. *Euchloropus laetus* (Fabricius) 1801

1801. *Cetonia laeta* Fabricius, *Syst. Eleut.*, 2 : 150.
 1910. *Euchloropus laetus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 89-90.

Material examined : No material is available for study.

Distribution : India : West Bengal (Calcutta). Also known from Bangaldesh, Burma, Malaysia, Indonesia.

Genus 10 *Heterorrhina* Westwood 1842

1842. *Heterorrhina* Westwood, *Arcana Ent.*, 1 : 132.
 1842. *Coryphocera* Burmeister, *Handb. Ent.*, 3 : 220.
 1910. *Heterorrhina*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 90.

Key to the species of genus *Heterorrhina* known from West Bengal.

- 1(4) Mesosternal process very short.
 2(3) Elytra distinctly costate *mutabilis* Hope
 3(2) Elytra not distinctly costate..... *dispar* Arrow
 4(1) Mesosternal process long
 5(6) Metasternum clothed with moderately thick hair.... *nigritarsis* Hope
 6(5) Metasternum not hairy
 7(8) Pronotum strongly and rather evenly punctured..... *punctatissima* Westwood
 8(7) Pronotum not, or very lightly, punctured in the middle, elytra highly glazed, scarcely punctured..
 *elegans* Fabricius

21. *Heterorrhina mutabilis* (Hope) 1831

1831. *Cetonia mutabilis* Hope, *Gray's Zool. Misc.*, P. 24.
 1842. *Heterorrhina hopei* Westwood, *Arcana Ent.*, 1 : 134, pl. 33, fig. 3.
 1910. *Heterorrhina mutabilis*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 1 : 91-92.

Material examined : 2 exs; 1 ex, Pashok (Darjiling Dist.), R.S. Lister Coll., 1 ex, Kurseong, E.A. dabreu Coll.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh. Also known from Bhutan and Nepal.

Remarks : First time recorded from West Bengal.

22. *Heterorrhina dispar* Arrow 1907

1907. *Heterorrhina dispar* Arrow, *Ann. Mag. Nat. Hist.*, 19(7) : 347.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

23. *Heterorrhina elegans* (Fabricius) 1781

1781. *Cetonia elegans* Fabricius, *Spec. Ins.*, 1 : 56.

1910. *Heterorrhina elegans*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 93-94.

Material examined : 5 exs; 1 ex, Calcutta, 23.vi. 1908, (at light), Mus. Coll., 1 ex, Calcutta, vii. 1909, C.C. Basu coll. 1 ex, Maldah, 1 ex, Murshidabad, 1 ex, Calcutta, (at light), Lake Gardens, 28.v.1973, A.K. Roy Coll.

Distribution : India : West Bengal (Calcutta, Maldah and Murshidabad), Bihar, Tamil Nadu, Mysore. Also known from Srilanka.

24. *Heterorrhina punctatissima* Westwood 1842

1842. *Heterorrhina punctatissima* Westwood, *Arcana. Ent.*, 1 : 135, pl. 34, fig. 5.

Material examined : 3xs, Darjiling, no other information.

Distribution : India : West Bengal (Darjiling), Assam, Manipur, Meghalaya and Sikkim.

25. *Heterorrhina nigratarsis* (Hope) 1831

1831. *Cetonia nigratarsis* Hope, *Gray's Zool. Miscell*, P. 24.

1910. *Heterorrhina nigratarsis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 99-100.

Material examined : 6 exs; Kurseong (Darjiling Dist.), 7-8.ix. 8.x.1909, Nelson Annandale.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, Uttar Pradesh.

Genus 11. *Trigonophorus* Hope 1831

1831. *Trigonophorus* Hope, *Gray's Zool. Miscell*, P. 24.

Key to the species of genus *Trigonophorus* known from West Bengal.

- 1(4) Femora not green
- 2(3) Femora and tibiae bright orange..... *nepalensis* Hope
- 3(2) Femora and tibiae dark red..... *saundersi* Westwood
- 4(1) Femora green
- 5(6) Metasternum closely punctured and hairy..... *gracilipes* Westwood
- 6(5) Metasternum sparsely punctured, scarcely hairy, shining..... *scintillans* Arrow

26. *Trigonophorus nepalensis* Hope 18311831. *Trigonophorus nepalensis* Hope, *Gray's Zool. Mis. Cell.*, P.24.*Material examined* : 1 ex, Darjiling, no other information.*Distribution* : India : West Bengal (Darjiling), Manipur, Nagaland. Also known from Bangladesh and Bhutan.27. *Trigonophorus saundersi* Westwood 18421842. *Trigonophorus saundersi* Westwood, *Arcana Ent.*, 1 : 122, pl. 29, fig. 5.*Material examined* : 4 exs; 1 ex, Kurseong, (Darjiling Dist.), C. Lynch Coll., 3 exs., Kurseong, (Darjiling Dist.) 24 & 31.vii.1909, E.A. D' abreu Coll.*Distribution* : India ; West Bengal (Darjiling).28. *Trigonophorus gracilipes* Westwood1845. *Trigonophorus gracilips* Westwood, *Trans. Ent. Soc. London.* 4 : 88, Pl. 4, fig. 5.*Material examined* : 3 exs.; 2 exs., Darjiling, 1 ex., Darjiling, 1912, Maj. Bennett Coll.*Distribution* : India : West Bengal (Darjiling), Manipur, Sikkim. Also known from Bhutan.29. *Trigonophorus scintillans* Arrow 19101910. *Trigonophorus scientillans* Arrow, *Fauna Brit. India* (Coleoptera ; Lamellicornia), 1 : 105-106.*Material examined* : 2 exs, Kurseong (Darjiling Dist.) N.B. Jahans Coll.*Distribution* : India : West Bengal (Darjiling), Sikkim.Genus 12. *Anthracophora* Burmeister 18421842. *Anthracophora* Burmeister, *Handb. Ent.*, 3 : 633.Key to the species of genus *Anthracophora* known from West Bengal.

- 1(2) Sternal process conical..... *crucifera* Olivier
- 2(1) Sternal process semicircular *dalmanni* Hope

30. *Anthracophora crucifera* Olivier 1789.1789. *Cetonia crucifera* Olivier, *Ent*, 16 : 39, pl. 5, fig. 29.1910. *Anthracophora crucifera*, Arrow, *Fauna Brit. India*, (Coleoptera : Lamellicornia), 1 : 110-111.

Material examined : 7 exs; 1 ex, Calcutta, 1.vii.1908, C.A.P. coll., 1 ex, Calcutta, 1.vii.1911, F.H. Gravely Coll., 1 ex, Calcutta, 23.viii.1914, E. Rose coll., 1 ex, Calcutta, 26.v.1954, U.C. Panda coll., 2 exs, Maldah, 1 ex, Darjiling, no other information.

Distribution : India : West Bengal (Calcutta, Darjiling, Maldah), Maharashtra, Mysore, Uttar Pradesh. Also known from Srilanka.

Remarks : First time recorded from West Bengal.

31. *Anthracophora dalmanni* (Hope) 18311831. *Cetonia dalmanni* Hope, *Gray's Zool. Miscell.*, P. 24.1849. *Anthracophora bohemani* Westwood, *Trans. Ent. Soc. London*, 5 : 149, pl. 16, fig. 7.1910. *Anthracophora dalmanni*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 1 : 112-113.

Material examined : 8 exs; 3 exs, Kurseong, (Darjiling Dist.), 21-29.v.1906, 13-16.vii.1907; 4 exs; 3 exs, Darjiling, iv-v.1917, S.W. Kemp Coll. 1 ex, Sukiapokri, (Darjiling Dist), 18.v.1971, A.R. Bhaumik Coll.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh. Also known from Nepal.

Genus 13. *Glycyphana* Burmeister 18421842. *Glycyphana* Burmeister, *Handb. Ent.*, 3 : 345.1856. *Euryomia* Lacordaire, *Gen. Col.*, 3 : 525.1910. *Glycyphana*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 120.Key to the species of genus *Glycyphana* known from West Bengal

1(4) Black species

2(3) Elytral markings shining; markings irregular..... *horsfieldi* Hope3(2) Elytral markings dull; elytra decorated with a transverse chain of yellow spots.....*catena* Arrow4(1) Green species..... *nepalensis* Kraatz32. *Glycyphana horsfieldi* (Hope) 18311831. *Cetonia horsfieldi* Hope, *Gray's Zool. Miscell.* P. 25.1910. *Glycyphana horsfieldi*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 121.

Material examined : 2 exs; 1 ex, Kurseong, (Darjiling Dist), 5000 ft, N.B. Johans Coll., 1 ex, Peshok, (Darjiling Dist.) 2000 ft, Hartless Coll.

Distribution : India : West Bengal (Darjiling), Assam, Bihar, Manipur, Sikkim. Also known from Nepal and Srilanka.

33. *Glycyphana catena* Arrow 1910

1910. *Glycyphana catena* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 122-123.

Material examined : 1 ex, Darjiling, Ind. Mus. Coll.

Distribution : India : West Bengal (Darjiling). Also known from Bhutan.

34. *Glycyphana nepalensis* Kraatz 1894

1894. *Glycyphana nepalensis* Kraatz, *Deutsche Ent. Zeitschr.*, P. 294.

1891. *Glycyphana aspera* Gestro, *Ann. Mus Genova*, (2) 10 : 847.

1910. *Glycyphana nepalensis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 125-126.

Material examined : 1 ex., Edengardens (Calcutta Dist.), 8. XII. 1967, Shaukat Ali Coll.

Distribution : India : West Bengal (Calcutta), Manipur. Also known from Bhutan and Burma.

Genus 14. *Glycosia* Schoch 1896

1896. *Glycosia*, Schoch, *Ent. Nachr.*, P.86.

Key to the species of genus *Glycosia* known from West Bengal.

1(2) Sternal process produced forwards.....*luctifera* Fairmaire

2(1) Sternal process vertical in front.....*tricolor* Olivier

35. *Glycosia tricolor* Olivier 1789

1789. *Cetonia tricolor* Olivier, *Ent.*, 1 : (6) : 88, pl. 12, fig. 116.

1910. *Glycosia tricolor*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 129-130.

Material examined : No material is available for study.

Distribution : India : West Bengal (North 24 Parganas), Bihar, Maharashtra, Sikkim. Also known from Sri Lanka.

36. *Glycosia Luctifera* (Fairmaire)

1878. *Glycyphan luctifera* Fairmaire, *Ann. Soc. Ent. Franc*, P. 107, Pl.3, fig. 7.

1910. *Glycosia luctifera*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 131.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Also known from Bhutan and West China.

Genus 15. *Cetonia* Fabricius 1775

1775. *Cetonia*, Fabricius, *Syst. Ent.*, 1 : 52.

Key to the species of genus *Cetonia* known from West Bengal.

- 1(2) Ventral segments not spotted at the posterior angles..... *rutilans* Janson
 2(1) Four anterior ventral segments with lateral white spots..... *rhododendri* Gestro

37. *Cetonia rutilans* (Janson) 1881

1881. *Glycyphana rutilans* Janson, *Cist. Ent.*, 2 : 607.

1910. *Cetonia rutilans*, Arrow, *Fauna Brit. India* (Coleoptera ; Lamellicornia), 1 : 133-134.

Material examined ; 3 exs; 1 ex, Mungphu (Darjiling Dist.), Ind. Mus. Coll., 1 ex, Kalijhora, (Darjiling Dist.), 19.x.1961, R.N. Katiyar coll.

Distribution : India : West Bengal (Darjiling). Also known from Nepal.

38. *Cetonia rhododendri* Gestro 1891

1891. *Cetonia rhododendri* Gestro, *Ann. Mus. Genova*, 10(2) : 847,

Material examined : No. material is available for study.

Distribution : India : West Bengal (Darjiling), Assam, Meghalaya, Uttar Pradesh. Also known from Burma.

Genus 16. *Protaetia* Burmeister 1842

1842 *Protaetia* Burmeister, *Handb. Ent.*, 3 : 472.

1856. *Cetonia*, subg. *Protaetia*, Lacordaire, *Gen. des Coleopt.*, 3 : 536.

1881. *Eumimimetica* Kraatz, *Deutsche Ent. Zeitschr*, P. 264.

1910. *Protaetia*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 ; 136-137.

Key to the species of genus *Protaetia* known from West Bengal.

- 1(8) Upper surface of the body without opaque bloom.
 2(5) Thorax without pale markings.

- 3(4) Elytra without transverse pale markings..... *auripes* Hope
- 4(3) Elytra decorated with transverse pale markings..... *montana* Nonfried
- 5(2) Thorax decorated with pale markings.
- 6(7) Colour bronze..... *aurichalcea* Fabricius
- 7(6) Colour blue black..... *peregrina* Herbst
- 8(1) Upper surface partly or entirely covered with an opaque bloom.
- 9(12) Upper surface decorated with definite spots or not at all.
- 10(11) Front tibia tridentate externally..... *caudata* Arrow
- 11(10) Front tibiae bidentate, in male upper tooth very feeble..... *inanis* Wallace
- 12(9) Upper surface decorated with an indefinite grey or yellow tracery.
- 13(14) Apical angle of elytra spinose..... *fusca* Herbst
- 14(13) Apical angle of elytra not spinose.
- 15(16) Elytra rugosely punctured..... *neglecta* Hope
- 16(15) Elytra simply and sparsely punctured.... *cariana* Gestro

39. *Protaetia auripes* (Hope) 1831

1831. *Cetonia auripes* Hope, *Gray's Zool. Misc.*, P. 24.
1910. *Protaetia auripes*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 141-142.

Material examined : 1 ex, Pashok, (Darjiling Dist.) vi. 1916, L.C. Hartless coll.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Nepal.

Remarks : First time recorded from West Bengal.

40. *Protaetia montana* (Nonfried) 1892

1892. *Cetonia montana* Nonfried, *Berlin. Ent. Zeitscher*, 34:371.
1910. *Protaetia montana*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 142.

Material examined : No material is available for study

Distribution : India : West Bengal (Darjiling) and Sikkim..

41. *Protaetia aurichalcea* (Fabricius) 1775

1775. *Cetonia aurichalcea* Fabricius, *Syst. Ent.*, P. 49.

1910. *Protaetia aurichalcea*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 143-144.

Material examined : 9 exs; 1 ex, Eden Garden (Calcutta Dist.), 5.x.1978, A. K. Hazra Coll., 1 ex, Subhasgram, 24-Parganas, 6.iv.1959, B. Das Coll., 1 ex, Calcutta, 27.x.1965, K.R.R. coll., 1 ex, Museum, 1920, A. Hargant Coll., 1 ex, Calcutta, 16.vi.1913, Loggin Brow coll., 1 ex, Calcutta, J.W.M. coll., 1 ex, Ballygunge (Calcutta Dist.), vi.1918; 1 ex, Calcutta; 1 ex, Calcutta, 26.x.1907, C.A. Pains coll.

Distribution : India : West Bengal (Calcutta, South 24 Parganas), Bihar, Mysore, Tamil nadu.

42. *Protaetia peregrina* (Herbst) 1790

1790. *Cetonia peregrina* Herbst, *Natursyst. Kaf.*, 3 : 236, pl.30, fig.4.

1910. *Protaetia peregrina*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 144-145.

Material examined : 3 exs, Murshidabad, no other information.

Distribution : India : West Bengal (Murshidabad), Bihar, Maharashtra, Mysore.

43. *Protaetia fusca* (Herbst) 1790

1790. *Cetonia fusca* Herbst, *Natursyst. Kafer*, 3 : 257, Pl.32, fig.4.

1910. *Protaetia fusca*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 154-155.

Material examined : 7 exs; 2 exs, Calcutta, 1 ex, 11.viii.1908, A. Martin coll., 2 ex, Darjiling, 1 ex, Maldah, 1 ex, Kalingpong (Darjiling), 1 ex, Calcutta (at light), 1936, 1 ex, Calcutta, 4.v.1950, M. B. Kirpalani coll.

Distribution : India : West Bengal (Calcutta, Darjiling, Maldah), Assam. Also known from Burma, Malaysia, North Queensland, South China and Thailand.

44. *Protaetia caudata* Arrow 1910

1910. *Protaetia caudata* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 147.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Sikkim. Also known from Bhutan.

45. *Protaetia inanis* (Wallace) 1868

1868. *Cetonia inanis* Wallace, *Trans. Ent. Soc. London* (3) 4 : 580.

1910. *Protaetia inanis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 151.

Material examined : No material is available for study.

Ditribution : India : West Bengal (Darjiling), Assam. Also known from Burma and Indonesia.

46. *Protoetia cariana* (Gestro) 1891

1891. *Cetonia cariana* Gestro, *Ann. Mus. Genova* (2) 10 : 580.

1910. *Protoetia cariana*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 161.

Material examined : 3 exs, 1 ex, Darjiling, 2 exs, Darjiling, (Purchased).

Distribution : India : West Bengal (Darjiling), Sikkim. Also known from Burma.

47. *Protoetia neglecta* (Hope) 1831

1831. *Cetonia neglecta* Hope, *Gray's Zool. Miscellany*, P.24.

1910. *Protoetia neglecta*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 160.

Material examined : 2 exs; 1 ex, Kurseong (Darjiling Dist.), 5000 ft, 16.vi.1909, E. A. Dabreu coll; 1 ex, Kurseong, (Darjiling Dist.), 5000 ft, 13-16.vii.1907, Mus. coll.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, Manipur, Uttar Pradesh.

Remarks : First time recorded from West Bengal.

Genus 17. *Oxycetonia* Arrow 1910

1842. *Gametis* Burmeister, *Handb. Ent.*, 3 : 398.

1910. *Oxycetonia* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 163-164.

Key to the species of genus *Oxycetonia* known from West Bengal.

- 1(2) Lobes of the clypeus very sharp..... *versicolor* Fabricius
 2(1) Lobes of the clypeus blunt
 3(4) Upper surface not setose; sides of pronotum not densely strigose.. *albopunctata* Fabricius
 4(3) Upper surface setose; sides of pronotum densely strigose..... *jucunda* Faldermann

48. *Oxycetonia versicolor* (Fabricius) 1775

1775. *Cetonia versicolor* Fabricius, *Syst. Ent.*, P. 51.

1910. *Oxycetonia versicolor*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 164-166.

Material examined : 5 exs; 3 exs, Maldah, Ind. Mus. coll., 1 ex, Chinsura Rly. Stn. (Hooghly Dist.), 5.vi.1978, staff of Hemiptera Sec. Coll., 1 ex, North Bengal, Bamanpolan, 23.viii.1975, H. K. Bhoumik coll.

Distribution : India : West Bengal (Calcutta, Maldah), Mysore, Tamil Nadu. Also known from Bangladesh, Bhutan, Madagascar, Srilanka.

49. *Oxycetonia albopunctata* (Fabricius) 1798

1798. *Cetonia albopunctata* Fabricius, *Ent. Syst., Suppl.*, P. 129.

1910. *Oxycetonia albopunctata*, Arrow, *Fauna Brit. India*, (Coleoptera : Lamellicornia), 1 : 166-167.

Material examined : 37 exs; 3 exs, Calcutta, 4.x., 12.x., 23.x.1906, 1 ex, Calcutta, Ballygunge, 2.x.1962, R. Hodgart Coll., 6 exs, Murshidabad, 1 ex, Baharampur (Murshidabad Dist.), 4 exs, Maldah, 2 exs, North Bengal, Sripur, Saran, Mus. Coll., 1 ex, Subhasgram, Kodalía (South 24 Parganas Dist.), 29.x.1956, S. C. Mitra & party, 16 exs, Rajabhatkhawa (E.), (Jalpaiguri Dist.), 8.v.1983, S. K. Chatterjee coll., 3 exs, Kalchini (Jalpaiguri Dist.), 7.v.1983, S. K. Chatterjee Coll.

Distribution : India : West Bengal (Calcutta, Jalpaiguri, Maldah, Murshidabad), Uttar Pradesh. Also known from Bangladesh and Burma.

Remarks : First time recorded from West Bengal. The species is variable in colouration. Specimens under study are entirely black in colour. Arrow divided the species into three varieties and present specimens fall in his variety C.

50. *Oxycetonia jucunda* (Faldermann) 1835

1835. *Cetonia jucunda* Faldermann, *Mem. pres. a 'I' Acad. Sci. St. Pe'tersb.*, 2 : 386.

1910. *Oxycetonia jucunda*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 168-169.

Material examined : 37 exs.; 6 exs, Mangpu, Sureil, (Darjiling Dist.), iv-v.1917, S. W. Kemp Coll.; 2 exs, Munghpu, (Darjiling Dist.), 4 exs, Darjiling, Kurseong, (Darjiling Dist.), N. B. Jahans Coll., 1 ex, Kurseong, (Darjiling Dist.), 24.viii.1909, 1 ex, Kurseong, (Darjiling Dist.), 15.iv.1911, Annandale Coll., 3 exs, Peshok, (Darjiling dist.), 23.iv.-11.v.1915, F. H. Gravely coll., 1 ex, Kurseong, (Darjiling Dist.), 24.iv.-10.v.1915, F. H. Gravely Coll., 1 ex, Darjiling, 1 ex, Singtong, (Darjiling Dist.), 14.x.1959, B. K. Tikader Coll., 1 ex, Sureil, (Darjiling Dist.), 11-31.x.1917, N. Annandale & F. H. Gravely coll., 2 exs, Mahanadi, (Darjiling Dist.), 28.iv.1971, A. R. Bhaumik Coll., 4 exs, Sukiapokri, (Darjiling Dist.), 18.v.1971, A. R. Bhaumik coll.

Distribution : India : West Bengal (Darjiling, Calcutta), Manipur, Meghalaya.

Genus 18. *Chiloloba* Burmeister 1842

1842. *Chiloloba*, Burmeister, *Handb. Ent.*, 3 : 501.

51. *Chiloloba acuta* (Wiedemann) 1823

1823. *Cetonia acuta* Wiedemann, *Zool. Mag.*, 2 (1) : 87.

1910. *Chiloloba acuta*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 172.

Material examined : 2 exs; 1 ex, Maldah, 1 ex, Munghpu (Darjiling Dist.).

Distribution : India : West Bengal (Darjiling, Maldah), Himachal Pradesh, Madhya Pradesh, Maharashtra, Mysore, Punjab, Sikkim, Uttar Pradesh.

Remarks : First time recorded from West Bengal.

Genus 19. *Clinteria* Burmeister 1842

1842. *Clinteria* Burmeister, *Handb. Ent.*, 3 : 299.

Key to the species of genus *Clinteria* known from West Bengal.

- 1(2) Sternal process strongly produced..... *oberthuri* Arrow
 2(1) Sternal process little produced
 3(6) Upper surface opaque
 4(5) Upper surface not hairy..... *spilota* Hope
 5(4) Upper surface hairy..... *hoffmeisteri* Swartz
 6(3) Upper surface very shining..... *pumila* swartz

52. *Clinteria oberthuri* Arrow 1910

1910. *Clinteria oberthuri* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 181-182.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

53. *Clinteria spilota* (Hope) 1831

1831. *Cetonia spilota* Hope, *Gray's Zool. Misc.*, P. 25.

1910. *Clinteria spilota*, Arrow, *Fauna Brit. India*, (Coleoptera : Lamellicornia), 1 : 184-185.

Material examined : 28 exs; 4 exs, Kalimpong, (Darjiling Dist.), 24.iv.-10.v.1915; 5 exs, Peshoke, (Darjiling Dist.), 24.iv.-11.v.1915, 1 ex, Ghumti, (Darjiling Dist.), vii.1917, 1 ex, Goom, (Darjiling Dist.), 14.iv.1914, F. H. Gravely Coll, 3 exs, Singla (Darjiling Dist.), iv.1913, Lord Carmichael's Coll., 3 exs, Kurseong (Darjiling Dist.), 21-29.v.1906, 7.ix.1909, N. Annandale, Coll. 1 ex, Kurseong (Darjiling Dist.), C. Lynch Coll., Munghpu (Darjiling Dist.); 1 ex, Darjiling, 1 ex, Darjiling, purchased, 1 ex, Darjiling, iv.1973, H. S. sharma & Party Coll., 1 ex, Pedong(Darjiling Dist.), 10.ix.1976, A. N. T. Joseph Coll., 3 exs, Mahanadi, (Darjiling Dist.), 28.iv.1971, A. R. Bhaumik Coll., 3 exs, Jalpaiguri, Ranipool, (Jalpaiguri Dist.), 21.iv.1983, S. K. Chatterjee coll.

Distribution : India : West Bengal (Darjiling, Jalpaiguri, North 24-Parganas), Himachal Pradesh and Uttar Pradesh.

54. *Clinteria hoffmeisteri* White 1847

1847. *Clinteria hoffmeisteri* White, *Ann. Nat. Hist.*, **20** : 341.

Material examined : No material is available for study.

Distribution : India : West Bengal.

55. *Clinteria pumila* (Swartz) 1817

1817. *Cetonia pumila* Swartz, *Schonh. Syn. Ins.*, **1** : (3) 47

1910. *Clinteria pumila*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 191.

Material examined : No material is available for study.

Distribution : India : West Bengal : West Bengal. Also known from Srilanka.

Genus 20. *Thaumastopeus* Kraatz 1885

1883. *Thamnastopeos* Kraatz, *Deutsche Ent. Zeitschr.*, P. 28.

1885. *Thaumastopeus* Kraatz, *Deutsche Ent. Zeitschr.*, **29** : 350.

1899. *Thaumastopeus* Heller, *Deutsche Ent. Zeitschr.*, P. 353.

56. *Thaumastopeus pullus* (Billberg) 1817

1792. *Cetonia nigrita* Frohlich, *Naturf Gesells, Halle*, **26** : 110.

1817. *Cetonia pulla* Billberg, *Schonh. Syn. Insect.*, **1** (3) : 46.

1898. *Thaumastopeus simillimus* Schoch, *Mith. Schweiz. ent. Ges.*, **10** : 157.

1910. *Thaumastopeus pullus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 195-196.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Bihar, Himachal Pradesh, Manipur, Nagaland and Andaman Island. Also known from Burma, Malaysia and Srilanka.

Genus 21. *Spilophorus* Lacordaire 1856

1856. *Spilophorus* Lacordaire, *Gen. Col.*, **3** : 545.

1889. *Pseudospilophorus* Kraatz, *Deutsche Ent. Zeitschr.*, P. 68.

1910. *Spilophorus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 201.

57. *Spilophorus cretous* (Hope) 1835

1835. *Cetonia cretosa* Hope, *Trans. Zool. Soc. London*, **1** : 98.

1899. *Spilophorus maculatus* Kraatz (nec G & P.), *Deutsche Ent. Zeitschr.*, P. 62
 1910 *Spilophorus cretosus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 201-202.

Material examined : 6 exs; 2 exs, Calcutta; 21.vii.1914, F. H. Gravely Coll., 1 ex., Maldah, 2 exs, Calcutta maidan, vii.1983, S. Biswas Coll., 1 ex, Santiniketan (Birbhum Dist.), 12.ix.1974, B. N. Das coll.

Distribution : India : West Bengal (Calcutta, Birbhum), Bihar and Maharashtra. Also known from Srilanka.

Genus 22. *Cymophorus* 1827

1827. *Cymophorus* Kirby, *Zool. Journ.*, **3** : 271.
 1841. *Ptychophorus* Schaum, *Germar's Zeitschr.*, **3** : 271.
 1910. *Cymophorus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 203.

58. *Cymophorus pulchellus* Arrow 1910

1910. *Cymophorus pulchellus* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 203-204.

Material examined : No material is available for study.

Distribution : India : West Bengal (Hugli), Bihar.

Genus 23. *Coenochilus* Schaum 1841

1841. *Coenochilus* Schaum, *Germar's Zeitschrift*, P. 268.

59. *Coenochilus campbelli* Saund 1842

1842. *Coenochilus campbelli* Saund, *Trans. Ent. Soc. London*, **3** : 234, Pl.13, fig.1.
 1844. *Coenochilus platyrrhinuss* chaum, *Ann. Soc. Ent. France*, P.419.
 1910. *Coenochilus campbelli*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 212-213.

Material examined : 1 ex, Maldah, no other information.

Distribution : India : West Bengal (Maldah).

Genus 24. *Callinomes* Westwood 1874

1874. *Callinomes* Westwood, *Thes. Ent. Oxon.*, P. 26.

60. *Callinomes pusillus* Arrow 1910

1910. *Callinomes pusillus* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **1** : 216-217.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling). Also known from Bangladesh.

Genus 25. *Macroma* Gory & Percheron 1833

1833. *Macroma* Gory & Percheron, *Monogr. Cet.*, P. 35.

Key to the species of genus *Macroma* known from West Bengal.

1(2) Mentum vertically flattened..... *javanica* G. & P.

2(1) Mentum horizontally flattened *xanthorrhina* Hope

61. *Macroma javanica* Gory & Percheron 1833

1833. *Macroma javanica* Gory & Percheron, *Monogr. Cet.*, P.148, Pl.23, fig.5.

1841. *Macroma nigripennis* Schaum, *German's Zeitschr.*, 3 : 279.

1910. *Macroma javanica*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 218.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Meghalaya. Also known from Burma, Campuchia, China, Indonesia and Thailand.

62. *Macroma xanthorrhina* (Hope) 1831

1831. *Campsiura xanthorrhina* Hope, *Gray's Zool. Misc.*, P. 25.

1910. *Macroma xanthorrhin*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 219-220.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Manipur. Also known from Burma and Nepal.

Genus 26. *Dasyvalgus* Kolbe 1904

1904. *Dasyvalgus* Kolbe, *Stettin. Ent. Zeit.*, 65 : 34.

63. *Dasyvalgus carbonarius* Arrow 1910

1910. *Dasyvalgus carbonarius* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 239.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling). Also known from Burma.

Subfamily II. DYNASTINAE

Key to the genera of *Dynastinae* known from West Bengal.

- 1(4) Basal joint of hind tarsus similar to those succeeding
- 2(3) Elytra coriaceous in both sexes; male bearing a single horn..... *Xylotrupes*
- 3(2) Elytra of male very shining, of female rugose; male bearing paired thoracic horns.....
..... *Eupatorus*
- 4(1) Basal joint of hind tarsus more or less triangular.
- 5(8) Prosternum not forming a free erect process behind the front coxae.
- 6(7) Propygidium bearing stridulatory process..... *Oryctes*
- 7(6) Propygidium not bearing stridulatory ridges..... *Eophileurus*
- 8(5) Prosternum forming a free erect process behind the front coxae.
- 9(12) Mandibles deeply notched externally; sexes similar
- 10(11) Pronotum not visibly punctured.. *Heteronychus*
- 11(10) Pronotum strongly punctured..... *Alissonotum*
- 12(9) Mandibles not notched externally; sexes dissimilar..... *Phyllognathus*

Genus 27. *Xylotrupes* Hope 18371837. *Xylotrupes* Hope, *Coleopterist's Manual* 1 : 1964. *Xylotrupes gideon* (Linnaeus) 17671767. *Scarabaeus gideon* Linnaeus, *Syst. Nat.* 12th ed., 1 (2) : 541.1910. *Xylotrupes gideon*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 1 : 262-265.

Material examined : 6 exs; 1 ex, Karsiang (Darjiling Dist.), 26.vi.1910, Annandale Coll., 1 ex, Karsiang (Darjiling Dist.), Purchased, 1 ex, Karsiang (Darjiling Dist.), 13-16.vii.1907, Mus. Coll., 1 ex, Karsiang (Darjiling Dist.), 1 ex, Jalpaiguri, Chilapata (Jalpaiguri Dist.), 13.x.1987, S. K. Tandon Coll., 1 ex, Dydak forest (Jalpaiguri Dist.), 12.ix.1975, H. K. Bhowmik Coll.

Distribution : India : West Bengal (Calcutta, Darjiling), Assam, Kerala, Maharashtra and Meghalaya. Also known from Srilanka.

Genus 28. *Eupatorus* Burmeister 1847

1847. *Eupatorus* Burmeister, *Handb. Ent.* 5 : 268.

65. *Eupatorus hardwickei* (Hope) 1831

1831. *Dynastes hardwickei* Hope, *Grey's Zool. Misc.*, P.22.

1910. *Eupatorus hardwickei*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 268-269.

Material examined : 4 exs; 1 ex, Karseong (Darjiling Dist.), Purchased, 1 ex, Ghoom, (Darjiling Dist.), 8.ix.1908, Mus. Coll., 1 ex, Darjiling, v-vi.1912, Lord Carmichael's Coll., 1 ex, Rangiroom, (Darjiling Dist.), 2.x.1978, A.N.T. Joseph Coll.

Distribution : India : West Bengal (Darjiling).

Genus 29. *Oryctes* Illiger 1798

1798. *Oryctes* Illiger, *Kafer Preussens*, P.11.

66. *Oryctes rhinoceros* (Linnaeus) 1758

1758. *Scarabaeus rhinoceros* Linnaeus, *Syst. Nat.*, 1 : 346.

1910. *Oryctes rhinocerns*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 278-281.

Material examined : 9 exs; 1 ex, Calcutta, iv.1974, C. Dever Coll., 1 ex, Calcutta, Kasimuddin Coll., 2 exs, Museum Compound, Calcutta, 4.x.1910, 1 ex, Calcutta, iv.1958, S. Ali Coll., 1 ex, Berhampur, (Murshidabad Dist.), 15.x.1983, A. K. Hazra Coll., 1 ex, Digha, (Medinipur dist.), 24.xii.1985, A. K. Hazra Coll., 1 ex, Calcutta, 14.vii.1926, (at light), M. sharip Coll., 1 ex, Hugli, (Hugli Dist.), 29.iii.1990, Deb Kumar Bhattacharjee Coll.

Distribution : India : West Bengal (Calcutta, Hugli, Medinipur, Murshidabad), Maharashtra, Tamil Nadu. Also known from Burma, Thailand, Indonesia, Philippines, Hongkong, Korea and Tiwan.

Genus 30. *Eophileurus* Arrow 1908

1908. *Eophileurus* Arrow, *Trans. Ent. Soc. London*, P. 332.

67. *Eophileurus planatus* (Wiedemann) 1823

1823. *Geotrupes planatus* Wiedemann, *Zool. Mag.*, 2 (1) : 5.

1910. *Eophileurus planatus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 288-289.

Material examined : 2 exs; 1 ex, Kalimpong (Darjiling Dist.), 24.iv-6.v.1915, 1 ex, Peshok (Darjiling Dist.) 23.iv.-11.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling), Manipur, Nagaland, Uttar Pradesh and Andaman and Nicobar Island. Also known from Bangladesh and Burma.

Remarks : First time recorded from West Bengal.

Genus 31. *Heteronychus* Burmeister 1847

1847. *Heteronychus* Burmeister, *Handb. Ent.*, 5 : 90.

Key to the species of the genus *Heteronychus* known from West Bengal.

- 1(2) Punctures of the pygidium very coarse and confluent.....*lioderes* Redtenbacher
 2(1) Punctures of the pygidium separate.....*annulatus* Bates

68. *Heteronychus lioderes* Redtenbacher 1867

1867. *Heteronychus lioderes* Redtenbacher, *Reise der Novara, Zool.*, 2 : 75.

Material examined : 11 exs.; 1 ex, Calcutta, 18.v.1912, F. H. Gravely Coll., 1 ex, Sundarban, Basanti F.S., (South 24 Parganas Dist.), 16.xi.1909, J. T. Jenkins Coll., 2 exs, Calcutta, (at light), 4-12.xi.1907, Ind. Mus. coll., 1 ex, Behala, (Calcutta Dist.), 15.vii.1980, (at light), S. Biswas Coll., 4 exs, Darjiling, Sukna, (Darjiling Dist.), 23-30.viii.1928, I. M. Puri Coll.

Distribution : India : West Bengal (Calcutta, south 24 Parganas, Darjiling), Bihar, Orissa. Also known from Bangladesh, Burma, Nepal and Indonesia.

69. *Heteronychus annulatus* Bates

1891. *Heteronychus annulatus* Bates, *The Entomologists, suppl.*, P.19.

Material examined : 5 exs; 4 exs, Calcutta, Ind. Mus. Coll., 1 ex, Calcutta, 12.xi.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta), Himachal Pradesh.

Genus 32. *Alissonotum* Arrow 1908

1908. *Alissonotum* Arrow, *Trans. Ent. Soc. London*, P. 322.

Key to the species of the genus *Alissonotum* known from West Bengal.

- 1(2) Pronotum with an anterior marginal pit..... *crassum* Arrow
2(1) Pronotum without an anterior marginal pit
3(4) Pronotum very finely and unequally punctured..... *piceum* Fabricius
4(3) Pronotum coarsely punctured *simile* Arrow

70. *Alissonotum piceum* (Fabricius) 1775

1775. *Scarabaeus piceum* Fabricius, *Syst. Ent.*, 1 : 14.

1910. *Alissonotum piceum*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 299.

Material examined : 5-exs; 2 exs, Calcutta, 18.v.1912 & 1916, F. H. Gravely Coll., 2 exs, Calcutta, Ind. Mus. Coll., 1 ex, Calcutta, 16.i.1907.

Distribution : India : West Bengal (Calcutta, Darjiling, South 24 Parganas), Tamil Nadu. Also known from Bangladesh and Srilanka.

71. *Alissonotum simile* Arrow 1910

1910. *Alissonotum simile* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 300-301.

Material examined : 1 ex, Siliguri, (Darjiling Dist.), E. Himalayas, 3-4.vi.1911, Nelson Annandale Coll.

Distribution : India : West Bengal (Darjiling), Bihar. Also known from Bangladesh.

Remarks : First time recorded from West Bengal.

72. *Alissonotum crassum* Arrow 1908

1908. *Alissonotum crassum* Arrow, *Trans. Ent. Soc. London*, P. 323.

Material examined : 1 ex, Coochbehar, (Kochbihar Dist.), 6.v.1959, A. L. Mookherjee Coll.

Distribution : India : West Bengal (Kochbihar), Bihar. Also known from Bangladesh and Burma.

Remarks : First time recorded from West Bengal.

Genus 33. *Phyllognathus* Eschscholtz 1830

1830. *Phyllognathus* Eschscholtz, *Bull. Soc. Moscou.*, P. 65.
 1847. *Oryctes*, subg. *Phyllognathus*, Burmeister, *Handb. Ent.*, 5 : 187.
 1910. *Phyllognathus*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 1 : 306-307.

73. *Phyllognathus dionysius* (Fabricius) 1910

1792. *Scarabaeus dionysius* Fabricius, *Ent. Syst.*, 1 : 20.
 1910. *Phyllognathus dionysius*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 1 : 307-308.

Material examined : 8 exs; 1 ex, Darjiling, Reang F.R.H., (Darjiling Dist.), 28.vi.1973, H. S. Sharma & Party Coll., 2 exs, Calcutta, 3 exs, Darjiling, Reang F.R.H. (Darjiling Dist.), 31.iii.1973, H. S. Sharma & Party Coll., 1 ex, 2.iv.1973, same locality and same collector, 1 ex, Sodepur, Ramkrishnapur, (North 24 Parganas Dist.), iv.1961, K. D. Chatterjee Coll.

Distribution : India : West Bengal (Calcutta, Darjiling and North 24 Parganas), Bihar, Mysore and Orissa. Also known from Srilanka.

Subfamily III. RUTELINAE

Key to the genera of *Rutelinae* known from West Bengal

- 1(18) Labrum horizontal, not produced downwards
 2(5) Mandibles produced beyond the clypeus
 3(4) Four posterior tibiae very spinose at their outer edges..... *Peperonota*
 4(3) Four posterior tibiae not very spinose at their outer edges..... *Parastasia*
 5(2) Mandibles entirely covered by the clypeas
 6(17) Antennae 9 jointed; elytra with membranous margins.
 7(12) Pronotum excised before the scutellum
 8(11) Hind coxae not acutely produced at the base
 9(10) Narrowly elongate; teeth of the front tibiae separated by an acute notch..... *Dactylopopillia*
 10(9) Short; teeth of the front tibia not separated by an acute notch..... *Popillia*

- 11(8) Hind coxae acutely produced at the base..... *Callistopopillia*
- 12(7) Pronotum not excised before the scutellum
- 13(14) Pronotum and elytra very flat, pronotum widest at the hind angles..... *Spilopopillia*
- 14(13) Pronotum and elytra not very flat
- 15(16) Prosternum strongly elevated and bent abruptly forward..... *Mimela*
- 16(15) Prosternum rarely elevated and never bent abruptly forward..... *Anomala*
- 17(6) Antennae 10 jointed; elytra without membranous margins.. *Adorrhingptia*
- 18(1) Labrum produced downwards *Adoretus*

Genus 34. *Peperonota* Westwood 1847

1847. *Peperonota* Westwood, *Trans. Ent. Soc. London*, 4 : 296.
 1917. *Peperonota*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 32.

74. *Peperonota harringtoni* Westwood 1847

1847. *Peperonota harringtoni* Westwood, *Trans. Ent. Soc. London*, 4 : 298 Pl.22, fig.1.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Meghalaya. Also known from Bhutan.

Genus 35. *Parastasia* Westwood 1841

1841. *Parastasia* Westwood, *Ann. Mag. Nat. Hist.*, 8 : 204.
 1917. *Parastasia*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 85-86.

Key to the species of genus *Parastasia* known from West Bengal.

- 1(2) Clypeus strongly bidentate in front; scutellum long and sharp pointed *rufopicta* Westwood
- 2(1) Clypeal margin bluntly bilobed; scutellum broad with rounded sides *ochracea* Waterhouse

75. *Parastasia rufopicta* Westwood 1841

1841. *Parastasia rufopicta* Westwood, *Proc. Ent. Soc. London*, P. 53.

Material examined : 2 exs, 1 ex, Singla (Darjiling Dist.), v.1913, Lord Carmichael's Coll., 1 ex,

Pashok (Darjiling Dist.), E. Himalayas, v.1916, R. S. Lister Coll.

Distribution : India : West Bengal (Darjiling), Nagaland, Manipur. Also known from Bangladesh.

76. *Parastasia ochracea* (Waterhouse) 1875

1875. *Cyphelytra ochracea* Waterhouse, *Cistula Entom.*, **1** : 367.

1917. *Parastasia ochracea*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 46-47.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh.

Genus 36. *Dactylopopilla* Arrow 1917

1917. *Dactylopopilla* Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), **2** : 56.

77. *Dactylopopillia virescens* (Hope) 1831

1831. *Popillia virescens* Hope, *Gray's Zool. Miscell.*, P. 23.

1910. *Dactylopopillia virescens*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), **2** : 56-57.

Material examined : 9 exs; 5 exs, Darjiling, 2 exs, Darjiling Pedong (Darjiling Dist.), 10.ix.1978, A.N.T. Joseph Coll., 2 exs, Jalpaiguri, Chopramari forest (Jalpaiguri Dist.), 30.iv.1975, B. C. Nandi Coll.

Distribution : India : West Bengal (Darjiling). Also known from Nepal.

Genus 37. *Popillia* Serville 1825

1825. *Popillia* Serville, *Encycl. Meth.*, **10** : 367.

1917. *Popillia*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 58-59.

Key to the species of genus *Popillia* known from West Bengal

- 1(2) Pygidium without hairs..... *cyanea* Hope
- 2(1) Pygidium with hairs generally in two patches
- 3(12) Pronotum without hair above.
- 4(5) Each elytron with a fovea before the middle *feae* Kraatz
- 5(4) Elytra without distinct dorsal foveae
- 6(9) The four inner elytral striae entire, similar and equidistant

- 7(8) Sternal process broad; 5th elytral interval not broad..... *nitida* Hope
- 8(7) Sternal process narrow; 5th elytral interval broad and irregularly punctured
..... *laevicollis* Kraatz
- 9(6) Second elytral striae more or less disrupted.
- 10(11) Mesosternum produced..... *cupricollis* Hope
- 11(10) Mesosternum vertical in front..... *nottrotti* Kraatz
- 12(3) Pronotum covered with close even hair..... *pilicollis* Kraatz

78. *Popillia cyanea* Hope 1831

1831. *Popillia cyanea* Hope, *Gray's Zool. Miscell.*, P. 23.

1910. *Popillia cyanea*, Arrow *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 62-63.

Material examined : 29 exs; 9 exs, Darjiling, Mughpu, (Darjiling Dist.), E. Himalayas, 4 exs, Kurseong (Darjiling Dist.), 14.viii.1909, D. Abrace coll., 2 exs, Kurseong, (Darjiling Dist.), Purchased, 2 exs, Darjiling, upper Teesta (Darjiling Dist.), 2 exs, Darjiling, Ghumti, (Darjiling Dist.), vii.1911, F. H. gravely Coll., 2 exs, (Darjiling Dist.), E. Himalayas, 1912, Maj. Bennatt coll., 1 ex, Palmajun (Drjiling Dist.), 21.vi.1977, H. Khajuria coll., 4 exs, Darjiling, Mirik, (Darjiling Dist.), 23.vi.1979, P. Halder Coll., 2 exs, Jalpaiguri, Chapramari forest, (Jalpaiguri Dist.), 30.iv.1975, B. C. Nandi Coll., 1 ex, Darjiling, 10.xii.1978, A.N.T. Joseph & Party Coll.

Distribution : India : West Bengal (Darjiling, Jalpaiguri), Himachal Pradesh, Jammu and Kashmir, Nagaland and Uttar Pradesh. Also known from Nepal.

79. *Popillia nitida* Hope 1831

1831. *Popillia nitida* Hope, *Gray's Zool. Miscell*, P.23.

1841. *Popillia nitida* Newman, *Trans. Ent. Soc. London*, 3 : 45.

1917. *Popillia nitida*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 70.

Material examined : 1 ex, E. Himalayas, Kurseong (Darjiling Dist.), 14.viii.1909, D'abrey Coll.

Distribution : India : West Bengal (Darjiling), Assam and Manipur. Also known from Nepal.

80. *Popillia laevicollis* Kraatz 1892

1892. *Popillia laevicollis* Kraatz, *Deutsche Ent. Zeits*, P. 275.

1917. *Popillia laevicollis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 71.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Meghalaya. Also known from Burma and Bhutan.

81. *Popillia cupricollis* Hope 1831

1831. *Popillia cupricollis* Hope, *Gray's Zool. Miscell.*, P.23.
 1848. *Popillia caschmirensis* Redtenbacher, *Hugel's Kaschmir*, 4(2) : 528.
 1855. *Popillia hilaris* Burmeister, *Handb. Ent.*, 4(2) : 510.
 1917. *Popillia cupricollis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 73-74.

Material examined : 24 exs; 5 exs, Mungphu (Darjiling Dist.), E. Himalayas, Ind. Mus. coll., 3 exs, Kurseong, (Darjiling Dist.), E. Himalayas, 5.ix.09, 9.ix.09, 10.ix.09, N. Annandale Coll., 2 exs, Kurseong (Darjiling Dist.), E. Himalayas, vii.1913, Ind. Mus. Coll., 3 exs, Darjiling, E. Himalayas, 1 ex, Darjiling, E. Himalayas, 1912, Maj Bennett Coll., 2 exs, Upper Tista Valley (Darjiling Dist.), E. Himalayas, 1 ex, Tindharia (Darjiling Dist.), E. Himalayas, 1 ex, Siliguri (Darjiling Dist.) N. Bengal, 18-20.vii.1907, Mus. Coll., 1 ex, Gumti (Darjiling Dist.), E. Himalayas, vii.11, F. H. Gravely Coll., 1 ex, Tarkhota (Darjiling Dist.), 12.iv.1958, H. Khajuria Coll., 2 exs, Darjiling, 21.ix.1978, A.N.T. Joseph Coll., 1 ex, Darjiling, Mirik (Darjiling Dist.), 23.vi.1979, P. Halder Coll., 1 ex, Darjiling, 10.ix.1978, A.N.T. Joseph & party Coll.

Distribution : India : West Bengal (Darjiling), Assam, Himachal Pradesh and Uttar Pradesh. Also known from Nepal.

82. *Popillia nottrotti* Kraatz 1892

1892. *Popillia nottrotti* Kraatz, *Deutsche Ent. Zeits.*, P. 273.
 1917. *Popillia nottrotti*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 75.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

83. *Popillia feae* Kraatz 1892

1892. *Popillia feae* Kraatz, *Deutsche Ent. Zeits.*, P. 269.
 1917. *Popillia feae*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 80.

Material examined : 3 exs, Mungphu, (Darjiling Dist.), E. Himalayas, no other information.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Burma, Thailand, Malacca.

Remarks : First time recorded from West Bengal.

84. *Popillia pilicollis* Kraatz 1892

1892. *Popillia pilicollis* Kraatz, *Deutsche Ent. Zeits.*, P.278.
 1917. *Popillia pilicollis*, Arrow, *Brit. India* (coleoptera : Lamellicornia), 2 : 91-92.

Material examined : 44 exs; 38 exs, Mungphu (Darjiling Dist.), E. Himalayas, Ind. Mus. coll., 3 exs, Kalimpong (Darjiling Dist.), E. Himalaya, 24.iv.-10.v.1915, F. H. Gravely Coll., 2 exs, Kurseong (Darjiling Dist.), E. Himalayas, 21-29.v.1906, Nelson Annandale Coll., 1 ex, Kurseong (Darjiling Dist.) E. Himalayas, 3.vii.1908, Nelson Annandale coll.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Nepal.

Genus 38. *Callistopopillia* Ohaus 1903

1903. *Popillia subg. callistopopillia* Ohaus, *Deutsche Ent. Zeits*, P.219.
1917. *Callistopopillia*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 92

85. *Callistopopillia iris* (Candeze) 1869

1869. *Anomala iris* Candeze, *Col. Hefte*, 5 : 43.
1917. *Callistopopillia iris*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 93.

Material examined : 35 exs; 3 exs, Murshidabad (Murshidabad Dist.), 19 exs, Darjiling, i.vii.1906, 10 exs, Darjiling, E. Himalayas, Ind, Mus. Coll., 1 ex, Darjiling, 7.vii.1914, Carmichael coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas; 1 ex, near Ghoom (Darjiling Dist.), E. Himalayas, 11.v.1914, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling) and Kashmir. Also known from Tibet.

Genus 39. *Spilopopilla* Kraatz, 1892

1892. *Spilopopilla* Kraatz, *Deutsche Ent. Zeits*, P.181.
1917. *Spilopopilla*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 96-97.

86. *Spilopopilla sexguttata* (Fairmaire) 1887

1887. *Popillia 6 guttata*, Fairmaire, *Ann. Soc. Ent. Belg.*, 31 : 115.
1892. *Spilopopilla 6 guttata* Kraatz, *Deutsche Ent. Zeits*, P.180, Pl.4, fig.2.
1917. *Spilopopilla 6 guttata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 97-98.

Material examined : 1 ex, Darjiling, Himalayas, 11.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling) and Meghalaya.

Genus 40. *Mimela* Kirby 1825

1825. *Mimela* Kirby, *Trans. Linn. Soc.*, 16 : 101.
1917. *Mimela*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 102-103.

Key to the species of genus *Mimela* known from West Bengal.

- 1(4) Pygidium clothed with conspicuous hair

- 2(3) Pronotum rather strongly punctured *passerinii* Hope
- 3(2) Pronotum very lightly punctured *vernicata* Fairmaire
- 4(1) Pygidium without conspicuous hair
- 5(26) Upper surface green or chiefly green.
- 6(7) Elytra broad and not very convex. Upper surface granular *sericea* Ohaus
- 7(6) Body very convex
- 8(11) Elytra decorated with fiery stripes
- 9(10) Mesosternal process distinct and acute *horsfieldi* Hope
- 10(9) Mesosternum bluntly produced *fulgidivittata* Blanchard
- 11(8) Elytra not decorated with fiery stripes.
- 12(13) Outer margin of the elytra yellow *marginalis* Arrow
- 13(12) Elytra without yellow margin.
- 14(17) Upper surface strongly punctured.
- 15(16) Pronotum decorated with two dark patches *vittaticollis* Burmeister
- 16(15) Pronotum uniformly coloured *princeps* Hope
- 17(14) Upper surface not strongly punctured.
- 18(21) Upper surface metallic green
- 19(20) Elytra strongly punctured laterally *laevigata* Arrow
- 20(19) Elytra uniformly punctured *heterocropus* Blanchard
- 21(18) Upper surface non-metallic green
- 22(23) Pygidium opaque *rugicauda* Arrow
- 23(22) Pygidium very smooth
- 24(25) Small; mesosternum not produced *glabra* Hope

25(24) Large mesosternum produced..... *dehaani* Hope

26(5) Upper surface red and yellow..... *bicolor* Hope

87. *Mimela passerinii* Hope 1842

1842. *Mimela passerinii* Hope, *Proc. Linn. Soc.*, 1 : 128.

1917. *Mimela passerinii*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 105-106.

Material examined : 18 exs; 2 exs, Goom (Darjiling Dist.), 14-15.vi.1914, F. H. Gravely Coll., 1 ex, Darjeeling (Darjiling Dist.), E. Himalayas, 1 ex, Darjiling (Darjiling Dist), 12.vi.1914, 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, 1 ex, E. Himalayas, 1 ex, Darjiling (Darjiling Dist.), 30.vi.1914, Carmichael coll., 4 exs, Ghoombhanjan (Darjiling Dist.), 28.v.1975, J. K. Jonathan Coll., 3 exs, Lepchajgat (Darjiling Dist.), 2.vi.1975, J. K. Jonathan Coll., 2 exs, Lapchajagat (Darjiling Dist.) 3.vi.1975, J. K. Jonathan Coll., 2 exs, F.R.H. Rangirrom, Darjiling (Darjiling Dist.), 10.vi.1975, J. K. Jonathan & party Coll.

Distribution : India : West Bengal (Darjiling), Jammu & Kashmir. Also known from West China and Tibet.

88. *Mimela vernicata* (Fairmaire) 1896

1896. *Spilota vernicata* Fairmaire, *Notes Leyd. Mus.*, P. 88.

1908. *Mimela biplagiata* Ohaus, *Deutsche Ent. Zeits.*, P. 642.

1917. *Mimela vernicata*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 106-107.

Material examined : 2 exs, 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 13-16.vii.1907, Mus. Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, Johans Coll.

Distribution India : West Bengal (Darjiling). Also known from Bhutan.

89. *Mimela sericea* Ohaus 1905

1905. *Mimela sericea* Ohaus, *Deutsche Ent. Zeits.*, P.88.

1917. *Mimela sericea*. Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 109.

Material examined : 1 ex, Pashok (Darjiling Dist.), E. Himalayas, 26.v.-14.vi.1916, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling). Also known from Nepal.

90. *Mimela horsfieldi* Hope 1836

1836. *Mimela horsfieldi* Hope, *Trans. Ent. Soc. London*, 1 : 114.

Material examined : 4 exs; 2 exs, Kurseong (Darjiling Dist.), E. Himalayas, 13-16.vii.1907, 1 ex

Kurseong (Darjiling Dist.), E. Himalayas, N. B. Johans Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 23.vi.1910, N. Annadale Coll.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, Meghalaya and Uttar Pradesh.

91. *Mimela fulgidivittata* Blanchard 1851

1851. *Mimela fulgidivittata* Blanchard, *Cat. coll. Ent. Mus. Paris*, p. 197.

1917. *Mimela fulgidivittata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 111-112.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling). Also known from Bangladesh and Bhutan.

92. *Mimela vittaticollis* Burmeister 1855

1855. *Mimela vittaticollis* Burmeister, *Handb. Ent.*, **4** (2) : 506.

1917. *Mimela vittaticollis*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), **2** : 113.

Material examined : 11 exs; 3 exs, Gopaldhara, Rangbong valley (Darjiling Dist.) 1911, W. K. Webb Coll.; 1 ex, Darjiling (Darjiling Dist.), 1 ex : 1 exs, Kurseong (Drjiling Dist.), E. Himalayas, Lynch Coll., and E. A. Dabreu Coll. respectively; 2 exs, Goom (Darjiling dist.), 8.vii.1914, Grambharel Coll., 1 ex, Lebong (Darjiling Dist.), E. Himalayas, 13-vi-1914; F. H. Gravely Coll., 1 ex, Siliguri (Darjiling Dist), E. Himalayas, 16-20.vii.1907, Mus. Coll; 1 ex, Mungphu (Darjiling Dist.), E. Himalayas. no other information.

Distribution : India : West Bengal (Darjiling).

93. *Mimela princeps* Hope 1842

1842. *Mimela princeps* Hope, *Trans. Ent. Soc. London*, **3** : 65.

1917. *Mimela princeps*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 115-116.

Material examined : 8 exs., 1 ex, Siliguri (Darjiling Dist.), E. Himalayas, 18-20.vii.1907, Mus. coll.; 2 exs, Kurseong (Darjiling Dist.), E. Himalayas, 22.v.1910, Annandale Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 8.vii.1908, Mus. Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, C. Lynch Coll., 1 ex, Pashok (Darjiling Dist.) E. Himalayas, 26.v., 1.vi.1916, F. H. Gravely Coll.; 2 exs, Gumti (Darjiling Dist.), E. Himalayas, vii.1911, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling), Meghalaya. Also known from Bangladesh and Vietnam.

94. *Mimela laevigata* Arrow 1908

1908. *Mimela laevigata* Arrow, *Ann. Mag. nat. Hist.*, **1** (8) : 242.

1917. *Mimela laevigata* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 116.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling) and Assam.

95. *Mimela heterochropus* Blanchard 1851

1851 (1850). *Mimela heterochropus* Blanchard, *Cat. Coll. Ent. Mus. Paris*, P.196.

1917. *Mimela heterochropus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 117-118.

Material examined : 21 exs., 1 ex, Raniganj, (Bardhaman Dist.), vi.1910, H. Martin Coll., 4 exs, Ghoom (Darjiling Dist.), 14.vi.1914, F. H. Gravely Coll., 3 exs Kurseong (Darjiling Dist.), E. Himalaya, 20.vi.1910, Annandale Coll., 3 exs, Gumti (Darjiling Dist.), E. Himalaya, vii.1911, F. H. Gravely Coll., 2 exs, Rangbong valley (Darjiling Dist.), E. Himalaya, 29.v.1916, F. H. Gravely Coll., 3 exs, Munghpu (Darjiling Dist.), E. Himalaya, 3 exs, (Darjiling Dist.), E. Himalayas, 2 exs, Jellpahar (Darjiling Dist.), E. Himalayas, no other information.

Ditribution : India : West Bengal (Darjiling), Nagaland. Also known from Bhutan and Burma.

96. *Mimela rugicauda* Arrow 1917

1917. *Mimela rugicauda* Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 119.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

97. *Mimela glabra* Hope 1842

1842. *Memela glabra* Hope, *Trans. Ent. Soc. London*, 3 : 67.

1917. *Mimela glabra*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 120-121.

Material examined : 1 ex, Manghpu (Darjiling Dist.), E. Himalayas.

Distribution : India : West Bengal (Darjiling), Meghalaya.

Remarks : First time recorded from West Bengal.

98. *Mimela dehaani* (Hope) 1840

1840. *Euchlora dehaani* Hope, *Ann. Nat. Hist.*, 4 : 349.

1841. *Mimela decipiens* Hope, *Trans. Ent. Soc. London*, 3 : 66.

1917. *Mimela dehaani*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 120-121.

Material examined : No material is available for study

Distribution : India : West Bengal (Darjiling), Meghalaya. Also known from Bhutan.

99. *Mimela marginalis* Arrow 1908

1908. *Mimela marginalis* Arrow, *Ann. Mag. Nat. Hist.*, **1** (8) : 242.

Material examined : 8 exs, 1 ex, Teesta, nr. Siliguri (Darjiling Dist.), E. Himalaya, v.1912, 2 exs, Kurseong (Darjiling Dist.), E. Himalaya, E.A. Dabreu Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 25.v. & 27.vi.1910, N. Annandale Coll., 1 ex, Darjiling (Darjiling Dist.), E. Himalaya, 1 ex, Birch Hill (Darjiling Dist.), 30.vi.1914, Carmichael Coll.

Distribution : India : West Bengal (Darjiling), Tamil Nadu and Sikkim.

100. *Mimela bicolor* Hope 1836

1836. *Mimela bicolor* Hope, *Trans. Ent. Soc. London*, **1** : 116.

1917. *Mimela bicolor*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 125.

Material examined : 2 exs, 1 ex, Singla (Darjiling Dist.), vi.1913, 1 ex, Gumti (Darjiling Dist.), vii.1912.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Nepal.

Genus 41. *Anomala* Samouelle 1819

1819. *Anomala* Samouelle, *The Entomologist's Useful Companion*, P. 191.

1830. *Phyllopertha* Stephens, Ill. *Brit. Ent. Mandib.*, **3** : 223.

1863. *Phylloperthina* Motschulsky, *Bull. Soc. Ent. Mosc.*, **2** : 468.

1888. *Paraspilota* Bates, *Proc. Zool. Soc.*, P. 374.

1910. *Spinanomala* Ohaus, *Ann. Soc. Ent. Belg.*, **54** : 213.

1917. *Anomala*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 126-127.

Key to the species of genus *Anomala* known from West Bengal

- 1(77) Mesosternum without an intercoxal process.
- 2(5) Clypeus of the male with sharp front angles; elytra of the female with angularly dilated.
- 3(4) Small species, with bidentate front tibia..... *tenella* Blanchard
- 4(3) Large species, with tridentate front tibia..... *dorsalis* Fabricius
- 5(2) Clypeus of the male with rounded or obtuse front angles; elytra of the female not angularly dilated
- 6(52) Base of the pronotum completely margined.
- 7(25) Non-metallic.

- 8(9) Lower surface black; front tibia bidentate..... *transversa* Burmeister
- 9(8) Pale coloured, front tibia tridentate
- 10(22) Longer claw cleft on the middle feet
- 11(12) Front margin of the clypeus gently excised..... *bengalensis* Blanchard
- 12(11) Front margin of the clypeus not excised
- 13(14) Large and elongate; elytra not sulcate nor strongly punctured*elata* Fabricius
- 14(13) Smaller, with sulcate or strongly punctured elytra
- 15(18) Narrow and elongate
- 16(17) Front tibia tridentate, elytra with opaque lateral areas.....*bilunata* Fairmaire
- 17(16) Front tibia bidentate, elytra without opaque lateral areas *clerica* Arrow
- 18(15) Short and compact.
- 19(22) Front tibia tridentate
- 20(21) Elytra very closely sculptured..... *rugosa* Arrow
- 21(20) Elytra not very closely sculptured..... *varicolor* Gyllenthal
- 22(10) Larger claw of the front foot only cleft
- 23(24) Clypeal margin biangurled..... *bilobata* Arrow
- 24(23) Clypeal margin regularly rounded..... *tristis* Arrow
- 25(7) More or less metallic. Front tibia bidentate.
- 26(29) Eyes very large and prominent, clypeus very small, not strongly transverse.
- 27(28) Hind tibiae not very short and broad *aegrota* Arrow
- 28(27) Hind tibia short and broad *macrophylla* Wiedemann
- 29(26) Eyes not very large and prominent, clypeus not very small or if small strongly transverse
- 30(33) Metasternum entirely clothed with thick hair.

- 31(32) Brown, intervals of the elytra dissimilar *propinqua* Arrow
- 32(31) Black intervals of the elytra similar *anthracina* Arrow
- 33(30) Metasternum not entirely clothed with thick hair.
- 34(39) Hind tibia stout not long.
- 35(38) Larger, rather depressed and oblong.
- 36(37) Elytra non striated, entirely metallic *viridilatera* Arrow
- 37(36) Elytra entirely striated, very feebly metallic in front only *marginipennis* Arrow
- 38(35) Small, oval and convex *siliguria* Arrow
- 39(34) Hind tibia long.
- 40(47) Hind tibia very slender not inflated.
- 41(46) Pronotum not hairy.
- 42(43) Pygidium entirely hairy *angusta* Arrow
- 43(42) Pygidium not entirely hairy.
- 44(45) Pronotum strongly punctured..... *variegata* Hope
- 45(44) Pronotum closely and finely punctured..... *comma* Arrow
- 46(41) Pronotum hairy..... *cinderella* Arrow
- 47(40) Hind tibia strongly inflated in the middle.
- 48(49) Intervals of the elytra alternately convex and flat..... *galerucina* Arrow
- 49(48) Intervals of the elytra equal.
- 50(51) Body very narrow..... *fulviventris* Blanchard
- 51(50) Body not very narrow..... *signaticollis* Nonfried
- 52(6) Base of the pronotum not completely margined.
- 53(68) Elytra showing strongly marked striae or line of punctures.

- 54(67) Form elongate, hind tibiae slender.
- 55(64) Upper surface very finely and closely punctured.
- 56(57) Clypeus narrow and semicircular..... *flavopicta* Arrow
- 57(56) Clypeus broad.
- 58(63) Elytra banded.
- 59(60) Elytra parallel sided..... *flaviventris* Arrow
- 60(59) Elytra not parallel sided.
- 61(62) Lower surface pale..... *bella* Arrow
- 62(61) Lower surface dark..... *flavofasciata* Arrow
- 63(58) Elytra not banded..... *agilis* Arrow
- 64(55) Upper surface shining, not very finely and closely punctured.
- 65(66) Upper surface dark with transverse band..... *flavonotata* Arrow
- 66(65) Upper surface pale, with dark markings..... *lineatopennis* Blanchard
- 67(54) Form short and convex, hind tibiae stout..... *protea* Arrow
- 68(53) Elytra without strongly marked grooves or lines of punctures.
- 69(74) Elytra densely sculptured
- 70(71) Upper surface dark coppery..... *cantori* Hope
- 71(70) Upper surface not dark coppery.
- 72(73) Pronotum and elytra dissimilarly coloured..... *xanthoptera* Blanchard
- 73(72) Pronotum and elytra similarly coloured..... *perplexa* Hope
- 74(69) Elytra very smooth and shining, finely punctured.
- 75(76) Upper surface green..... *dimidiata* Hope
- 76(75) Upper surface dark coppery..... *rufiventris* Redtenbacher

- 77(1) Mesosternum produced between the middle coxae.
- 78(85) Mesosternal point elongate and pointed
- 79(84) Upper surface green.
- 80(83) Entirely shining and metallic.
- 81(82) Lateral margins of the elytra narrow; fiery red stripe interrupted.....*auronitens* Hope
- 82(81) Lateral margins of the elytra broad; fiery red stripes continuous*pterygophora* Ohaus
- 83(80) Elytra not shining and metallic..... *stoliczkae* Sharp
- 84(79) Elytra orange yellow..... *tumidicauda* Arrow
- 85(78) Mesosternal process very short and broad.
- 86(87) Pronotum clothed with long erect hairs.....*festiva* Arrow
- 87(86) Pronotum not hairy.
- 88(91) Pygidium not densely clothed with hairs.
- 89(90) Pronotum scarcely punctured..... *erythroptera* Kr.
- 90(89) Pronotum strongly punctured at the sides..... *pusilla* Arrow
- 91(88) Pygidium densely clothed with grey hairs.....*lateralis* Hope

101. *Anomala tenella* (Blanchard) 1851

1851(1850). *Singhala tenella* Blanchard, *Cat. Coll. Ent. Mus. Paris*, P.198.

1859. *Omaloptia semicineta* Walker, *Ann. Mag. Nat. Hist.*, (3) 3 : 55.

1863. *Phylloperthina scutellata*, Motschulsky, *Bull. Soc. Imp. Nat. Moscou*, P. 469.

1917. *Anomala tenella*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 133-134.

Material examined : 3 exs, Calcutta, Ind, Mus. Coll.

Distribution : India : West Bengal (Calcutta). Also known from Srilanka.

Remarks : The species is reported to be a serious pest of tea plant.

102. *Anomala dorsalis* Fabricius 1775

1775. *Melolontha dorsalis* Fabricius, *Syst. Ent.*, P.35.
 1844. *Anomala dorsalis* Burmeister, *Handb. Ent.*, 4 (1) : 232.
 1917. *Anomala dorsalis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 136-137.

Material examined : 4 exs; 2 exs, Calcutta, Mus. Coll., 2 exs, Kharagpur (Medinipur Dist.), 17-30.vi.1911, R. Hodgart Coll.

Distribution : India : West Bengal (Calcutta, Medinipur), Assam, Bihar, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Mysore, Punjab, Uttar Pradesh and Andaman Island.

103. *Anomala bengalensis* Blanchard 1851

- 1851(1850). *Anomala bengalensis* Blanchard, *Cat. Coll. Ent. Mus. Paris*, P.182.
 1917. *Anomala bengalensis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 143.

Material examined : 5 exs; 2 exs, Calcutta, 25 & 30.iv.1916, Nelson Annandela Coll., 1 ex, Calcutta, Mus. Coll., 1 ex, Maldah (Maldah Dist.), 1 ex, Calcutta, 19.v.1916, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta, Maldah, Murshidabad), Bihar, Karnataka, Tamilnadu. Also known from Burma.

104. *Anomala rugosa* Arrow 1899

1899. *Anomala rugosa* Arrow, *Trans. Ent. Soc. London*, P.263.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, Uttar Pradesh. Also known from Nepal.

105. *Anomala varicolor* (Gyllenthal) 1817

1817. *Melolontha varicolor* Gyllenthal, *Schonch. Syn. Ins.*, 1(3) : 114.
 1917. *Anomala varicolor*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia) 2 : 152-153.

Material examined : 7 exs; 1 ex, Calcutta, 19.v.1912, N. Annandale Coll., 2 exs, Calcutta, Mus. Coll., 1 ex, Sukna (Darjiling dist), v.1913, Lord Carmichaels, Coll., 1 ex, Singla (Darjiling Dist.), v.1913, Lord Carmichael's Coll., 1 ex, Kurseong (Darjiling Dist.), 15.v.1979, M. S. shishodia Coll., 1 ex, Rajabhatkhawa (Jalpaiguri Dist.), 7.v.1983, at light, S. K. chatterjee Coll.

Distribution : India : West Bengal (Darjiling and Jalpaiguri), Bihar, Karnataka, Tamilnadu and Uttar Pradesh. Also known from Srilanka.

106. *Anomala bilobata* Arrow 1912

1912. *Anomala bilobata* Arrow, *Ann. Mag. Nat. Hist.*, **10**(8) : 329.

Material examined : 4 exs; 1 ex, Calcutta, Mus. Coll.; 3 exs, Kalimpong (Darjiling Dist.), E. Himalayas, 24.iv.-10.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta, Murshidabad). Also known from Burma and North China.

107. *Anomala tristis* Arrow 1917

1917. *Anomala tristis* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 158-159.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh.

108. *Anomala aegrota* Arrow 1917

1917. *Anomala aegrota* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 171.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling) and Assam.

109. *Anomala macrophylla* (Wiedemann) 1823

1823. *Melolontha macrophylla* Wiedemann, *Zool. Mag.*, **1**(2) : 91.

1917. *Anomala macrophylla*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), **2** : 173.

Material examined : No material is available for study.

Distribution : India : West Bengal (Maldah). Also known from Bangladesh.

110. *Anomala propinqua* Arrow 1912

1912. *Anomala propinqua* Arrow, *Ann. Mag. Nat. Hist.*, (8) **9** : 77.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh. Also known from Bangladesh.

111. *Anomala anthracina* Arrow 1912

1912. *Anomala anthracina* Arrow, *Ann. Mag. Nat. Hist.*, (8) **9** : 76.

Material examined : 5 exs; 3 exs, Darjiling (Darjiling Dist.), E. Himalayas, 28.iv.-14.v.1915, F. H. Gravely Coll., 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll. 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, E. A. Cotrou Coll.

Distribution : India : West Bengal (Darjiling). Also known from Bhutan.

112. *Anomala marginipennis* Arrow 1912

1912. *Anomala marginipennis* Arrow, *Ann. Mag. Nat. Hist.*, (8) 9 : 78.

Material examined : 8 exs; 3 exs, Kalimpong (Darjiling Dist.), E. Himalayas, 24.iv.-10.v.1915, F. H. Gravely Coll., 4 exs, Singla (Darjiling Dist.), v-vi.1918, Lord Carmichael's Coll., 1 ex., Pashok Spur (Darjiling Dist.), E. Himalayas, R. S. Lister Coll.

Distribution : India : West Bengal (Darjiling), Manipur, Meghalaya.

113. *Anomala viridilatera* Arrow 1917

1917. *Anomala viridilatera* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 181.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

114. *Anomala siliguria* Arrow 1917

1917. *Anomala siliguria*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 188-189.

Material examined : 15 exs; 10 exs, Siliguri (Darjiling Dist.), E. Himalayas, 3-4.vi.1911, Nelson Annandale & S. K. Coll., 3 exs, Siliguri (Darjiling Dist.), base of E. Himalayas, 4.vi.1911, at light in station, Nelson Annandale and s. K. Coll., 2 exs, Darjiling Terai (Darjiling Dist.), 18.vi.1914, at light, in train, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling), Uttar Pradesh.

115. *Anomala angusta* Arrow 1912

1912. *Anomala angusta* Arrow, *Ann. Mag. Nat. Hist.*, 9(8) : 79.

Material examined : 6 exs; 5 exs, Darjiling (Darjiling Dist.), E. Himlayas, v.1912, Lord Carmichael's Coll; 1 ex, Darjiling (Darjiling Dist.), 26.v.1910, Brunetti Coll.

Distribution : India : West Bengal (Darjiling).

116. *Anomala variegata* Hope 1831

1831. *Anomala variegata* Hope, *Gray's Zool. Miscell.*, P.24.

1917. *Anomala variegata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 192-193.

Material examined : 5 exs; Kalimpong (Darjiling Dist.), E. Himalayas, 600-4500 ft., 24.iv.-10.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling). Also known from Nepal.

117. *Anomala comma* Arrow 1917

1917. *Anomala comma* Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 193.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

118. *Anomala cinderella* Arrow 1917

1917. *Anomala cinderella* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 196.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

119. *Anomala fulviventris* (Blanchard) 1851

1851. *Adoretosoma fulviventre* Blanchard, *Cat. Coll. Ent. Mus. Paris*, P.235.

1917. *Anomala fulviventis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 197-198.

Material examined : 1 ex, Pashok (Darjiling Dist.), E. Himalayas, 26.v.-14.vi.1916, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh.

120. *Anomala signaticollis* Nonfried 1893

1893. *Anomala signaticollis* Nonfried, *Berl. Ent. Zeitschr.*, P. 334.

1917. *Anomala signaticollis*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 198-199.

Material examined : 2 exs; 1 ex, Kalimpong (Darjiling Dist.), E. Himalayas, 24.iv.-10.v.1915, F. H. Gravely Coll., 1 ex, Darjiling (Darjiling Dist.), E. Himalayas.

Distribution : India : West Bengal (Darjiling), Manipur, Meghalaya.

Remarks : First time recorded from West Bengal.

121. *Anomala galerucina* Arrow 1917

1917. *Anomala galerucina* Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), **2** : 199.

Material examined : 4 exs; Kalimpong. (Darjiling Dist.), E. Himalayas, 24.iv.-10.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling).

122. *Anomala agilis* Arrow 1917

1917. *Anomala agilis* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 207-208.

Material examined : 7 exs; 1 ex, Pashok Spur (Darjiling Dist.), E. Himalayas, R. S. Lister Coll, 1 ex, Pashok, (Darjiling Dist.), E. Himalayas, 26.v.-14.vi.1916, F. H. Gravely Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 25.vi.1910, Annandale Coll.

Distribution : India : West Bengal (Darjiling). Also known from Bhutan.

123. *Anomala bella* Arrow 1917

1917. *Anomala bella* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 208-209.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Meghalaya. Also known from Bangladesh and Burma.

124. *Anomala flavofasciata* Arrow 1912

1912. *Anomala flavofasciata* Arrow, *Ann. Mag. Nat. Hist.*, (8), **9** : 72.

Material examined : 1 ex., Kurseong (Darjiling Dist.), E. Himalayas, 26.vi.1910, Annandale Coll.

Distribution : India : West Bengal (Darjiling). Also known from sikkim, Bhutan and Vietnam.

125. *Anomala flaviventris* Arrow 1912

1912. *Anomala flaviventris* Arrow, *Ann. Mag. Nat. Hist.*, (8) **9** : 74.

Material examined : 6 exs; 1 ex, Pashok (Darjiling Dist.), E. Himalayas, R. S. Lister Coll; 1 ex, Siliguri (Darjiling Dist.), 18-20.vii.1907, Mus. Coll., 4 exs, Kurseong (Darjiling Dist.), 15.v.1979, M. S. Shishodia Coll.

Distribution : India : West Bengal (Darjiling).

126. *Anomala flavopicta* Arrow 1912

1912. *Anomala flavopicta* Arrow, *Ann. Mag. Nat. Hist.*, (8) 9 : 75.

Material examined : 8 exs, 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 22.vi.1909, E.A.D. Abrev Coll.; 4 exs, Darjiling (Darjiling Dist.), E. Himalaya, vi.1912, Lord Carmichael's Coll.; 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, 28.iv.-14.v.1915, F. H. Gravely Coll., 1 ex, Darjiling (at night), 11.vi.1914, F. H. Gravely Coll., 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, 28.iv.-14.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling).

127. *Anomala flavonotata* Arrow 1912

1912. *Anomala flavonotata* Arrow, *Ann. Mag. Nat. Hist.*, (8) 9 : 73.

Material examined : 5 exs, 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, E.A. Dobreu Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, N. B. Jahanas Coll.; 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, 18.vi.1914, F. H. Gravely Coll., 1 ex, siliguri (Darjiling Dist.), 18-20.vii.1907, Mus. Coll.; 1 ex, Darjiling (Darjiling Dist.), 9.vii.1914, Carmichael Coll.

Distribution : India : West Bengal (Darjiling). Also known from Bhutan.

128. *Anomala lineatopennis* Blanchard

1851(1850). *Anomala lineatopennis* Blanchard, *Cat. Coll. Ent. Mus. Paris*, P.191.

Material examined : 1 ex, Kalimpong (Darjiling Dist.), E. Himalayas, 24.iv.-10.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, Uttar Pradesh. Also known from Bhutan and Nepal.

Remarks : First time recorded from West Bengal.

129. *Anomala protea* Arrow 1912

1912. *Anomala protea* Arrow, *Ann. Mag. Nat. Hist.*, 10(8) : 80.

Material examined : 1 ex, Kalimpong (Darjiling Dist.), E. Himalayas, 24.iv.-10.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Bhutan.

130. *Anomala cantori* (Hope) 1840

1840. *Euchlora cantori* Hope, *Mag. Nat. Hist.*, 4 : 284.
 1855. *Anomala severa* Burmeister, *Handb. Entom.*, (2) 4 : 504.
 1917. *Anomala cantori*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 220.

Material examined : 11 exs; 10 exs, Rajabhatkhawa (Jalpaiguri Dist.), 7.v.1983, at light, S. K. chatterjee Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, N. B. Jahanas Coll.

Distribution : India : West Bengal (Jalpaiguri, Darjiling), Bihar Meghalaya. Also known from Bangladesh and Burma.

Remarks : First time recorded from West Bengal.

131. *Anomala xanthoptera* Blanchard 1851

1851. *Anomala xanthopora* Blanchard, *Cat. coll. Ent. Mus. Paris*, P.195.

Material examined : 7 exs; 3 exs, Pashok Spur (Darjiling Dist.), E. Himalayas, R. S. Lister Coll.; 4 exs, Pashoke, (Darjiling Dist.), E. Himalayas, v.1916, R. S. Lister Coll.

Distribution : India : West Bengal (Darjiling), Himachal Pradesh, Uttar Pradesh.

Remarks : First time recorded from West Bengal.

132. *Anomala perplexa* (Hope) 1839

1839. *Euchlora perplexa* Hope, *Proc. Zool. Soc.*, 2 : 70.
 1917. *Anomala perplexa*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 228-229.

Material examined : 5 exs; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 4.ix.1909, Nelson Annandale; 1 ex, Kurseong, (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll.; 2 exs, Darjiling (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll., 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, 1912, Maj. Bennett Coll.

Distribution : India : West Bengal (Darjiling), Sikkim. Also known from Nepal.

133. *Anomala dimidiata* (Hope)

1831. *Euchlora dimidiata* Hope, *Gray's Zool. Misc.*, P.23.
 1855. Var. *Anomala barbata* Burmeister, *Handb. Entom.*, 4 (2) : 505.
 1917. *Anomala dimidiata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 232-233.

Material examined : 3 exs; 1 ex, Naxalbari (Darjiling Dist.), 16.vi.1979, P. Halder & Party Coll.; 7 exs., Darjiling, Pankhabari, Mariambari Tea Estate (Darjiling Dist.), 15-22.viii.1928, Puri Coll.

Distribution : India : West Bengal (Maldah, Darjiling), Meghalaya, Manipur, Uttar Pradesh. Himachal Pradesh and Kashmir. Also known from Nepal.

134. *Anomala rufiventris* Redtenbacher 1848

1848. *Anomala rufiventris* Redtenbacher, *Hügel's Kaschmir*, 4(2) : 526.
 1917. *Anomala rufiventris*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 236-237.

Material examined : 6 exs; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 13-16.vii.1907, Mus. coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, E. A. Dabreu Coll.; 1 ex, Gopaldhara, Rungbong Valley (Darjiling Dist.), vi.1912, W. K. Webb Coll., 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll., 1 ex, Birch Hill, Darjiling (Darjiling Dist.); 16.v.1978, S. Saha Coll., 1 ex, Darjiling Govt. College Campus (Darjiling Dist.), 12.ii.1978, Prabir Roy Coll.

Distribution : India : West Bengal (Darjiling), Manipur, Meghalaya, Sikkim and Uttar Pradesh. Also known from Bhutan.

135. *Anomala auronitens* (Hope) 1835

1835. *Mimela auronitens* Hope, *Trans. Ent. Soc. London*, 1 : 114.
 1917. *Anomala auronitens*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 242-243.

Material examined : 13 exs., 3 exs, near Ghoom (Darjiling Dist.), E. Himalayas, 11.v.1914, F. H. Gravely Coll.; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 3.viii.1909, E. A. Dabreu Coll.; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 24.viii.1909, D'Abreu Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, C. Lynch Coll.; 2 exs, Lebong (Darjiling Dist.), E. Himalayas, 13.v.1914, F. H. Gravely Coll.; 3 exs., Darjiling (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll.; 1 ex, Darjiling (Darjiling Dist.), 25.v.1910, Brunetti Coll., 1 ex, Pashok (Darjiling Dist.), E. Himalayas, 26.v.-14.vi.1916, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling), Manipur, Meghalaya. Also known from Burma.

136. *Anomala pterygophora* (Ohaus) 1903

1903. *Callistethus pterygophorus* Ohaus, *Deutsche Ent. zeits.*, P. 217.
 1917. *Anomala pterygophora*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 243.

Material examined : 9 exs; 2 exs, Kurseong (Darjiling Dist.), E. Himalayas, 13-16.vii.1907, Mus. Coll.; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, C. Lynch Coll.; 1 ex, near Ghoom (Darjiling Dist.), E. Himalayas, 11.v.1914, F. H. Gravely Coll.; 3 exs, Darjiling (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll., 1 ex, Siliguri (Darjiling Dist.), E. Himalayas, 12.vii.1978, Prabir Roy Coll., 1 ex, Ghoombhanjang (Darjiling Dist.), 28.v.1975, J. K. Jonathan & Party Coll.

Distribution : India : West Bengal (Darjiling), Sikkim. Also known from Bhutan.

137. *Anomala stoliczkae* Sharp 1873

1873. *Anomala (Callistethus) stoliczkae* Sharp, *Journ. Roy. Asiatic Soc. Bombay*, 47 (2) : 173.
 1917. *Anomala stoliczkae*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 243-244.

Material examined : 1 ex, Darjiling (Darjiling Dist.), E. Himalayas, Ind. Mus. coll.

Distribution : India : West Bengal (Darjiling), Punjab, Uttar Pradesh. Also known from China.

138. *Anomala tumidicauda* (Arrow) 1912

1912. *Anomala (Callistethus) tumidicauda* Arrow, *Ann. Mag. Nat. Hist.*, 10(8) : 83.

1917. *Anomala tumidicauda*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 247-248.

Material examined : 1 ex, Lebong (Darjiling Dist.), E. Himalayas, 13.vi.1914, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling).

139. *Anomala festiva* Arrow 1917

1917. *Anomala festiva*, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 261-262.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling). Also known from Tibet.

140. *Anomala erythroptera* (Kraatz) 1892

1892. *Ischnopopillia erythroptera* Kraatz, *Deutsche Ent. Zeits.*, P. 295.

1917. *Anomala erythroptera*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 262-263.

Material examined : 17 exs.; 9 exs, Munghpu (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll., 3 exs, Kalimpong (Darjiling Dist.), E. Himalayas, 24.iv.-10.v.1915, F. H. Gravely Coll., 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 6.v.1926, D. Abreu Coll., 3 exs, Sureil (Darjiling Dist.), Mangphu, iv.-v.1917, S. W. Kemp Coll.

Distribution : India : West Bengal (Darjiling), Meghalaya.

141. *Anomala pusilla* Arrow 1912

1912. *Anomala pusilla* Arrow, *Ann. Mag. Nat. Hist.*, 9 (8) : 82.

Material examined : 6 exs.; 2 exs, Darjiling (Darjiling Dist.), E. Himalayas, vi.1912, Maj. Bennett; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 14.viii.1909, C. Paiva Coll.; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 22.viii.1909, D'Abrey Coll.; 2 exs, Munghpu (Darjiling Dist.), E. Himalayas.

Distribution : India : West Bengal (Darjiling), Manipur and Meghalaya.

142. *Anomala lateralis* Hope 1831

1831. *Anomala lateralis* Hope, *Gray's Zool. Miscellany*, P. 24.

1917. *Anomala lateralis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 267-268.

Material examined : 12 xs; 8 exs, Sureil, Mangpu (Darjiling Dist.), iv-v.1917, S. W. Kemp Coll.; 1 ex, Darjiling (Darjiling Dist.), v-vi.1913, Lord Carmichael's Coll.; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, N. B. Jahanas; 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 12.v.1910, D'Abreu Coll., 1 ex, Ghoom (Darjiling Dist.), E. Himalayas, 11.v.1914, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling). Also known from Nepal.

143. *Anomala transversa* (Burmeister) 1855

1855. *Phyllopertha transversa* Burmeister, *Handb. Ent.*, 4 (2) : 513.
 1889. *Singhala basipennis* Fairmaire, *Ann. Soc. Ent. France*, P.28.
 1917. *Anomala transversa*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 142-143.

Material examined : 1 ex, Mungphu (Darjiling Dist.), E. Himalayas, Ind. Mus. Coll.

Distribution : India : West Bengal (Darjiling), Meghalaya. Also known from Burma and Vietnam.

Remarks : First time recorded from West Bengal.

144. *Anomala elata* (Fabricius) 1792

1792. *Melolontha elata* Fabricius, *Ent. Syst.*, 1 (2) : 161.
 1844. *Anomala elata* Burmeister, *Handb. Ent.*, 4 (1) : 233.
 1917. *Anomala elata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 145.

Material examined : 1 ex, Mungphu (Darjiling Dist.), E. Himalayas.

Distribution : India : West Bengal (Darjiling), Karnataka, Tamilnadu.

Remarks : This species has been included on the basis of a single specimen identified by Arrow. The specimen agrees well with the description except that tarsi of the hind tibiae seems to be a little more stout.

145. *Anomala bilunata* Fairmaire 1888

1888. *Anomala bilunata* Fairmaire, *Ann. Soc. Ent. France*, 8 (6) : 341.
 1917. *Anomala bilunata*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 147-148.

Material examined : 2 exs; 1 ex, Pashok (Darjiling Dist.), 26.v.-14.vi.1916, F. H. Gravely Coll., 1 ex, Pashok Spur (Darjiling Dist.), E. Himalayas, R. S. Lister Coll.

Distribution : India : West Bengal (Darjiling), Manipur. Also known from Bhutan and Vietnam.

146. *Anomala clerica* Arrow 1917

1917. *Anomala clerica* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 150.

Material examined : 1 ex, Pashok (Darjiling Dist.), E. Himalayas, 26.v.-14.vi.1916, F. H. Gravely Coll.

Distribution : India : West Bengal (Darjiling).

Genus 42. *Adorrhinyptia* Arrow 1917

1917. *Adorrhinyptia* Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 273-274.

Key to the species of genus *Adorrhinyptia* known from West Bengal.

- 1(2) Elytra rugosly punctured and with a broad pale border.. *dorsalis* Burmeister
 2(1) Elytra not rugosely punctured, elytra without broad pale border.... *ruficollis* Kraatz

147. *Adorrhinyptia dorsalis* (Burmeister) 1855

1855. *Rhinyptia dorsalis* Burmeister, *Handb. Ent.*, 4 : 2 : 494.

1917. *Adorrhinyptia dorsalis*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 274-275.

Material examined : 9 exs; 1 ex, Naxalbari (Darjiling Dist.), 16.vi.1979, P. Haldar & Party Coll., 5 exs, Naxalbari (Darjiling Dist.), 19.vi.1979, P. Haldar & Party Coll., 1 ex, Naxalbari (Darjiling Dist.), 20.vi.1979, P. Haldar & Party Coll., 1 ex, Kurseong (Darjiling Dist.), 13.v.1979, M. S. shishodia Coll., 1 ex, Rajabhatkhawa (Jalpaiguri Dist.), 7.v.1983, at light, S. K. chatterjee Coll.

Distribution : India : West Bengal (Darjiling, Jalpaiguri), Bihar, Madhya Pradesh, Punjab.

Remarks : First time recorded from West Bengal.

148. *Adorrhinyptia ruficollis* (Kraatz) 1895

1895. *Rhinyptia ruficollis* Kraatz, *Dutsche Ent. Zeits.*, P. 106.

1917. *Adorrhinyptia ruficollis*, Arrow, *Fauna Brit. India* (coleoptera : Lamellicornia), 2 : 274.

Material examined : 5 exs; 2 exs, Calcutta, E. T. Arkinson Coll., 1 ex, Calcutta, Mus. Coll., 1 ex, Naxalbari (Darjiling Dist.), 28.vi.1979, P. Haldar Coll., 1 ex, Rajabhatkhawa (Jalpaiguri Dist.), 7.v.1983, at light, S. K. chatterjee Coll.

Distribution : India : West Bengal (Calcutta, Darjiling, Jalpaiguri).

Genus 43. *Adoretus* Castelnau 1840

1840. *Adoretus* Castelnau, *Hist. Nat. Ins.*, 2 : 142

1914. *Prionodoretus* Ohau, *Deutsche Ent. Zeits.*, P. 512.

1917. *Adoretus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicor 2 : 295.

Key to the species of genus *Adoretus* known from West Bengal.

- 1(2) Clypeus deeply excised in front.....*excisus* Ohaus
- 2(1) Clypeal margin rounded
- 3(4) Antennae 9 segmented.....*limbatus* Blanchard
- 4(3) Antennae 10 jointed
- 5(8) Elytra having small alternating patches of more densely and more sparsely aggregated setae.
- 6(7) Outer edge of the front tibia serrated above the teeth, larger species.....*bombynator* Burmesiter
- 7(6) Outer edge of the front tibia not serrated above, small species.....*bicaudatus* Arrow
- 8(5) Elytra without denser aggregations of setae.
- 9(22) Outer edge of the front tibia serrated in its basal part.
- 10(19) Two upper teeth of the front tibia not divided by an acute notch.
- 11(14) Elytra without prominent tufted apical calli.
- 12(13) Clypeus small.....*lacustris* Arrow
- 13(12) Clypeus large.....*flavus* Arrow
- 14(11) Apical calli of elytra prominent and tufted
- 15(16) Upper surface clothed with close-lying setae.....*fraterculus* Arrow
- 16(15) Upper surface rather thinly clothed with minute scales.
- 17(18) Large species; without prominent costae upon the elytra.....*gemmifer* Arrow
- 18(17) Small species; with prominent elytral costae.....*costopilosus* Ohaus
- 19(10) Two upper teeth of the front tibia divided by an acute notch.
- 20(21) Clothing of the upper surface not very sparse..... *serratipes* Arrow
- 21(20) Clothing of the upper surface very sparse.....*testaceus* Hope
- 22(9) Outer edge of the front tibia not serrated in its basal part.

- 23(26) Abdomen with a continuous carina coinciding with the outer margins of elytra.
- 24(25) Elytra without continuous epipleurae..... *nephriticus* Ohaus
- 25(24) Elytral epipleurae moderately wide.....*bimarginatus* Ohaus
- 26(23) Abdomen without a continuous carina coinciding with the outer edges of the elytra.
- 27(32) Colour uniform, rather dark above.
- 28(31) Clothing of the elytra interspersed with a few long erect hairs.
- 29(30) Femora and tibiae dark.....*lasius* Ohaus
- 30(29) Femora and tibiae pale..... *posticalis* Arrow
- 31(28) Elytra without long erect hairs interspersed..... *duvauceli* Blanchard
- 32(27) Upper surface not uniformly dark above.
- 33(34) Bright yellow with the head red..... *bicolor* Brenske
- 34(33) Not bright yellow
- 35(38) Pronotum rather coarsely punctured
- 36(37) Pronotum less coarsely punctured at the sides than in the middle.....*lasiopygus* Burmeister
- 37(36) Pronotum less closely punctured in the middle than at the sides..... *versutus* Harold
- 38(35) Pronotum finely punctured
- 39(40) Upper surface not opaque, punctures of the pronotum separates small and regular.....
..... *bengalensis* Brenske
- 40(39) Upper surface opaque, pronotum finely granulated..... *caliginosus* Burmeister

149. *Adoretus excisus* Ohaus 1914

1914. *Adoretus excisus* Ohaus, *Deutsche Ent. Zeits.*, P. 486, fig.19.

Material examined : 1 ex, Calcutta, 19.iii.1914, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta), Madhya Pradesh, Maharashtra.

Remarks : First time recorded from West Bengal.

150. *Adoretus limbatus* Blanchard 1851

1851. *Adoretus limbatus* Blanchard, *Cat. Coll. Mus. Paris*, P. 233.

Material examined : 4 exs; 2 exs, Calcutta, 18.v.1912, Ind. Mus., F. H. Gravely Coll., 2 exs, Bengal, 14-15.v.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta, Mladah), Bihar, Oriss and Uttar Pradesh. Also known from Bangladesh, Burma and Thailand.

151. *Adoretus bombinator* Burmesiter

1855. *Adoretus bombinator* Burmeister, *Handb. Ent.*, 4 : 2 : 532.

Material examined : 1 ex, Jaldapara (Jalpaiguri Dist.), 13.ix.1975, H. K. Bhoumik Coll.

Distribution : India West Bengal (Jalpaiguri), Assam. Also known from Burma.

Remarks : First time recorded from West Bengal.

152. *Adoretus bicaudatus* Arrow 1914

1914. *Adoretus bicaudatus* Arrow, *Ann. Mag. Nat. Hist.*, 13 (8) : 587.

Material examined : No material is available for study.

Distribution : India : West Bengal (Calcutta, South 24 Parganas), Orissa. Also known from Bangladesh and Srilanka.

153. *Adoretus lacustris* Arrow 1917

1917. *Adoretus lacustris* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 314-315.

Material examined : 32 exs; 30 exs, Calcutta, Salt Lake, 12-13.iii.1915, F. H. Gravely Coll., 2 exs, Sundarbans, 23.iii.1958, Dr. H. C. Roy Coll., 2 exs, Calcutta, Salt Lake, 13.iii.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta, Barddhaman).

154. *Adoretus flavus* Arrow 1917

1917. *Adoretus flavus* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 315-316.

Material examined : 13 exs, 12 exs, Sunderbans (South 24 Parganas Dist.), 22.iii.1958, Dr. H. C. Roy Coll., 1 ex, Calcutta, Salt Lake, 13.iii.1915, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta, South 24 Parganas) and Punjab.

Remarks : First time recorded from West Bengal.

155. *Adoretus fraterculus* Arrow 1917

1917. *Adoretus fraterculus* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 316-317.

Material examined : 1 ex., Rajabhatkhawa (Jalpaiguri Dist.), 7.v.1983, S. K. Chatterjee Coll.

Distribution : India : West Bengal (Jalpaiguri). Also known from Bangladesh.

Remarks : The species is recorded for the first time from India.

156. *Adoretus gemmifer* Arrow 1917

1917. *Adoretus gemmifer* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 317-318.

Material examined : No material is available for study.

Distribution : India : West Bengal (south 24 Parganas).

157. *Adoretus costopilosus* Ohaus 1914

1914. *Adoretus costopilosus* Ohaus, *Deutsche Ent. Zeits.*, P. 506.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Punjab, Uttar Pradesh, Andaman Island. Also known from Bangladesh and Burma.

158. *Adoretus serratipes* Arrow 1914

1914. *Adoretus serratipes* Arrow, *Ann. Mag. Nat. Hist.*, (8) : 13 : 595.

Material examined : 2-exs; 1 ex, Calcutta, Mus. Coll., 1 ex, Behala (Calcutta Dist.), 14.vii.1980, at light, S. Biswas Coll.

Distribution : India : West Bengal (Calcutta, Jalpaiguri), Assam. Also known from Burma.

159. *Adoretus bimarginatus* Ohaus 1914

1914. *Adoretus bimarginatus* Ohaus, *Deutsche Ent. Zeits.*, P. 480, fig.12.

Material examined : India : West Bengal (Darjiling), Bihar, Orissa and Uttar Pradesh.

160. *Adoretus testaceus* (Hope) 18311831. *Geniates testaceus* Hope, *Gray's Zool. Miscell.*, P.23.1917. *Adoretus testaceus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 320.*Material examined* : 1 ex, Kurseong (Darjiling Dist.), E. Himalayas, 13-16.vii.1907, Mus. Coll.*Distribution* : India : West Bengal (Darjiling). Also known from Bhutan and Nepal.*Remarks* : The species is recorded for the first time from India.161. *Adoretus nephriticus* (Ohaus) 19141914. *Chaetadoretus nephriticus* Ohaus, *Deutsche Ent. Zeits.*, P.495, fig.29.1917. *Adoretus nephriticus*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 330-331.*Material examined* : 2 exs, Rajabhatkhawa (Jalpaiguri Dist.), 7.v.1983, at light, S. K. Chatterjee Coll.*Distribution* : India : West Bengal (Jalpaiguri), Tamilnadu.*Remarks* : First time recorded from West Bengal.162. *Adoretus posticalis* Arrow 19171917. *Adoretus posticalis* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), 2 : 340-341.*Material examined* : 1 ex, Naxalbari (Darjiling Dist.), North Bengal, 19.vi.1979, P. Haldar & Party Coll.*Distribution* : India : West Bengal (Darjiling). Also known from Burma.*Remarks* : The species is recorded for the first time from India.163. *Adoretus lasius* Ohaus 19141914. *Adoretus lasius* Ohaus, *Deutsche Ent. Zeits.*, P.501, fig. 35.*Material examined* : No material is available for study.*Distribution* : India : West Bengal (Darjiling).164. *Adoretus duvauceli* Blanchard 18511851. *Adoretus duvauceli* Blanchard, *Cat. Coll. Ent. Mus. Paris*, P. 232.

Material examined : 6 exs; 1 ex, Calcutta Museum compound, 1 ex, Calcutta, 10.iii.1914, F. H. Gravely Coll., 1 ex, Calcutta, Mus. Comp., 3.iv.1910, A. Alcock Coll., 1 ex, Calcutta, Mus. Comp., 31.iii.1914, F. H. Gravely Coll., 2 exs, Calcutta, Mus. Comp., 29-30.vi.1914, F. H. Gravely Coll.

Distribution : India : West Bengal (Calcutta, Darjiling), Madhya Pradesh and Uttar Pradesh.

165. *Adoretus bicolor* Brenske 1893

1893. *Adoretus bicolor* Brenske, *Ann. Soc. Ent. Belg.*, 37 : 142.

Material examined : No material is available for study.

Distribution : India : West Bengal (Calcutta, Darjiling), Kerala, Madhya Pradesh, Maharashtra and Mysore.

166. *Adoretus lasiopygus* Burmeister 1855

1855. *Adoretus lasiopygus* Burmesiter, *Handb. Ent.*, 4 (2) : 530.

Material examined : 1 ex, Calcutta, no other information.

Distribution : India : West Bengal (Calcutta, Darjiling), Assam, Bihar, Kerala, Tamilnadu and Uttar Pradesh. Also known from Srilanka.

167. *Adoretus versutus* Harold 1912

1912. *Adoretus versutus* Harold, *Col. Hefte*, 5 : 124.

Material examined : No material is available for study.

Distribution : India : West Bengal (Calcutta, South 24-Parganas, Murshidabad), Kerala, Madhya Pradesh, Tamilnadu and Uttar Pradesh. Also known from Indonesia and Malaysia.

168. *Adoretus caliginosus* Burmeister 1844

1844. *Adoretus caliginosus* Burmeister, *Handb. Ent.*, 4 (1) : 471.

Material examined : 5 exs, Calcutta, vi.1979, S. Biswas Coll.

Distribution : India : West Bengal (Calcutta, Darjiling), Maharashtra, Punjab and Tamilnadu. Also known from Burma.

169. *Adoretus bengalensis* Brenske 1893

1893. *Adoretus bengalensis* Brenske, *Ann. Soc. Ent. Belg.*, 37 : 142.

Material examined : 1 ex, Rajabhatkhawa (Jalpaiguri Dist.), 4.v.1983, at light, S. K. Chatterjee Coll.

Distribution : India : West Bengal (Japaiguri), Maharashtra.

Remarks : First time recorded from West Bengal.

Subfamily IV. EUCHIRINAE

Genus 44. *Propomacrus* Newman, 1837.

1837. *Propomacrus* Newman, *Entom. Mag.*, **4** : 255.

1917. *Propomacrus* Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 367-368.

Key to the species of Genus *Propomacrus* known from West Bengal

- 1(2) Pygidium with closely lying short hairs except at the extremity elytra long, widest before middle
..... *parryi* Gray
- 2(1) Pygidium with long erect hairs elytra shorter, widest part behind the middle..... *macleayi* Hope

170. *Propomacrus parryi* (Gray) 1848

1848. *Cheriotonus parryi* Gray, *Trans. Ent. Soc. Lond.*, **5** : 59.

1917. *Propomacrus parryi*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 369-370.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling).

171. *Propomacrus macleayi* (Hope) 1841

1841. *Cheirotonus macleayi* Hope, *Ann. Nat. Hist.*, **5** : 300.

1917. *Propomacrus macleayi*, Arrow, *Fauna Brit. India* (Coleoptera : Lamellicornia), **2** : 373-374.

Material examined : No material is available for study.

Distribution : India : West Bengal (Darjiling), Assam. Also known from Bhutan.

THE CHART SHOWING DISTRICT WISE DISTRIBUTION OF
SPECIES OF THE FAMILY SCARABAEIDAE KNOWN FROM WEST BENGAL

Name of the Species	Bankura 1	Bardhaman 2	Birbhum 3	Calcutta 4	Darjiling 5	Haora 6	Hugli 7	Jalpaiguri 8	Koach-Bihar 9	Maldah 10	Medinipur 11	Murshidabad 12	Nadia 13	North 24-Parganas 14	Puruliya 15	South 24-Parganas 16	West Dinajpur 17
Subfamily CETONIINAE					+												
<i>Dicranocephalus wallichi</i> Hope					+												
<i>Mycteristes microphyllus</i> Wood-Mason					+												
<i>Macronota antennata</i> Wallace					+												
<i>M. Penicillata</i> (Hope)					+												
<i>M. Westwoodi</i> (Thomson)					+												
<i>M. ursus</i> (Nestwood)					+												
<i>M. nigricollis</i> (Janson)					+												
<i>M. quadrilineata</i> Hope					+												
<i>M. virgata</i> (Janson)					+												
<i>Clerota vittigera</i> (Hope)					+												
<i>Diceros childreni</i> (Westwood)				+													
<i>Jumnos ruckeri</i> Saunders					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Torynorrhina apicalis</i> (Westwood)					+												
<i>T. opalina</i> (Hope)					+												
<i>Rhomborrhina glaberrima</i> (Westwood)					+												
<i>R. heros</i> (G. & P.)					+												
<i>R. microcephala</i> West wood					+												
<i>R. mellyi</i> (G. & P.)					+												
<i>R. mearesi</i> (Hope)					+												
<i>Euchloropus laetus</i> (Fabricius)				+													
<i>Heterorrhina mutabilis</i> (Hope)					+												
<i>H. dispar</i> Arrow					+												
<i>H. elegans</i> (Fabricius)				+						+		+					
<i>H. punctatissima</i> Westwood					+												
<i>H. nigratarsis</i> (Hope)					+												
<i>Trigonophorus nepalensis</i> Hope					+												
<i>T. saundersi</i> Westwood					+												
<i>T. gracilipes</i> Westwood					+												
<i>T. scintillans</i> Arrow					+												
<i>Anthracophora crucifera</i> Olivier				+	+					+							

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>A. dalmanni</i> (Hope)					+												
<i>Glycyphana horsfieldi</i> (Hope)					+												
<i>G. catena</i> Arrow					+												
<i>G. nepalensis</i> Kraatz				+													
<i>Glycosia tricolor</i> Olivier														+			
<i>G. luctifera</i> (Fairmaire)					+												
<i>Cetonia rutilans</i> (Janson)					+												
<i>C. rhododendri</i> Gestro					+												
<i>Protaetia auripes</i> (Hope)					+												
<i>P. montana</i> (Nonfried)					+												
<i>P. aurichalcea</i> (Fabricius)				+													+
<i>P. peregrina</i> (Herbst)												+					
<i>P. fusca</i> (Herbst)				+	+					+							
<i>P. caudata</i> Arrow					+												
<i>P. inanis</i> (Wallace)					+												
<i>P. cariana</i> (Gestro)					+												
<i>P. neglecta</i> (Hope)					+												
<i>Oxycetonia versicolor</i> (Fabricius)				+						+							
<i>O. albopunctata</i> (Fabricius)				+				+		+		+					

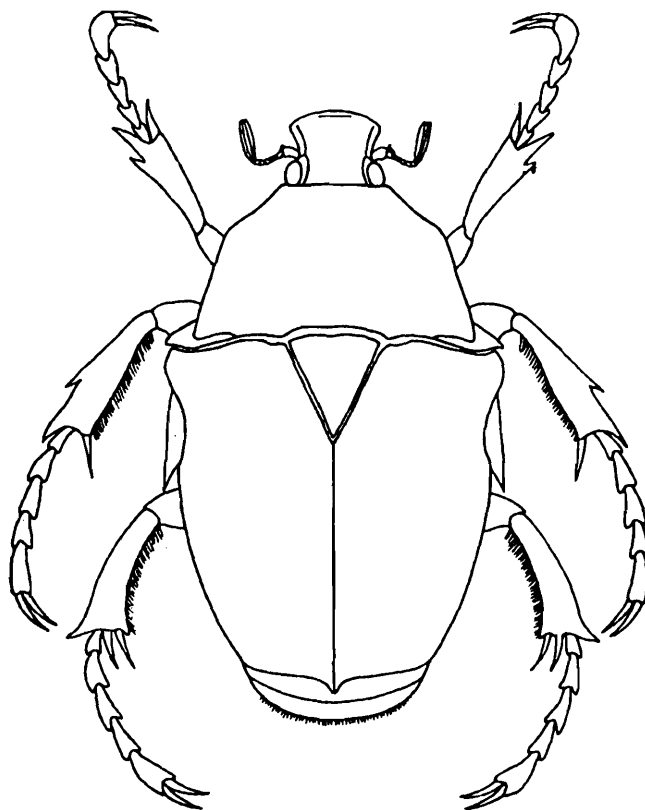
Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>O. jucunda</i> (Faldermann)				+	+												
<i>Chiloloba acuta</i> (Wiedemann)					+					+							
<i>Clinteria oberthuri</i> Arrow					+												
<i>C. spilota</i> Hope					+			+		+							
<i>C. hoffmeisteri</i> White																	
<i>C. pumila</i> (Swartz)																	
<i>Thaumastopeus pullus</i> (Billberg)						+											
<i>Spilophorus cretosus</i> (Hope)				+	+												
<i>Cymophorus pulchellus</i> Arrow								+									
<i>Coenochilus campbelli</i> Saund												+					
<i>Callinomes pusillus</i> Arrow						+											
<i>Macroma javanica</i> G. & P.						+											
<i>M. xanthorrhina</i> (Hope)						+											
<i>Dasyvalgus carbonarius</i> Arrow						+											
Subfamily DYNASTINAE																	
<i>Xylotrupes gideon</i> (Linnaeus)				+	+												
<i>Eupatorus hardwickei</i> (Hope)						+											
<i>Oryctes rhinoceros</i> (Linnaeus)				+				+				+	+				
<i>Eophileurus planatus</i> (Wiedemann)						+											

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Heteronychus lioderes</i> Redtenbacher				+	+												+
<i>H. annulatus</i> Bates				+													
<i>Alissonotum piceum</i> (Fabricius)				+	+												+
<i>A. simile</i> Arrow					+												
<i>A. crassum</i> Arrow									+								
<i>Phyllognathus dionysius</i> (Fabricius)				+	+									+			
Subfamily RUTELINAE																	
<i>Peperonota harringtoni</i> Westwood					+												
<i>Parastasia rufopicta</i> Westwood					+												
<i>P. ochracea</i> (Waterhouse)					+												
<i>Dactylopopillia virescens</i> (Hope)					+												
<i>Popillia cyanea</i> Hope					+			+									
<i>P. nitida</i> Hope					+												
<i>P. laevicollis</i> Kraatz					+												
<i>P. cupricollis</i> Hope					+												
<i>P. nottrotti</i> Kraatz					+												
<i>P. feae</i> Kraatz					+												
<i>P. pilicollis</i> Kraatz					+												
<i>Callistopopillia iris</i> Candeze					+												

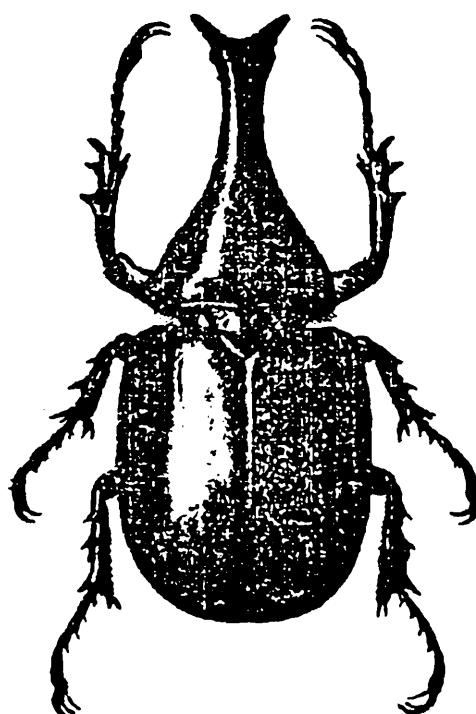
Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>A. varicolor</i> (Gyllenthal)					+			+									
<i>A. bilobata</i> Arrow				+								+					
<i>A. tristis</i> Arrow					+												
<i>A. aegrota</i> Arrow					+												
<i>A. macrophylla</i> (Wiedemann)					+												
<i>A. propinqua</i> Arrow					+												
<i>A. anthracina</i> Arrow					+												
<i>A. marginipennis</i> Arrow					+												
<i>A. viridilatera</i> Arrow					+												
<i>A. siliguria</i> Arrow					+												
<i>A. angusta</i> Arrow					+												
<i>A. variegata</i> Hope					+												
<i>A. comma</i> Arrow					+												
<i>A. cinderella</i> Arrow					+												
<i>A. fulviveritris</i> (Blanchard)					+												
<i>A. signaticollis</i> Nonfried					+												
<i>A. galerucina</i> Arrow					+												
<i>A. agilis</i> Arrow					+												
<i>A. bella</i> Arrow					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>A. transversa</i> Burmesier					+												
<i>A. elata</i> (Fabricius)					+												
<i>A. bilunata</i> Fairmaire					+												
<i>A. clerica</i> Arrow					+												
<i>Adorrhinyptia dorsalis</i> (Burmeister)					+			+									
<i>A. ruficollis</i> (Kraatz)				+	+			+									
<i>Adoretus excisus</i> Ohaus				+													
<i>A. limbatus</i> Blanchard				+						+							
<i>A. hombinator</i> Burmeister								+									
<i>A. bicaudatus</i> Arrow				+												+	
<i>A. lacustris</i> Arrow		+		+												+	
<i>A. flavus</i> Arrow				+													
<i>A. fraterculus</i> Arrow								+									
<i>A. gemmifer</i> Arrow															+		
<i>A. costopilosus</i> Ohaus				+													
<i>A. serratipes</i> Arrow				+				+									
<i>A. bimarginatus</i> Ohaus					+												
<i>A. testaceus</i> (Hope)					+												
<i>A. nephriticus</i> (Ohaus)								+									

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>A. posticalis</i> Arrow					+												
<i>A. lasius</i> Ohaus					+												
<i>A. duvauceli</i> Blanchard				+	+												
<i>A. bicolor</i> Brenske				+	+												
<i>A. lasiopygus</i> Burmeister				+	+												
<i>A. varsutus</i> Harold				+								+					+
<i>A. caliginosus</i> Burmeister				+	+												
<i>A. bengalensis</i> Brenske								+									
Subfamily EUCHIRINAE																	
<i>Propomacrus macleayi</i> (Hope)					+												
<i>P. parryi</i> (Gray)					+												



Torynorrhina opalina (Hope)



Xylotrupes gideon (Linnaeus)

SUMMARY

This fantastic paper deals with 171 species under 44 genera and 4 subfamilies namely Cetoniinae, Dynastinae, Rutelinae and Euchirinae of Lamellicorn beetles from West Bengal. 25 species have been recorded for the first time from West Bengal and 4 species have been recorded new from India. Distributional records of all the species included in this paper have been provided on the basis of literature and collections present in the Zoological Survey of India. Keys to subfamilies, genera and species have also been provided.

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