

**FAUNA OF WEST BENGAL**  
**PART – 6B**  
**(INSECTA : COLEOPTERA)**

Edited by  
*The Director*  
*Zoological Survey of India, Calcutta*



**ZOOLOGICAL SURVEY OF INDIA**  
**1996**

# FAUNA OF WEST BENGAL

## PART – 6B (INSECTA : COLEOPTERA)

Edited by  
*The Director*  
*Zoological Survey of India, Calcutta*



**ZOOLOGICAL SURVEY OF INDIA**  
**1996**

© Government of India, 1996

Published February, 1996

Project Co-ordinator  
**Dr. A. K. Ghosh, Director,**  
Zoological Survey of India

Price

Inland	Rs. 400.00
Foreign	£ 20.00 \$ 30.00

Production

Publication Division, Zoological Survey of India, Calcutta.

Printed at PRESTECH, 39, Mahatma Gandhi Road, Calcutta - 7000 82 and Published by the  
Director, Zoological Survey of India, Calcutta.

**FAUNA OF WEST BENGAL**  
**PART – 6B**  
**(INSECTA : COLEOPTERA)**

---

<b>Part - 6B</b>	<b>1996</b>	<b>Pages 449–866</b>
------------------	-------------	----------------------

---

COLEOPTERA COCCINELLIDAE — S. K. Chakraborty, A. R. Bhowmik and S. Biswas	.....	449
INSECTA COLEOPTERA : FAMILY MELOIDAE — G. N. Saha and B. N. Das	.....	495
INSECTA COLEOPTERA TENEBRIONIDAE — G. N. Saha and B. N. Das	.....	509
INSECTA COLEOPTERA CHRYSOMELIDAE — C. R. Basu	.....	559
INSECTA COLEOPTERA SCOLYTIDAE — Nivedita Saha and P. K. Maiti	.....	775

## COLEOPTERA : COCCINELLIDAE

S. K. CHAKRABORTY, A. R. BHOWMIK AND S. BISWAS

*Zoological Survey of India, Calcutta*

### INTRODUCTION

Coccinellid beetles, commonly known as 'Lady bird beetles', for long times have attracted attention of entomologists, because of their common occurrence, generally beautiful colouration and great economic importance. About 4500 species under 500 genera in 21 tribes are known from the world. In India nearly 350 species under more than 50 genera have been described. Majority of the species are carnivorous and play an important role in checking the population of harmful insects such as aphids, coccids, aleuryds and other soft bodied insects and plant mites. On the otherhand another group of Coccinellid beetles are phytophagous in habits and cause considerable damage to various cultivated plants specially belonging to the families of Cucurbitaceae, Solanaceae and Papilionaceae, often they completely defoliate the plants like Karola (*Momoridica charantia* L.), Kar kole (*Momoridica cochinchinensis* Speng) and causes serious damage to brinjal (*Solanum melongena* L.), tomato (*Lycopersicum esculentum* Mill) and Potato (*Solanum tuberosum*). A small group feeds on mildews. When disturbed many members of the family discharge a bitter, amber coloured fluid. It is usually emitted through pores situated around the tibio-femoral articulations, but in *Epilachna* the pores have a much wider distribution. Another peculiarity is the markedly gregarious habits of certain species both during hibernation and when in the open. The eggs of Coccinellidae are yellow and deposited in batches, with their long axis perpendicular to the surface of the leaves upon which they are laid. The number of eggs laid varies considerably. The usual number of instars appears to be four. When about to pupate Coccinellid larvae usually suspend themselves by the caudal extremity which is attached by means of a secretion to plants, palings and other objects. The pupae are usually conspicuously coloured and are either surrounded by the larval exuvae, or the latter are usually pushed back to the anal extremity.

Commensurate with their economic importance not much work has been carried out in this group of beetles specially from West Bengal. Our present knowledge of the group mainly rests on work of Dr. A.P. Kapur.

### HISTORICAL REVIEW

From the available literature it has been observed that stray work on the material collected from West Bengal started almost 200 years ago. Since then a number of workers from different parts of Europe dealt with materials collected from area now under the state of West Bengal. A chronological history of development of taxonomic knowledge of the fauna of West Bengal is presented below.

First ever species described from West Bengal is *Coccinella suturalis* Fabricius = *Brumus suturalis* (Fabricius). The species was described in 1798. *Coccinella dodecastigma* Wiedemann = *Epilachna dodecastigma* (Wiedemann) is the next species, described in 1823. Mulsant (1850) in his world monograph on the Coccinellidae described 7 more species namely *Rodolia fumida*, *Rodolia ruficollis*,

*Coelophora biosellata*, *Coelophora westermanii*, *Calvia dorsonotata*, *Epilachna grayi* = *Afissa grayi* and *Epilachna gradaria* = *Afidenta gradaria*. In 1853 Mulsant added two more species *Scymnus (Pullus) pyrocheilus* and *Cryptogonus ari asi*. Ten years later Motschulsky (1863) added another species *Scymnus brunnescens*. In 1874 Crotch in his revision of Coccinellidae added three more species namely *Megalocaria pearsoni* = *Anisolemnia pearsoni*, *Epilachna deyrolli* and *Epilachna moorei*. Weise (1895) in his paper on the insect fauna of Bengal added four more species i.e. *Stethorus pauperculus*, *Aspidiphorus quadriguttatus* Crotch = *Cryptogonus quadriguttatus* (Weise), *Calvia thoracica* and *Chilochorus braeti*. Thus at the end of the nineteenth century, Coccinellid fauna known from West Bengal rose to nineteen species. In 1901 Weise described another species *Epilachna suspeciosa* from West Bengal. After lapse of 45 years Kapur (1946) added another species *Jauravia pallidula* Motschulsky from West Bengal. In 1947 Dieke described three species namely *Afissa atypica*, *Afissa bengalica*, *Afissa tertia* Dieke = *Epilachna indica* Mulsant and recorded *Afissa dumerili* (Mulsant), *Afissa undecemspilota* (Hope) and *Afissa mysticoides* (Sicard).

In 1948 Kapur described two new species namely *Cryptogonus postmedialis* and *Stethorus tetranychii* from West Bengal. In 1950 Kapur described *Stethorus indira* from the state. In 1951 Kapur described *Rodolia amabilis* and in 1952 recorded *Epilachna ocellata* Redtenbacher from West Bengal. In 1954 Kapur recorded four more species namely *Coccinella repanda* Thunberg, *Leis dimidiata* (F.), *Oenopia luteopustulata* Mulsant, *Coelophora sexareata* Mulsant and *Verania vincta* Gorham = *Micraspis vincta* (Gorham). In 1958 Kapur reported six more species namely *Afissa marginicollis* (Hope), *Afissa mystica* (Mulsant), *Afissa macularis* Mulsant, *Afidenta manderstjernae* Mulsant, *Adonia variegata* (Boeze) and *Oenopia sauzeti* Mulsant. In 1961 Bielawski recorded *Illeis indica* Timberlake and in 1963 Kapur described three new species namely *Afissa sureilika*, *Oenopia quadripunctata*, *Afidentula himalayana* and recorded another six species, namely *Coelophora pupillata* (Swartz), *Calvia sykesi* Crotch, *Halyzia straminea* Mulsant, *Afissa congener* Gorham, *Oenopia kirby* Mulsant and *Synharmonia signatella* (Mulsant). In 1966 Kapur reported four more species, namely *Epilachna septima* Dieke, *Synonycha grandis* (Thunberg), *Coccinella transversalis* Fabricius, *Harmonia arcuata* (Fabricius) and described a new species *Nephus roonwali* from the state. Kapur in 1969 described another species *Telsimia darjeelingensis* from the state. Ten years later in 1979 Bielawski described another species *Epilachna bhutanensis*, type of which includes material from Darjiling. Thus prior to this work 60 species of Coccinellid species were known from the state.

In course of the present study another 20 species have been added to the list. Of these two species are recorded for the first time from India

## CLASSIFICATION

Prior to Mulsant's work (1846) practically there was no classification for Coccinellidae. Since then a number of workers namely Mulsant (1850), Crotch (1874), Chapuis (1876), Weise (1879), Ganglabaur (1899), Sicard (1907), Dobzhansky (1924) and Korschefsky (1930, 1931) contributed extensively towards the development of the classification of the family Coccinellidae. Sasaji (1967) put forward a classification in which he divided whole family into 6 subfamilies namely (1) Sticolotinae, (2) Chilochorinae, (3) Scymninae, (4) Coccidulinae, (5) Coccinellinae and (6) Epilachninae. He treated the subfamily Tetrabrachinae (= Lithophilinae) as a tribe Lithophilinae and placed the group under Coccidulinae. Sasaji's

classification was based on extensive comparative morphology of both adult and larvac. In this paper we have followed Sasaji's classification.

The present paper deals with all the material recently collected from different districts of West Bengal by various survey parties as well as earlier material accumulated in the Coleoptera section. However, materials of a portion of the subfamily Scymninae have been left out for the time being. Efforts have also been made to bring together published informations on all species so far recorded from West Bengal. Informations on relevant synonymies, distributional data within and outside state have been incorporated. Biological observations on the species, whose materials have been studied have also been given. Distributed records have been made specific and up to date. Keys to the subfamilies, tribes, genera and species occurring in West Bengal have been given. A few genera and species, however could not be included in the key as neither material nor literature was available. Among the species recorded from the state we have treated only those species in detail whose materials are available with us.

#### SYSTEMATIC ACCOUNT : LIST OF TAXA

- |           |  |
|-----------|--|
| Family    | COCCINELLIDAE                          |
| Subfamily | I. STICHOLOTINAE                       |
| Genus     | 1. <i>Jauravia</i> Motschulsky         |
| Species   | 1. <i>J. pallidula</i> Motschulsky     |
|           | 2. <i>J. soror</i> (Weise)             |
| Subfamily | II. SCYMNINAE                          |
| Genus     | 2. <i>Stethorus</i> (Weise)            |
| Species   | 3. <i>S. indira</i> Kapur              |
|           | 4. <i>S. pauperculus</i> Weise         |
|           | 5. <i>S. tetranychi</i> Kapur          |
| Genus     | 3. <i>Pullus</i> Mulsant               |
| Species   | 6. <i>P. pyrocheilus</i> (Mulsant)     |
|           | 7. <i>P. brunnescens</i> (Motschulsky) |
| Genus     | 4. <i>Nephus</i> Mulsant               |
| Species   | 8. <i>N. roonwali</i> Kapur            |
| Genus     | 5. <i>Cryptogonus</i> Mulsant          |
| Species   | 9. <i>C. ariasi</i> (Mulsant)          |
|           | 10. <i>C. bimaculatus</i> Kapur        |
|           | 11. <i>C. complexus</i> Kapur          |

12. *C. obriculus* (Gyllenhal)  
 13. *C. postmedialis* Kapur  
 14. *C. quadriguttatus* (Weise)
- Genus 6. *Aspidimerus* Mulsant  
 Species 15. *A. birmanicus* (Gorham)
- Genus 7. *Pseudaspidimerus* Kapur  
 Species 16. *P. circumflexa* (Motschulsky)
- Subfamily III. CHILOCORINAE
- Genus 8. *Telsimia* Casey  
 Species 17. *T. darjeelingensis* Kapur
- Genus 9. *Brumus* Mulsant  
 Species 18. *B. suturalis* (Fabricius)
- Genus 10. *Chilocorus* Leach  
 Species 19. *C. braeti* Weise  
 20. *C. nigrinus* (Fabricius)  
 21. *C. politus* Mulsant  
 22. *C. rubidus* Hope
- Subfamily IV. COCCIDULINAE
- Genus 11. *Rodolia* Mulsant  
 Species 23. *R. amabilis* Kapur  
 24. *R. breviscula* (Weise)  
 25. *R. fumida* Mulsant  
 26. *R. ruficollis* Mulsant
- Subfamily V COCCINELLINAE
- Genus 12. *Adonia* Mulsant  
 Species 27. *A. variegata* (Goeze)
- Genus 13. *Anisolemnia* Crotch  
 Species 28. *A. pearsoni* (Crotch)
- Genus 14. *Callicaria* Crotch  
 Species 29. *C. superba* (Mulsant)

- Genus 15. *Calvia* Mulsant  
Species 30. *C. dorsonotata* Mulsant  
31. *C. thoracica* Wise  
32. *C. sykesi* Crotch  
Genus 16. *Coccinella* Linnaeus  
Species 33. *C. septempunctata* Linnaeus  
34. *C. transversalis* Fabricius  
35. *C. repanda* Thunberg  
Genus 17. *Coelophora* Mulsant  
Species 36. *C. bissellata* Mulsant  
37. *C. pupillata* (swartz)  
38. *C. sexareata* Mulsant  
39. *C. unicolor* (Fabricius)  
40. *C. westermanni* Mulsant  
Genus 18. *Harmonia* Mulsant  
Species 41. *H. arcuata* (Fabricius)  
Genus 19. *Leis* Mulsant  
Species 42. *L. dimidiata* (Fabricius)  
Genus 20. *Menochilus* Timberlake  
Species 43. *M. sexmaculatus* (Fabricius)  
Genus 21. *Oenopia* Mulsant  
Species 44. *O. kirbyi* Mulsant  
45. *O. luteopustulata* Mulsant  
46. *O. sauzeti* Mulsant  
47. *O. quadripunctata* Kapur  
Genus 22. *Aiolocaria* Crotch  
Species 48. *A. dodecaspilota* (Hope)  
Genus 23. *Synharmonia* Ganglabauer  
Species 49. *S. signatella* (Mulsant)  
Genus 24. *Synonycha* Mulsant

- Species 50. *S. grandis* (Thunberg)
- Genus 25. *Micraspis* Dejean
- Species 51. *M. discolor* (Fabricius)
52. *M. cardoni* Weise
53. *M. vincta* (Gorham)
- Genus 26. *Halyzia* Mulsant
- Species 54. *H. straminea* Hope
- Genus 27. *Illeis* Mulsant
- Species 55. *I. indica* Timberlake
- Subfamily VI. EPILACHNINAE
- Genus 28. *Afidenta* Dieke
- Species 56. *A. gradaria* (Mulsant)
- Species 57. *A. mimetica simplex* Weise
- Genus 29. *A. fidentula* Kapur
58. *A. himalayana* Kapur
59. *A. manderstjernae* (Mulsant)
- Genus 30. *Afissa* Dieke
- Species 60. *A. atypica* Dieke
61. *A. bengalica* Dieke
62. *A. congener* (Gorham)
63. *A. dumerili* (Mulsant)
64. *A. flavicollis* (Thunberg)
65. *A. grayi* (Mulsant)
66. *A. macularis* (Mulsant)
67. *A. marginicollis* (Hope)
68. *A. mystica* (Mulsant)
69. *A. mysticoides* (Sicard)
70. *A. undecimspilota* (Hope)
71. *A. sureilica* Kapur
- Genus 31. *Epilachna* Chevrolat

- Species 72. *E. bhutanensis* Bielawski  
 73. *E. deyrollii* Crotch  
 74. *E. dodecastigma* (Wiedemann)  
 75. *E. indica* Muls.  
 76. *E. moorei* Crotch.  
 77. *E. ocellata* Redtenbacher

- Species 78. *E. septima* Dieke  
 79. *E. suspiciosa* Weise  
 80. *E. vigintioctopunctata* (Fabricius)

### Family COCCINELLIDAE

Key to the subfamilies of COCCINELLIDAE known from West Bengal.

- 1(2) Terminal segment of maxillary palpi elongate conical or elongate oval; mentum very narrowly articulated with submentum; the 9th sternite of male flat triangular; head capsules sometimes projecting anteriorly. Antennae inserted usually more or less dorsally and rarely laterally; mandibles simple or bifid at apex; inner process of hypomera of prothorax relatively short (anterior coxal cavities broadly open behind); middle coxal cavities broadly separated by compact and broad articulation of meso and metasterna; tarsi usually cryptoter tamerous and rarely trimerous; coxite of female very elongate; tegmen of male genitalia with elongate process at its basal piece, siphon relatively weakly curved and without distinct capsule. Body minute or small in size.....  
 .....Sticholotinae
- 2(1) Terminal segment of maxillary palpi strongly divergent apically or nearly parallel sided, rarely slightly convergent apically; mentum usually not very narrowly articulated with submentum; the ninth sternite of male linear or calvate; head capsule not projecting anteriorly.
- 3(6) Antennae relatively short, at most about two-thirds as long as head width. often very short, and strongly modified and inserted frontally, laterally or ventrally; the terminal segment of maxillary palpi usually nearly parallel-sided, never strongly divergent apically; clypeus sometimes strongly expanded laterally and sometimes normal; meso- and metasterna usually broadly and compactly articulated and middle coxal cavities usually broadly separated; femora usually broadly separated; femora relatively stout or sometimes strongly depressed.
- 4(5) Clypeus strongly expanded laterally; anterior margin of pronotum deeply and trapezoidally concave and lateral portions of pronotum very strongly descending below; clytral base distinctly border than frontal base; metasternum distinctly impressed for the reception of middle femora; clytral epipleura relatively broad and or its inner carina reaching clytral apex; tibiae often angulate externally.....  
 .....Chilocorinae

- 5(4) Clypeus not strongly expanded laterally; anterior margin of pronotum not deeply or not trapezoidally concave, and lateral portions decending below but not very strongly; elytral base slightly broader than pronotal base; elytral epipleura very narrow and its inner carina not reaching the elytral apex but ending near two-thirds of elytral length from base.....Scymninae
- 6(3) Antennae relatively long at least about one-half as long as width, usually longer than two-thirds of that and inserted frontally, laterally or dorsally; the terminal segment of maxillary palpi usually strongly divergent apically; clypeus never strongly expanded apically; meso and metasterna always feebly and narrowly articulated, separating middle coxal cavities narrowly; femora relatively slender, never strongly depressed.
- 7(8) Cavities of female genitalia always very elongate; dorsum weakly or moderately convex and always pubescent; compound eyes sometimes coarsely faceted; antennae eight to eleven segmented and laterally inserted; tarsal formula true tetramerous, cryptotetramerous or true trimerous; abdomen composed of five or six visible segments..... Coccidulinae
- 8(7) Coxites of female genitalia not always very elongate; but oval or transverse; dorsum glabrous or pubescent; if dorsum pubescent, it is strongly convex; compound eyes never coarsely faceted; antennae always eleven segmented and more or less dorsally inserted; tarsal formula always cryptotetramerous abdomen always composed of six visible segments.
- 9(10) Dorsum glabrous; mandible with a bifid or multidenticate tip and also with a basal tooth; mesepimeron nearly triangular, its posterior margin almost straight or slightly angulate, mentum relatively narrowly articulated with submentum and distinctly divergent apically; inner margin of coxite of female genitalia without a small emargination and with a stylus being near the inner corner of coxites; siphon of male genitalia rather long and usually strongly curved with a well developed capsule, median piece of tegmen usually not very slender..... Coccinellinae
- 10(9) Dorsum pubescent; mandible with a multi denticulate tip and without a basal tooth; mesepimeron quadrate, its posterior margin distinctly angulate; mentum very broadly articulated with submentum and convergent apically; maxillary galea broad and quadrate in shape and bearing numerous thin hairs; antennal insertions more between than before the eyes; anterior margin of clypeus truncate; inner margin of coxite of female genitalia usually with a small emargination and a stylus being at far outward from the inner corner of coxite; siphon of male genitalia rather short and weakly curved without a well developed capsule, median piece of tegmen tubular and slender..... Epilachninae

#### Subfamily STICHOLOTINAE

#### Genus *Jauravia* Motschulsky 1858

1858. *Jauravia* Motschulsky, *Etud. Ent.*, VII : 117-118.  
 1946. *Jauravia*, Kapur. *Ann. Mag. nat. Hist.* (II) XIII : 73-77.

Key to the species of *Jauravia* Motschulsky known from West Bengal.

- 1(2) Rounded oval in shape; borders of elytra moderately to narrowly expanded.....  
 .....*pallidula* Motschulsky
- 2(1) Circular in shape, lateral borders of elytra broadly expanded.....*soror* (Weise)

*Jauravia pallidula* Motschulsky 1858

1858. *Jauravia pallidula* Motschulsky, *Etud. Ent.*, 7 : 117.

1946. *Jauravia pallidula*, Kapur, *Ann. Mag. nat. Hist.*, (II) 13 : 80-82.

*Material studied* ; 1 ex, Seoraphuly, Hooghly district, 29.xii. 1964, K.R. Rao Coll. ex. " on brinjal leaves"

*Distribution* : India : West Bengal (Calcutta, Hooghly); Tamil Nadu; Maharastra. Also known from Sri Lanka.

*Jauravia soror* (Weise) 1892

1892. *Clanis soror* Weise, *Ann. Soc. ent. Belg.*, 36 : 25.

1946. *Jauravia soror*, Kapur, *Ann. Mag. nat. Hist.*, (II) 13 : 89-90.

*Material studied* : 1 ex, Pandooah, Hooghly District, 24.i.1966, K.S.P. & Party Coll., ex "From Calotropis sp"; 1 ex, Illam bazar Forest Range, Birbhum District, 27.i.1986, S.B. Roy Coll.; 1 ex, Eden Gardens, Calcutta, 5.ii.1966, S. Ali Coll. and 1 ex, Naktala, Calcutta, 31.xii. 1988, S.K. Chakraborty Coll.

*Distribution* : India : West Bengal (Calcutta, Birbhum, Hooghly); Karnataka; Maharastra and Tamil Nadu. Also known from Sri Lanka.

*Biology* : The species is reported to be most common species of the genus and Lefroy (1909) and Misra (1913, 1924) contributed towards its biology. The species is said to feed on mites (*Tetranychus bioculatus* Wood-Mason and an Aleurid *Dialeurodes citri* (Ril & How).

## Subfamily CHILOCHORINAE

## Key to the tribes of subfamily Chilochorinae known from West Bengal.

- 1(2) Antennae very short and seven segmented, basal segment of antennae longer than half of the remaining part; middle coxal cavities broadly separated; tarsi true trimerous; abdomen composed of five visible segments in both sexes; siphon of male genitalia weakly curved without a capsule at its base; median piece of tegmen often divided into right and left piece at least in its apex. Body small, less than 2 mm in length; dorsum pubescence..... Telsimini

- 2(1) Antennae seven to ten segmented, the basal segment much shorter than half of the remaining part; middle coxal cavities moderately separated, tarsi crypto-tetramerous; abdomen composed of six visible segments at least in male; siphon of male genitalia rather strongly curved with an well developed capsule at its base; median piece of tegmen not divided into two pieces; dorsum glabrous or pubescent.
- 3(4) Dorsum pubescent; cardo of maxilla distinctly expanded laterally; femora strongly depressed and plugged into foveae of underside of body; abdomen composed of six distinct visible segments in both sexes..... Platynaspini
- 4(3) Dorsum usually glabrous; cardo of maxilla not expanded laterally; femora normal; abdomen composed of five visible segments in female, and six in male but sixth of male is very short in external aspect..... Chilacorini

Key to genera of tribe CHILOCORINI known from West Bengal.

- 1(2) Tibial spurs present on legs II and III. antennae 10 segmented..... *Brumus* Mulsant
- 2(1) Tibial spurs absent on all legs. Antennae 8 segmented..... *Chilochorus* Leach

Genus *Brumus* Mulsant 1850

1850. *Brumus* Mulsant, *Spec. Trim. Securipalp.* P. 465, 492.
1931. *Brumus*, Korschefsky, *Coleopter. Catalog.*, Pars 120, P. 265.

*Brumus suturalis* (Fabricius) 1798

1798. *Coccinella suturalis* Fabricius, *Suppl. ent. Syst.*, P.78, (Type locality India)
1932. *Brumus suturalis*, Korschefsky, *Coleopterorum Catalogus*, Pars 120 : 267.

*Material studied*: 1 ex, Naihati, North 24-Parganas, 15.ii.1966, R.P. Ghosh Coll.; 1 ex, Sonarpur, south 24 Parganas, 26.xi.1965, R.N. Tiwari Coll.; 2 exs, Digha and 1 ex, Daigheri Forest, Midnapore District, 19-24.xii.1985, A.K. Hazra Coll.; 1 ex, Labhpur; 1 ex, Eglegram Forest, Gopalpur.; 1 ex, Mahammad Bazar; 2 exs, Birchandrapur, 24.i.1986; 5 exs, Illam Bazar Forest Range, 27.i.1986; 1 ex, Kashipur, 28.i.1986; 3 exs; Ballavpur, 29-30. i.1986; Birbhum District, S.B. Roy Coll.; 4 exs, Serriculture Institute, 26.ii.1986; 1 ex, near Rly Station, 27.ii. 1986; 2 exs, Kadampur, Jiyagunj, 1.iii.1986; 1 ex, Barua, Beldanga, 2.iii. 1986; 1 ex, Khandua, Lalgola, Murshidabad District, 5.iii. 1986, S.K. Mitra Coll.; 1 ex, Baxirhat, Coochbehar District, 13.xii.1986, R.S. Burman Coll.; 1 ex, Hatkhola, 20.iii.1986; 1 ex, Binaguri Tea Estate, 21.iii.1986, Jalpaiguri District, A.K. Hazra Coll.; 1 ex, Chunabhati, 28.xii.1973, Srivastava & Maiti Coll.; 1 ex, Mirik, Darjeling District, 31.iii.1986, A.K. Hazra Coll.

*Distribution*: India: West Bengal (Birbhum, Darjiling, Medinipur, Murshidabad, North and South 24-Parganas, Cooch Behar and Jalpaiguri); Sikkim; Karnataka; Maharashtra; Goa and Madhya Pradesh. Also known from Nepal, Bhutan and Sri Lanka.

Genus *Chilocorus* Leach 1815.

1815. *Chilocorus* Leach in Brewster, Edinb. Encycl. ix., P.116.  
 1932. *Chilocorus*, Korschefsky, Coleopt. Catalog., Pars 120, P. 237.

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

- 1(4) Elytra red.
- 2(3) Elytra deep red, except on the borders along the external margin where the colour is usually black. Head, pronotum and scutellum black.....*C. rubidus* Hope
- 3(2) Elytra rusty red, without any black borders on the external margin, Head, pronotum and scutellum rusty red.....*C. politus* Mulsant
- 4(1) Elytra black
- 5(6) Lateral part of the pronotum are testaceous while the rest of the pronotum and elytra shining black with fine punctures.....*C. nigrinus* (F)
- 6(5) Lateral parts of the pronotum as black as the rest of the body. Elytral disc finely and areas along the lateral margin coarsely punctured.....*C. braeti* Weise

*Chilocorus braeti* Weise 1895

1895. *Chilocorus braeti* Weise, *Ann. Soc. ent. Belg.*, **39**:154.  
 1963. *Chilocorus braeti*, Kapur, *Bull. Brit. Mus. (Nat. Hist.)*, **14**(1) : 24.

*Material studied* : 1 ex, from Dr. M.R. Ghosh, Bidhan Chandra Krishi Vidyalaya, Nadia, 1986.

*Distribution* : India : West Bengal (Darjiling), Sikkim.

*Remarks* : Probably this material was collected from Darjeeling during a project run by the said collector.

*Chilocorus nigrinus* (Fabricius) 1798

1798. *Coccinella nigrita* Fabricius, *Suppl. Ent. Syst.*, P. 79. (Type locality East Indies).  
 1850. *Chilocorus nigrinus*, Mulsant, *Ann. Soc. Agric. Lyon*, **2** : 463.  
 1966. *Chilocorus nigrinus*, Kapur, *Proc. nat. Inst. Sci. India, Delhi*, **32B**(3&4) : 171.

*Material studied* : 1 ex, Dhapa, Calcutta, 19.i.1905; 4 exs, Botanical Garden, Sibpur, Howrah Dist., 31.viii.1965, K.V.L. Coll.; 1 ex, Bidhan Chandra Krishi Viswa Vidyalaya, Nadia Dist., 1.v.1986. M.R. Ghosh Coll.; 1 ex, Bholabheda, Midnapore Dist., 10.ix.1985. S. Biswas & Party Coll.

*Distribution* : India : West Bengal (Calcutta, Howrah, Medinipur, Nadia), Madhya Pradesh, Goa and Andaman Islands. Also known from Burma and Indonesia.

***Chilocorus politus* Mulsant 1850.**

1850. *Chilocorus politus* Mulsant, *Spec. Trim. Securipalp.*, P. 455, 1033.  
 1932. *Chilocorus politus*, Kroschefskey, *Coleoptm. Cat.*, pars 120 : 243.  
 1979. *Chilocorus politus*, Bielawski, *Entomologica Basiliensia*, 4 : 114.

*Material studied* : 1 ex, Pandam Tea Estate, Darjeeling Dist., 10.v.1981, S. Biswas Coll.; 1 ex, from M.R. Ghosh, Bidhan Chandra Krishi Vidyalaya, Nadia Dist. 1986.

*Distribution* : India : West Bengal (Darjiling). Also known from Bhutan, Nepal and Indonesia.

*Remarks* : The material from Bidhan Chandra Krishi Vidyalaya was probably collected from the orange orchards at Darjiling.

Subfamily SCYMNINAE

Key to the tribes of Subfamily SCYMNINAE known from West Bengal.

- 1(2) Eyes covered anteriorly by the expanded head capsule; antennae nine segmented and very short, less than fourth of head width; elytral epipleura very narrow with distinct foveae; trochanters elongate, femora broadly expanded concealing the compressed tibiae, tarsi true trimerous; abdomen composed of six segmnts, first segment convex posteriorly in an arc. Dorsum pubescent and body small..... Tribe Aspidimerini
- 2(1) Eyes exposed anteriorly antennae nine to eleven segmented, at least as long as one-thord of head width; elytral epipleura with or without distinct foveae; torchanters normal, femora not broadly expanded concealing the tibiae but nearly cylindrical and rather stout; tarsi trimerous or cryptotetramerous; the first abdominal segment not convex posteriorly.
- 3(4) Dorsum glabrous; scutellum triangular and relatively large; out side of tibiae distinctly angulate; the visible seventh segment of abdomen exposed beyond the sixth in male; elytral epipleura foveate for the receprion of tip of femora; coxite of female transverse; tegmen of male genitalia always distinctly asymmetrical; Starsi cryptotetramerous, body small.....Hyperaspini
- 4(3) Dorsum pubescent; scutellum triangular or cordiform and usually rather small; outside of tibiae usually not angulate; the visible seventh segment of abdomen never exposed beyond the sixth in both sexes; elytral epipleura not distinctly foveate; tegmen of male genitalia usually nearly symmetrical but rarely asymmetrical. Tarsi cryptotetramerous or trimerous.
- 5(6) Anterior margin of prosternum roundedly convex anteriorly; prosternal carina absent; terminal segment of maxillary palpi slightly convergent apically with a truncate apex; lateral wings of mesosternum strongly approaching metasternum and inner side of mesepimeron very short.

- Tegmen of male genitalia very thin and elongate; coxite of female always very elongate. Body very small.....Tribe STETHORINI
- 6(5) Anterior margin of prosternum flat or slightly concave, very rarely convex anteriorly; prosternal carinae present or absent; terminal segment of maxillary palpi parallel sided or slightly divergent apically; lateral wings of mesosternum broadly separated from metasternum and innerside of mesepimeron rather long; Coxites of female elongate triangular or transverse, body usually small to moderate in size.
- 7(8) Eyes very large with a very deep and narrow postantennal emargination. Inner-ocular margins parallel to each other and their distance about one-third as broad as head. Antennae nine to eleven segmented and rather long. Labrum rather long, about two-thirds as long as wide; Coxites of female strongly transverse without a stylus. Body usually medium sized.....Tribe ORTALINI
- 8(7) Eyes usually moderate in size with or without a moderately deep or shallow post antennal emargination. Antennae nine to eleven segmented and usually relatively short, at most shorter than two-thirds of head width. Labrum rather short; Coxites of female usually elongate, rarely transverse with a stylus on each..... Tribe SCYMNINI

## Tribe SCYMININI

Key to the genera of tribe SCYMININI known from West Bengal.

- 1(2) Prosternal carina absent.....*Nephus* Mulsant
- 2(1) Prosternal carina present
- 3(4) Femoral line of the first abdominal sternum complete.....*Pullus* Mulsant
- 4(3) Femoral line incomplete.....\**Scymnus* Kugelan

Genus *Nephus* Mulsant 1846

1846. *Nephus* Mulsant, *Securipalp.* p. 237.  
1931. *Nephus*, Korschefsky, *Coleopt. Cat. Pars 118*, p. 16.

*Remarks* : A single species *N. roonwali* Kapur is known from West Bengal. Material could not be collected.

Genus *Pullus* Mulsant 1846

1846. *Pullus* Mulsant, *Securipalp.* p. 241.  
1931. *Pullus*, Korschefsky, *Coleopt. Cat. Pars 118*, p. 116.

---

\* Not treated in this paper.

*Remarks* : Two species namely *P. pyrocheilus* (Mulsant) and *P. brunnescens* (Motschulsky) are known from West Bengal. We could not collect any material.

### Tribe STETHORINI

#### Genus *Stethorus* Weise 1885

1885. *Stethorus* Weise, Best. Tab. II. ed.2, p. 65.  
 1931. *Stethorus* Korschefsky, Coleopt. Catalog. Pars 118, p. 111.

*Remarks* : Three species namely *S. indira* Kapur, *S. papuperculus* Weise. *S. tetranychii* Kapur are known from West Bengal. Material of these species could not be collected.

### Tribe ASPIDIMERINI

Key to the genera of Tribe ASPIDIMERINI known from West Bengal.

- 1(2) Prosternum evenly convex; carinae widely apart, divergent and not meeting each other anteriorly; the area between them convex and widening anteriorly to form a chinband; coarse punctation and long pubescence uniform all over the prosternum; body moderately large (4-6mm.long), oblong oval, moderately convex; pronotum with the posterior angles pointed and lateral margin straight  
 ..... Genus *Aspidimerus* Mulsant
- 2(1) Prosternum flat at least on the sides external to the carinae, which always meet and enclose a flat area which is either at the same level or slightly projecting ventrally, and not forming a chin band; body small to moderately large (2-4.5 mm. long), elongate oval to subrounded.
- 3(4) Carinae as wide apart as the base of prosternal process, parallel, extending from the base to the anterior margin of the segment and meeting each other in a transverse ridge to enclose a rectangular area which, when viewed from the underside, lies at a higher level than the lateral parts of prosternum; prosternum subquadrate in out line, body 2-2.75 mm long, rounded oval, usually moderately convex; pronotum with the posterior angles subrounded.....  
 .....Genus *Pseudaspidimerus* Kapur
- 4(3) Carinae not as above, varying in outline, the area enclosed by them lying at the same level as the rest of prosternum, which is flat, the part external to carinae triangular in outline.....  
 .....Genus *Cryptogonus* Mulsant

#### Genus *Cryptogonus* Mulsant 1850

1850. *Cryptogonus* Mulsant, Spec. Trim. Securipalp. p. 944-945.  
 1931. *Cryptogonus*, Korschefsky, Coleopt. Catalog. Pars 118:172.

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

- 1(2) Prosternal carinae as long as the prosternum, much narrower than the base of prosternal process, subparallel in the basal half and diverging anteriorly before meeting each other in an arch at the apical margin of prosternum. Elytron, apical one third reddish testaceous with the basal black area meeting it being convex near the sutural and concave towards the external margins (Posticus var.n.)..... *C. complexus* Kapur.
- 2(1) Prosternal carinae shorter than the length of the prosternum, nearly two thirds as long, subparallel, at base and converging anteriorly to meet each other in a rounded arch away from the anterior margin.
- 3(4) Pronotum yellowish brown, with a transverse-oval black spot at the middle of the base elytra yellowish, elytral; spot as follows : humeral spot absent; first spot sub rounded, moderately large, situated a little anterior to the transverse middle line; second semicircular, sutural forming a complete rounded spot with its counter part on the other elytron, almost of same size and at same level as the first; third much smaller, rounded, at the centre of the posterior half of elytron.....  
..... *C. ariasi* (Muls.)
- 4(3) Pronotum black, sometimes the anterior angle and the margin reddish testaceous.
- 5(6) Elytron testaceous, without black borders along the margin. with one large oblong-oval, discal black spot, near the suture.....*C. bimaculatus* Kapur
- 6(5) Elytron black.
- 7(10) Elytron with distinct testaceous spots.
- 8(9) Each elytron with a transverse oval or reniform spot at the posterior half of the elytron.....  
.....\**C. postmedialis* Kapur
- 9(8) Each elytron with two spots one at each half..... *C. quadriguttatus* (Weise)
- 10(7) Elytron without distinct spots but apical or marginal testaceous portions.
- 11(12) Elytron with apical one-third to one-sixth testaceous..... *C. orbiculus* var. *lunatus* Kapur.
- 12(11) Elytron with the entire external border testaceous and confluent with the apical one third.....  
..... *C. orbiculus* var. *fulvocinctus* Mulsant

*Cryptogonus ariasi* (Mulsant) 18531853. *Aspidimerus ariasi* Mulsant, *Ann. Soc. Linn.* (2) 1 : 265.1948. *Cryptogonus ariasi*, Kapur. *Trans. R. ent. Soc. Lond.*, 99(2) : 102-103 (Type locality : N. India).

\* Not treated in this paper

*Material studied* : 2 exs, Lolegaon, Darjeeling Dist., 11.iv.1976, and 1 ex, Teesta bazar, Darjeeling Dist., 18.iv.1976, A.R. Bhowmik Coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim and Uttar Pradesh. Also known from Burma.

***Cryptogonus bimaculatus* Kapur 1948**

1948. *Cryptogonus bimaculatus* Kapur, *Trans. R. ent. soc. Lond.*, **99**(2) : 100-101 (Type loc. Patkai mountains, Assam).

*Material studied* : 1 ex, Garubathan, Darjiling Dist. 19.xii.1973, Srivastava and Maiti Coll.; 2 exs, Lolegaon, Darjeling Dist. 11.iv.1976, A.R. Bhowmik Coll.

*Distribution* : India : West Bengal (Darjeeling); Assam; Nagaland and Arunachal Pradesh. Also known from Burma.

***Cryptogonus complexus* Kapur 1948**

1948. *Cryptogonus complexus* Kapur, *Trans. R. ent. Soc. Lond.*, **99**(2) : 110-111.

*Material studied* : 1 ex, Teesta bazar, 214 m. 18.iv. 1976; 3 exs, Tarkhola, 20.iv. 1976 and 1 ex, Lopchu, alt 1607 m. all from Darjeeling Dist., A.R. Bhowmik Coll.

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

***Cryptogonus orbiculus* var. *fulvocinctus* (Mulsant) 1853.**

1853. *Aspidimerus fulvocinctus* Mulsant, *Ann. Soc. Linn. Lyon* (2) 1 : 266.

1900. *Cryptogonus fulvocinctus* (Mulsant), Weise, *Ditsch, ent. Z.* 1900, 425, 427.

1948. *Cryptogonus orbiculus* var. *fulvocinctus* (Mulsant) Kapur, *Trans. R. ent. Soc. Lond.* **99**(2) : 94.

*Material studied* : 1 ex, Lolegaon, Darjeeling Dist., 11.iv. 1976, A.R. Bhowmik Coll.

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

***Cryptogonus orbiculus* var. *lunatus* Kapur 1948.**

1948. *Cryptogonus orbiculus* var. *lunatus* Kapur, *Trans. R. ent. Soc. Lond.* **99**(2) : 93.

*Material studied* : 1 ex, Garubathan, Darjeeling Dist., 20.xii. 1973, Srivatava and Maiti Coll.

*Distribution* : India : West Bengal (Darjiling). Also known from Indonesia and Malay.

***Cryptogonus quadriguttatus* (Weise) 1895**

1895. *Aspidiphorus quadriguttatus* Weise, *Dtsch. ent. Z.* : 326. (T.L. Sikkim)  
 1900. *Cryptogonus quadriguttatus* Weise, *Dtsch. ent. Z.* : 428.  
 1948. *Cryptogonus quadriguttatus*, Kapur, *Trans. R. ent. Soc. Lond.*, **99**(2) : 97-99.

*Material studied* : 7 exs. Lolegaon, 11.iv. 1976; 1 ex, Melli, Rangpo, 17.iv.1976; 8 exs, Tarkhola, 20.iv. 1976; 2 exs, Lopchu, 1607 m alt. 1.v.1976, Darjeling Dist., A.R. Bhowmik Coll.; 1 ex, Baxirhat, Coochbehar Dist., 13.xii.1986, R.S. Burman Coll.

*Distribution* : India : West Bengal (Darjiling, Coochbehar); Uttar Pradesh; Assam; Nagaland and Goa.

**Genus *Aspidimerus* Mulsant 1850**

1850. *Aspidimerus* Mulsant, *Spec. Trim. Secruipalp*, p. 944.  
 1931. *Aspidimerus*, Korschefsky, *Coleopt. Catalog.*, Pars 118, p. 172.

***Aspidimerus birmanicus* (Gorh.) 1895  
(T.L. Burma)**

1895. *Cryptogonus birmanicus* gorham, *Ann. Mus. Stor. nat. Genova.* (2) 34 : 69.  
 1948. *Aspidimerus birmanicus*, Kapur, *Trans. R. ent. Soc. Lond.*, **99**(2) : 84-85.

*Material studied* : 3 exs, Tarkhola, Darjiling district, 20.iv.1976, A.R. Bhowmik Coll.

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

**Genus *Pseudaspidimerus* Kapur 1948**

1948. *Pseudaspidimerus* Kapur, *Trans. Royal. Ent. Soc. Lond.*, **99** : 81, 117-118.

***Pseudaspidimerus circumflexa* var. *testceus* (Weise) 1858**

1858. *Platynaspis circumflexa* Motschulsky, *Etud. ent.* 7 : 118. (T.L. Ceylon).  
 1900. *Aspidimerus circumflexa*, Weise, *Dtsch. ent. Z.*, : 423.  
 1948. *Pseudaspidimerus circumflexa* var. *testaceus* (Weise), Kapur, *Trans. R. ent. Soc. Lond.*, **99**(2) : 122.

*Material studied* : 1 ex, Baruipur, South 24-Parganas, 8.xii.1966, K.R. Rao Coll.; 1 ex, Kotalia, Subhasgram, South 24 Parganas, 29.x.1965, S.C. Mitra and Party Coll.; 1 ex, Pallysree, Behala, Calcutta, 1.iii.1988, S. Biswas, Sheoraphuly, Hooghly Dist., 29.xii.1964, K. R. Rao coll. and 1 ex, New Barrackpore, North 24-Parganas, 11.i.1990, S.K. Ghosh Coll.; 1 ex.

*Distribution* : India : West Bengal (Calcutta, South and North 24 Parganas, Hooghly); Assam; Tamil Nadu; Bihar and Maharashtra. Also known from Burma and Sri Lanka.

## Subfamily COCCIDULINAE

Genus *Rodolia* Mulsant 1850.

1850. *Rodolia* Mulsant, Spec. Trim. Securipalp, p.901-902.  
 1931. *Rodolia* Korschefsky, Coleopt. Catalog. Pars 118, p. 98.

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

- 1(2) Elytra reddish brown to carmine red, each elytron with 3 black spots, length 4.8-5.0 mm, width 4.0 mm.....\* *guerini* (Crotch)
- 2(1) Elytra usually uniformly yellowish brown, brown reddish or carmine red, rarely fuscous, sometimes fuscous only along the margins or at the apices.
- 3(4) Body shortly oval and slightly narrowed posteriorly, 5-5.6 mm long; elytra entirely or partly testaceous, reddish testaceous, nearly red or light piceous, sometimes only the margins or part of them fuscous; punctation fine and close; median part of prosternum narrowed and less conspicuously raised anteriorly, widely distributed, width 4-4.2mm.....*fumida* Mulsant
- 4(3) Body sub-hemispherical, not narrowed posteriorly, median part of prosternum more distinctly raised.
- 5(6) Body nearly 6 mm. long, head and pronotum orange-yellow, elytra reddish brown, with the external border orange, length 5.8-6.1 mm, width 5.3-5.6 mm.....\**ruficollis* Mulsant
- 6(5) Body 3-4.25 mm long; upper surface shiny, anterior angles of pronotum narrower; pubescence denser and shorter
- a) Body usually larger hemispherical 3-4.25 mm; pubescence greyish or slightly yellowish and moderately dense; elytral punctures obsolete, width 2.7-3.3 mm, subhemispherical.....  
 .....*breviuscula* Weise
- b) Body smaller subhemispherical (3.25 mm. long), pubescence yellowish and close; elytral punctures closer and more impressed, width 3.00 mm.....\**amabilis* Kapur

*Rodolia breviuscula* (Weise) 1892

1892. *Rodolia breviuscula* Weise, Ann. Soc. ent. Belg., 36 : 26.  
 1949. *Rodolia breviuscula*, Kapur, Bull. ent. Res. London. 31(4) : 536.  
 1951. *Rodolia breviuscula*, Kapur, Rec. Indian Mus., 48 : 4.

---

\* Not treated in this paper

*Material studied* : 1 ex, Eden Gardens, Calcutta, 27.iv.1964, A.K.K. & Party Coll.; 1 ex, New Alipur, Calcutta, 14.ix.1987, S. Biwas Coll.; 1 ex, Kalyani, Nadia Dist., M.R. Ghosh Coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling, Nadia), Karnataka, Kerala. Also known from Burma and Sri Lanka.

### *Rodolia fumida* Mulsant 1850

1850. *Rodolia fumida* Mulsant, *Spec. Trim. Securipalp*, P. 904. (Type locality Bengal).  
 1850. *Rodolia roseipennis* Mulsant, *Spec. Trim Securipalp*, P. 904.  
 1853. *Rodolia arethusa* Mulsant, *Ann. Soc. Linn. Lyon* I, P. 254 (Opusc. Ent. III. 126 ).  
 1853. *Rodolia testicolor* Mulsant, *Ann. Soc. Linn. Lyon* I, P. 255. (Opusc. Ent. III, P. 127).  
 1931. *Rodoiia fumida*, Korschefsky, *Coleoptm. Cat.*, Pars. 118 : 101.  
 1949. *Rodolia fumida*, Kapur, *Bull. ent. Res.* London, 39(4) : 534.  
 1951. *Rodolia fumida*, Kapur, *Rec. Indian Mus.*, 48 : 1-2.

*Material studied* : 1 ex, Choona bhati, Howrah Dist., 30.vii. 1964, S. Ali & Party Coll. : 2 exs. New Barackpore, North 24 Parganas, 20.v.1990, S.K. Ghosh Coll.

*Distribution* : India : West Bengal (Darjiling, Howrah, North 24 Parganas); Manipur; Uttar Pradesh; Delhi; Maharastra; Tamil Nadu; Meghalaya and Bihar. Also known from Sri Lanka, Burma. Bangladesh, Pakistan and madagascar.

### Subfamily COCCINELLINAE

Key to the tribes of subfamily COCCINELLINAE known from West Bengal.

- 1(2) Antennal club compact, the pre-apical segment broader than long; apices of mandibles bifurcate and with the inner margins entire; maxillary palps and labium normal. Body reddish testaceous with usually black markings on the elytra; habit carnivorous.....COCCINELLINI
- 2(1) Antennal club loosely segmented, the pre-apical segment longer than wide; apex of mandibles bifurcate but with the inner mrgins finely serrate; maxillary palps and pre-mentum expanded. Body yellowish or light testaceous; pronotum with a pair of black spots but elytra without any black markings; habits fungivorous.....PSYLLOBORINI

### Tribe COCCINELLINI

Key to the genera of tribe Coccinellini known from West Bengal.

- 1(2) Body oval. antennae short with compact club (Pronotum margined at base, narrower in front than behind, broadest in the middle. First abdominal segment with femoral line). Hind femora long, distinctly beyond the outer margin of elytra..... \* Genus *Adonia* Mulsant

---

\* Not treated in this paper

- 2(1) Body short oval or hemispherical, Pronotum widest near the base. Hind femora short, at most reaching a half of elytral epipleura.
- 3(10) Elytral base much broader than pronotum. Elytral epipleuron entire (inner carina of epipleuron reaching the apex), broader than one-seventh of body width and strongly incline below with the groove along the external margin. Antennae distinctly longer than frons.
- 4(9) Pronotum more or less grooved along the lateral margin. Prothoracic hypomeron gently impressed along the margin. Lateral side of elytra broadly expanded externally and not marginate (Body size very large, more than 9 mm).
- 5(6) Anterior margin of clypeus distinctly roundly emarginate. Basal segment of antenna thicker than long with strongly convex side. Lateral margin of pronotum strongly rounded. Prothoracic hypomeron impressed at only anterior part. First abdominal sternum with an incomplete femoral line and an oblique line at lateral part..... *Aiolocaria* crotch
- 6(5) Anterior margin of clypeus straight except lateral portion. Basal segment of antenna normal. Lateral margin of pronotum nearly straight or weakly rounded. Prothoracic hypomeron impressed along the margin in whole length. First abdominal sternum with an incomplete femoral line and without an oblique line at each lateral part.
- 7(8) Prosternal process without carinae, claw with a bifid apex. Anterior margin of pronotum trapezoidally concave. Lateral side of pronotum arcuate, slightly concave near the anterior corner. Basal corner of pronotum rounded..... *Synonycha* Dejean
- 8(7) Prosternal process with parallel carinae. Claw with a tooth at base. Anterior margin of pronotum bisinuate. Lateral side of pronotum almost straight, widest at base. Basal corner of pronotum angulate.....*Callicaria* crotch
- 9(4) Pronotum not grooved along the lateral margin. Prothoracic hypomeron roundly foveate at anterior inner corner. Lateral side of elytra marginate and not broadly expanded externally. Prosternal process with parallel carinae. First abdominal sternum with an incomplete femoral line and without an oblique line at lateral part. Body size moderate.
- Post antennal emargination of eye distinct but rather broad and shallow. Eye moderate in size, inner ocular distance broader than a half of head including eyes. Inner-ocular margin not strongly divergent apically. Lateral side of pronotum weakly arcuate at apical half. Posterior corner of pronotum rounded. Surface of mesosternum without distinct longitudinal elevation.....  
..... *Coelophora* Mulsant
- 10(3) Elytral base at most a little broader than pronotum. Elytral epipleuron narrower than one seventh of body width or inner carina of the epipleuron not reaching the apex. Usually epipleuron not strongly inclined below.

- 11(22) First abdominal sternum with a complete femoral line or with an incomplete femoral line and an oblique line at each lateral part. Antennal club always compactly jointed.
- 12(15) Scutellum minute, about one-twentieth as wide as pronotum. Elytral epipleuron narrower than one-tenth of body width. Inner carina of epipleuron ending before the third abdominal sternum. Prosternal process very narrow and linear without carinae. Anterior margin of mesosternum flat. Dorsum rather weakly convex.
- 13(14) Body covered with extremely fine obsolete punctures..... \* *Lioadalia* Crotch
- 14(13) Body not covered with extremely fine and obsolete punctures.....\* *Adalia* Mulsant
- 15(12) Scutellum normal, more than one-tenth as wide as pronotum. Elytral epipleuron broader than one-ninth of body width. Inner carina of elytral epipleuron at least reaching the fourth abdominal segment. Prosternal process more or less flattened, usually with parallel carinae.
- 16(17) Antenna short, nearly as long as or shorter than frons; the terminal segment small, shorter and distinctly narrower than the preceding, convergent apically with a pointed apex; the basal segment broader than along with a strongly convex inner side. Lateral side of elytra not marginate. Inner carina of elytral epipleuron not strongly convergent and reaching the apex. Elytral epipleuron strongly inclined below.....*Menochilus* Timberlake
- 17(16) Antenna not shorter than frons; the terminal segment transverse with a truncate apex, the basal segment elongate and normal in shape. Lateral side of elytra marginate. Inner carina of elytral epipleuron strongly convergent apically or not reaching the apex.
- 18(19) Prosternal process without carinae. Anterior margin of mesosternum distinctly emarginate.....  
..... *Harmonia* Mulsant
- 19(18) Prosternal process with carinae
- 20(21) Anterior margin of mesosternum flat. Prothoracic hypomeron flat.  
Prosternal carinae running slightly across the level of anterior margin of the coxal cavity. Elytral base slightly broader than pronotum. External margin of elytra very narrowly reflexed.....  
..... *Coccinella* Linnaeus
- 21(20) Anterior margin of mesosternum weakly emarginated at middle. Prothoracic hypomeron very shallowly impressed  
antenna slightly longer than frons; the terminal segment narrower than the preceding. Lateral side of pronotum weakly arcuate and basal corner subangulate. Elytral epipleuron nearly horizontal except anterior part.....\* *Syhnarmonia* Ganglabauer

---

\* Not treated in this paper

- 22(11) First abdominal sternum with an incomplete femoral line and without an oblique line at each lateral side. Antennal club rather loosely or sometimes compactly jointed.
- 23(24) Elytral epipleuron about one-sixth as broad as body width. External side of elytra not marginate. Antenna slightly longer than frons; the terminal segment broader than long. Scutellum small, less than one-tenth of pronotum.....*Micraspis* Dejean
- 24(23) Elytral epipleuron narrower than one-seventh of body width. Elytral side marginate. Elytra much longer than frons; the terminal segment elongate, scutellum normal, more than one-tenth of pronotum.
- 25(26) Inner carina of elytral epipleuron reaching the apex. Mesosternum rather broad and oblique-sided in the portion between the mesocoxal cavities. Prothoracic hypomeron with a distinct oval fovea near the anterior inner corner.....\**Propylaea* Mulsant
- 26(25) Inner carina of elytral epipleuron not reaching the apex. Mesosternum rather narrow and parallelsided in the portion between meso-coxal cavities. Antenna thin, more than twice as long as frons; the ninth segment much longer than wide; the tenth longer than wide. Basal corner of pronotum subangulate..... *Calvia* Mulsant

Genus *Callicaria* Crotch 1874

1874. *Callicaria* Crotch, *Revis. Cocc.*, p. 146.  
1932. *Callicaria*, Korschefsky, *Coleopt. Catalogue, Pars 120, P. 271.*

*Callicaria superba* (Mulsant) 1853.

1853. *Caria superba* Mulsant, *Ann. Soc. Linn.* 1 : 159.  
1874. *Callicaria superba*, Crotch. *Revis. Cocc.* : 170.  
1932. *Callicaria superba*, Korschefsky, *Coleoptm. Cat. Pars 120 : 271.*

*Material studied* : 1 ex, Van Takvar Tea Estate, Darjeeling District, 18.vii.1984.

*Distribution* : India : West Bengal (Darjiling). Also known from Bhutan, Tibet and Japan.

Genus *Coccinella* Linnaeus 1758

1758. *Coccinella* Linnaeus, *Syst. Nat.* ed. 10 : 364.  
1965. *Coccinella*, Kamiya. *Mem. Fac. Lab. Arts, Fukui Univ, Ser. II Nat. Sci. No. 15, p. 35.*

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

- 1(2) Elytra with seven black spots in total, each spot round or oval in shape. rarely fused with each other  
..... *C. septempunctata* Lin.

- 2(1) Elytra without such spots, elytra on with a triangular black marking on the sub-humeral area, with a wavy, black post median band, confluent with the black sutural margin; a subquadrate black spot at three-fourths of the external margin, further two common spots present, one immediately behind the scutellum and the other before the apex..... *C. transversalis* Fab.

***Coccinella septempunctata* Linnaeus 1758.**

1758. *Coccinella 7-punctata* Linnaeus, Syst. Nat. (ed X), : 365 (T.L. Europe)

1958. *Coccinella septempunctata*, Kapur, *Rec. Indian Mus.* 53(3-4) : 328.

*Material studied* : 38 exs, Dhapa, Calcutta, 18.ii.1963, R.K. Kacker Coll.; 49 exs, Serriculture institute, Berhampur, 1.iii.1986; 13 exs, Bhakri, Berhampur, 28.ii.1986, S.K. Mitra Coll.; 27 exs, Raghunath ganj, 7.ii.1986; 16 exs, Jangipur, Dhanpat, 12.ii.1986; 29 exs, Amarpur, 8.ii.1986; 16 exs, Sagar dighi, 14-15.ii.1986; 7 exs, Lalbag, Katra colony, 13.ii.1986; 2 exs, Raichandpur, Jiyagunj, 6.ii.1986; 3 exs, Azimganj, 5.ii.1986, Murshidabad Dist., I.J. Gupta Coll.; 8 exs, Cossimbazar, 26.ii.1986, Murshidabad dist., S.K. Mitra Coll.; 1 ex, south beach, digha, Midnapore Dist., 23.xii. 1985, A.K. Hazra Coll.; 1 ex, Gangarampur, 15.vi.1987; 2 exs, Bamangola, 23.vi.1987, Malda Dist., K.P. Mukherjee Coll.; 11 exs, Binanguri Tea Estate, Paltan Para Forest, and Jaldapara, Jalpaiguri Dist., 20-23.iii. 1986, A.K. Hazra Coll.; 4 exs, Pedang, 1.i.1974; 2 exs, Reang, 8.2.1974; 5 exs, Kalimpong, 3.i.1974, Darjeeling Dist., Srivastava & Maiti Coll.; 30 exs, Singla, 2.i.1976; 9 exs, Mahanandi, 9.i.1976, G.K. Srivastava Coll.; 10 exs, Lava, 9.iv.1976; 2 exs, Teesta Bazar, 18.iv.1976; 1 ex, Tarkhola, 30.iv.1976, 4 exs, Dowhill, 30.iv.1976; 8 exs, Jhepi, 3.v.1976; 1 ex, Mirik, 2.v.1976; 11 exs, Tindharia, 4.v.1976, Darjeeling Dist., A.R. Bhowmik Coll.; 76 exs, Tindharia, 30.iii. 1986; 8 exs, Sukhia, 1 ex Bijanbari, 19.v. 1974, 1 ex, Ghoom bhanjang, 28.v.1975, J.K. Jonathan Coll.; 131 exs, Lepchjagat Hill, 27.iii.1986, A.K. Hazra Coll.

*Distribution* : India : West Bengal (Calcutta, Murshidabad, Malda, Medinipur, Jalpaiguri, Darjiling). It is also known from Nepal and Bhutan.

*Remarks* : "This Palaearctic species extends widely beyond Palaearctic region and is known from the plains of India and Himalays" (Kapur 1958).

***Coccinella transversalis* Fabricius 1781**

1781. *Coccinella transvrsalis* Fabricius, *Spec. Ins.* : 97 (Type locality Coromandel)

1781. *Coccinella repanda* Thuberg, *Novae Insectorum Species*, 1:18.

1966 *Coccinella transversalis* Kapur, *Proc. nat. Ins. Sci. India* 32B(3-4) : 178.

*Material studied* : 25 exs, Dhapa, Calcutta, 18.ii.1963, R.K. Kacker Coll.; 2 exs, Eden Gardens, 22.xii. 1956, S.P. Shukla Coll.; 2 exs, same locality. Dec. 1967, A.R. Bhowmik & Party Coll.; 1 ex, Pallysree, Behala, 6.xi. 1988, S. Biswas Coll.; North 24 Parganas District : 7 exs, Goalpara, Naihati, 15.ii.1966, R.P. Ghosh Coll.; 1 ex, Madhumurali, Barasat, 20.v.1965, M.S. & R.P. Ghosh Coll.; 1 x Howah District : 6 exs, Mahespur, 25.i.1986; 2 exs, Uluberia, 26.i.1986; 11 exs, Jalpai, 27-29.i.1986, B. Dutta Coll. Birbhum District : 1 ex, Sainthia, 24.i.1986. S.B. Roy Coll.; 1 ex, Parui, Seuri, 8.x.1987, M. Prasad Coll.

Bankura District : 2 exs, Susunia, 27.x.1985; 8 exs, Mukutmanipur 28.x.1985, M. Dutta Coll.; 1 ex, Amtala More and 1 exs, Ranibandh, 7.ix.1986; 1 ex, Ganga-Jachati, 8.ix.1986 and 1 ex, Hatirampur, 10.ix.1986, P. Mukhopadhyay Coll. Midnapore District : 1 ex, Daigheri Forest, 19.xii.1985; 34 exs, Kankra Jhar Forest, 19.xii.1985; 6 exs, Gangadharpur, 22.xii.1985; 1 exs, south beach, Digha, 23.xii.1985; 6 exs, Sankarpur forest, 25.xii.1985, A.K. Hazra Coll. Murshidabad District : 4 exs, Azimganj; 12 exs, Raichandpur, Jiyaganj; 8 exs, Amarpur; 7 exs, Mahamamadpur, Jangipur; 3 exs, Dhanpat nagar, Jangipur; 4 exs, Katra Colony, Lalbag; 11 exs, Sagar Dighi, 5-15.ii.1986, I.J. Gupta Coll.; 12 exs, Serriculture institute; 27 exs, Dayanagar, Cossimbazar; 13 exs, near Rly. Station; 19 exs, Bhakri, Berhampur, 26-28.ii.1986 and 23 exs, Serriculture Institute, Berhampur, 1.iii.1986; 6 exs, Khandera, Lalgola, 5.iii.1986, S.K. Mitra Coll. Malda District : 5 exs, Gangarampur; 2 exs, Pakuahat; 3 exs, Dhulian; 1 ex, Nalagolal; 1 ex, Alal; 7 exs, Bamangola; 4 exs, Nimbari, 15-24.vi.1987, K.P. Mukherjee Coll. Purulia District : 3 exs, Ajodhya, alt. 700m. and 1 ex, Garh Dhrubeswar, 2-7.xi.1985, M. Dutta Coll. Coochbehar District : 1 ex, Mathabhanga, 11.xii.1986, R.S. Burman Coll. Jalpaiguri District : 1 ex, Binaguri Tea Estate and 1 ex, Forest near Gima River, 21-22.iii.1986, A.K. Hazra Coll.; 1 ex, Binaguri, 20.xii.1986, R.S. burman Coll.; 1 ex, Rajabhatkhowa, 10.i.1987, V.D. Srivastava Coll. Darjeeling District : 1 ex, Garubalhan, 20.xii.1973 and 2 exs, Chunabhati, 28.xii.1973, Srivastava & Maiti Coll.; 7 exs, singhla, alt. 400 m.; 1 ex, Karmaktar, singla; 6 exs, singla bazar and 1 ex, Sukna, alt. 200 m; 2-7.i.1976, G.K. Srivastava Coll.; 1 ex, forest around Mirik, alt. 5100 ft. 31.iii.1986, A.K. hazra Coll.; 1 ex, Chatirhut, Phansidewa, 3.xii.1986, R.S. Burman Coll.

*Distribution* : India : West Bengal (Birbhum, Bankura, Calcutta, Cochbihar, Darjiling, Jalpaiguri, Maldah, Medinipur, Murshidabad, Murshidabad, North and South 24 Parganas, Purulia); Kerala; Goa and Andaman Islands. Also known from south East Asia, Japan and Australia.

#### Genus *Coelophora* Mulsant 1850

1850. *Coelophora* Mulsant, *Spec. Trim. Securipalp*. p. 374, 390.  
 1932. *Coelophora*, Korschefsky, *Coleopt, Catalog. Pars* 120, p. 290.

#### Key to the species of the genus *Coelohora* known from West Bengal

- 1(4) Elytra testaceous yellow, smaller in size.
- 2(3) Each elytron with six large, round black spots of which two semicircular and sutural, the first placed at the anterior one-third and the second a little below the two-third near the apex, meeting with their counter part on the other elytron they form complete round spot on the suture; pronotum of same colour as elytra, with two median broadly oval, black spot near the base and a small round black spot at each posterolateral corner..... *C. bissellata* Mulsant
- 3(2) Elytron without spots, each elytron completely margined with black border and roughly divided by black markings into three compartment, anterior two before the midline and posterior one below the midline; pronotum black with the lateral margin quadrangularly flavus almost near the base ..... *C. sexareata* Mulsant

- 4(1) Elytra not testaceous yellow, medium in size.
- 5(6) Elytra completely black, pronotum black except the lateral flavus portion..... *C. unicolor* (F.)
- 6(5) Elytra and pronotum reddish brown, each elytron is furnished with 5 pale brown circular spots, each pupilled with a large black spot in the centre.....*C. pupillata* (Swartz)

***Coelophora bissellata* Mulsant 1850**

1850. *Cocelophora bissellata* Mulsant, *Spec. Trim. Securipalp.*, : 400 (Type loc. : Bengal)
1932. *Coelophora bissellata*, Korschefsky, *Coleoptm, Cat.*, Pars 120 : 291.
1958. *Coelophora bissellata*, Kapur, *Rec. Indian Mus*, 53(3&4) : 332.

*Material studied* : 2 exs, Reang, 1 .vii.1974; 3 exs, Gorubathan, 20.xiii.1973; 6 exs, Chunabhati, 28.xii.1973; 1 ex, Bograkota, 9.xii.1973; 1 ex. Nazeok, 7.i.1974 and 1 ex, Kalimpong, 8.i.1974, Srivastava & Maiti Coll.; 3 exs, Thumthung Khola, 28.xii.1975, 2 exs, Karmakatar and 4 exs, Singhla bazar, 3-5.i.1976, G.K. Srivastava Coll.; 1 ex, Lolegaon and 1 ex, Tarkhola, 11-20.iv.1976, A.R. Bhowmik Coll, all Darjiling dist. 1 ex, Hasimara, Jalpaiguri dist. 4.xii.1979, T. Sengupta Coll.

*Distribution* : India : West Bengal (Darjiling, Jalpaiguri); Assam; Sikkim; Uttar Pradesh and South India.

***Coelophora pupillata* (Swartz) 1808**

1808. *Coccinella pupillata* Swartz, in Schonh, *Syn. Ins.* 2 : 184.
1850. *Coelophora pupillata*, Mulsant, *Spec. Trim. Securipalp.* : 397.
1963. *Coelophora pupillata*, Kapur, *Sci. Cult* : 29 : 264.

*Material studied* : 1 ex, Naktala, Calcutta, 5.ix.1989, S.K. Chakraborty Coll. ex. at light.

*Distribution* : India : West Bengal (Calcutta). Also known from Indonesia, China, formosa and Hawaii.

***Coelophora sexareata* Mulsant 1853**

1853. *Coelophora sexareata* Mulsant, *Ann. soc. Linn. Lyon* 1:181 (T. Loc. N. India).
1932. *Coelophora sexareata*, Korschefsky, *Coleopt. Cat.* Pars 120 : 296.
1958. *Coelophora sexareata*, Kapur, *Rec. Indian Mus.* 53(3-4) : 333.

*Material studied* : 1 ex, Chunabhati, 28.xii.1973; 3 exs Kalimpong, 1.xi.1974, Srivastava & Maitiu Coll.; 1 ex, Melli, 27.xii.1975; 3 exs, Tumthungkhola, 28.xii.1975; 1 ex, singla Bazar, 5.i.1976; 3 exs, Mahanadi, 9.i.1976, G.K. Srivastava Coll.; 2 exs, Lopchu, 1607m, 1.v.1976, A.R. Bhowmik Coll. All Darjiling dist.

*Distribution* : India : West Bengal (Darjiling); Assam and Sikkim. Also known from Nepal, Bhutan, Burma and China.

Genus *Harmonia* Mulsant 1850

1850. *Harmonia* Mulsant, *Spec. Trim securipalp.*, P.74, 75.  
 1932. *Harmonia* Korschefsky, *Coleopt. Catalog, Pars. 120*, P. 280.

*Harmonia arcuata* (F.) 1787

1787. *Coccinella arcuata* Fabricius, *Mant. Ins. 1* : 55 (T. L. china dom)  
 1850. *Harmonia arcuata*, Mulsant, *Spec. Trim. Securipalp.* : 77.  
 1956. *Harmonia arcuata*, Kapur, *Rec. Indian Mus. 52* : 332.  
 1966. *Harmonia arcuata*, Kapur, *Proc. Nat. Inst. Sci. India 32B (3-4)* : 179.

*Material studied* : 2 exs, Bansdrani, Calcutta, 21.xi.1963, M. M. Ghosh & S. ali coll; 1 ex, Naktala, Calcutta, 6.iii.1988, S. K. chakraborty Coll.; 1 ex, Jalpai, Bagnan, Howrah Dist., 29.i.1986, B. Dutta coll.

*Distribution* : India : West Bengal (Calcutta, Howrah); Manipur; Goa and Andaman Islands.

Genus *Leis* Mulsant 1850

1850. *Leis* Mulsant, *Spec. Trim Securipalp*, P. 241.  
 1932. *Leis* Korschefsky, *Coleopt. Catalog. Pars 120*, P. 273.

*Leis dimidiata* (F.) 1781

1781. *Coccinella dimidiata* Fabricius, *species Insectorum* : 94 (T. L. India)  
 1850. *Leis dimidiata*, Mulsant, *Spec. Trim. Securipalp.* : 242.  
 1932. *Leis dimidiata*, Korschefsky, *Coleopt. Cat. Pars 120*, : 273.  
 1956. *Leis dimidiata*, Kapur, *Rec. Indian Mus. 52(2-4)* : 332-333.

*Material studied* : 1 ex, Reang, 8.iv.1974, Srivastava & Maiti Coll.; 19 exs, Singla, alt. 400 m. 2.i.1976, G. K. Srivastava Coll. All Darjiling dist.

*Distribution* : India : West bengal (Darjiling); Sikkim; Manipur; Punjab; Kashmir; Nepal; Bhutan. Also known from China, Japan.

Genus *Menochilus* Timberlake 1943

1943. *Menochilus* Timberlake, *Hawaii, Plant Rec. 47(1)* : 40.  
 1965. *Menochilus*, Kamiya, *Mem. Lib, arts, Fukuiuni v. Ser II, Nat. Sci No.15*, P.61.

*Menochilus sexmaculatus* (Fabricius) 1781

1781. *Coccinella sexmaculata* Fabricius, *Spec. Ins.*, 96 (T. L. East Indies).  
 1850. *Chilomenes sexmaculata*, Mulsant, *Spec. Trim. Securipalp.* : 114.  
 1943. *Menochilus sexmaculatus*, Timberlake, *Bull. Hawaiian Sug. Plrs Ass. Exp. stn.(Ent. Series)*, No22,47:40-41.  
 1966. *Menochilus sexmaculatus*, Kapur, *Proc. nat. Inst. Sci. India, Delhi, 32B (3 & 4)* : 176-177.

*Material studied* : 1 ex, Eden gardens, Calcutta, 22.vii.1956, S. P. Sukla coll.; 1 ex, Eden gardens, 5.ii.1966, S. Ali Coll.; 1 ex, Horticultural garden. Calcutta, 27.xii.1965, S. Sen & Party Coll.; 1 ex, Bansdroni, Calcutta, 12.viii.1959, S.P.:sukla Coll.; 49 ecs, Dhapa, Calcutta, 18.ii.1963, R. K. Kacher Coll.; 1 ex, Ichapur, 21.i.1965, B. Dutta Coll.; 5 exs, New Barrackpore, 8.i.1990, S. K. Ghosh Coll., North 24-Parganas; 1 ex, Jhingakhali, Sunderbans, south 24-Parganas, 11.ix.1983, S. Biswas coll.; 6 exs, Parndooah, 29.i.1966 and 2 exs, Bandel, 8.xi.1965, K.S.P. & Party coll. and 1 ex, Debandapur, Bandel, Hooghly Dist., 26.x.1964, Joseph & Party coll.; 1 ex, Kalyani, Nadia Dist. 20.xi.1965, K.S.P. & Party Coll. ex. solanum nigrum; 1 ex, Kankrajhor Forest, 19.xii.1985; 1 ex, Gangadharpur, viii, 22.xii.1985 and 1 ex, South beach, Digha, Midnapore Dist., 23.xii.1985, A. K. Hazra Coll.; 2 exs, Nalhati, 21.i.1986; 3 exs, Khayrakuri, Tilpara; 1 ex, Sainthia; 2 exs, Mahammed bazar, 24.i.1986; 2 exs, Illam bazar, 27.i.1986 and 3 exs, Ballavpur, Birbhum Dist., 30.i.1986, S. B. Roy coll.; 1 ex, Heraparbat, 29.viii.1986; 3 exs, Radhanagar, 31.viii.1986; 3 exs, Ranibandhu, 7.ix.1986; 2 exs, Ganga Jachati, 8.ix.1986; 2 exs, Amar Kanan, 9.ix.1986; 4 exs, amtala More, 27.viii.1986, P. Mukherjee Coll and 1 ex, Simlapal, 31.x.1985, B. Dutta Coll, Bankura Dist.; Murshidabad Dist. 1 ex, Azimgunj, 5.ii.1986; 1 ex, Raichandpur, Jiyagunj, 6.ii.1986; 1 ex, amarpur; 8.ii.1986; 4 exs, Dhanpatnagar, Mahanandapur, Jangipur, 12.ii.1986; 1 ex, Katra Colony, Lalbag, 13.ii.1986; 10 exs, sagar dighi, 14.ii.1986, I.J. Gupta Coll.; 46 exs, Daya Nagar, Cossimbzr, 26.ii.1986; 28 exs, Serricultural Institute, Berjampur, 26.ii.1986; 2 exs, Bhakri, Berhampur, 28.ii.1986, S.K. Mitra Coll. Malda Dist. 2 exs, Pakua hat, 16.vi.1987 and 1 ex, Tulshihata, 25.vi.1987, K.P. Mukherjee Coll. Jalpaiguri Dist. 4 exs, Birpara, Alipurduar, 12.i.1987 and 3 exs, Bhaktigarh, New Jalpaiguri, 21.i.1987. V.D. Srivastava Coll. Darjeeling Dist. 1 ex, Gorubathan, 19.xii.1973 and 1 ex. Chunabhati. 27.xii. 1973, Srivastava & Maiti Coll.

*Distribution* : India : West Bengal (Bankura, Birbhum, Calcutta, Darjeeling, Hooghly, Jalpaiguri, Malda, Medinipur, Murshidabad, North and South 24 Parganas); Meghalaya; Andaman Islands. Also known from Nepal, Indonesia, Phillipines, Celebes and New Guinea.

#### Genus *Oenopia* Mulsant 1850

1850. *Oenopia* Mulsant, Spec. Trim. Securipalp. P. 374, 420, 426.  
1932. *Oenopia* Korschefsky, Coleopt. Catalog. Pars 120, P. 287.

This genus is very similar to the genus *Coclophora* but can be separated by its compact club of antenna which is loosely set in *coelophora*.

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

- 1(6) Elytra testaceous yellow.
- 2(3) Each elytron completely bordered black, black margin on the suture little thickened in the middle. each elytron furnished with a premedian, large, irregularly round and a post median large irregularly oval black spot; pronotum black except the antero-lateral two-third flavus.....  
..... *O. kirbyi* Mulsant
- 3(2) Each elytron bordered black only on the sutural margin.

- 4(5) Each elytron with a large semicircular black spot at the middle of the sutural margin and a semi triangular black spot at the apex which meeting with their counter part forming a large round spot at the middle and a semicircular spot at the apex, anterior and posterior to the middle spot there are two large black spot on each elytron; pronotum as above.....*O. sauzeti* Mulsant
- 5(4) Each elytron with a medium sized semi-triangular black spot at the anterior one-third and a small transverse spot at the apex on the sutural margin when meeting to their counter part forming a large pear-shaped spot and a transverse band respectively, along with these there are two black, large, semi-wavy transverse spot of which the posterior one is connected with the suture by a small band. In some examples the elytra are yellowish brown, sutural margin black, extension of which encircles a flavus spot close to the scutellum on each elytron, each elytron with a small black spot at the posterior two-third. Anterior margin of the pronotum testaceous, rest as above.....  
.....*O. luteopustulata* Mulsant
- 6(1) Elytra black, each elytron with an sub basal, obliquely oval and post median roundish flavus spot, lateral margin flavus composed as if of two semicircular spots butting on a narrow lateral border; pronotum black except the lateral portions flavus which extending almost to the base.....  
.....\**O. quadripunctata* Kapur

*Oenopia kirbyi* Mulsant 1850

1850. *Oenopia kirbyi* Mulsant. *Spec. Trim. Securipalp.* : 425 (T.L. Eastern India)  
1963. *Oenopia kirbyi*, Kapur, Bull. Brit. Mus. (Nat. Hist.) Ent. : 14(1) : 26.

*Material studied* : 1 ex, Andheri khola, 7.iv.1973; 2 exs, 8-10.iv.1973, H.S. Sharma & Party Coll.; 1 x, Samsing, 24.xii.1973, Srivastava & Maiti Coll.; 1 ex, Lolegaon, 11.iv.1976, A.R. Bhowmik Coll. All Darjeeling district.

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

*Oenopia luteopustulata* Mulsant, 1850

1850. *Oenopia luteopustulata* Mulsant, *Spec. Trim. Securipalp.*, : 421 (Type loc. Assam).  
1874. *Coelophora luteopustulata*, Cortch, *Revis. Cocc.* : 156.  
1932. *Oenopia luteopustulata*, Korschefsky, *Coleopt. Cat.*, Pars 120:288.

*Material studied* : Calcutta : 1 ex, Jadavpur, 24.iv.1963, H.L. Paul Coll., 2 exs, Eden Gardens, 1.xi.1964 and 8.xii.1967, Shaukat Ali Coll.; Hooghly District : 1 ex, Sheoraphuly, 24.xii. 1964, K.R. Rao & Party Coll.; Nadia District : 1 ex, Kalyani, 19.xi.1966, R.K. Kacker Coll.; Birbhum District : 1 ex, Khayrakuri, 24.i.1986; 1 ex, Illam bazar, 27.i.1986, S.B. Roy Coll.; Bankura District : 1 ex, Patra Sagar, 28.viii.1986; 1 ex, Ganga Jachati, 8.ix, 1986, P. Mukherjee Coll.; Midnapore District : 1 ex. Bholadheda, 10.ix.1985, S. Biswas & Party Coll.; 1 ex, Kankrajhar Forest and 1 ex, Daigheri Forest, 19.xii. 1985, A.K.

---

\* Not treated in this paper

Hazra Coll.; Murshidabgan District : 1 ex, near Rly. Station, 27.ii.1986; 2 exs, Bhakri, Berhampur, 28.ii.1986, S.K. Mitra Coll. Malda District : 1 ex, Alai, 19.vi.1987, K.P. Mukherjee Coll.; Purulia District: 1 ex, Ajodhya, alt. 700m., 4.xi.1985, M/ Dutta Coll.; Coochbehar Dist. : 4 exs, Mathabhanga and 1 ex, Tufangunj, 11-12.xii.1986, R.S. Burma Coll.; Jalpaiguri District : 3 exs, Binaguri Tea Estate, 21.iii.1986; 2 exs, Paltanpara Forest, 21.iii.1986; 2 exs, Rajabhatkhawoa, 22.iii.1986, A.K. Hazra Coll.; 1 ex, Sonarpur, 20-21.xii.1986, R.S. Burman Coll. 1 ex, Rajabhat Khawa; 1 ex, Sobhagunj, Alipurduar; 4 exs, Jainti; 1 ex, baribhasa; 2 exs, Shaktigarh, 13-21.i.1987, V.D. Srivastava Coll.; Darjeeling District : 6 exs, Chunabhati; 3 exs, Bograkotra; 1 ex, Kalimpong. 28.xii.1973-1.ii.1974, Srivastava & Maiti Coll. 2 exs, Melli, alt. 300 m., 27.xii.1975; 8 exs, Singha bazar, 5.i.1976, G.K. Srivastava Coll. 2 exs, Lolegaon, 11.iv.1976, A.R. Bhowmik Coll. 1 ex, Fansidewa and 1 ex, Kheribari, 6-9.xii.1986, R.S. Burman Coll.

*Distribution* : India : West Bengal (Bankura, Birbhum, Calcutta, Cochin, Darjiling, Hooghly, Jalpaiguri, Malda, Medinipur, Murshidabad, Purulia). Also known from Bhutan, Nepal, Burma and Tibet.

*Oenopia sauzeti* Mulsant 1866

1866. *Oenopia sauzeti* Mulsant, *Monogr. Coccinell.* : 281 (Type loc.-India)  
 1932. *Oenopia sauzeti*, Korschefsky, *Coleopt. Cat.*, Pars 120 : 288.

*Material studied* : Jalpaiguri District : 1 ex, Jaintia Hill forest, 20.iii.1986, A.K. Hazra Coll. Darjeeling District : 1 ex, Singla, 7.iv.1973, Singla Bazar, 5.i.1976; 2 exs, Mahanadi, alt. 280 m., 9.i.1976, G.K. Srivastava Coll.; 1 ex, Melli, alt. 450 m. 17.iv.1976; 3 exs, Teesta Bazar, alt. 214 m. 18.iv.1976; 3 exs, Rangpo, alt. 450 m, A.R. Bhowmik Coll.

*Distribution* : India : West Bengal (Darjiling, Jalpaiguri). Also known from Nepal and Bhutan.

Genus *Aiolocaria* Crotch 1874

1874. *Aiolocaria* Crotch, *Revis. Cocc. P.* 178.  
 1932. *Aiolocaria*, Korschefsky, *Coleopt. Catalog*, Pars 120, P. 277.

*Aiolocaria dodecaspilota* (Hope) 1831

1831. *Coccinella 12-spilota* Hope, in Gray, *Zool. Misc.*, : 31 (Type loc.-Nepal)  
 1874. *Aiolocaria dodecaspilota*, Crotch, *Revis. Cocc.* : 178.  
 1933. *Palaeoneda dodecaspilota*, Mader, *Wien. ent. Ztg.*, 50 : 93.  
 1963. *Aiolocaroida dodecaspilota*, Kapur, *Bull. Brit. Mus. (nat. Hist.) Ent.*, 14(1) : 26.

*Material studied* : 1 ex, Darjeeling, 2.v.1986, M.R. Ghosh Coll.

*Distribution*: India : West Bengal (Darjiling), Sikkim. Also known from Nepal, Bhutan and Burma.

Genus *Synonycha* Dejean 1835

1835. *Synonycha* Dejean, Cat. Col. p. 460.  
 1850. *Synonycha* Mulsant, *Spec. Trim. Securipalp*, P. 229.  
 1932. *Synonycha*, Korschefsky, Coleopt. Catalog. Pars 120, P. 268.

*Synonycha garndis* (Thunbg.) 1781.

1781. *Coccinella grandis* Thunberg, *Nov. Sp. Ins.* : 12-13 (Type loc. China)  
 1850. *Synonycha grandis*, Mulsant, *Spec. Trim. Securipalp.* : 230.  
 1932. *Synonycha grandis*, Korschefsky, Coleopt. Cat. Pars 120, : 268.

*Material studied* : 1 ex, Belly Road, alt. 1180 m., Kalimpong, Darjiling Dist., 1.viii.1979, M. Prasad Coll.

*Distribution* : India : West Bengal (Darjiling); Sikkim; Tamil Nadu; Karnataka; Maharastra and Andaman Islands. Also known from China, Japan, Philippines, Indonesia and doubtfully from Australia and New Guinea.

Genus *Micraspis* Dejean 1835

1835. *Micraspis* Dejean, Cat. Col. : 459.  
 1965. *Micraspis*, Kamiya, Mem. Fac. Lib. Arts. Fukui Univ., Ser II, Nat. Sci., No. 15, P. 59.

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

- 1(2) Elytron yellowish brown with a black suture only, slightly and gradually widened in the middle; pronotum with narrow basal black margin and two discal small black spots.....*M. discolor* (F.)
- 2(1) Elytron testaceous yellow, margin black, suture black, abruptly widened from a little below the scutellum upto the end of two-third of the length then narrowing gradually to the apex, each elytron marked with black on the discal area like an incomplete "C" externally and internally like an "J" close to each other, apex marked with a small round black spot; pronotum as above.....  
 ..... *M. cardoni* (Weise)

*Micraspis cardoni* (Weise) 1892

1892. *Varania cardoni* Weise, *Ann. Soc. ent. Belg.*, 36 : 19.  
 1894. *Coelophora cardoni* (Weise), Gorham, *Ann. Soc. ent. Belg.*, 38:202.  
 1932. *Coelophora cardoni* (Weise), Korschefsky, Coleopt. Cat. Berl., 16(120) : 588.  
 1943. *Micraspis cardoni* (Weise), Timberlake, Bull. Hawaiian Sug. Plrs : Ass. Exp. Stn. (Ent. Cer.), No. 22, 47 : 29.

*Material studied* : 1 ex Bankura. Bankura Dist.. 29.x.1985, M. Datta Coll. and 1 ex, Bholaveda, Midnapore dist.. 10.ix.1985, S. Biswas Coll.

*Distribution* : India : West Bengal (Bankura, Medinipur); Goa; Karnataka and Maharashtra. Also known from Srilanka.

*Micraspis discolor* (F.) 1798

1798. *Coccinella discolor* Fabricius, *Suppl. Ent. Syst.*, : 77 (Type loc. India)  
 1850. *Verania discolor*, Mulsant, *Spec. Trim. Securipalp.*, : 369.  
 1932. *Verania discolor*, Korschefsky, *Coleopt.*, *Cat.*, Pars 120 : 308.  
 1965. *Micraspis discolor*, Kamiya, The Memoris of the Faculty of Liberal Arts, Fukui Univ. Ser. II. Natural Sci. No. 15, Part.3., PP.60-61.

*Material studied* : Calcutta : 310 exs, Dhapa, 19.i.1965. K.V.L. & Party Coll.; 33 exs, Eden Gardens, S. Ali, 26.ii.1965 and B.K. Mudi, 19.vii.1965 Coll.; 62 exs, Horticultural Garden, Alipur, 19.i.1967, K. Rai & Party Coll.; 15 exs, Salt Lake, 27.xii.1964, K.S. Pradhan Coll.; 4 exs, Lake Gardens, ix.1981, at light, T. Sengupta Coll.; 1 ex, Behala, 14.xii. 1964, K. Rai Coll.; 6 exs, Pallysree, Behala, 6.xi.1988, S. Biswas Coll.

*Howrah District* : 29 exs, Abhirampur, 23.i.1986; 1 ex, Uluberia, 26.i.1986 and 50 exs, Jalpai, Bagnan, 29.i.1986, B. Dutta Coll. *Hooghly District* : 6 exs, Sheoraphuly, 29.xii.1964, K.R. Rao & Party Coll.; 1 ex, Mankundu, 14.ix.1965, K.L.K. Roy & Party 3 exs, Pandooah, 29.i.1966, K.S.P. & Party Coll.; 5 exs, Bandel, 8.xi.1965, K.S.P. & Party Coll. *South 24-Parganas* : 1 ex, Sonarpur, 8.ix.1965. K.S.P. & Party Coll.; 3 exs, Baruipur, 8.xii.1966, K.R. Rao & Party Coll.; 2 exs, Budge Budge, 24.i.1967, K.R. Rao & Party Coll.; 7 exs, Jhingzkhal, Sunderbans, 11.ix.1983, S. Biswas Coll. *North 24-Parganas* : 11 exs, Duttapukur, 6.xii.1966, A.N.T. Joseph Coll.; 8 exs, Barrackpore, 29.ix.1965, O.B. Chhotani Coll.; 22 exs, Ichapur, 8.xii.1965, K.R. Rao & Party. *Nadia District* : 9 exs, Kalyani, 20.xi.1965. K.S.P. & Party Coll.; 3 exs, Kalyani, 19.xi.1965, R.K. Kacker & Party Coll. *Birbhum District* : 35 exs, Champti Bagan, Nalhati; Mahammad Bazar and Illam Bazar, 21-27.i.1986, S.B. Roy Coll. *Bankura District* : 1 ex, bishnupur, 25.x.1985, M. Dutta Coll. *Midnapore District* : 30 exs, Gangadharpur and South beach, digha, 22-24.xii.1985, A.K. Hazra Coll. *Murshidabad District* : 26 exs, Sericulture Institute, Berhampur, Rajchandpur, near Rly. Station, Bhakri and Cossim Bazar, Dayanagar, 26-28.ii.1986, S.K. Mitra Coll.; 8 exs, Rajchandpur, Jiyaganj; Mahammadp Jangipur, 6012.ii.1986, I.J. Gupta Coll. *Malda District* : 1 ex, Chaneal, 14.vi.1987; 7 exs, Gangarampur, 15.vi.1987; 12 exs, Pakuhat, 6.vi.1987; 12 exs, Dhulian, 17.vi.1987; 6 exs, Pakuahat, 16.vi.1987; 12 exs, Dhulian 17.vi.1987; 6 exs, Alal, 19.vi. 1987; 9 exs, Bamangola, 23.vi.1987; 19 exs, Nimbari, 24.vi.1987; and 17 exs, Parbatidanga, 27.vi.1987, K.P. Mukherjee Coll. *Coochbehar District* : 28 exs; Balabhat, Tufangunj and Pestrjhur, 12.xii.1986. R.S. Burman Coll. *Jalpaiguri District* : 1 ex, Joyga, 17.xii.986; 12 exs. Binaguri, 20.xii.1986, R.S. Burman Coll.; 1 ex, Falakata, 24.viii. 1986, T.K. Pal Coll.; 2 exs, Rajabhatkhawa, 10.i.1987; 12 exs, Jainti, 17.i.1987; 8 exs, Baribhase, 20.i.1987; 11 exs, Shaktigarh, New Jalpaiguri, 21.i.1987. V.D. Srivastava Coll. *Darjeeling District* : 6 exs. Mirik, alt. 5100 ft., 31.iii.1986, A.K. Hazra Coll.; 4 exs. Chatir hat, Phansidewa, 3.xii.1986.; and 3 exs, Panihati, 5.xii. 1986. R.S. Burman Coll.

*Distribution* : India : West Bengal (Birbhum, Bankura, Calcutta, Coehbihar, Darjiling, Howrah, Hooghly, Jalpaiguri, Malda, Medinipur, Murshidabad, Nadia, North and South 24-Parganas); Goa: Tamil Nadu and Andaman Islands. Also known from China and Japan.

## Tribe PSYLLOBORINI

Key to the genera of tribe PSYLLOBORINI known from West Bengal.

- 1(2) Elytra uniformly yellowish creamy or yellowish brown in colour.....*Illeis* Mulsant  
 2(1) Elytra coloured otherwise..... *Halyzia* Mulsant

Genus *Halyzia* Mulsant, 1846

1846. *Halyzia* Mulsant, Securipalp, P. 141, 148.  
 1932. *Halyzia*, Korschefsky, Coleopt. Catalog. Pars 120, P. 570.

One species, *Halyzia straminea* Hope has been recorded from the state. No material was available during this study.

Genus *Illeis* Mulsant 1850

1850. *Illeis* Mulsant, spec. trim. securipalp. P. 1026.  
 1932. *Illeis*, Korschefsky, Coleopt. Catalog. Pars 120, P. 558.

*Illeis indica* Timberlake 1943

1943. *Illeis indica* Timberlake, Bull. Hawaiian. sug. Plrs. (ent. Series) No. 22 : 61.  
 (Type loc. Lahore, Pakistan)  
 1966. *Illeis indica*, Kapur, Proc. Nat. Inst. sci. India 32B (3-4) : 180-181.

*Material studied* : Howrah district : 1 ex, Jalpai, Bagnan, 29.i.1986, B. Dutta Coll.; Birbhum District : 1 ex, Bagmara, 22.i.1986, S. B. Roy coll.; Murshidabad District : 1 ex, Berhampore Serriculture Farm, 11.ii.1986; 19 exs, Sagardighi, 14-15.ii.1986, I. J. Gupta coll.; 3 exs, serriculture institute, Berhampore and 2 exs, Dayanagar, cassimbazar, 26.ii.1986, s. K. Mitra coll.; Jalpaiguri district : 1 ex, Sebhagunj, Alipurduar, 14.i.1987, V. D. srivastava coll and 1 ex, Bijanbari forest, 19.iii.1986, A. K. hazra Coll.

*Distribution* : India : West Bengal (Birbhum, Howrah, Jalpaiguri, Murshidabad); Delhi and Andaman Islands. Also known from Pakistan.

## Subfamily EPILACHNINAE

## Tribe EPILACHNINI

Key to the genera of Tribe EPILACHNINI known from West Bengal.

- 1(2) The last visible abdominal sternite in the female divided, or apparently divided, longitudinally in the middle; tarsal claw usually with a basal tooth..... Genus *Epilachna* Chevrolat

- 2(1) The last visible abdominal sternite in the female not divided as above, but entire; tarsal claw with or without the basal tooth.
- 3(4) Tarsal claw without the basal tooth.....Genus *Afissa* Dieke
- 4(3) Tarsal claw with a basal tooth.
- 5(6) Male genital plate short. Mandibular character different in serrations.....Genus *Afidenta* Dieke
- 6(5) Male genital plate well developed.
- 7(8) Body elongate oval -Antennae narrow just a little longer than the width of the head.....:  
..... \*Genus *Afissula* Kapur
- 8(7) Body shortly oval, usually small. Antennae subequal to the width of the head with a relatively thick and compact club..... Genus *Afidentula* Kapur

Genus *Afidenta* dieke, 1947

1947. *Afidenta dieke*, Smithson, Misc. Coll., 106(15) : 113.

*Afidenta mimetica*

ssp. *simplex* dieke 1947

1947. *Afidenta mimetica simplex* dieke, Smithsonian Misc. Coll., 106(15) : 111.

*Material studied* : 2 exs, New barrackpore, North 24-Parganas, 6.iv.1990, S.K. Ghosh Coll.: 1 ex. Teesta bazar, Darjeeling District, 18.iv.1976, A.R. Bhowmik Coll.

*Distribution* : India : West Bengal (Darjiling, North 24 Parganas); Himachal Pradesh. Also known from China and Tibet.

Genus *Afidentula* Kapur 1955

1955. *Afidentula* Kapur, Rec. Indian Mus., 53 : 324.

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

- 1(2) Smaller in size, greyish brown, pronotal spot generally absent or more diffused; each elytron with 6 spots, of which one is sutural below the post median line, two subapical elytral spots are usually united into a subquadrate spot. male genitalia-sipho much curved with the tip filiform, parameres a little shorter than the median lobe, narrow, with a few short hairs at the apex. the median lobe

about eight times as long as broad, smoothly curved, and narrowed to a pointed apex; female genital plates roundish, provided with short hairs from middle towards the apical margin.....

.....*A. manderstjerna*e (Mulsant)

- 2(1) Larger in size, testaceous, pronotum with a quadrangular black spot in the median half, its posterior margin broadly tricuspid; each elytron with 7 black spots of which one is sutural below the post median line, two subapical elytral spots are separate; male genitalia - siphon more or less sigmoid, tip spatulate, parameres as long as the median lobe, narrow and with short hairs at apex, the median lobe about four times as long as broad, slightly bent at the basal one third, concave in the distal two-thirds and narrowed sub apically to a fine pointed apex, female genital plates subcircular, provided with short, rather sparse hairs towards the apical margin.....

.....*A. himalayana* Kapur

### *Afidentula himalayana* Kapur 1963

1963. *Afidentula himalayana* Kapur, *Bull. Brit. Mus. (Nat. Hist.) Ent.*, 14(1) : 12-16 (Type loc. Sikkim, Darjeeling).

1979. *Afidentula himalayana*, Bielawski, *Entomologica Basiliensia*, 4:84-86.

*Material studied* : 2 exs, Ghoombhanjang, alt. 2117 m. 29.iv.1976, and 2 exs, Dowhill, alt. 1880 m., 30.iv. 1976, A.R. Bhowmik Coll. 1 ex, Sonada, alt. 1700 m., 22.vii.1979, M. Prasad Coll. 6 exs, Tiger hill, 1.v.1990, D.N. Biswas Coll., all from Darjeeling dist.

*Distribution* : India : West Bengal (Darjeeling); Sikkim and Uttar Pradesh. Also known from Bhutan.

### *Afidentula manderstjerna*e (Mulsant) 1853

1853. *Epilachna manderstjerna*e Mulsant, *Ann. Soc. Linn. Lyon*, I, : 256.

1947. *Afissa manderstjerna*e, Dieke, *Smithson. Misc. Coll.*, 106(15) : 125.

1958. *Afidentula manderstjerna*e, Kapur, *Rec. Indian Mus.*, 53(3-4) : 325.

1979. *Afidentula manderstjerna*e, Bielawski, *Entomologia Basiliensia*, 4 : 84.

*Material studied* : 1 ex, Garubathan, 20.xii.1973; 2 exs, Ghoomti, alt. 1400 ft., 5.i.1974, Srivastava & Maiti Coll.; 2 exs, Ghombhanjang, alt. 2117 m., 29.iv.1976; 1 ex, Dow hill, alt. 1880 m., 30.iv.1976; 1 ex, Garubathan, 10.iv.1976, A.R. Bhowmik Coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim, Uttar Pradesh. Also known from Bhutan, Nepal, Burma and China.

### Genus *Afissa* Dieke 1947

1947. *Afissa dieke*, Smithson, *Misc. Coll.* 106(15) : 113.

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

- 1(2) Pronotum without any spot, reddish in colour, pronotum often yellowish particularly at the sides, each elytron with 5 rounded black spots, the external median spot touching or almost touching the margin; pubescence yellowish, dark on the spots..... *A. flavicollis* (Thunberg)
- 2(1) Pronotum with spot of varying shape and size.
- 3(4) Pronotum with a transverse spot occupying almost the complete width of the pronotum and is angular behind; each elytron with 5 spots, the first elongate oval near the suture, but not touching it. No. 2 crescent-shaped, concave inward, No.3 transversely rectangular, No. 4. subquadratic with rounded corners, No. 5 rhomboidal; pubescence light grey, black on the spots; colour brick red .....*A. mysticoides* (Sicard)
- 4(3) Pronotal spot not transverse, round or elongate.
- 5(6) Pronotum with a longitudinal black spot reaching from the anterior margin to the scutellum, widest near the front; each elytron with 6 black spots; Nos.1 and 5 on the suture forming each one spot with their counter parts on the other elytron, No.2 touching the humeral angle, No. 4 touching the margin; pubescence light grey, dark on the spots.....*A. bengalica* Dieke
- 6(5) Pronotum with a small rounded dark spot just before the middle; rest as above.....  
..... *A. maculicollis* (Sicard)

*Afissa bengalica* dieke 1947

1947. *Afissa bengalica* Dieke, *Smithson. misc. Coll.*, 106(15) : 130-131 (Type loc Kurseong, West Bengal)
1963. *Afissa bengalica*, Kapur, *Bull. Brit. Mus. (nat. Hist.) Ent.*, 14(1) : 9.

*Material studied* : 1 ex, Reyang, 31.ix.1973, H.S. Sharma & Party Coll.; 1 ex, Dow hill, Kurseong, 8.i.1976, G.K. Srivastava Coll.

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

*Remarks* : Bielawski (1979) placed this species under the genus *Epilachna*.

*Afissa flavicollis* (Thunberg) 1781

1781. *Coccinella flavicollis* Thunberg, *Nov. Ins. Spec.* : 18
1931. *Epilachna flavicollis*, Korschefsky, *Coleopt. Cat. Pars* 118:29.
1947. *Afissa flavicollis*, Dieke, *Smithson, misc. Coll.*, 106(15) : 135-136.

*Material studied* : Jalpaiguri District : 8 exs, Bijanbri Forest, 19.iii.1986; 1 ex, Jainti Hill Forest, 20.iii.1986; 3 exs, Paltanpara Forest, 21.iii.1986; 12 exs, Forest near Gima River, 22.iii.1986; 3 exs, Rajabhat Khawoa, 22.iii.1986; 1 ex, Jaldapara Sanctuary, 23.iii.1986 and 1 ex, Forest around Mirik, alt

5100 ft., 31.iii.1986, A.K. Hazra Coll.; 2 exs, Rajabhat Khawoa, 20.viii. 1986, T.K. Pal Coll. Darjiling District : 1 ex, Reyang, alt. 390m., 31.iii.1973; 1 ex, Mousong, 6 km. E. of Rongpo, alt. 700 m., 8.iv.1973 and 1 ex, Goke, At. 450 m., 16.iv. 1973, H.S. Sharma & Party Coll.; 1 ex, Lolegaon, 11 .iv.1976 and 3 exs, Tarkhola, 20.iv. A.R. Bhowmik Coll.

*Distribution* : India : West Bengal (Darjiling, Jalpaiguri); Goa. Also known from Sri Lanka, Burma, Indonesia, Celebes, Sarwak and Phillipnes.

*Afissa maculicollis* (Sic.) 1912

1912. *Solanophila nilghirica* var. *maculicollis*. Sicard, Arch. fur Naturg., Jahrg, 78A (6) : 131.  
1947. *Afissa maculicollis*, Dieke, Smithsonian Misc. Coll., 106(15) : 131-132.

*Material studied* : 1 ex, Jaldapara Sanctuary, Jalpaiguri District, 28.viii.1986, T.K. Pal Coll.

*Distribution* : India : West Bengal (Jalpaiguri). Also known from formosa.

*Afissa mysticoides* (Sicard) 1912

1912. *Solanophila mysticoides* Sicard, Ann. Soc. Ent. France, 81:507 (Type loc : India)  
1931. *Epilachna (Solanophila ) mysticoides*, Korschefsky, Coleopt. Cat., Part 118 : 30.  
1947. *Afissa mysticoides*, Dieke, Smithson, misc. Coll., 106(15) : 145.  
1958. *Afissa mystioides*, Kapur, Rec. Indian Mus., 53(3-4) : 316-317.

*Material studied* : 1 ex, Dow Hill, alt. 1880 m., 30.iv.1976; 1 ex, Lopchu, alt. 1607 m., 1.v.1976; 2 exs, Mirik, alt. 4700 ft., 2.v.1976 and 1 ex, Jhepi. 3.v.1976, A.R. Bhowmik Coll. All Darjiling district.

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

Genus *Epilachna* chevrolat 1837

1837. *Epilachna* Chevrolat, in Dejean Cat. coleopt. P.  
1947. *Epilachna*, Dieke Smithson. Misc. Coll. 106(15) : 5.

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

- 1(2) Elytral apex angular, forming a sharp point; male genitalia with the blade of median lobe nearly half of the length of the latter; siphon slightly bent at the apex; the genital plate in the female with a subtriangular notch on the inner margin.....*E. vigintioctopunctata* (F.)
- 2(1) Elytral apex rounded, genitalia not as above
- 3(4) The external, median black spot of the elytra generally touching the external margin of elytron; male genitalia with the median lobe dentulate dorsally; siphon nearly straight at the apex which has an eyelet; female genital plate with a rounded notch on the inner margin.....*E. dodecastigma* (Wied.)

- 4(3) The external, median black spot of the elytra generally not touching the external margin of elytron; median lobe of the male genitalia not dentulate but with a dorsal blade, or knife-edge, of nearly half the length of median lobe; apex of siphon sharply narrowed on one side and pointed; female genital plate rather deeply notched, with notched parts almost overlapping.....*E. septima* Dieke

***Epilachna dodecastigma* (Wiedmann) 1823**

1823. *Coccinella dodecastigma* Wiedmann, *Zool. Mag.*, 2 : 73-74, (Type loc. Bengal).  
 1853. *Epilachna dodecastigma* Mulsant, *Ann. Soc. linn. Lyon*, 1 : 248.  
 1931. *Epilachna dodecastigma*, Korschefsky, *Coleopt. Cat., Pars* 118:28.  
 1963. *Epilachna dodecastigma*, Kapur, *Bull. Brit. Mus. (Nat. Hist.) Ent.*, 14 (1) : 607.

*Material studied* : Calcutta : 1 ex, Dhapa, 27.vii.1963, R.K. Kacker Coll.; 1 ex, Bansdronei, 6.vi.1977, S.K. Das Coll.; 3 exs, Pallysree, Behala, 6.xi.1988, S. Biswas Coll. Howrah District : 1 ex, Jalpai, Bagan, 29.i.1986, B. Dutta Coll. Hooghly District : 11 exs, Chandannagar, 9.xi.1965, K.K. Roy Coll. North 24-Parganas District : 4 exs, Chandpara, 19.vii.1955, Mrs. Sarkar Coll.; 1 ex, Ranaghat, 18.viii.1965, D.K.M. & Party Coll.; Nadia district. Murshidabad District : 1 ex, Sagar dighi, 14.ii.1986, I.J. Gupta Coll.; 3 exs, Dayanagar, Cossimbazar, 26.ii.1986; 3 exs, Serriculture Institute, Brhampore, 1.iii.1986, S.K. Mitra Coll. Malda District : 1 ex, Nimbari, 24.vi.1987, K.P. Mukherjee Coll.

*Distribution* : India : West Bengal (Calcutta, North and South 24 Parganas, Howrah, Hooghly, Nadia, Murshidabad, Malda); Sikkim and Andaman Islands. Also known from Indonesia and Burma.

***Epilachna septima* Dieke 1947**

1947. *Epilachna septima* Dieke, *Smithson. misc. Collns.*, 106(15) : 58-59 (Type loc. Indochina, Annam, Phucson)  
 1957. *Epilachna Keiseri* Bielawski, *Verh. Naturf. Ges. Basel*, 68:73-76 (Type loc. Ceylon).  
 1966. *Epilachna septima*, Kapur, *Proc. nat. Inst. Sci. India*, 32B(3&4) : 151.

*Material studied* : Calcutta : 1 ex, Bansdronei, 13.viii.1957, S.P. Sukla Coll.; 8 exs, Naktala, 27.vi.-7.vii.1987, ex. *Momordica charantia*, S.K. Chakraborty Coll. Hooghly District : 3 exs, Chandannagar, 9.xi.1965, K.K. Roy Coll. North 24 Pargana District : 2 exs, Dogachia, 24.vi.1988, Anil Ch. Saha Coll. Nadia District : 1 ex, Kalyani, 20.xi.1965, K.S.P. & Party Coll. ex. *Solanum nigrum*. Bankura District : 1 ex, Taldangra, 24.ix.1987, M. Prasad Coll. Murshidabad District : 2 exs, near Rly Station, 27.ii.1986 and 2 exs, Serriculture Institute, Berhampore, 1 .iii.1986, S.K. Mitra Coll. Jalpaiguri District : 5 exs, Falakata, 24.viii.1986, T.K. Pal Coll. Darjeeling District : 1 ex, Rangpo, 14.ix.1978. A.N.T. Joseph Coll.

*Distribution* : India : West Bengal (Bnkura, Calcutta, Darjeeling, Hooghly, Jalpaiguri, Murshidabad, Nadia, North 24-Parganas); Punjab; Uttar Pradesh; Bihar; Madhya Pradesh; Maharastra; Andhra Pradesh; Tamil Nadu; Assam and andaman Islands. Also known from Sri Lanka and Indonesia.

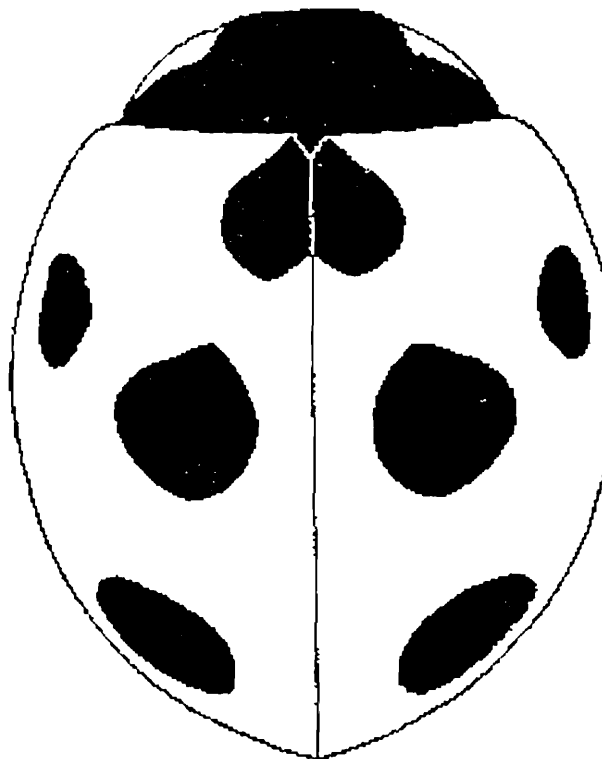
*Remarks* : This species is a serious pest of bittergourd (*Momordica charantia*). Both larvae and adult feeds on the leaves and generally completely defoliate.

*Epilachna vigintioctopunctata* (Fabricius) 1775

1775. *Coccinella 28-punctata* Fabricius, *Systema entomologiae* (Type loc. Tranquebar).  
 1850. *Epilachna vigintioctopunctata*, Mulsant, *Spec. Trim. Securipalp* : 834.  
 1931. *Epilachna vigintioctopunctata*, Korschefksy, *Coleoptr. Cat.*, 118 : 26.  
 1947. *Epilachna sparsa*, Dieke, *Smithson, mis` Collns.*, 106(15) : 32.  
 1966. *Epilachna vigintioctopunctata*, Kapur. *Proc. nat. Inst. Sci. India*, 32B(3 & 4) : 152-154.

*Material studied* : Calcutta : 1 ex, Eden Gardens, 20.vii.1966, R.K. Singh & Party Coll.; 2 exs, Bansdroni, 19.viii.1957, S.P. Shukla Coll.; 4 exs, New Alipur, 7.vii.1987, S.K. Chakraborty Coll.; ex. *Solanum nigrum*; Howrah District : 1 ex, Mahespur, 25.i.1986, B. Dutta Coll. Hooghly District : 1 ex, Kamarkundu, 19.i.1966, O.B. Chhotani Coll.; 1 ex, Chandannagar, 9.xi.1965, K.K. Roy Coll.; 1 ex, Bandel, 8.xi.1965, K.S.P. & Party Coll. Midnapore District : 1 ex, Jhargram (east), 17.ix.1985, AK. Hazra Coll. Murshidbad District : 1 ex, Dayanagar, Cossimbazar, 26.ii.1986 and 2 exs, Bhaksi, Berhampore, 28.ii.1986, S.K. Mitra Coll. Purulia District : 1 ex, Garh Dhrubeswar, 7.xi.1985, M. Dutta Coll. Coochbehar District : 1 ex, Tufangunj, 13.viii. 1986, T.K. Pal Coll. Darjeeling District : 5 exs, Melli, alt. 450 m., 17.iv. 1976, A.R. Bhowmik Coll.

*Distribution* : India : West Bengal (Calcutta, Cochbehar, Darjiling, Howrah, Hooghly, Medinipur, Murshidabad, Purulia); Tamil Nadu; Goa; Kerala; Punjab; Uttar Pradesh; Meghalaya and Haryana and Himachal Pradesh. Also known from Tasmania, Australia, New Guinea, Sunda Island, Phillipines, Formosa, China and Japan.



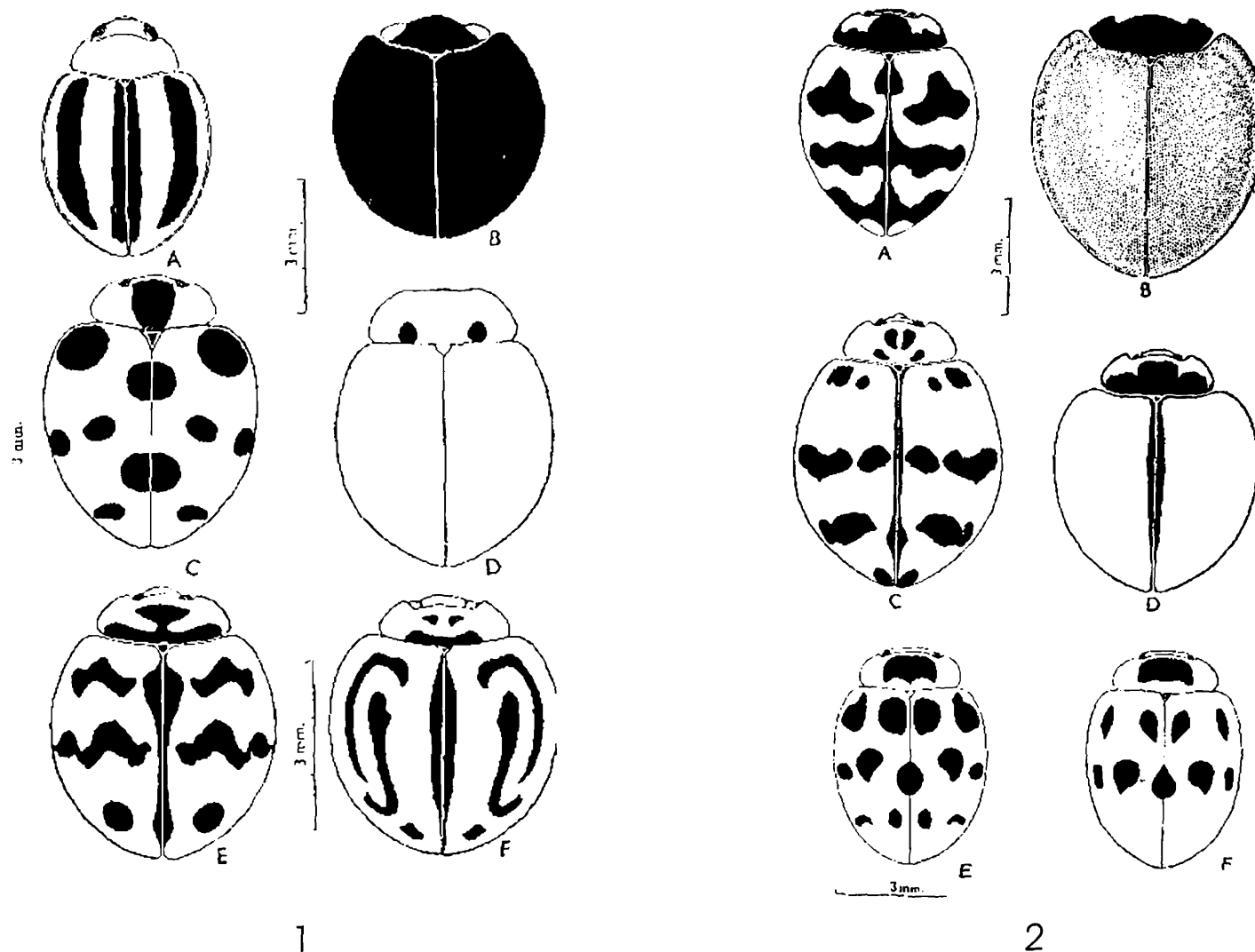
*Coccinella septempunctata* Linnaeus

THE CHART SHOWING DISTRICTWISE DISTRIBUTION OF SPECIES OF COCCINELLIDA IN WEST BENGAL

Name of the Species	Bankura	Bardhaman	Calcutta	Birbhum	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>Jauravia pallidula</i> Mots.				+			+										
2. <i>Jauravia soror</i> (Weise)			+	+			+										
3. <i>Brumus suturalis</i> (Fab.)			+		+			+	+		+	+		+		+	
4. <i>Chilocorus braeti</i> Weise					+												
5. <i>Chilocorus nigritus</i> (Fab.)				+		+					+		+				
6. <i>Chilocorus politus</i> Mulsant					+												
7. <i>Cryptogonus ariasi</i> (Mulsant)					+												
8. <i>Cryptogonus bimaçulatus</i> Kapur					+												
9. <i>Cryptogonus complexus</i> Kapur					+												
10. <i>C. orbiculus</i> var. <i>fulvocinctus</i> (Mulsant)					+												
11. <i>C. orbiculus</i> var. <i>lunatus</i> Kapur					+												
12. <i>C. quadriquttatus</i> (Weise)					+												
13. <i>Aspidimerus birmanicus</i> (Gorh.)					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
14. <i>Pseudaspidimerus circumflexa</i> var. <i>testaceus</i> (Weise)				+			+							+		+	
15. <i>Rodolia breviscula</i> (Weise)				+	+								+				
16. <i>R. fumida</i> var. <i>roseipennis</i> Muls.					+	+								+			
17. <i>Callicaria superba</i> (Mulsant)					+												
18. <i>Coccinella septempunctata</i> Linn.				+	+			+		+	+	+					
19. <i>Coccinella transversalis</i> Fab.	+		+	+	+			+	+	+	+	+		+	+	+	
20. <i>Coelophora bissellata</i> Mulsant					+			+									
21. <i>Coelophora pupillata</i> (Swartz)				+													
22. <i>Coelophora sexareata</i> Mulsant					+												
23. <i>Coelophora unicolor</i> (Fab.)							+										
24. <i>Harmonia arcuata</i> (Fab.)				+		+											
25. <i>Leis dimidiata</i> (Fab.)					+												
26. <i>Menochilus sexmaculatus</i> (Fab.)	+		+	+	+		+	+		+	+	+		+		+	
27. <i>Oenopia kirbyi</i> Mulsant					+												
28. <i>Oenopia luteopustulata</i> Mulsant	+		+	+	+		+	+	+	+	+	+			+		
29. <i>Oenopia sauzeti</i> Mulsant					+			+									
30. <i>Aiolocaria dodecaspilota</i> (Hope)					+												
31. <i>Synonycha grandis</i> (Thunbg.)					+												

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
32. <i>Micraspis cardoni</i> (Weise)	+										+						
33. <i>Micraspis discolor</i> (Fab.)	+		+	+	+	+	+	+	+	+	+	+	+	+			+
34. <i>Ileis indica</i> Timberlake			+			+		+				+					
35. <i>Afidenta mimetica</i> ssp. simplex Dieke					+									+			
36. <i>Afidentula himalayana</i> Kapur					+												
37. <i>Afidentula manderstjernae</i> (Mulsant)					+												
38. <i>Afissa bengalica</i> Dieke					+												
39. <i>Afissa flavicollis</i> (Thunberg.)					+			+									
40. <i>Afisa maculicollis</i> (Sic.)								+									
41. <i>Afisa mysticoides</i> (Sicard)					+												
42. <i>Epilachna dodecastigma</i> (Wiedmann)				+		+	+			+		+	+	+			+
43. <i>Epilachna septima</i> Dieke	+			+	+		+	+				+	+	+			
44. <i>Epilachna vigintioctopunctata</i> (Fab.)				+	+	+	+		+		+	+				+	



## TEXT-FIGS. 1.

- |   |                                       |
|---|---------------------------------------|
| A. <i>Brumus suturalis</i> (Fab.).        | B. <i>Chilocorus nigrinus</i> (Fab.). |
| C. <i>Afissa bengalica</i> Dieke.         | D. <i>Illeis indica</i> Timberlake.   |
| E. <i>Menochilus sexmaculatus</i> (Fab.). | F. <i>Micraspis cardoni</i> (Weise).  |
- (Figures after Kapur).

## TEXT-FIGS. 2.

- |  |                                      |
|--|--------------------------------------|
| A. <i>Doccinella transversalis</i> (Fab.). | B. <i>Chilocorus rubidus</i> Hope    |
| C. <i>Harmonia arcuata</i> (Fab.).         | D. <i>Micraspis discolor</i> (Fab.). |
| E-F <i>Afidentula himalayana</i> Kapur     |                                      |
- (Figures after Kapur).

## SUMMARY

The present paper deals with eighty species under 31 genera and six subfamilies. Of the species reported in this paper 18 species have been recorded for the first time from West Bengal. Keys to the subfamilies, tribes, genera and species have been provided. Relevant synonymies, collection data and distribution have been included. A chart showing district wise distribution of the species in West Bengal has been added.

## ACKNOWLEDGEMENT

Authors are thankful to the Director, Zoological Survey of India for facilities of works. They are also thankful to Dr. A.K. Ghosh, Joint Director for his suggestion for the improvement of the paper. Our thanks are also due to Dr. T. Sengupta, Deputy Director for his encouragement.

## REFERENCES

- Bielawski, R. 1961. Materialien zur Kenntnis der Coccinellidae (Coleoptera) II. *Ann. Zool. Warszawa*, **19** : 383-415.
- Bielawski, R. 1979. Ergebnisse der Bhutan Expedition 1972 des Natur historischen Museums in Basel Coleoptera : Fam. Coccinellidae. *Entomologica Basiliensia*, **4** : 83-125.
- Chapuis, M.F. 1876. In Lacordaire, Histoire Naturelle des Insectes et Genera des coleopteres, Vol. 12, Families des Erotyliens, des Endomychides, et des Coccinellides Paris.
- Crotch, G.R. 1874, A. revision of the Coleopterous family Coccinellidae London. 311 pp.
- Dejean, 1835. Cat. Col. p. 459-460.
- Dieke, G.H. 1947. Lady beetles of the genus *Epilachna* (Sons. lat) in Asia, Europe and Australia. *Smithson. Misc. Coll.* **106**(15) : 1-183.
- Dobzhansky, Th. 1924. Die Weiblichen Geschlechtsorgane der Coccinelliden als Artmerkmal betrachtet *Ent. Mitt.*, **13** : 18-26.
- Fabricius, J.C. 1798. Supplementum Entomologiae Systematicae. Hafniae, Profet Storeh, 8.2u. 572 pp.
- Ganglbauer, L. 1899. Die Kafer von Mitteleuropa Vol. 3, 1046 pp.
- Kamiya, H.. 1965. A. revision of the Tribe Coccinellini of Japan and the Ryukyus (Coleoptera : Coccinellidae) - *Mem. Fac. Lib. Arts, Fukui Univ.*, Ser. II, Nat. Sci., No. 15, Part 3, PP.27-71. Pls. I-III.
- Kapur, A.P. 1948. A revision of the tribe Aspidimerini Weise (Coleoptera - Coccinellidae). *Trans. R. ent. Soc. Lond.*, **99**(2), PP. 77-128.

- Kapur, A.P. 1950. A new species of *Stethorus* Weise from India (Coleoptera - Coccinellidae). *Proc. R. ent. Soc. Lond. (B)*, **19**, PP.148-149.
- Kapur, A.P. 1951. Further notes on Indian species of *Rodolia* Mulsant (Coleoptera : Coccinellidae). *Rec. Indian Mus.*, Delhi, **48** PP. 1-7.
- Kapur, A.P. 1951. A note on *Epilachna ocellata* Redt. (Coleoptera : Coccinellidae) with descriptions of three species hitherto confused with it. *Rec. Indian Mus.*, Delhi, **48** (3-4), PP. 17-29.
- Kapur, A.P. 1954. Contribution to a knowledge of the fauna of Manipur State, Assam, *Rec. Indian Mus.*, Delhi, **52**(2-4) : 313-348.
- Kapur, A.P. 1958. The Coccinellidae of Nepal. *Rec. Indian Mus.*, Delhi, **52**(3 & 4), PP. 309-338.
- Kapur, A.P. 1963. The Coccinellidae of the Third Mount Everest Expedition, 1924 (Coleoptera). *Bull. Brit. Mus. (Nat. Hist.) Ent.*, London, **14**(1), PP.1-48, 17 Text figs.
- Kapur, A.P. 1963. Confirmation of the occurrence of the lady-bettle, *Coelophora pupillata* (Swartz) (Coccinellidae, coleoptera) in India and its biological importance. *Sci. & Cult.*, Calcutta, **29**. P.264 (Reprint PP. 1-3).
- Kapur, A.P. 1966. The Coccinellidae (coleoptera) of the Andamans. *Proc. nat. Inst. Sci. India*, Delhi, **32B**(3&4), PP. 148-189.
- Kapur, A.P. 1969. On some Coccinellidae of the tribe Telsimiini with descriptions of new species from India. *Bull. Syst. Zool.*, Calcutta, **1**(2), PP.45-56.
- Korschevsky, R. 1931-1932. Coccinellidae Colcopterum Catalogus, W. Junk editas A.S. Shenkling. Pars. 118, 120. 659 PP.
- Mostschulsky, V. 1863. Essai d'un Catalogue des Insectes de L'île Ceylan, *Bull. Soc. Imp. Nat. Moscow*, **36**, 421-352.
- Mulsant, M.E. 1846. Histoire Naturelle des Coleopteres de France : Sulcicollis - Securipalpes, Paris, **4**, 280 pp.
- Mulsant, M.E. 1850. Species de Coleopteres trimeres Securipalpes *Ann. Soc. Agric. Lyon*, (2) **2** : 1-1104.
- Mulsant, M.E. 1853. Supplement a la Monographie des Coccinellides. *Ann. Soc. Linn. Lyon*, **1** : 137-333.
- Sasaji, H. 1968. Phylogeny of the family Coccinellidae (coleoptera) *Etigenia*. No. 35. 375 pp.
- Sicard, A. 1907. Coleopteres Coccinellides du Japan recueillis par M.M. Harmond et Gallois, *Bull. Mus. Hist. Nat. Paris* 210-212.

Sicard, A 1909. Revision des Coccinellides de la faune Malgacique (I). *Ann. Ent. Fr.* 78 : 68-165.

Weise, J. 1879. Bestimmungs Tabellen der Coleopteren II; Coccinelliden. *Zditschr. Ent.*, 7 : 88-156.

Weise, J. 1895. Insects du Bengale, 36e Memoire Coccinellidae. *Ann. Soc. ent. Belg.* 38 : 151-157.

Weise, J. 1900. Coccinelliden aus Ceylon gesammelt von Dr. Horn. *Deutsche Ent. Zeitschr.* 417-445.

Weise, J. 1901. New Coccinelliden. *Ann. Soc. Ent. Belgique*, 45 : 273-286.

Wiedemann, C.R.W. 1825. Zweihundert neue Kafer von Java, Bengalen und dem vorgebrige der gaten Hoffnung. *Zool. Mag.*, 2 : 1-133.



## INSECTA : COLEOPTERA FAMILY MELOIDAE

G.N. SAHA AND B.N. DAS  
*Zoological Survey of India, Calcutta*

### INTRODUCTION

The family Meloidae, popularly known as blister beetles are important group of insects in having commercial, medicinal and biological importances. In 1894, Fairmaire described two species namely, *Lytta cardoni* and *Cylindrothorax braetii* from 'Bengal'. Unfortunately, this group was very poorly known not only from West Bengal but also from all over India and its adjacent countries due to lack of worker from this subcontinent. Saha (1972 (b), 1972(c), 1979 and 1981) published several papers and a monograph on Meloidae fauna of India and its adjacent countries. So far about 110 species belonging to 17 genera and three subfamilies have been recorded from India and its adjacent countries. In the present paper, 12 species and one new species belonging to 7 genera are reported and it would be the first consolidated account of Meloidae fauna from West Bengal. Species marked with asterisks reviewed from the literature.

### MATERIAL AND METHOD

The present paper is based on the collections of Meloidae which were collected by survey parties of Z.S.I. in different months and years from the districts of West Bengal, namely, Calcutta and its surroundings (August, 1957; September, 1959; September, 1961), 24-Parganas (September, 1965) Hugli (September, 1957), Bankura (August, 1986), Nadia (September, 1975), Birbhum (November, 1974), Medinipur (November, 1974; October, 1983), and Darjiling (June, 1909; June 1930, June, 1934; May, 1974 and July, 1979).

### TAXONOMIC ACCOUNT

Family MELOIDAE Gyllenhal

Subfamily MELOINAE Denier

#### Key to Tribes of the Subfamily MELOINAE

1. Absomen heavily sclerotized, with the basal sterna excavated for reception of hind coxa .....  
..... Eleticini Kaszab
- Abdomen not heavily sclerotized, without excavated basal sterna ..... 2
2. Forefemur beneath with a patch of dense, silky pubescence ..... Epicautini Denier
- Forefemur without such character ..... 3

3. Metasternum short, mesocoxae partially overlapping metacoxae ..... Meloini Blanchard  
 Metasternum elongate, mesocoxae widely separated from metacoxae ..... 4
4. Antennae clavate ; mandibles often dissimilar ..... Mylabrini Wellman  
 Antennae never clavate ; mandibles similar ..... Lyttini Wellman

Tribe A. ELETICINI Kaszab

Genus I. *Eletica* Lacordaire, 1859

1859. *Eletica* Lacordaire, Gen. Col., 5 : 672

Key to species of the Genus *Eletica* Lacordaire

1. Mentum declivous ; scutellum entirely black ..... *E. testacea* Olivier  
 Mentum concave ; Scutellum posteriorly brownish ..... 2
2. Mandibles very large, labrum small, bilobed with less setae in front, clypeus fairly transverse in shape and vertex with less deep longitudinal median groove ..... *E. bengalensis* sp. nov.  
 Mandibles smaller and different in shape ; labrum larger in size, not lobed ; clypeus less transverse in shape and vertex with deep longitudinal median groove ..... *E. pilaniensis* Saha

1. *Eletica testacea* Oliver

1975. *Eletica testacea* Olivier, *Ent. Hist. Nat.*, 3(46) : 7.

1917. *Eletica testacea* Borchmann, *Junk's Col. Cat.*, 17(69) : 66

1955. *Eletica (Metelica) testacea* Kaszab, *Ann. Mus. Roy. Conge Belge*. 41 (8) : 18-19. Saha, 1979, *Mon. Rec. zool. Surv. India*, 74 (1) : 12.

*Material examined* : 1 ex., Reyang, EW. Himalayas, Dist., Darjiling, 10., vi. 1930, Coll. S.L. Hora.

*Distribution* : India : West Bengal ( Darjiling district).

*Remarks* : Th genus *Eletica* is one of the least studied genera of Meloidae in India. *E. testacea* was rcorded earlier from Darjiling ( Kazab, 1955, Saha 1979).

2. *Eletica bengalensis* sp. nov.

( Fig. 1)

*Male* : Body large, strong, ( looking as cerambycid beetle) elytral very wide and long, legs very long, head anteriorly and most parts of body dull black, mandibles and pronotum deep shiny black, lateral sides of head and elytra brown, length 36 mm. Head : Mandibles very large, convex, apically blunt, labrum

small, bilobed with small setae, clypeus redish in front and black posteriorly, fairly transverse and depressed in middle ; space between antennae and head very narrow, strongly rugose and shiny black ; vertex with moderately deep longitudinal median groove ; antennae moderately elongate ; scape longest ; pedicel smallest, wider apically, segment III longer than the rest segments, IV-VI nearly equal in shape and size, VII-XI segments gradually narrow and pointed. Elytra : Wider anteriorly and gradually narrower apically, fairly rugose and with longitudinal ridges. Ventral Side : Mentum very shiny brown, deeply concave, semicircular apically, with long hairs laterally, submentum also semicircular anteriorly; ligula somewhat convex with a depression in the middle, prosternum completely triangular in shape and with three sharply pointed angles, mesosternum fairly convex in the middle, somewhat triangular in shape, laterally with two dagger shaped processes, apically gradually narrowed and pointed metasternum very long and wide with a five median smooth fairly deep line and bifurcated in the middle apically and with a deep excavation in the lateral corner towards apical side ; last visible sternite narrowed and apically emarginate ; procoxa more well developed than mesocoxa and metacoxa smaller than mesocoxa ; all femora nearly equal in size and profemur narrower than meso and meta femur ; all tibiae nearly equal in size and shape, with setae at the ventral side apically ; all tarsi strongly flattened with very thick pad of setae.

*Holotype* : (M), India : West Bengal, Bardhaman, Kaithar, at light, 29.5.89, Coll. K.C. Banerjee ( Z.S.I./ Reg. No. 10991/H4A).

*Remarks* : It is close to *E. pilaniensis* Saha but differs in having mandibles different in shape, labrum smaller in size and bilobed with less setae in front, clypeus more transverse in shape and vertex with less deep longitudinal median groove.

#### Tribe B. EPICAUTINI Denier

#### Genus II. *Epicauta* Dejean

#### Key to species of the Genus *Epicauta* Dejean

1. Pronotum with long black hairs; elytra elongate, not broader towards apex ; mid and hind tibiae thickly clothed with long black hairs ..... *E. hirtipes* Waterhouse.  
Pronotum finely pubescent ; elytra less elongate, somewhat broader towards apex; mid and hind tibiae with less hairs ..... *E. nepalensis* (Hope)
2. Elytron with a distinct median vitta ..... *E. mannerheimi* ( Maklin)  
Elytron without a distinct median vitta ..... *E. hirticornis*(Haag-R.)

#### 3. *Epicauta hirticornis* ( Haag-Rutenberg)

1980. *Lytta hirticornis* Haag Rutenberg, *Deutsche Ent. Zeitschr.*, **24** : 79.

1917. *Epicauta hirticornis* Borchmann, Junk's Col. Cat., 17:76.

1952. *Epicauta hirticornis* Kaszab, *Acta Biol. Hung.* 3(4) : 585, 596. Saha, 1979, *Mon. Rec. zool. Surv. India*, **74** (1):20.

*Material examined* : 8 ex., Rekyong, E. Himalayas, Dist. Darjiling, Coll. S.L. Hora ; 9 ex., Kalimpong, 1370 m., Dist. Darjiling, vi. 1934, coll. S.L. Hora ; 1 ex., Dist. Darjiling ; 7 exs., Tindharia, alt. 856 m., Dist. Darjiling, 14. v. 1979, coll. M.S. Shishodia & party ; 7 exs., Rangpo, F.R.H., 750 m., Dist. Darjiling coll. H.S. Sharma & Party ; 4 ex., Rangpo, F.R.H., 700 m., Dist. Darjiling, 8. iv. 1973, coll. H.S. Sharma & party ; 2 ex., 4 Kms. S.E. of Goke Singta., 18. iv. 1973, coll. H.S. Sharma & party ; 1 ex., Ghoom Bhanjang, 1200 m., Dist. Darjiling, 19. iii. 1973, coll. P.K. Maity & party ; 1 ex., Bijanbari high School, Alt. 900 m. Dt. Darjiling, 19. v. 1974, J.K. Jonathan & party ; 2 ex., Kalimpong, Dist. Darjiling, 1. vi. 1980, R.N. Tiwari & party ; 3 ex., Pulbzar, Bijanbari, Dist. Darjiling, 19. v. 1980, coll. R.N. Tiwari & party ; 1 ex., 122 Van Takvar Tea Estate, Dist. Darjiling, 13. vii. 1981 ; 7 ex., Rangirum, F.R.H. Dist. Darjiling, 25.v.1974, coll. Dr J. K. Jonathan & party ; 22 exs., Bijanbari, Daga Tea Estate, Alt. 900 m., Dist. Darjiling, 2. v. 1974, coll. Dr. J.K. Jonathan & party.

*Distribution* : India : West Bengal ( Darjiling District ) ; Arunachal Pradesh, Assam, Meghalaya, Nagaland & Sikkim. Also China, Vietnam, Tonkin, Taiwan.

*Remarks* : Typical *hirticornis*, as described by Hagg-Rutenberg, seems to be confined to Assam, Nagaland and Meghalaya. The specimens from Darjiling district lack long black dense hairs on antennae and maxillary palpi and have shorter maxillary palpi, less expanded apical palpi and fewer hairs ventrally. One would have considered these specimens as a distinct species but a careful study at the structure of the genitalia shows that this is not so. At least the population of Darjiling district can be considered as a subspecies of *hirticornis* which would be described elsewhere.

#### 4. *Epicauta hirtipes* ( Waterhouse)

1871. *Cantharis hirtipes* Waterhouse, *Trans. Ent. Soc.*, **3** : 406.  
 1880. *Lytta Hirtipes* Haag-Rutenberg, *Deutsche Ent. Zeitschr.*, **24** : 82.  
 1971. *Epicauta hirtipes* Borchmann, Junk's Col. Cat., **17** (69) : 76.  
 1952. *Epicauta hirtipes* Kaszab, *Acta. Biol. Hung.*, **3**(4) : 584,596, Saha, 1979, *Mon. Rec. zool. Surv. India*, **74**(1) : 22.

*Material examined* : 1 ex., Kurseong, E. Himalayas, 1706 m. Dist. Darjiling, 12. vi. 1909, coll. E.A.D.abreu ; 1 ex. Dist. Darjiling coll. Welman.

*Distribution* : India : West Bengal ( Darjiling District ) ; Uttar Pradesh, Punjab & Sikkim. NEPAL.

*Remarks* : Formerly it was only known from Allahabad ( Uttar Pradesh) later it had been recorded from the states of West Bengal, Punjab and Sikkim ( Saha, 1979).

#### 5. *Epicauta mannerheimi* ( Maklin)

1875. *Lytta mannerheimi* Malkin, *Acta Soc. Fenn.*, **10** : 623.  
 1917. *Epicauta mannerheimi* Borchmann, Junk's Col. Cat. **17** : 77.  
 1952. *Epicauta mannerheimi* Kaszab, *Acta biol. hung.*, **3**(4): 583, 596. Saha, 1979, *Mon. Rec. zool. Surv. India*, **74**(1) : 25.

*Material examined* : 1 ex., Dist. Maldah, det. Wallman, coll. W.H. Iruine, 1 ex., Dist. Murshidabad, Coll. Atkinson.

*Distribution* : India : West Bengal ( Maldah & Murshidabad districts); Assam, Nagaland, North Eastern India, Himalayas. Bhutan.

6. *Epicauta nepalensis* ( Hope)  
(Fig. 2)

1831. *Lytta nepalensis* Hope, Gray's Zool. Miscel. : 32.  
1871. *Cantharis nepalensis* Waterhouse, *Trans. ent. Soc.* **3** : 405-406.  
1880. *Lytta nepalensis* Haag/Rutenberg, *Deutsche ent. Zeitschr.*, **24** : 82.  
1917. *Epicauta nepalensis* Borchmann, Junk's Col. Cat., **17**(69):78.  
1952. *Epicauta nepalensis* Kaszab, *Acta biol. hung.*, **3**(4) : 583-596. Saha, 1979, *Mon. Rec. zool. Surv. India*, **74**(1) : 25.

*Material examined* : 1 ex., Kalimpong, E. Himalayas, 1370 m. Dist. Darjiling, vi. 1934, coll. S.L. Hora; 4 ex., Ghoom Bhanja, 1200 m., Dist. Darjiling, 19. iii. 1973, coll. P.K. Maiti & party; 4 ex., Andheri Khola, 500 m., Dist. Darjiling, coll. H.S. Sharma & party; 2 exs., Rangpo, Dist. Darjiling, 8. iv. 1973, coll. H.S. Sharma & party; 1 ex., 4 Km. S.E. of Goke Singla (400m.), 15. iv. 1973, coll. H.S. Sharma & party; 3 ex., Kalimpong, Dist. Darjiling, 1. vi. 1980, coll. R.N. Tewari & party; 3 ex., Palbazar, Bijanbari, Dist. Darjiling, 19.v. 1980, coll. R.N. Tewari & party; 1 ex., 122. Van Takvar. T.E., Dist. Darjiling, 19.7.1981; 1 ex., Rangirum, F.R.H., Dist. Darjiling, 25.v.1974, coll. J.K. Jonathan & party; 8 ex., Bijanbari Duga Tea Estate, Dist. Darjiling, 21.5.1974, coll. J. K. Jonathan; 1 ex., Bijanbari High School ( 1900 m.), Dist. Darjiling, 19.v.1974, coll. J.K. Jonathan & Party.

*Distribution* : India : West Bengal ( Darjiling district) ; North Eastern India, Sikkim, Arunachal Pradesh, Also Nepal.

*Remarks* : It is previously known only from its type locality i.e. Nepal. Later, it was recorded for the first time from Arunachal Pradesh, Sikkim, and West Bengal. From the available data on distribution of this species it appears that it is restricted to north east India only.

Genus III. *Psalydolytta* Peringuey, 1909.

1909. *Plalydolytta* Peringuey, *Trans. R. Soc. S. Africa*, **1** (1): 254.

7. *Psalydolytta wellmani* Kaszab

1960. *Psalydolytta wellmani* Kaszab, *Ann. Mag. nat. Hist.* **3** (13) : 156. Saha, 1979, *Mon. Rec. zool. Surv. India*, **74**(1) :41.

*Material examined* : 10 ex., Dist. Maldah, coll. Indian Museum ( W.H. Irvine).

*Distribution* : India : West Bengal ( Maldah district).

Tribe C. MYLABRINI Wellman

Genus IV. *Mylabris* Fabricius, 1775

( Fig. 3)

1775. *Mylabris* Fabricius, *Systema entomologiae*, no. 78 : 76.

Key to species of the Genus *Mylabris* Fabricius

1. Elytron with one moderately sinuated transverse black band ..... *M. thunbergi* Billberg  
 Elytron not with any sinuate transverse black band ..... 2
2. Antennae strongly clubbed apically; cardo without any ridge ..... *M. cichorii* (Linnaeus)  
 Antennae poorly clubbed apically; Cardo with an elevated ridge anteriorly ..... *M. phalerata* (Pallas)

8. *Mylabris cichorii* (Linnaeus)

1757. *Meloe cichorii* Linnaeus, Iter Hasselquist : 410.  
 1813. *Mylabris cichorii* Billberg, Mon. Mylabr. : 11.  
 1872. *Mylabris cichorii* Marseul, Mem. Soc. Liege : 448.  
 1917. *Mylabris cichorii* Borchmann, Junk's col. Cat., 17 (69) : 29.  
 1954. *Mylabris* (*Euzonabris*) *cichorii* Kuzin, Trudi Ent. Oh., 44 : 358. Saha, 1979, Mon. Rec. zool. Surv. India, 74(1) : 59.

*Material examined* : 8 exs., Rangiram, F.R.S., Dist. Darjiling, 25. v. 1974, coll. J.K. Jonathan ; 3 exs., Bhimraj Joth, Naxalbari, Dist. Jalpaiguri, 12. ix. 1974, Coll. H.K. Bhowmik & A.R. Bhowmik ; 1 ex., Mansung, Rongpo, Dist. Darjiling, 8. vii. 1979, Coll. P. Halder & Party ; 10 exs., Bhimraj Joth, Naxalbari, Dist. Jalpaiguri, 13. ix. 1974, Coll. H.K. Bhowmik & A.R. Bhowmik & Party ; 1 ex., Garia, Dist. 24-Parganas (s.), 21. ix. 1961, Coll. H.L. Paul ; 1 ex., Ganga-Jachati, Dist. Bankura, 3. ix. 1986, Coll. P. Mukhopadhyay ; 1 ex., Munghu, E. Himalayas, below 1524 m., Dist. Darjiling 1 ex., Gopaldhara, Rungbong valley, Dist. Darjiling, Coll. W.K. Weff ; 9 exs., Kalimpong, 1521 m., vi. 1934, Coll. S.L. Hora.

*Distribution* : India : West Bengal ( 24-Parganas(s.), Bankura, Jalpaiguri, Darjiling Districts) ; Assam, Meghalaya, Bihar, Himachal Pradesh. Also Nepal, South China, Thailand, Formosa, Vietnam, Japan.

*Remarks* : A notable elytral colour variation is found in different population of different states. Furthermore it is interesting to note that the distribution of the species is generally confined along the Himalayan region.

9. *Mylabris phalerata* (Pallas)

1781. *Meloe phalerata* Pallas. Icones Insectorum Ross. Sibir :78.  
 1798. *Mylabris sidae* Fabricius, Ent. Syst. Suppl. : 120.  
 1872. *Mylabris Phalerata* Marseul, Mem. Soc. Liege : 446.  
 1917. *Mylabris phalerata* Borchmann. Junk's Col. Cat., 17 (69) : 45.  
 1954. *Mylabris* (*Euzonabris*) *phalerata* Kuzin. Trudi Ent. Obs., 44 : 358, Saha, 1979, Mon. Rec. zool. Surv. India, 74 (1) : 77.

*Material examined* : 5 ex., Bansdrani, Calcutta, 13. vii. 1957, Coll. S.P. Shukla; 1 ex., Alipur, Calcutta, 24. iv. 1959, Coll. P.C. Dhar ; 1 ex. Kalyani, Dist. Nadia, 26. vii. 1965 ; 3 ex., Gobardanga, Dist.

N. 24-Parganas, 18. ix. 1965, Coll. H. Ghosh; 1 ex., Uttarpara, Dist. Hugli, 14. ix. 1957, Coll. Shaukat Ali; 1 ex., Dighara, Dist. Hugli, 15. ii. 1965, Coll. B.C. Saha; 4 ex., Calcutta; 10 ex., Garia, Dist. S. 24-Parganas, 21. ix. 1961, Coll. H.L. Paul; 2 ex., Panch para, Dist. Haora, 29. vii. 1964, Coll. K.R. Rao & party; 1 ex., G.S.I. Compound, Calcutta, 26. ix. 1967, Coll. R.N.T. & R.K. Singh; 18 ex., Dhapa, Calcutta, 1979, Coll. T. Sengupta; 43 ex., Patrasayar, Dist. Bankura, 28. vii. 1986, Coll. P. Mukhopadhyay; 1 ex., Haringhata Farm, Dist. Nadia, 24. ix. 1975, Coll. B.C. Saha; 4 ex., Naxalbari, Dist. Jalpaiguri, 12. ix. 1974, Coll. H.K. Bhowmik & A.R. Bhowmik; 3 ex. Rangirram, F.R.H., Alt. 2000 m., Dist. Darjiling, 26. v. 1974, Coll. J.K. Jonathan & party; 4 ex., Rangirram, 2000 m., Dist. Darjiling, 25.v.1974, Coll. J.K. Jonathan; 6 ex., Radhanagar, Dist. Bamjura, 31. viii. 1986, Coll. P. Mukhopadhyay; 7 ex., Taldengra, Dist. Bankura, 11. ix. 1986, Coll. P. Mukhopadhyay; 8 exs. Jhargram, Dist. Medinipur 4. x. 1983, Coll. A.K. Hazra & party; 18 ex.. Amtola More, Dist. Bankura, 27. viii. 86, Coll. P. Mukhopadhyay.

*Distribution* : India : West Bengal ( Calcutta, Nadia, N. 24-Parganas, Hugli, 24-Parganas(s), Howrah, Bankura, Jalpaiguri, Medinipur, Darjiling districts) ; Bihar, Orissa, Uttar Pradesh, Punjab, Jammu, Madhya Pradesh, Gujarat, Karnataka, Andhra Pradesh, Tamil Nadu. Also China and Sri Lanka.

*Remarks* : It is the commonest, most widely distributed and dominating species of the genus *Mylabris* in India. It appears to be a polytypic species with geographical as well as individual variations.

#### 10. *Mylabris thunbergi* Billberg

1813. *Mylabris thunbergi* Billberg, Mon. Mylr. : 18.

1872. *Mylabris thunbergi* Marseul, Mem. Soc. Leige : 476.

1917. *Mylabris thunbergi* Borchmann. Junk's Col. Cat. 17(69): 54. Saha, 1979, Mon. *Rec.zool.Surv.India*, 74(1) :85.

*Material examined* : 3 ex., Radhanagar, Dist. Bankura, 31. viii. 1986, Coll. P. Mukhopadhyay ; 5 ex., Ganga-Jachati, Dist. Bankura, 31. ix. 1986, Coll. P. Mukhopadhyay ; 7 ex., Ganga-Jachati, Dist. Bankura, 8. ix. 1986, Coll. P. Mukhopadhyay; 2 ex., Amtola more, Dist. Bankura, 27. viii. 1986, Coll. P. Mukhopadhyay, 4 ex., Dist. Murshidabad, Coll. Alkinson ; 1 ex. Gobindapur, Dist. S. 24-Parganas, 2 x. 1988. Coll. B.N. Das ; 5 ex., Patrasayer, Dist. Bankura, 28. viii. 1986, Coll. P. Mukhopadhyay.

*Distribution* : India : West Bengal ( Bankura, Murshidabad, 24-Parganas(S.) Districts), Bihar, Orissa. Madhya Pradesh, Andhra Pradesh, Tamil Nadu, Karnataka and Kerala. Also Sri Lanka.

*Remarks* : It is evident from the distributional data that the species is fairly well distributed in India. Study of a large sample of the species collected from different states of India, it has been observed that the population of *thunbergi* may be classified into four distinct variable groups.. But the studies of genitalia confirm that the population of different places with the aforesaid variations belong to the same species.

#### Tribe D. LYTTINI Wellmann

#### Key to Genera of Tribe LYTTINI

1. Metasternum with a red patch in the centre ..... *Cyaneolytta* Peringuey
- Metasternum without such red patch ..... 2

2. Antennae basically filiform, sometimes setaceous ; pronotum fairly elongate .....  
 ..... ***Cylindrothorax*** Escherich

Antennae basically moliniform, sometimes submoliniform, pronotum broader Scutellum small,  
 usually rounded apically ..... ***Lytta*** Fabricius

Genus V. ***Lytta*** Fabricius, 1775.

1775. *Lytta* Fabricius, Systema Entomologiae, **78** : 260.

\* 11. ***Lytta cardonii*** ( Fairmaire)

1894. *Cantharis cardonii* Fairmaire, Ann. Soc. ent. Belg., **28** : 35.  
 1917. *Lytta cardonii* Borchmann, Junk's Col. Cat., **17(69)** : 92. Saha, 1979, Mon. Rec. zool. Surv. India, **74(1)** :98.

*Distribution* : India : Bengal.

*Rmarks* : It was recorded from the literature. Collection is not available for examination.

Genus VI. ***Cylindrothorax*** Escherich, 1896.

1896. *Cylindrathorax* Escherich, Wien. Ent. Zeit., **15** : 28.

\*12. ***Cylindrothorx braetii*** ( Fairmaire)

1894. *Cantharis braetii* ( Fairmaire) Ann. Soc. ent. Belg., **28** : 41-41.  
 1917. *Lytta braeti* Borchmann, Junk's Col. Cat. **17(69)** : 91.  
 1955. *Cylindrothorax braetii* Kaszab, Ann. Hist. natn. Mus. Nat. Hung., S.n., **6** : 236. Saha, 1979, Mon. Rec. zoll. Surv. India, **74** (1) : 108.

*Distribution* : India : West Bengal.

*Remarks* :It has been recorded only from the literature. Collection is not available for examination.

Genus VII. ***Cyaneolytta*** Peringuey, 1909.

1909. *Cyaneolytta* Peringueey. Trans. R. Soc. S. Africa, **1(1)** : 249.

13. ***Cyaneolytta acteon*** ( Laporte)

1840. *Cantharis acteon* Laporte, Hist. Net. Ins., **2** : 273.  
 1880. *Lytta acteon* Haag-Rutenberg, Deutsche Ent. Zitschr., **24** : 58.  
 1917. *Cyaneolytta acteon* Borchmann, Junk's Col. Cat., **17(69)** : 103.  
 1953. *Cyaneolytta acteon* Kaszab, Ann. Hist. natn. Mus. Nat. Hung, **4** : 81, 87 & 92. Saha, 1979, Mon. Rec. zool. Surv. India, **74(1)** : 110.

*Material examined* : 2 ex., Dist. Maldah, Coll. W.H. Irvine ; 1 ex., Dist. Murshidabad, 1 ex., Berhampur, Dist. Murshidabad. Coll. Atkinson.

*Distribution* : India : West Bengal ( Maldah, Murshidabad districts) ; Gujarat, Rajasthan, Sikkim.

*Remarks* : It was first recorded from West Bengal, Gujarat, Rajasthan and Sikkim in 1979 by Saha.

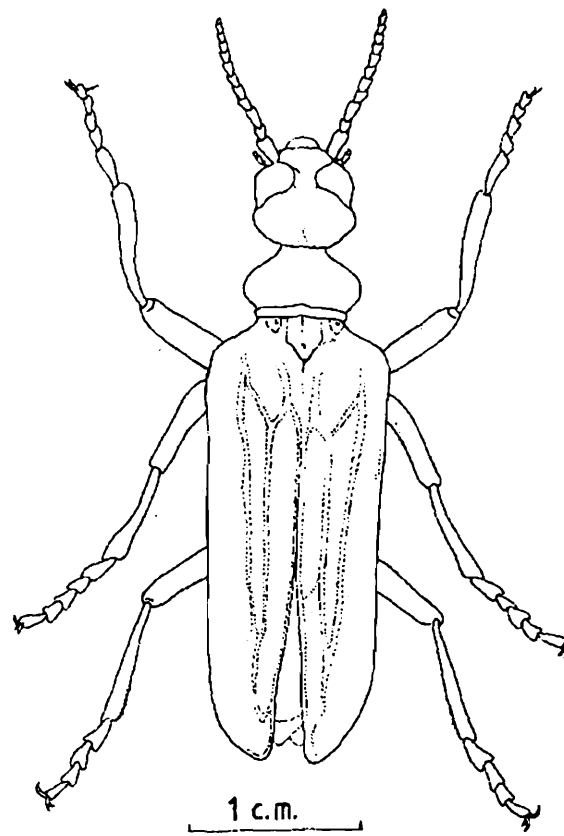


Fig. 1. *Eletica bengalensis* sp. nov. (Dorsal view)

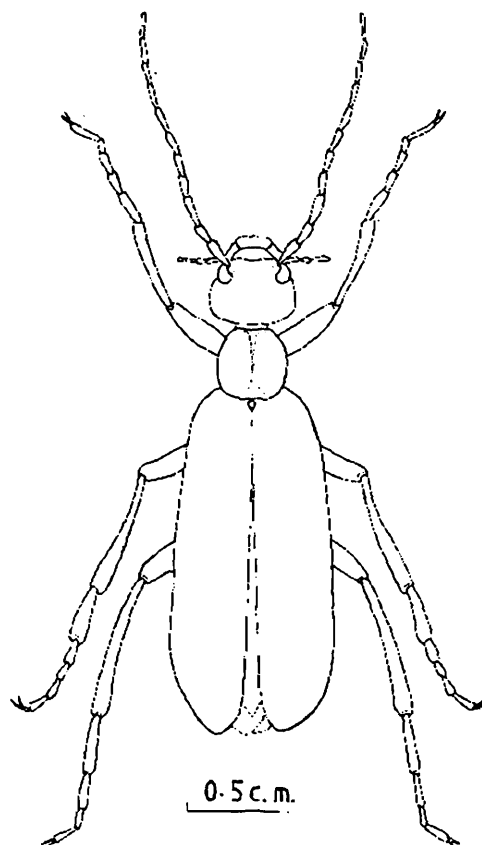


Fig. 2. *Epicauta nepalensis* (Dorsal view)

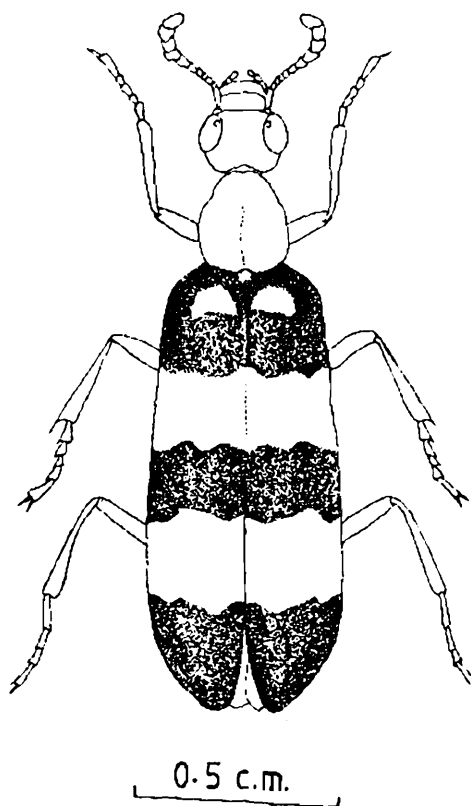


Fig. 3. *Mylabris cichorii* ( Dorsal view)

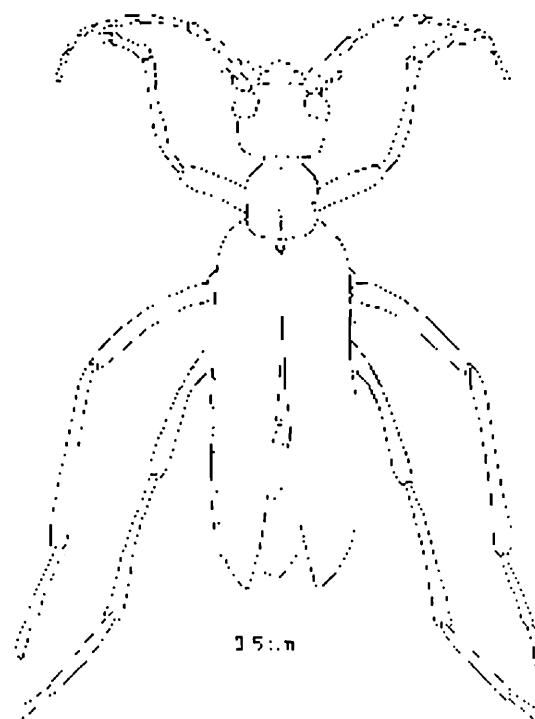


Fig. 4. *Cyaneolytta acteon* ( Dorsal view)

## SUMMARY

In all 12 species and one new species belonging to 7 genera are reported in the present paper. The genera namely, *Psalydolytta*, *Lytta*, *Cylindrothorax* and *Cyaneolytta* are represented each by only one species from West Bengal. And the genus *Epicauta* is represented by four species from West Bengal and among these, *E. hirticornis* is the most widely distributed in West Bengal and also outside West Bengal. Three species of the genus *Mylabris* have been recorded from West Bengal and among these, *M. phalerata* seems to be not only the most widely distributed species in West Bengal but also in different states of India, it appears as to be a polytypic species.

## ACKNOWLEDGEMENTS

We are grateful to the Director, Z.S.I. and Dr. S.K. Bhattacharyya, Joint Director, Zoological Survey of India, Calcutta, for kindly providing us with necessary laboratory facilities and encouragement and Dr. A.K. Ghosh, Joint Director for kindly going through the manuscript.

## REFERENCES

- Borchmann, F. 1917. Meloidae, Cephaloidae. In Junk, W & Schenikling S. Coleopt. Cat., Berlin, **17**, pars 69, pp. 1-208.
- Fairmaire, L. 1894. *Heteromeres du Bengale*, *Ann. Soc. Ent. Belg.*, **38** : 16-43.
- Kaszab, Z. 1952. Die palaarktischen und orientalischen Arten der Meloiden-Gattung *Epicauta* Redtts. *Acta Biol. Hung.*, **3**(4) : 573-599.
- Kaszab, Z. 1953. Revision der Meloiden-Gattung *Cyaneolytta* Per *Ann. Hist. nat. Mus. Nat. Hung.*, s.n. **4**: 91-93.
- Kaszab, Z. 1954. Die Arten der Meloiden-Gattung *Psalydolytta* Per., *Acta Zool. Hung.*, : **1** : 69 103.
- Kaszab, Z. 1955. Die Arten der Meloiden-Gattung *Cylindrothorax* Escher. *Ann. Hist. nat. Mus. Nat. Hung.*, z.n. **6**:225-258.
- Kaszab, Z. 1955. Revision der Meloiden-Gattung *Eletica* Lac.. *Ann. Mus. Congo. Belg. Ser. 8.m Sci. Zoo.*, **41** : 1-121 Tafel I-IV.
- Kaszab Z. 1960. Einige neue Meloiden ( Coleoptera) Anur. der Sammlung des British Museum. *Ann. Mag. nat. Hist.*, **3** (13) : 153-159.
- Kuzin. B.S. 1954. Kposnanyju systemy narybnikov ( Coleoptera Meloidae Mylabris) *Trudy Entom. Obsth.*. Leningrad Moskva **44** : 336-379.
- Marseul, M.S.A. 1872. Monographie des Muylabrides. *Mem. Soc. Liege*, : 363-632, Planche 1-6.

- Saha, G.N. 1972(a). Studies on Indian Blister Beetles ( Coleoptera: Meloidae) Four new species of *Mylabris* Fab. from Rajasthan. *Oriental Insects*, Delhi, **6** (3), pp. 273-280.
- Saha, G.N. 1972 (b). Studies on Blister Beetles ( Coleoptera: Meloidae) from India ; Two new species of the genus *Eletica* Lacordaire. *Zool. Anz. Leipzig*, **189** : 98-101.
- Saha, G.N. 1972(c). Observation on a collection of blister beetles, *Mylabris* Fab. ( Coleoptera : Meloidae), from Pakistan, with description of a new species and a new subspecies. *Proc. Zool. Soc.*, Calcutta, **25** : 19-23.
- Saha, G.N. 1979. Revision of Indian Blister Beetles ( Coleoptera : Meloidae : Meloinae) *Rec. Zool. Surv. India*, **74** ( Part I) pp. 1-146.
- Saha, G.N. 1981. A new genus of Meloidae ( Coleoptera ) from India. *Oriental Insects*, Delhi **15** (3) : 63-65.
- Saha, G. N. 1990. Ethological and Ecological Adaptations in Taxonomy (In Environment and Biology edited by Director, Z.S.I.), : 317 321.
- Saha, G. N. 1992. Medicinal importance of Insects and Spiders (Represented in National Symposium entitled "Zoological Research in relation to Man and Environment" organised by the Zoological Society, Calcutta. *Proc. Zool. Soc. Calcutta*, 45 (Suppl. A) : 395-398.



## INSECTA : COLEOPTERA : TENEBRIONIDAE

G. N. SAHA AND B. N. DAS  
*Zoological Survey of India, Calcutta*

### INTRODUCTION

The family Tenebrionidae, members of which are popularly known as darkling beetles, is a versatile group in having unique power of adaptation in almost all habitats either favourable or adverse, including extreme hot deserts and snow capped mountains. Among stored products pests, Tenebrionidae form maximum number of pest insects which cause enormous damage to stored products. It shows extreme organic diversities and adaptive radiations in different ecological niches.

The family Tenebrionid is one of the largest families of Coleoptera, comprising about 18,000 described species from all over the world. It consists of 2558 species belonging to 370 genera, 36 tribes and 3 sub-families from Indian subcontinent and its adjacent countries.

The Tenebrionidae fauna of West Bengal as well as India as a whole is very poorly known. So, the status of knowledge on the group stands at alpha stage due to the following facts : firstly all the stray publications on the group are scattered and were published in different obscure foreign journals and are not available in India; secondly, due to its vastness and organic diversities, it is very difficult to study the group as because there is no dependable literature on Indian fauna of this family.

In spite of the aforesaid difficulties an attempt has been made to prepare the present paper consisting 88 species including two new species belonging to 42 genera and 16 tribes; it forms the first comprehensive paper on Indian Tenebrionidae by the Indian workers. Due to the poor status of knowledge on the group the present paper may have some lacunae but it provides many new and important informations as regards many new records from W. Bengal, India and Bangladesh, type localities, pattern of distribution and characterization which may help to stimulate a more widespread interest in the study of this poorly known Indian fauna (but abundantly found in almost all ecosystems of our country).

Earlier Tenebrionid fauna of India and its adjacent countries may be seen in Kaszab 1975, 1976, 1979, 1980 and Saha 1977, 1984, 1988(a), 1988(b), 1990).

The present paper is based on the collections of Tenebrionidae which were collected by earlier workers and recent survey parties of Z.S.I. in different months and years from the different districts of West Bengal.

The references on some species can not be completed due to lack of literatures and these species have been marked with asterisk.

## LIST OF TAXA

Family TENEBRIONIDAE

Sub-Family TENEBRIONINAE

- A. Tribe AMARYGMINI
  - I. Genus *Hoplobrachium* Fairm.
    - 1. *H. asperipenne* Fairm.
  - II. Genus *Platolenes*
    - 2. *P. darjilingensis* Saha
  - III. Genus *Cyriogeton* Pasc.
    - 3. *Cyriogeton insignis* Pasc.
    - 4. *C. purpureus*
- B. Tribe BALPTINI
  - IV. Genus *Blaptyscellis* (Pierre)
    - 5. *B. alpinus* Kasz
- C. Tribe BOLLITOPHAGINI
  - V. Genus *Dicraeosis* Mars
    - 6. *D. amplous* Gebien
- D. Tribe COSSYPHINI
  - VI. Genus *Upis* Fab.
    - 7. *U. nigra* Wied.
  - VII. Genus *Cossyphus* Oliv.
    - 8. *C. depressus* Fab.

## E. Tribe CTYPTICINI

VIII. Genus *Microcrypticus* Geb9. *M. ziczac* (Motschulsky)10. *M. scripticum* Lewis

## F. Tribe DIAPERINI

IX. Genus *Ceropria*11. *Ceropria laticollis* Fairm.12. *C. induta* Weid13. *C. inoluta*14. *C. subscellata* LewisX. Genus *Basanus* Lacord.15. *B. javanus* Chvir

## G. Tribe LEIOCHRINI

XI. Genus *Crypsis* Waterh16. *C. blairi* KaszXII. Genus *Derispia*17. *Derispia subseriata* Kasz18. *D. truncata* Kasz19. *D. bengalensis* Kasz.XIII. Genus *Leiochrinus* Westw.20. *L. rufofulvus* Westw.21. *L. sauteri* Kasz

## H. Tribe MESOLAMPINI

XIV. Genus *Hexarhopalus* Fairm.22. *H. foveipenne* Fairm.

## I. Tribe OPATRINI

XV. Genus *Trigonopoda*23. *T. malabaricus* Fairm.XVI. Genus *Gonocephalum* Solier24. *Gonocephalum bilineatum* (Walker)25. *G. consobrinum* Blair26. *G. curiosum* Kasz27. *G. depressum* Fab.28. *G. elytrale* Kasz29. *G. hoffmannseggi* Steven30. *G. nepalicum* Kasz31. *G. obolongum* Fab.32. *G. planatum* Walk.33. *G. Stockleini* Kasz34. *G. strigatum* Fab.35. *G. tuberculatum* Hope36. *G. vagum* Steven37. *G. woynorovich* Kasz38. *G. sp.*XVII. Genus *Opatroides*39. *O. vicinus* Fairm

40. *O. helopioides* Dj.

XVIII Genus **Scleron**

41. *S. ferrugineum* Fabr.

42. *S. irregulata* Dist.

43. *S. reitteri* Geb,

XIX. Genus **Scleropatrum** Scill.

44. *S. arenarium* Fab.

45. *S. strigatum* Fab.

J. Tribe PEDININ

XX. Genus **Mesomorphus** Scidl.

46. *M. laticulus* Chatany.

47. *M. villiger* Blanch.

48. *M. vitalisi* Chatanay

K. Tribe PLATYNOTINI

XXI. Genus **Platynotus**. Fab.

49. *P. derollei* Mulsant & Roy

50. *P. excavatus* Fab.

L. Tribe STRONGYLINI

XXII. Genus **Strongigllium** Kby.

51. *S. dubium* Geb.

52. *S. cehowmi* Makl.

53. *S. bengalensis* n. sp.

M. Tribe TENEBRIONINI

XXIII. Genus *Anthracius* Redt.54. *A. punctipennis* GrovelyXXIV. Genus *Derosphaerus* Thoms.55. *D. cribrum* FairmXXV. Genus *Encyalesthus* Motsch.56. *E. cribrum* KaszXXVI. Genus *Indenicmosoma*57. *I. pocsi* KaszXXVII. Genus *Lyprops* Hope58. *L. gracilior* Fairm59. *L. indicus* Wiedem.XXVIII. Genus *Setenis* Motsch60. *S. Indisinica* Fairm.61. *S. laevis* Fairm.62. *S. mandibularis* Geb.XXIX. Genus *Toxicum* Latr.63. *T. assamense* Pic.64. *T. Richesianum* Latr.

## Subfamily TENTYRIINAE

## N. Tribe TENTYRIINI

XXX. Genus *Stenosis*65. *S. medinipurensis* n. sp.XXX. Genus *Mesostena*

66. *M. lineatopunctata* Kra.

Subfamily TENEBRIOMINAE

O. Tribe ULOMINI

XXXII. Genus *Alphitobius* Steph.

67. *A. diaperinus* (Pan)

68. *A. laevigatus* (F)

69. *A. piceus* Ol.

XXXIII. Genus *Hypophloeus*

70. *H. cephslothes* Geb.

71. *H. tripartitus* Blair

XXXIV. Genus *Latheticus* Waterh.

72. *L. oryzae* Waterh.

XXXV. Genus *Lyphia* Muls. et. Rey

73. *L. elongata* Pic.

XXXVI. Genus *Palorus*

74. *P. foveicoilis* Blair

75. *P. ratzeburgii* Wiss

XXXVII. Genus *Platybolium*

76. *P. alveolarium* Blair

XXXVIII. Genus *Tribolium* Macleay

77. *T. castaneum* (Herbst)

78. *T. confusum* Jacq. clu. Val.

XXXIX. Genus *Uloma* Latr.

79. *U. Javana* Geb.  
 80. *U. kulzeri* Ardoin  
 81. *U. orientalis* Cast.  
 82. *U. solita* Wied.  
 83. *U. rubripes* Hope  
 84. *U. rufilabris* Fairm.  
 85. *U. sita* Fairm

XXXX. Genus *Tenebroides*

86. *T. manritamicus* Linn.

XXXXXI. Genus *Anacycus* Fairm

87. *A. navicularis* Fairm.

P. Tribe HETEROTARSIINI Latr.

XXXXXII. Genus *Hetterotarsus*

88. *H. inflatus* Lacord.

TAXONOMIC ACCOUNT

Family TENEBRIONIDAE

Sub-Family TENEBRIONINAE

Tribe AMARYGMINI

Genus *Hoplobrachium* Fairm, 1886.

1886. *Hoplobrachium* Fairm. *Am. Soc. Ent. Fr.* (6) 6 : 74.  
*Hoplobrachium asperipenne* Fairm., 1886.  
 1886. *Hoplobrachium asperipenne* Fairm. *ann. soc. ent. Pr.* (6) 6 : 74, t 2, f. 9.

*Material examined* : 10 exs, Calcutta, 11. xi. 1915, coll. F.H. Gravely; 2 exs., Calcutta.

*Distinctive characters* : Head smaller than pronotum with a deep suture in the middle, antennae very

long slender, segments III to V of antenna longer than others and the III segments is the longest; eyes large, granulate, with small interocular space. Pronotum rectangular and dorsally convex. Elytra with longitudinal striations of distinct punctures. Profemur with sharp spine in front.

*Distribution* : India : West Bengal (Calcutta)

*Remarks* : Previously it was recorded from India but no specific localities mentioned by earlier worker. And for the first time it is recorded from Calcutta (West Bengal).

Genus *Platolenes* Gb. 1913.

1913. *Platolenes* Gebien. *Philipp. J. Sci.* (B) **8** : 420.

1951. *Platolenes* Kulzer. *Ent. Arb. Mus. Frey*, **2**, 1951, p. 546 (Mon.).

## 2. *Platolenes darjilingnesis* Saha, 1988.

1988. *Platolenes darjilingnesis* Saha, *Rec. Zool. Surv. India*, **85**(3) : 433-437.

*Material examined* : 1 ex. Pasok, alt. 3500'

E. Himalayas, Dist. Darjiling.

*Distinctive character* : (Female) Body elongate, oval, fairly curved, shiny, metallic black, length 11 mm. head: small labrum transverse, nearly semicircular apically; mandibles moderately strong. clypeus finely and thickly punctate, fronto clypeal suture present; antennae moderately elongate, scape rounded towards apex, pedicel smallest, segment III to IV slender, segments V - XI wider apically forming a poor club. Pronotum : convex, irregularly and finely punctate. Elytra: elongate and fairly curved with elongate bluish punctures in longitudinal rows.

*Distribution* : West Bengal (Darjiling)

Genus *Cyriogeton*

Key to the species of the genus *Cyriogeton*

1. Body large and with completely dark metallic bluish colour ..... *C. insignis*
- Body small, head and pronotum with deep green metallic colour and elytra with shiny metallic bluish colour ..... *C. purpureus*

Genus *Cyriogeton* Pasc. 1871

1871. *Cyriogeton* Pasc. *Ann. Mag. Nat. Hist.* (4), **8** : 356.

3. *Cyriogeton insignis* Pasc.

1871. *Cyriogeton insignis* Pasc., *Ann. Mag. Nat. Hist.* (6) 8 : 356.

*Material examined* : 2 exs., Kurseong, 5000', E. Himalayas, dist, Darjiling, 3, vii. 1908. coll. N. Annandale; 1 ex., Kurseong, 5000' E. Himalayas, Dist. Darjiling, Coll. C. Lynch.

*Distribution* : India : West Bengal (Darjiling)

4. *Cyriogeton purpureus* Pic.

*Material examined* : 1 ex., Kurseong, alt. 5000 ft. E. Himalayas, Dist. Darjiling. Coll. Lynch.

*Distribution* : India : West Bengal (Darjiling).

## Tribe BALPTINI

Genus *Balptyscellis* (Pierre) Koch in Pierre. 1961.

1961. *Balptyscellis* Pierre, *Bull. Soc. Ent. France*, P. 213.

5. *Balptyscellis alpinus* Kaszab, 1965.

1965. *Balptyscellis Alpinus* Kaszab., *Misc. Zool. Barcelona*, 2 (1).

*Material examined*: 1 ex., sandakphu, E. Himalayas, alt. 12000 ft., Dist. Darjiling, 15. x. 1910, Coll. C.W. Beebe.

*Distinctive character* : Moderately large, blackish brown, clypeus fairly truncated in front, antennal apical 4 th segments fairly globular; pronotum and elytra large and nearly flat; legs very long.

*Remarks* : The species *B. alpinus* was discovered from Sikkim by Dr. kaszab in 1965. Now it is being recorded from Darjiling District for the first time.

*Distribution* : India : West Bengal (Darjiling ) Sikkim.

## Tribe BOLITOPHAGINI

Genus *Dicraeosia*

1876. *Dicraeosia* Mars. *Ann. Soc. Ent. Fr.*(5)6:103-104.

6. *Dicraeosia amplous* Gebien, 1913.

1913. *Dicraeosia amplous* Gebien, *Arch. Nat.* 79 ix, p.8.

*Material examined* : 1 ex., Ghumti, E. Himalayas, alt. 4000 ft. Dist. Darjiling - vii. 1911, Collector - F.H. Gravely; 1 ex., Kalimong, E. Himalayas, 600-4500 ft., Dist. Darjiling, 24. iv. - 10. v. 1915, Collector F.H. Gravely.

*Distinctive character* : Small, head directed downwards, antennae very small, clypeus enlarged directed downwards. Pronotum strongly convex, anteriorly with setae. Elytra elongate with deep cavities in longitudinal rows.

*Remarks* : It was first described by Gebien from Formosa in 1913. Now it is recorded for the first time from Kalimpong (West Bengal : India).

*Distribution* : India : West Bengal (Darjiling). Formosa.

Tribe COSSYPHINI

Genus *Upis* Fab., 1972.

1972. *Upis* Fabricious, *Ent. Syst.* I. 2 : 515.

7. *Upis nigra* Wiedem, 1819

1819. *Encyalesthus nigra* Wiedem. *Zool. Mag.* 1,3, p. 164,

*Material examined* : 2 exs., Calcutta, coll. J.n.M.

*Distinctive character* : Body 19 mm., completely deep black, moderately elongate; head gradually elevated towards vertex which is strongly convex; eyes strongly transverse, narrow, sinuate near middle; antennal apical segments moderately serrated except the last segment; pronotum fairly rectangular in shape, slightly convex and with five irregular punctures; elytra with longitudinal rows of deep punctures; femur strongly dumbbell shaped.

*Remarks* : It was described from India in 1819 but no type locality was mentioned. Now it is recorded for the first time from Calcutta (West Bengal).

*Distribution* : India : West Bengal (Calcutta.)

Tribe COSSYPHINI

Genus *Cossyphus* Oliv. 1975.

1975. *Cossyphus* Oliv. *Ent.* 3 : 44, 6 is, p.1

8. *Cossyphus depressus* Fab. 1781.

1761. *Cossyphus depressus* Fab. *Spec. Ins.* I. 254.

1781. *Cossyphus depressus* Fab. *mant. Ins.* I. 162.

*Material examined* : 1 ex., Ajodhya, Dist. Bankura, 2 .xi. 1985, Coll. M. Datta; 2 exs. Garumara Sans., Dist. jalpaiguri. 15, iii. 1981. coll. D.P. Guin; 1 ex., Santiniketan Dist. Birbhum, 6 x. 1974, coll. B. N. Das; 6 exs. Baruipur. Dist. South 24 Parganas, 26.iv. 1986, Coll. B.N. Das.

*Distinctive character* : Colour brownish, size small, body strongly flat, head and pronotum completely joint together dorsally except a fine suture between them, elytra similarly and equally flattened as pronotum and each elytron with a longitudinal and elevated hidge in the middle; antennae moderately elongate. basal segment longest, II to VII the segments slender, 10th strongly transverse. apical segment rounded, last four apical segments flattended, maxillary palpi fairly elongate, apical segment of maxillary palpi fairly triangular and flattened; labrum and labial palpi small, legs fairly elongate.

*Remarks* : lateral membranous elevations of elytra completely cover the body.

*Distribution* : it was described from India but no type locality was mentioned. India : West Bengal Bankura. Jalpaiguri. Birbhum and south 24 parganas.

#### Tribe CRYPTICINI

#### Genus *Microcrypticus* Gebien, 1920

1920. *Microcrypticus* Gebien, *Arch. Naturg.*, **86**, A. 6 : 7.

#### 9. *Microrcrypticus ziczac* (Motschulsky), 1873.

1873. *Basides ziczac* Motschulsky, *Bull. Mosc.* XLVI, 1 : 475.

1921. *Microcrypticus ziczac* Gebien, *Arch. Naturg.*, **86**, A6 : 7

*Material examined* : 2ex. Ballygunge, Calcutta, 22.xii. 1982, Coll. P.K. Basak.

*Distinctive character* : Body oval, convex, head and pronotum borwnish, elytra yellow, with black patches. rest yellowish brown. head wider than long. with labrum located at a lower level than frons, apical margin of clypeus rounded, eyes small but coarsely facetted. antenna much longer than head, scape larger than pedicel, segments 3 to 7 subequal, 8 to 11 progressively widned to form a loose club; surface of head coarsely, densely punctate, less so on clypeus. Pronotum broadest posteriorluy, scutellum distinctly pentagonal and impunctate.

*Remarks* : It was described from India without mentioning any type locality. Now it is being described for the first time from Calcutta (West Bengal).

*Distribution* : India : West Bengal (Calcutta).

#### Tribe ARCHEOCRYPTICINI

#### Genus *Microcrypticus* Gb. 1920.

1920. *Microcrypticus* Gb. *Arch. Nutg.* **86**. A. 6, 7.

10. *Microcrypticus scripticum* Lewis, 1894.1894. *Microcrypticus scripticum* Lewis, *Ann. Mag.* (6) **13** : 396.*Material examined* : 4 ex. Calcutta. v. 1914, Coll. F.H. Gravely.*Distinctive character* : Very minute in size (3 mm.) clypeus almost completely covered the labrum, eye small, antennal segment fairly wider apically, head directed downwards; Pronotum convex. finely punctate and larger than head; elytra convex with fine longitudinal striations.*Distribution* : India : West Bengal (Calcutta.)

## Tribe DIAPERINI

Genus *Ceropria*Key to species of the Genus *Ceropria*

1. Frons very distinctly elevated anteriorly and pronotum strongly transverse ..... *C. induta*  
 Frons not distinctly elevated and pronotum not strongly transverse ..... 2
2. Basal margin of pronotum strongly undulated in the middle ..... *C. laticollis*  
 Basal margin of pronotum moderately undulated ..... 3
3. Pronotum large, wide, and convex ..... *C. subocellata*  
 Pronotum small, less wide and less convex ..... *C. inoluta*

*Ceropria* Cast et Brill. 18311831. *Ceropria* Cast et Brill., *Ann. Sc. nat.* XXIII, p. 396 (72) (Mon.)11. *Ceropria laticollis* Fairm., 1903.1903. *Ceropria laticollis* Fairm. *Ann. Belg.* **47** : 13.*Material examined* : 1 ex., Pashok, 3500 ft., Dist. Darjiling. 26.v.-4.vi.1916, Coll. F.H. Gravely; 2 ex., Kalimpong, E. Himalayas. 600-4500 ft., Dist. Darjiling, 24.iv.-20.v.1915. Coll. F. H. Gravely.*Distribution* : India : West Bengal (Darjiling)*Remarks* : It was described from India without mentioning any type locality. Now it is being recorded for the first time from Kalimpong and Darjiling.

12. *Ceropria induta* Wied., 1819

1819. *Ceropria induta* Wied. *Zool. Mag.* 1, 3, p. 164.

*Material examined* : 5 exs., Mughpu, Dist. Darjiling, coll. Atkinson.

*Distribution* : India : West Bengal (Darjiling)

*Remarks* : It was described from India but no definite locality was mentioned. Now it is being newly recorded from Darjiling district.

\* 13. *Ceropria inoluta*

*Material examined* : 1 ex., Sureil, Munghpu, Kalimpong, Dist. Darjiling, alt. 5000 ft., -iv-v.1917, Coll. S. W. Kemp.

*Distribution* : India : West Bengal (Darjiling).

14. *Ceropria subocellata* Lewis, 1894.

1894. *Ceropria subocellata* Lewis, *Ann. Mag. Nat. Hist.* (6) 13 : 399.

*Material examined* : 7 ex., Munghpu, Kalimpong, E. Himalayas, Dist. Darjiling, Coll. Atkinson.

*Distribution* : India : West Bengal (Darjiling); Indo-Malaya.

*Remarks* : It is recorded for the first time from Darjiling district, West Bengal and India. Previously it was described from Indo Malaya.

## Tribe DIAPERINI

Genus *Basanus* Lacord, 1859.

1859. *Basanus* Lacord. *Gen. Col.* V. P. 306 nots.

15. *Basanus javanus* Chevr. 1878.

1878. *Basanus javanus* Chevr. *Compt. rend. Soc. Ent. Belg.* P. C L I.

*Material examined* : 1 ex., Calcutta, Coll. Indian Museum.

*Distinctive Character* : Body small (8 mm), deep black, flattened, elytra slightly convex and each elytron with two yellow patches one near at base and other at apex. Head triangular in shape; pronotum finely punctate, gradually narrower apically, and its lateral margin with elevated border line.

*Distribution* : India : West Bengal (Calcutta). Java.

*Remarks* : It is newly recorded from Calcutta and India. It was described from Java.

Tribe LEIOCHRINI

Genus *Crypsis* Waterh. 1877.

1877. *Crypsis* Waterh. *Ent. Monthly Mag.* XIV, p. 73.

16. *Crypsis blairi* Kaszab, 1946

1946 *Crypsis blairi* Kaszab, *Mon.* p. 186, f. 294.

*Material examined* : 1 ex., Darjiling, Dist. Darjiling, 12.iv.1907.

*Distinctive Character* : Body dark black, strongly convex in shape, size 7 mm., head very small, pronotum larger than head and elytra convex and very large.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : This species was first described from Darjiling, Gopaldhara (4720-6100 ft.) in 1946. Now again it is being recorded from Darjiling which is the type locality.

Genus *Derispia*

Key to the species of the genus *Derispia*

1. Body strongly globular in shape ..... *D. suberiata*  
    Body not globular ..... 2
2. Body strongly convex... ..... *D. truncata*  
    Body moderately convex ..... *D. bengalensis*

Genus *Derispia* Lewis, 1894.

1894. *Derispia* Lewis, *Ann. Mag. Nat. Hist.* (6) 13:389.

17. *Derispia subseriata* Kaszab, 1946.

1946. *Derispia subseriata* Kaszab, *Mon.* p. 50, 84, f. 111.

*Material examined* : 1 ex., Munghpu, Kalimpong, Dist. Darjiling

*Distribution* : India : West Bengal (Darjiling), Bihar (Pusa). Burma.

*Remarks* : It was first described from Tanasserium (Burma) and Pusa (Bihar). Now it is newly recorded from Darjiling district, West Bengal.

18. *Derispia truncata* Kaszab, 1969.

1969. *Derispia truncata* Kaszab. *Acta. Zool.* 7 : 175.

*Material examined* : 4 exs., Calcutta.

*Distribution* : India : West Bengal (Calcutta).

*Remarks* : It was described from India but no type locality was mentioned. It is recorded for the first time from Calcutta, West Bengal, India.

19. *Derispia bengalensis* Kaszab, 1946.

1946. *Derispia bengalensis* Kaszab, *Mon.* p. 49, 82, f. 88, 89, 108.

*Material examined* : 1 ex., Pashok, 2500 ft. E. Himalayas, Dist. Darjiling, 26.v.-14-VI. 1916. Coll. F. H. Gravely.

*Distribution* : India : West Bengal (Darjiling). Bangladesh (Dacca).

*Remarks* : It was described in 1946 from Dacca (Bangladesh). Now it is being recorded for the first time from Darjiling district of West Bengal, India.

Genus *Leiochrinus* Westw. 1883.

1883. *Leiochrinus* Westw. *Tijdschr. voor. Entom.* XXVI, p. 68.

20. *Leiochrinus sauteri* Kaszab, 1946.

1946. *Leiochrinus sauteri* Kaszab. *Mon.* P. 123, 132, ft. 204, 216

*Material examined* : 1 ex., Rangamati, Chittagong, Bengal. 11-16. vii. 1915. Coll. R. Hodgart.

*Distinctive character* : Light brown, shiny oval in shape like coccinellidae; head very small, eye hidden inside, not found from dorsal side, pronotum flattened, scutellum fairly triangular, elytra very strongly convex.

*Distribution* : India : Assam, Sikkim. Bangladesh.

*Remarks* : It was described from Formosa, Tonkin, Indochina, Sikkim, Gopaldhara, Runghong valley, Assam, Mt. Patkai and Sibsagar. Now it is being newly recorded from Chittagong (Bangladesh).

Genus *Leiochrodes* Westw. 1883.

1883. *Leiochrodes* Westw. Tijdschr. Voor. Entom. XXVI, p. 69.

21. *Leiochrodes rufofulvus* Westw. 1883.

1883. *Leiochrodes rufofulvus* Westw. Tijdschr. voor Ent. XXVI. p. 74.

*Material examined* : 1 ex., Ling soka, Dist. Darjiling, 10.ix. 1959, coll. B.K. Tikader.

*Distinctive character* : Small in size, globular in shape looking like the coccinellid beetle, with metallic shiny reddish brown colour; head very small, projected downwards and covered by very large pronotum upto the eye; pronotum convex and strongly transverse and gradually narrowed anteriorly from the posterior side; scutellum very small and triangular, elytra strongly convex and shiny.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : it was described from India without mentioning any type locality. Now it is newly recorded from Darjiling district, West Bengal.

## Tribe MESOLAMPINI

Genus *Hexarhopalus*

1894. *Hexaroptrum* Fairm., *Ann. Soc. Ent. Belg.* XXXVIII. p. 38.

1891. *Hexarhopalus* Fairm. *Copt. rend. Soc. Ent. Belg.*, XIX. p. 36.

22. *Hexarhopalus foveipenne* Fairm. 1894

1894. *Hexarhopalus foveipenne* Fairm. *Ann. soc. Ent. Belg.* XXXVII. p. 38.

*Material examined* : 1 ex., Sukia Pokhri, dist. Darjiling. 29.vi. 1979, coll. P. Halder; 2 exs., Goke. F.R.H. single, Sureil Mongpu, 5000 ft., Dist. Darjiling, IV-V. 1917, Coll. S.W. Kemp.

*Distinctive character* : Body moderately elongate, shiny black. length 5 mm., head small deflexed. labrum transverse. nearly semicircular apically. basally convex; mandibles not so strong; clypeus finely and thickly punctate; eyes large, emarginate; antenna elongate; pronotum convex, finely and irregularly punctate. slightly elongate, broader than head, all sides surrounded with a carina; scutellum without punctation; elytra moderately convex with strongly punctures in longitudinal rows. gradually narrowed apically.

*Distribution* : India West Bengal (Darjiling), Himalaya.

*Remarks* : it was described from Himalaya without mentioning any proper type locality. Now it is being recorded for the first time from Darjiling District.

Tribe OPATRINI

Genus *Trigonopoda*

(*Caedius malabaricus* Fairm.)

*Trigonopoda malabaricus* Fairm..

23. *Trigonopoda malabaricus* Fairm, 1896.

1896. *Trigonopoda malabaricus* Fairm. *Ann. Belg.*, 40 : 22.

*Material examined* : 1 ex., singular, Barasanti, Dist. Hugli, 28.iv. 1972, Coll. Oppenheimer.

*Distribution* : India : West Bengal (Hugli). Sri Lanka, Burma.

*Remarks* : It was described from India, Ceylon and Burma without mentioning any type locality from India. Now it is being recorded for the first time from West Bengal, India.

Genus *Gonocephalum*

Key to the species of the Genus *Gonocephalum*

1. Smaller in size (5-8 mm.) ..... 2
- Larger in size (10-14) ..... 8
2. Smaller in size elongate in shape, pronotum strongly flattened laterally, pronotum and elytra with strong setae ..... *G. strigatum*
- Larger in size, moderately oblong in shape pronotum not strongly flattened, pronotum and elytra not with strong setae ..... 3
3. Head, pronotum and elytra strongly flattened.. ..... *G. planatum*
- Head, pronotum and elytra not so flattened ..... 4
4. Pronotum strongly transverse and nearly rectangular in shape... ..... *G. stockleini*
- Pronotum not so transverse. .... 5
5. Pronotum narrowed anteriorly ..... *G. elytrale*
- Pronotum not so narrowed anteriorly ..... 6

6. Pronotum laterally not sharply pointed in front... ..... *G. hoffmannseggi*  
 Pronotum laterally sharply pointed in front. .... 7
7. Front raised as triangular spine by the side of each eye. .... *G. oculare*  
 Front not raised as triangular spine ..... *G. vagum*
8. Head, pronotum and elytra strongly depressed ..... *G. depressum*  
 Head, pronotum and elytra not so strongly depressed ..... 9
9. Body oblong ..... 10
10. Pronotum dorsally depressed and laterally strongly flattened and raised upwardly .....  
 ..... *G. bilineatum*  
 Pronotum not so depressed dorsally and not strongly flattened laterally and not raised upwardly  
 ..... *G. consobrinum*
11. Clypeus anteriorly raised upward forming bidentate spine ..... *G. oblongum*  
 Clypeus not anteriorly raised upward ..... 12
12. Pronotum with tubercles on dorsal side ..... 13  
 Pronotum not with tubercles ..... 14
13. Pronotum wider, more flattened and raised laterally. .... *G. tuberculatum*  
 Pronotum less wide and flattened and not raised laterally ..... *G. nepalicum*
14. Head with two distinct elongate tubercles... ..... *G. woynorovich*  
 Head not with distinct tubercles ..... *G. curiosum*

Genus *Gonocephalum* Solier (1834)

24. *Gonocephalum bilineatum* (Walker) 1952

1958. *Gonocephalum bilineatum* kasazab, *Ann. Mag. nat. Hist.* (3) **11** : 289

*Material examined* : 1 ex., Calcutta, 26.viii. 1955. coll. M.K. Sen, 1 ex., New jalpaiguri San Stream, Dist. Jalpaiguri, alt. 260 m., 17. i. 1971, Coll. J.M. Julka & Party.

*Distribution* : India : West Bengal (Calcutta, Jalpaiguri)

*Remarks* : it was described from India but no definite locality was mentioned. Now it is for the first time recorded from Calcutta and Jalpaiguri of West Bengal..

### 25. *Gonocephalum consobrinum* Blair 1923

1923. *Gonocephalum consobrinum* Blair, *Ent. month. mag.* (3) **9** : 122

1952. *Gonocephalum consobrinum* Kaszab, *Entomologische Arbeiten*, **3** : 629-630.

*Material examined* : 1 ex., Bamarigota, Dist. Maldah. 26. vi. 1987, Coll. K.P. Mukherjee and party

*Distribution* : India : West Bengal (Maldah).

*Remarks* : It was recorded from India but no definite locality was mentioned. Now it is recorded from Maldah, West Bengal.

### 26. *Gonocephalum curiosum* Kaszab 1958

1958. *Gonocephalum curiosum* Kaszab. *Entomologische Arbeiten*, **3** : 460-463.

*Material examined* : 1 ex., Calcutta. 26.x.1949, Coll. A.P. Kapur; 2 exs., Calcutta. 1930.

*Distribution* : India : West Bengal (Calcutta), Bihar and Assam.

*Remarks* : It was already been recorded from Calcutta, Bihar and Assam. Now again it is being recorded from Calcutta.

### 27. *Gonocephalum depressum* Fab. 1801

1801. *Gonocephalum depressum* Fab. *Systema Eleutheratorum* **1** : 117 (Opatrum)

1952. *Gonocephalum depressum* Kaszab, *Entomologische Arbeiten*, **3** : 635-637.

*Material examined* : 10 ex., Bamarigota, Dist. Maldah, 20.vi.1987, Coll. K.P. Mukherjee and Party; 1 ex., Darjiling near Barddhaman House. 2040m.. Dist. Darjiling, 2.I.1971, Coll. J.M. Julka and Party; 1 ex., Eden Garden, Calcutta, 7.5.1965, Coll. S. Ali; 2 exs., Bhadreswar, Dist. Hugly, 5.xi.1964, Coll. A.N.T. Joseph and Party; 1 ex., Dhapa, Calcutta, 19.I.1965, Coll. K.V.L. Narayana; 1 ex., Dhapa, Calcutta, 30.vi.1962, Coll. S. Ali; 1 ex., Ramakrishna Ashram, Bishnupur, Dist. Bankura, 6.xi.1985, Coll. S. Sen; 4 exs., Gangadharpur, digha. Dist. Medinipur, 22.xii.1985, A.K. Hazra and Party; 1 ex., Bijanbari. alt. 900 m. Dist. Darjiling, 14.v.1974, Coll. J.K. Jonathan and Party; 1 ex., New Jalpaiguri, San stream. Jalpaiguri. 260m.. 15.i.1971. Coll. J.M. Julka and Party; 2 exs., Jaigawan Dist. Jalpaiguri, 30.iii.1984, Coll. M. Prasad; 2 exs., Dhubulia, Dist. Nadia 10.xii.1965, Coll. B.N. Das and party; 4 exs., Baruipur dt. 22.iv.1986. Coll. B.N. Das; 1 ex., Diamond Harbour Dist. South 24 Parganas, 1.v.1986 Coll. B. N. Das.

*Distribution* : India : West Bengal (Maldah, Darjiling, Calcutta, Hugly, Bankura, Medinipur, Jalpaiguri, Nadia and South 24-Parganas).

*Remarks* : It is one of the most widely distributed species of the family Tenebrionidae in India. It was already recorded from different parts of India. Now for the first time it is being recorded from different parts of West Bengal also.

28. *Gonocephalum elytrale* Kaszab 1952

1952. *Gonocephalum elytrale* Kaszab, *Entom. Arbeiten aus dem Museum Gg. Frey, Bd.*

*Material examined* : 1 ex., Calcutta.

*Distribution* : India : West Bengal (Calcutta), South India. Sri Lanka.

*Remarks* : It was described from South India and Ceylon. Now it is newly recorded from West Bengal.

29. *Gonocephalum hoffmannseggi* Steven 1829.

1829. *Gonocephalum hoffmannseggi* Steven *Nouv. Mem. Soc. Nat. Moscon* 1 : 96 (Opatrum).

1952. *Entom. Arbeiten aus dem Museum Gg. Frey, Bd. 3.*

*Material examined* : 1 ex., Dhapa, Calcutta, 30.vii.1962, Coll. S. Ali.

*Distribution* : India : West Bengal (Calcutta), South India. Sri Lanka.

*Remarks* : In 1952, it was described from Ceylon, different parts of South India and Calcutta.

30. *Gonocephalum nepalicum* Kaszab

1973. *Gonocephalum nepalicum* Kaszab. *Acta Zool. Hung.*, 19 (1-2) : 32.

*Material study* : 1 ex., Singla, Dist. Darjiling, alt. 1500 ft., vi.1962; 3 exs., Kalimpong, E. Himalayas, 600-4500 ft., Dist. Darjiling, 24.iv. 10.v.1915, Coll. F.H. Gravely.

*Distribution* : India : West Bengal (Darjiling).

31. *Gonocephalum oblongum* Fab. 1801

1801. *Gonocephalum oblongum* Fab. *Systema Eleutheratorum* 1 : 117 (Opatrum).

*Material examined* : 3 exs., Bamalgola, Dist. Maldah, 23.vi.1987, Coll. K. P. Mukherjee. 1 ex., Kalimpong Inspection Bungalow (P.W.D.), Dist. Darjiling, 9.i.1971, Coll. J.M. Julka; 1 ex., Golapganj, Dist. Maldah, 21.vi.1987, Coll. K. P. Mukherjee.

*Distribution* : India : West Bengal (Darjiling & Maldah), South India, Sikkim. Nepal.

*Remarks:* It was described from Nepal, Sikkim and different parts of South India and now it is being newly recorded from West Bengal.

32. *Gonocephalum planatum* Walk 1858

1858. *Gonocephalum planatum* Walk., *Ann. Mag. Nat. Hist.* (3) II : 284.

*Material examined* : 1 ex., Dhapa, Calcutta, 30.vii.1962, Coll. S. ali.

*Distribution* : India : West Bengal (Calcutta). China.

*Remarks* : It was described from China. Now for the first time it is being recorded from Calcutta, West Bengal (India).

33. *Gonocephalum stockleini* Kaszab 1952

1952. *Gonocephalum stockleini* Kaszab, *Ent. Arb. Mus. Frey*, **3** : 482-485.

*Material examined* : 2 exs., Dhapa, Calcutta 30.vi.1962; 1 ex., Calcutta, 6.xii.1925, Coll. R.B.B.S.

*Distribution* : India : West Bengal (Calcutta); Ceylon.

*Remarks* : Earlier this species was described from India and Ceylon and without any specific type locality. Now it is being described from Calcutta.

34. *Gonocephalum strigatum* Fab. 1798.

1798. *Gonocephalum strigatum* Fab. *Ent. Syst. Suppl.* P. 41.

1906. *Gonocephalum strigatum* Gebien, *D. Ent. Z.* P. 215.

*Material examined* : 1 ex., Horticulture Garden, Alipur, Calcutta, 19.I.1967, Coll. K. Rai and Party.

*Distribution* : India : West Bengal (Calcutta).

35. *Gonocephalum tubercalatum* Hope

1831. *Gonocephalum tubercalatum* Hope, in Gray's Zoological Miscellany 1 : 31 ( opatrum)

*Material examined* : 1 ex., Kalimpong Inspection Bunglow (P.W.D.), alt. 1234 m. Dist. Darjiling, 9.I.1971, Coll. J.M. Julka; 1 ex., Ajodhya, 700 m., Dist. Puruliya, 4.xi.1985, Coll. M. Datta.

*Distribution* : India : West Bengal (Darjiling, Puruliya).

36. *Gonocephalum vagum* Steven

1829. *Gonocephalum vagum* Steven, *Nouv. Meum. Soc. Nat. Moscou* 1 : 96 (Optarum )

*Material examined* : 1 ex., Dhapa, Calcutta; 2.II.1961, Coll. A.P. Kapur; 2 exs., Hot Garden, Alipur, Calcutta, 19.I.1967, Coll. K. Rai; 1 ex., Diamond Harbour, Dist. South 24 Parganas, 9.II.1966, Coll. A.N.T. Joseph; 1 ex., Calcutta, Dum dum, 10.II.1959, Coll. A.R. Bhowmick; 1 ex., Kamalgachi, Sonarpur, Dist. 24 Parganas (S.), 10.v.1962, Coll. S.N.P.; 1 ex. Botanical Garden, Dist. Howrah. 16.I.1957, Coll. A.P. Kapur.

*Distribution* : India : West Bengal (Calcutta, South 24-Parganas, Howrah).

### 37. *Gonocephalum woyonorovich* Kaszab

*Material examined* : 3 exs., Nalakhokson, Dist. Malda, 20.vi.1987, Coll. K.P. Mukherjee; 2 ex., Dum Dum Air Port, Calcutta, 24.xi.1965, P. Parui; 1 ex., Calcutta.

*Distribution* : India : West Bengal (Calcutta, Malda).

### 38. *Gonocephalum* sp.

*Material examined* : West Bengal : 4 exs., Samsing, 7.III.1974, H.K. Bhowmick; 11 exs., Ajodhya, 700m., Bankura/Puruliya, 3.XI.1985, M. Datta; 4 exs., Palsandapur, Digha, Medinipur, 24.XII.1985, A.K. Hazra; 8 exs., Palpara, Nadia, 2.II.1986, A.R. Lahiri; 9 exs., Pathankhali, S 24 Parganas, 25.IV.1986, B.N. Das; 12 exs., Sukhna, Darjiling, 5.IV.1984, M. Prasad; 2 exs., Kalimpong Inspection Bunglow (P.W.D.) Darjiling, 1234 m, 9.I.1971, J. M. Julka; 4 exs., Kalimpong Govt. Seed Farm, Darjiling, 1030 m. 10.I.1971, J.M. Julka; 21 exs., Kalimpong on way to Dr. Graham's House, Darjiling, 1515 m, 8.I.1971, J.M. Julka; 11 exs., Mahanadi in and around Goomti, T.E., 1240 m 27.iv.1971, A. R. Bhowmick; 5 exs., Kalimpong Inspection Bunglow (P.W.D.), Darjiling, 1234 m, 7.I.1971, J. M. Julka; 2 exs., Kurseong (nr. stream) Darjiling, 1459 m., 26.XII.1970, J. M. Julka; 2 exs., 3 km. Bijanbhari High School, 900 m. 19.v.1974, J.K. Jonathan; 4 exs., Darjiling near Barddhaman House, Darjiling 2040 m., 2.I.1971, J.M. Julka; 2 exs., Bijanbhari Hariana Bhawan, Darjiling 900 m., 20.5.1974, J.M. Julka; 5 exs., Gurubathan, Darjiling 3.III.1974, H.K. Bhowmick; 1 ex., East of Digha Sea Beach, Medinipur, 23.IX.1983, A.K. Hazra; 4 exs., Lalbagh, Murshidabad, 5.XII.1983, A.K. Sanyal; 7 exs. Mandirtala, Sagar Island, 16.VI.1977, R.C. Basu; 9 exs., Gurubathan, Darjiling, 4.III.1974, H.K. Bhowmick, 1 ex., West of Digha Sea beach, Medinipur, 27. IX. 1983, A.K. Hazra; 1 ex., C.S.R.S. Campus, Berhampur, Murshidabad, 4. XI. 1974, A.K. Hazra; 1 ex., East of digha beach, Mednipur, 28.IX. 1983 A.K. Hazra; exs., Sonda, Darjiling, 3.IV. 1984, M. Prasad; 1 ex., Diamond harbour, South 24 Parganas 1.V 1986, B.N. Das; 10 exs., South West Digha Medinipur, 26 XII. 85, A.K. Hazra; 11 exs., Golpaganj, Maldah, 21.VI 1987, K.P. Mukherjee; 32 exs. Chancal, Maldah, 14. VI. 1987, K.P. Mukherjee; 15 exs., Atal, Maldah, 19.VI. 1987, K.P. Mukherjee 12 exs., Bhaluk Station, Maldah, 26.VI. 1987, K.P. Mukherjee; 10 exs., Gopalganj, Maldah, 21. VI. 1987, K.P. Mukherjee; 16 exs., Rutua, Maldah, 13.VI. 1987, K.P. Mukherjee; 13 exs., Nalakhokson, Maldah, 20.VI. 1987 K.P. Mukherjee; 1 ex., Bamarigota, Maldah, 23.VI. 1987 K.P. Mukherjee; 1 ex., Hatirampur, Bankura, 10.IX.1986 P. Mukhopadhyay; 2 exs., Amarpur, Murshidabad 8.II.1986., I. J. Gupta.

*Distribution* : India : West Bengal (Bankura, Medinipur, Nadia, Darjiling, Murshidabad, Maldah).

Genus *Opatroides* Brill. 183239. *Opatroides vicinus* Fairm. 1896.

1896. *Opatroides vicinus* Fairm. *Ann. Soc. Ent. Belg.* XL., Kaszab. 1930, *Ent. Arb. Mus. Frey*, 11:157-159.

*Material examined* ; 30 exs. Kalimpong Govt. Seed Farm, dist. Darjileeing alt. 1030 m., 10.1. 1971, Coll. J.M. Julka; 2 exs., Khidirpore, Calcutta, 25.11.1982, Coll. P.K. Basak.

*Distribution* : India : West Bengal (Darjilling), Afganistan.

*Distinctive character* : Body elongate, convex, glabrous and blackish. Head broader than long, narrowed apically, labrum with a wide cleft medially and sparsely punctate; eyes small; Antenna moderately long with pedicel large. Pronotum wider than long.

1882. *Opatroides* Brill. *Miss & Rey, Mem. Lyon.*9.

40. *Opatroides helopioides* Dj.

*Material examined* : 1ex; Ajodhya, 700m; Dist. Bankura, 4.XI. 1965, Coll. M. Datta & Party; 1ex; Ajodhya, 700m; 2.XI. 1985, Coll. M. Datta & party. 2exs., Amtola More, Bishnupur, Dist. Bankura, 27.VIII. 1986, coll. P. Mukhopdhyay.

*Distribution* : India : West Bengal (Bankura).

Genus *Scleron*Key to the species of the Genus *Scleron*

1. Larger in size, pronotum and elytra strongly tuberculate ..... *Scleron Reitteri*  
 Smaller in size, pronotum moderately tuberculate and elytra with longitudinal elevated parallel lines. .... *Scleron ferrugineum*

41. *Scleron ferrugineum* Fabr.

1801 *Scleron ferrugineum* Fabr. *Spt. El.* 1 : 118

*Material examined* : 3 exs., Bandel, Dist. Hugli, 26.x. 1964, Coll. A.N.T. Joseph; 2 exs., Eden Garden, Calcutta, 27.IV. 1964, Coll. R.K.K. & Party.

*Distribution* : India : West Bengal (Calcutta).

42. *Scleron irregualata* (Dist.)

*Material examined* : 1 ex., Kalimpong, govt. Seed Farm, Dist. Darjiling, alt. 1030m., 10.1.1971, Coll. J.M. Julka.

*Distribution* : India : West Bengal ( Darjiling).

43. *Scleron Reitteri* Gebien

1906. *Scleron Reitteri* Gebien Deutsche Ent. Zeitschr : 234.

*Material examined* : 1 ex., Dhapa, Calcutta, 30.VI.1962, Coll. S. Ali.

*Distribution* : India : West Bengal (Calcutta)

Genus *Scleropatrum* Seidl., 1984.

1984. *Scleropatrum* Seidl., *Nalurg. Ins. Deutshl.* 5:418.

44. *Scleropatrum arenarium* Fab.

1755. *Gonocephalum arenarium* Fab. Spt. Ent. : 76.

*Material examined* ; 1 ex., Bot. Garden, Dist. Haora, 30.Vi.1964, Coll. D.K.M. & S. Ali.

*Distinctive character* : Small in size, body with strong spinous setae dorsally; elytra having longitudinal elevated parallel lines with spinous setae ; clypeus strongly emarginate in front and bilobed; clypeus and front strongly flattened and extended laterally.

*Distribution* : India : West Best Bengal (Haora).

45. *Scleropatrum strigatum* Fabr., 1798.

1798. *Scleropatrum strigatum* Fabr., *Ent. Syst. Suppl.*, P. 41.

*Material examined* : 1ex., Salt Lake, Calcutta, 13.XI.1915. Coll. F.H. Gravely.

*Distinctive character* : Small in size (6m.m.), modeately elongate in shape; pronotum and body same width, head, pronotum and body with small spine like hairs.

*Distribution* : India : West Bengal (Calcutta).

Tribe PEDININI

Genus *Mesomorphus* Seidl. 1893.

1893. *Mesomorphus* Seidl. *Naturg. Ins. Deutschl.* 5 : 361 nota.

46. *Mesomorphus laticulus* Chatanay.

*Material examined* : 1 ex., Singur, Nasibpur, Dist. Hugly. 17.XIII. 1971, Coll. Oppenheimer.

*Distinctive character* : Small is size. body covered with small brown setae, clypeus strongly emarginate and bilobed; front divided eye incompletely by extending over it; pronotum strongly transverse and flattened laterally.

*Distribution* : India : West Bengal (Hugly)

47. *Mesomorphus villiger* Blanch; 1853.

1853. *Mesimorphus villiger* Blanch. *Voy. Pole Sud*, 4 : 154, t. 10, f.15.

*Material examined* : 5 exs., Calcutta, 21.I.1955, Coll. I.C.Co.; 1 ex., Singur, Barasanti, Dist. Hugly, 2.VI. 1972, Coll. Oppenheimer.

*Distinctive character* : More hairy. head and pronotum narrower. pronotum with prominent basal angle laterally.

*Distribution* : India : West Bengal (Calcutta, Hugly).

\* 48. *Mesomorphus vitalisi* chatanay

*Material examined* : 1 ex., Calcutta, 21.1.1955, Coll. I.C. Co.

*Distinctive character* : Less hairy, head and pronotum wider, pronotum with less prominent, basal angle laterally.

*Distribution* : India : West Bengal (Calcutta).

## Tribe PLATYNOTINI

Genus *Platynotus* Fab. 1801.

1801. *Platynotus* Fab., 1804, Mis. of R. Mem. Lyon 1635, 164 : OPUSC Ent. 4, 1835, 39 Lac. Gen. Col. : 236.

49. *Platynotus deryollei* Mulsant & Roy, 1853.

1853. *Platynotus deryollei* Mulsant & Roy. *Mem. Acad. Lyon* : 272 : 1853, opusec. Ent. 4 : 47.

*Material examined* : 2exs. Haora Railway Godown, Dist. Haora. 11. 11. 1982, Coll. P.K. Basak.

*Distinctive character* : body elongate, oblong, robust strongly convex, globrous and browsish, length 17-20 mm., head with labrum emarginate apically and fringe with short spines. clypeus broadly emarginate apically. eyes small and finely faceted. antenna longer than head with segments 7 to 11

unequally projected on one side. Elytra almost twice, as long as wide., broader in middle; apices narrowed and deflexed apically.

*Distribution* : India : West Bengal (Haora), North India.

50. *Platynotus excavatus* Fab. 1775.

1775. *Platynotus excavatus* Fab. *Syst. Ent. Belg.* P. 254.

1853. *Platynotus excavatus*, *Opusc. Ent.*, 4 : 43.

*Material examined* : 1 ex., Calcutta, 07, Mus. collector.

*Distinctive character* : Moderately large size (18 m.m.); clypeus expanded laterally and covered the antennal socket, pronotum wide, finely and densely punctate and covered with prominent basal angle laterally; elytra with longitudinal rows of prominent cavities.

*Distribution* : India : West Bengal (Calcutta).

Tribe STRONGYLIINI

Genus *Strongylium* Kby, 1818

1818. *Strongylium* Kby. *Tr. Linn. S. Lond.* 12: 417. *Lac. Gen. col.* 484.

Key to the species of the genus *Strongylium* Kby.

1. Pronotum with two distinct knob like structures on apical margins laterally ..... *S. schowmi*.
- Pronotum without any knob like structures ..... 2.
2. Eyes very large, convex, globular, elytra with row of cavities ..... *S. dubium*
- Eyes very small, kidney shaped, elytra with striated cavities. .... *S. bengalensis n sp.*

51. *Strongylium dubium* Gebien

*Material examined* : 1ex., Kurseong, E. Himalayas, 5-6000ft. Dist. Darjiling, 29.VI. 1909. Coll. E.A. D'Abrev.

*Distribution* : India : West Bengal (Darjiling)

\* 52. *Strongylium Schowmi* Makl.

*Material examined* : 1ex. Kurseong, 6000ft., E.Himalayas. Dist. Darjiling. 3.VI. 1919. Coll. D'Abrew.

*Distribution* : India : West Bengal (Darjiling).

53. *Strongylium bengalensis* sp. nov.

(Fig 1.)

*Male* Body elongated, metallic black, head small and semirounded, very finely punctate towards labrum and thickly punctate posteriorly, Pronotum convex anteriorly and gradually flat in front and slightly elevated near the labrum, labrum concave and semirounded apically brownish provided with small setae, mandibles small moderately strong, apically blunt, clypeus finely and thickly punctate, front margin membrous, frontoclypeal suture present, fons thickly punctate, interocular space broad, eyes large emerginate, transverse and finely granular, vertex thickly punctate, antennae very long slender, segment I slightly longer and more swollen anteriorly than II, pedicel smallest, segment IIIrd, IVth, Vth slender from VI to XI gradually thick apically. Pronotum : Surface strongly rugose, rectangular in shape, slightly convex. Scutellum triangular in shape and surface rugose.

Elytra elongate with longitudinal deep striations situated in longitudinal rows.

Ventral side; Apical segment of maxillary palpi very large, flattened, triangular in the shape; mentum large and punctate; Legs are very long and deeply punctate.

Holotype : (Male) : INDIA : W.B. 3 Km. N.W. of Bhanganj, 1900m, Dist. Darjiling, 18.III. 1973, Coll. Dr. P.K. Maiti.

*Remarks* : This new species is very near to *Strongylium schowmi* Makl. but it differs from it by the shape of the pronotum which is in the new species more wider and convex and furthermore the antennae of the new species is longer.

## Tribe TENEBRIONINI

Genus *Anthracias* Redt. 1858

1858. *Anthracias punctipennis* Redt. *Fn. Austr. ed.*, 2 : 617.

54. *Anthracias punctipennis* Gravely, 1915.

1915. *Anthracias punctipennis* Gravely. *Rec. Ind. Mus.* 8 : 529, f.44.f.11,11a.

*Material examined* : 1 ex., Jhargram Near paper Mill, Dist. Medinipur, 2.X. 1983, Coll. Dr. A.K. Hazra & Party.

*Distinctive character* : Moderately small in size (11 mm.) fairly elongate; clypeus extended laterally along eyes, gena elevated by the side of eye, front concave, pronotum fairly convex and rectangular; elytra with longitudinal rows of fine irregular punctures.

*Distribution* : India : West Bengal (Medinipur).

Genus *Derosphaerus* Thoms. 1858.1858. *Derosphaerous* Thoms. *Arch. Ent.*, 2 : 99.55. *Derosphaerus cribrum* Fairm. 1896.1896. *Derosphaerus cribrum* Fairm. *Notes Leyd. Mus.*, 18 : 231

*Material examined* : 7 exs., Calcutta, Coll. Mus. Coll., 1ex., Siripur, Saran, N. Bengal, 25. IX 1910, Coll. Museum Coll.

*Distinctive character* : Moderately large deep black, head with large eyes; pronotum rectangular in shape, pronotum with longitudinal rows of cavities, femur dumbell shaped, tibia fairly elongate.

*Distribution* : India : West Bengal (Calcutta, North Bengal)

Genus *Encyalesthus* Motsch., 1896.1860. *Encyalesthus* Motsch., Schrenck's Reise, p. 139.- Mars. Abeille XVI, 1978, p. 103.56. *Encyalesthus cribrum* Kaszab.

*Material examined* : 1ex., Calcutta, 1916, Coll. F.H. Gravely.

*Distinctive character* : Body (15 mm.) completely deep black. elongate, head very small than pronotum, antennal segments apically clavate or flattened ; eyes large and convex and pronotum strongly transverse finely punctate; elytra with longitudinal rows of deep punctures; femur dumbell shaped, tarsal segments serrate outwardly except the last longest apical segment.

*Distribution* : India : West Bengal (Calcutta).

Genus *Indenicmosoma*57. *Indenicmosoma posci* Kaszab1956. *Indenicmosoma posci* Kaszab, *Ann. Hist. nat. Mus. Mat Hmg.*, 57 : 287-296.

*Material examined* : 1 ex., Calcutta; 13.v. 1914, Coll. F.H. Gravely; 1ex., Calcutta, VI. 1914, Coll. F.H. Gravely; 2exs., Eden Gardens, Calcutta, 10.x.1911, Coll. F.H. Gravely.

*Distinctive character* : Very minute in size (3-4 m.m.) light brown, very finely punctate, antenna elongate and slightly thick, apically; pronotum apically wider; elytra with four pinkish patches.

*Distribution* : India : West Bengal (Calcutta).

Genus *Lyprops*Key to the species of *Lyprops*

Larger in size (11mm.) pronotum wider before apical margin, pronotum and elytra punctate, rugose ...  
 ..... *Lyprops indicus*

Smaller in size ( 9 mm), pronotum less wide towards apical margin, pronotum and elytra moderately punctate, rugose ..... *Lyprops gracilior*

Genus *Lyprops* Hope, 1835

1835. *Lyprops* Hope, *Trans. Zool. soc. Lond.* **1** : 101.

58. *Lyprops gracilior* Fairm. 1896.

1896. *L. gracilior* Fairm. *Ann. Soc. Ent. Belg.* XL. : 28

*Material examined* : 1 ex. Kalimpong Inspection bungalow (P.W.D.) Compound, alt. 1234m., dist. Darjiling 7.I. 1971, Coll. Dr. J.M. Julka; 1 ex. Kalimong, Dist. Darjiling, alt. 1515m., 8.I. 1971, Coll. Dr. J.M. Julka.

*Distribution* : India : West Bengal (Darjiling)

59. *Lyprops indicus* Wied. 1823.

1823. *L. indicus* Wiedem *Zool. Mag.* II, 1. p. 42.

*Material examined* : 1ex., pashok, 3500ft., E. Himalayas, Dist. Darjiling; 1-12.x. 1917, Coll. F.H. Gravely.

*Distribution* : India : West Bengal (Darjiling).

Genus *Setenis*Key to the species of the Genus *Setenis*

1. Elytra with longitudinal striations..... *S. mandibularis*

Elytra without longitudinal striations ..... 2

2. Pronotum strongly transverse ..... *S. laevis*

Pronotum rectangular ..... *S. indosinica*

Genus *Setenis* Motsch. 1872.1872. *Setenis* Motsch. *Bull. Mosc.*, **2** : 24.60. *Setenis indosinica* Fairm. 1893.1893. *Setenis indosinica* Fairm, *Ann. Soc. Ent. Belg.*, **37** : 296.*Material examined* : 2 exs., Mungphu, Kalimpong. Dist. Darjiling, Coll. Atkinson.*Distribution* : India : West Bengal ( Darjiling).61. *Setenis laevis* Fairm. 1896.1896. *Setenis laevis* Fairm. *Notes layd. plus.* **18** : 230.*Material examined* : 1 ex., Mungphu, Kalimpong. Dist. Darjiling.

*Distinctive characters* : Large completely black; head small. eyes large. antenna small and thick, apically clavate, segments from VII- X of equal size, segment XI slightly larger than X; pronotum completely triangular in shape, slightly convex; scutellum semicircular posteriorly; elytra very wide with very fine longitudinal rows of punctures; femora very large and swollen. tibiae slender, strongly elongate, anterior femur very strongly curved.

*Distribution* : India : West Bengal (Darjiling).62. *Setenis mandibularis* Gebien*Material examined* : 1ex. Calcutta, 25. IV. 1978. Coll. Dr. B. Biswas.

*Distinctive character* : Body deeply black, shiny & elongate, labrum with setae. clypeus narrow and transverse, front strongly elevated and truncated. antennal basal segments slender and apical antennal segments thicker and rectangular; pronotum rectangular in shape, punctate and convex and basal lateral angles pointed; scutellum rounded posteriorly; elytra fairly elongate with longitudinal punctate striations; Legs strongly elongate.

*Distribution* : India : West Bengal (Calcutta).Genus *Toxicum*Key to species of *Toxicum*Two pairs of horns on head larger and more elongate ..... *assamensis*Two pairs of horns on head smaller and less elongate ..... *richesianum*

Genus *Toxicum* Latr. 1804.

1804. *Toxicum* Latr. *Hist. Nat. Crust. et. Inst.*, **10** : 297.

\* 63. *Toxicum assamensis* Pic.

1913. *Toxicum assamensis* Pic. *Mel. Ent.* 6.

*Material examined* : 1 ex., Pashok, alt. 2500 ft., E. Himalayas, Dist. Darjiling - VI. 1916, Coll. L.C. Hartless.

*Distribution* : India : West Bengal (Darjiling).

64. *Toxicum Richesianum* Latr. 1804.

1804. *Toxicum Richesianum* Latr. *Hist. Nat. Crust. et. Ins.*, **10** : 298.

*Material examined* ; 1 ex., Pashok, alt. 2000', E. Himalayas, dist. Darjiling, 11.XI. 1916, Coll. L.C. Hartless.

*Distribution* : India : West Bengal (Darjiling).

#### Tribe STENOSINI

65. *Stenosis medinipurensis* n. Sp.

( Fig. 2)

*Description* : Colour black, body with white pubescence, small size, body slender, head and pronotum fairly punctate; elytra with elevated longitudinal striations and with a row of punctures between the carinae; elytra irregularly pubescent; head elongate, nearly rectangular in shape; pronotum truncate at both ends and nearly prallal laterally; head slightly wider than the pronotum; pronotum fairly pubescent; antennae slender, basal segments similar in shape, apical segments nearly moniliform; mandibles small, maxillary palpi long and slender; tibiae and tarsi slender.

*Holotype* : 1 ex. (Male) India, West Bengal. Digha Palsandapur, Medinipur, 24.XII. 1985, Coll. A.K. Hazra.

*Remarks* : This new species *Medinipurensis* is very near to *Kraatzi* Reitt. but it differs by its black colour, narrower head with a little elevations; less elevated pronotum, more finely punctate head and pronotum, basal antennal segments not moniliform; longitudinal carina on elytra having more in numbers, less elevated and with only a single row of longitudinal punctures instead of two rows as in *Kraatzi*.

Subfamily TENTYRIINAE

Tribe TENTYRIINI

Genus *Mesostena* Eschsch. 1831.

1831. *Mesostena* Eschsch. *Zool. Atl.*, 4 : 9.

66. *Mesostena lineatopunctata* (Kraatz.) 1865.

1865. *Mesostena lineatopunctata* (Kraatz.). *Kokeniella lineatopunctata* Kraatz., Revis : 173.

*Material examined* : 2exs. Haora Railways Godown, Dist. Haora, 2 IX. 1983. Coll. P.K. Basak.,

*Distinctive character* : Body elongate, slender, convex, blackish, glabrous and finely punctate. head elongate, labrum with a few spines, clypeus outwardly curved and impressed laterally by two shallow depression at base; antenna elongate with segment 3 longest, other subequal with no club. Pronotum subcordate, elytra slightly wider than pronotum at base.

*Distribution*: India : West Bengal (Haora), Western India.

*Remarks* : India, particularly the Western States and presently recorded from Calcutta; West Bengal.

Subfamily TENEBRIOMINAE

Tribe ULOMINI

Genus *Alphitobius* Steph. 1823.

1832. *Alphitobius* Steph. *Brit. Ent.* 5 : 11.

67. *Alphitobius diaperinus* Oertzen, 1903.

1903. *Alphitobius diaperinus* Oertzen, *Deutsche Ent. Zeitsch.* : 233.

*Distinctive character* : body eblong ovate, finely punctate and brownish black. Head with fronto clypeal suture indistinct, pronotum almost twice as wide as long broadest at base with anterior angles slightly produced, lateral margins nearly straight, surface finely and sparsely punctate. Elytra almost 15 times as long as wide, subparallel, widest basal two third and broadly rounded apically.

*Distribution* : India : West Bengal (Calcutta).

*Remarks* : This species is very similar to *A. laevigatus* but differs in having partly divided eyes. lateral margins of pronotum being nearly straight and pronotal surface glabrous, coarsely punctate.

68. *Alphitobius laevigatus* (F) 1718.1781. *Alphitobius laevigatus*. *Spec. Ins.* 1 : 90.1964. *Alphitobius laevigatus* (F.) Karszab, Tijdschr. V. Ent. C. VII (5) : 295.*Material examined* : 5 exs., Kidderpore, Calcutta, 25.II. 1982, Coll. P.K. Basak.,*Distinctive character* : Body oblong-oval, glabrous, coarsely punctate and brownish black. Head with frontoclypeal suture indistinct, eyes emarginate, antenna with segments gradually widened to form a terminal indistinct club, segment 5 subparallel, inner apex not produced. Pronotum almost twice as wide as long. Elytra 1.5 times as long as wide, subparallel, broadest at basal two third and broadly rounded apically.*Distribution* : India : West Bengal (Calcutta), Assam, Uttar Pradesh, Rajasthan and Andaman Island.*Remarks* : More or less cosmopolitan and of tropical origin. From India recorded from W. Bengal, Assam, Uttar Pradesh, Rajasthan and Andaman Islands.69. *Alphitobius piceus* 01. 1972.1972. *Alphitobius Piceus* 01. *Encyel. meth*, 7 : 50.*Material examined* : 3 exs., Radhanagar, Dist. Bankura, 31. VIII. 1986, Coll. P., Mukhopadhyay; 5 exs., Calcutta 11. VIII. 1984. coll. A. Sarkar.*Distinctive Character* : Body oblong-ovate, finely punctate and brownish black. Head with frontoclypeal suture indistinct: pronotum almost twice as wide as long, broadest at base with anterior angles slightly produced, lateral margin nearly curved.*Distribution* : India : West Bengal (Calcutta, Bankura), Cosmopolitan.*Remarks* : More or less cosmopolitan and of tropical origin. From India recorded from West Bengal.Genus *Hypophloeus*Key to the species of the genus *Hypophloeus*Larger in size (4 mm.) eyes narrower, front larger, elytra with longitudinal impressed lines with a row of punctures and blackish brown antenna not serrated apically ..... *H. Cephalestes* GebienSmaller in size (3 mm.) eyes wider and larger, front smaller, elytra without longitudinal impressed lines and row of punctures and elytra with yellowish colour, antenna serrated apically .... *H. tripartitus* Blair

Genus *Hypophloeus* Feb. 1970.1790. *Hypophloeus* Fab. *Skrivt. Nat. Selsk.* vol. 1.70. *Hypophloeus cephsloes* Gebien

*Material examined* : 1 ex., Pashok, alt 1500ft., E. Himalayas, dist. Darjiling, 26.v. 14.vi. 1916, coll. F.H. Gravely.

*Distribution* : India : West Bengal (Darjiling).

\* 71. *Hypophloeus tripartitus* Blair

*Material examined* ; 4exs., Calcutta, IV. 1914, Coll. F.H. Gravely.

*Distribution* : India : West Bengal (Calcutta).

Genus *Latheticus* Waterhouse, 1880.1880. *Latheticus* Waterhouse, *Ann. Mag. Nat. Hist.* (5) V: 147.72. *Latheticus oryzae* W. House, 1880.

1880. *Latheticus oryzae* Waterh, *Ann. Mag. Nat. Hist.* 5(V) : 148; Kaszav, 1972, *Alti. Soc. It. Sc. Nat. e. Museo-Civ. St. Nat. Milono.* 113(4) : 366-384.

*Material examined* ; 2 exs., Cossipore. Calcutta. 24.VI. 1982. Coll. P.K. Basak.,

*Distinctive character* : Body elongate. sides parallel, moderately convex, shiny and brownish yellow. Head prominent, slightly narrower than pronotum, moderately convex. gradually narrowing anteriorly and at sides, anterior margin narrowly deflexed; eyes small. antenna with first six segments almost as long as club. Pronotum as long as wide, rounded anteriorly, narrowing posteriorly with the base narrower than elytra, surface densely punctated and finely margined postero-laterally.

*Distribution* : India : West Bengal (Calcutta); Cosmopolitan.

*Remarks* : Cosmopolitan, from India known from West Bengal.

Genus *Lyphia* Muls. et. Rey, 1859.1895. *Lyphia* Muls, et. Rey, *Opusc. Ent.*, 9 : 166.73. *Lyphia elongata* Pic.

*Material examined* : 2exs., Calcutta, 23. VII. 1907, Coll. H. Burkill; 2 exs., Goke F.R.H. Dist. Darjiling. 19.x.1973, coll. H.S. Sharma.

*Distinctive character* : Small in size (6 mm.) brown, body completely elongate and punctate, head directed downward, labrum large and completely covered mandibles, eyes moderately large, inter-ocular space wide; pronotum large and convex with more prominent punctures than those on elytra; femur very strong, fairly wide front tibia curved and strongly narrowed on upper side and gradually wide apically with fine erected golden yellow thick bristles; tarsus elongate with distinct claws.

*Distribution* : India : West Bengal (Calcutta, Darjiling)

Genus *Palorus* Mulsant, 1854.

1854. *Palorus* Mulsant, *Hist. Nat. Col. Fauna*, 5, Latigenes : 250.

\* 74. *Palorus foveicollis* Blair

*Material examined* : 1ex., Calcutta, IX. 1903, on floor.

*Distinctive characters* : Very small in size, head shiny with small punctures; pronotum fairly triangular in size. finely punctate, convex in the middle and laterally on both sides with longitudinal cavities, elytra nearly flattened with longitudinal rows of punctures.

*Distribution* : India : West Bengal (Calcutta); Cosmpolitan

*Remarks* : Cosmopolitan; from India recorded from West Bengal.

75. *Hypophloeus ratzeburgii* Wissmm, 1848.

1847. *Hypophloeus ratzeburgii* Wiesman, *Steltein ent. Ztg.* 9.77

*Material examined* : 5 exs., Calcutta 1980.

*Distinctive character* : body small (3 mm. ) elongate, subdepressed, reddish brown and shinay. Head with anterior margin moderately explanate and slightly inflexed upward, antenna short and segments progresively widened towards apex except segment 3 that is longer than segment 4 and without distinct club. Pronotum usually widest near apex, sub parallel punctures as on head, without setae and denser laterally. Elytra broadest basally and gradually narrowed apically.

*Distribution* : India West Bengal (Calcutta) Cosmopolitan.

*Remarks* : Cosmopolitan; from India recorded from West Bengal.

Genus *Platybolium*

76. *Platybolium alveolarium* Blair

*Material examined* : 2exs., Calcutta, 6.X./ 1980, coll. T. Sengupta.

*Distinctive Character* : Size small (5 mm.) light brown colour, moderately convex; head small and inserted into the pronotum to the eyes, labrum and clypeus very small, front large, flattened and slightly emarginate anteriorly, it fairly extended over the antennal sockets; eyes very large and strongly transverse dorsoventrally; pronotum strongly transverse, subrectangular in shape, lateral margin extended and all margins surrounded with an elevated line, disk strongly rugose punctate; scutellum not distinctly visible; elytra with strongly elevated lines and in between with distinct punctures.

*Distribution* : India : West Bengal (Calcutta)

Genus *Tribolium* Macleay, 1825.

1825. *Tribolium* Macleay, *Annulora Javanica*, Hinton, 1948; *Bull. ent. Res.* **39** : 13-56.

77. *Tribolium castaneum* (Herbst.) 1825.

1797. *Colydium castaneum* Herbst, *Nature kafer* **7** : 2 *Tribolium castaneum* Macleay, 1825, *Annulora javanica* : 50.

*Material examined* : 10 exs., Haora Rly, godown, Dist. Haora, 18.II. 1982, Coll. P.K. Basak; 6 exs., Calcutta, IV. 1954, Coll. R.K. De; 3 exs., Bangaon, Dist. North 24 Parganas, 12.III. 1982, Coll. P.K. Basak; 7 exs., Calcutta, VI. 1988, Coll. W.N.D. 8 exs., Calcutta, 9. XIII. 1987. coll. E.C.C.

*Distinctive character* : Body oblong-parallel, depressed and reddish brown. Head without fronto-clypeal suture and genae widened moderately, eyes emarginate, emargination extending backward for about 1/3rd. its length; antenna with last 3 segments forming a distinct club and segment 9 nearly twice as wide as segment 8; pronotum widest at middle, sides evenly curved, anterior margin nearly straight and posterior margin bisinuate; Elytra 2 times as long as wide, broadest basally, narrowing uniformly to apex, surface coarsely punctured. Species usually smaller, 3-4 m.m. long.

*Distribution* : India : West Bengal (Haora, Calcutta, North 24-Parganas) throughout India and Cosmopolitan.

*Remarks* : Cosmopolitan; occurring throughout India, and also recorded from West Bengal.

78. *Tribolium confusum* Jacq. du. Vel., 1868.

1868. *Tribolium confusum* Jacq. Val., *Gen. col. d'Eur Cat*, P. 181, nota I.

*Material examined* : 1 ex., Calcutta, 4. XII. 1961; 3 ex., Calcutta. 23.2. 1954; Coll. A.K. Bhowmik.

*Distinctive character* : Body oblong, depressed and reddish brown. Head expanded on each side in front of eye; antennal segments gradually enlarged to form club. Eyes margined above. eyes separated by more than width of each eye when seen from below; species usually larger. 4-6 m.m. long.

*Distribution* : India : West Bengal (Calcutta); Cosmopolitan

*Remarks* : Cosmopolitan; from India recorded from West Bengal.

Genus *Uloma* Latr. 1829.

1829. *Uloma* Latr. in Cuvier, *Regne anim.* ed. 205.

Key to species of the Genus *Uloma*

1. Species Smaller in size (7-8 mm.) ..... 2
- Species longer in size (11-15 mm.) ..... 3
2. Pronotum strongly convex and larger in size ..... *U. scita*
- Pronotum moderately convex and smaller in size ..... *U. rufilabris*
3. Pronotum with a deep concavity dorsally in front ..... 4
- Pronotum without any concavity ..... 5
4. Pronotum more shiny and punctate, large in size, more convex, and having larger concavity ..... *U. rubripes*
- Pronotum less shiny and punctate, smaller in size, less convex, and having smaller concavity ... *U. orientalis*
5. Pronotum less wide and less convex ..... *U. Kulzeri*
- Pronotum more wide, more convex ..... 6
6. Vertex and middle apical part of pronotum strongly convex ..... *U. javans*
- Vertex and middle apical part of pronotum moderately convex ..... *U. solita*

79. *Uloma Javana* Geb. 1912.

1912. *Uloma javana* Geb., *Jahrb. Nass.* 65 : 234.

*Material examined* : 3exs., Garubathan, att. 150 m. Dist. Darjiling, 12, IX. 1978, coll. Dr. A.N.T. Joseph & Party 1 ex.. Garmura Santuary, Dist. Jalpaiguri. 15. III. 1981, Coll. D.P. Guir.

*Distribution* : India : West Bengal (Darjiling & Jalpaiguri).

80. *Uloma kulzeri* Arodin 1960

1960. *Uloma Kulzeri* Ardoin, *Ent. Arb. Mus. Frey*, **11** : 273.

*Material examined* ; 1 ex., Kurseong, 4000 ft., E. Himalayas, Dist. Darjiling, 6. III. 1926. coll. M. Sharif.

*Distribution* : India : West Bengal (Darjiling).

81. *Uloma orientalis* Cast., 1840.

1840. *Uloma orientalis* Cast., *Hist. Nat.*, **2** : 220.

*Material Examined* : 1 ex., Sureil, Dist. Darjiling, Coll. Major a. Alcock.

*Distribution* : India : West Bengal (Darjiling).

82. *Uloma Solita* Wied. 1821.

1821. *Uloma solita* Wied. in *Germ. Mag.* **4** : 149.

*Material examined* : 1 ex., Calcutta, -XII.1929, 1 ex., Reyong, F.R.H. Dist. Darjiling. 26.v.-14.VI.1916, Coll. F. H. Gravely.

*Distribution* : India : West Bengal (Darjiling).

83. *Uloma rubripes* Hope, 1831.

1831. *Uloma rubripes* Hope, *Misc.* **1** : 31.

*Material examined* : 2 exs., Sureil, alt. 5000', E. Himalayas, Dist. Darjiling, 11-31.X.1917, Coll. N.A. & F.G.; 1 ex., Pashok, alt.5000', E. Himalayas, Dist. Darjiling, 26.v.-14.VI.1916, Coll. F. H. Gravely; 1 ex., Sureil, Mangpa, Dist. Darjiling, 5000 ft. Coll. S. W. Kemp.

*Distribution* : India : West Bengal (Darjiling).

84. *Uloma rufilabris* Fairm. 1882.

1882. *Uloma rufilabris* Fairm. *Notes Leyd. Mus.* **4** : 226.

*Material examined* : 1 ex., Pashok, alt. 7000' E. Himalayas. Dist. Darjiling, VI.1916. Coll. L.S. Hurtless.

*Distribution* : India : West Bengal (Darjiling).

85. *Uloma scita* Walker, 1858.1858. *Uloma scita* Walker, *Ann. Mag. Nat. Hist.* (3) 2 : 284.1894. *Uloma Scita* Fairm. *Ann. Soc. Ent. Belg.* 38 : 37.

*Material examined* : 1 ex., Pashok, alt. 2000 ft. E. Himalayas, Dist. Darjiling, 11.VI.1916, Coll. L. C. Haurtless.

*Distribution* : India : West Bengal (Drjiling)

\* Genus *Tenebroides*86. *Tenebroides mauritanicus* Linn.

*Material examined* : 2 exs., Kalyani, Dist. Ndia, 31.VII.1978, Coll. Nil.

*Distribution* : India : West Bengal (Nadia).

Genus *Anacycus* Fairm, 1876.1876. *Anacycus* Fairm., *Ann. Soc. Ent. Belg.* XI, P.33.87. *Anacycus navicularis* Fairm, 18941987. *Anacycus navicularis*, Fairm. *Ann. Soc. Ent. Belg.* 38 : 26.

*Material examined* : 1 ex., Calcutta, -07, Mus. Collector.

*Distinctive character* : Small in size (8 mm), deep black in colour, fairly convex in shape, head very small inserted into pronotum upto some portion of the eyes, head directed downward, antenna slender, pronotum small and strongly transverse, elytra very large and strongly convex with a row of longitudinal lines of punctures.

*Distribution* : India : West Bengal (Calcutta).

## Tribe HETEROTARSINI

Genus *Heterotarsus* Latr., 1829.1829. *Heterotarsus* Latr., *Regne anim.* ed. 2., 5 : 26.88. *Heterotarsus inflatus* Lacord, 1959.1959. *Heterotarsus infaltus* Lacord. *Gen. Col.* 5 : 399.

*Material examined* : 2 ex., Bangladesh, Rangamati, Dist. Chittagoag, Hill tracts, Bengal (Bangladesh), 11-16, VII.1915, Coll. R. Hodgart.

*Distinctive character* : Medium size (14 mm), black in colour, partly convex in shape, head small, somewhat depressed, punctate, mandibles robust and large in size, labrum and clypeus very small, front very large, wide and flattened with distinct punctures and bilobed in front with wide emargination, antenna long and clavate; pronotum wide and its lateral margin strongly undulated; elytra large, convex with rows of longitudinal elevations and with distinct epipleura; all anterior tarsal segments very flattened and with thick pads ventrally.

*Distribution* : Bangladesh (Chittagong)

*Remarks* : It appears that the genus had been named as 'Heterotarsus' for their tarsal characteristics.

TABLE SHOWING DISTRIBUTION (I)

Name of the Species	Bankura	Bardhaman	Calcutta	Birbhum	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>Hoplobrachium asperipenne</i>		+															
2. <i>Platolenes darjilingensis</i>	+																
3. <i>Cyriogeton insignis</i>	+																
4. <i>C. Purpureus</i>	+																
5. <i>Blaptyscellis alpinus</i>	+																
6. <i>Dicraeosis amplus</i>	+																
7. <i>Upis nigra</i>			+														
8. <i>Cossyphus depressus</i>					+				+		+	+					
9. <i>Microcrypticus Zic Zac</i>		+															
10. <i>M. Scripticoum</i>		+															
11. <i>Ceropria laticollis</i>	+																
12. <i>C. induta</i>	+																
13. <i>C. inoluta</i>	+																
14. <i>C. subocellata</i>	+																
15. <i>Basanus javanus</i>		+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
16. <i>Crypsis blairi</i>	+																
17. <i>Derispia subseriata</i>	+																
18. <i>D. truncata</i>		+															
19. <i>D. bengalensis</i>	+																
20. <i>Leiochrinus Sauteri</i>																	
21. <i>L. rufofulvas</i>	+																
22. <i>Hexarhopalus foveipenne</i>	+																
23. <i>Trigonopoda malabaricus</i>							+										
24. <i>Gonocephalum bilineatum</i>		+										+					
25. <i>G. consobrinum</i>			+														
26. <i>G. Curiosum</i>		+															
27. <i>G. depressum</i>	+	+	+		+		+		+			+		+	+		
28. <i>G. elytrale</i>		+															
29. <i>G. hoffmannseggi</i>		+															
30. <i>G. nepalicum</i>	+																
31. <i>G. oblongum</i>	+		+														
32. <i>G. planatum</i>		+															
33. <i>G. stockleini</i>		+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
34. <i>G. strigatum</i>		+															
35. <i>G. tuberculatum</i>	+												+				
36. <i>G. vagum</i>		+			+			+									
37. <i>G. woyonorovichi</i>		+	+														
38. <i>G. sp.</i>	+		+	+					+					+	+		
39. <i>Opartroides vicinus</i>	+																
40. <i>O. helopioides</i>									+								
41. <i>Scleron ferrugineum</i>		+															
42. <i>S. irreguiflata</i>	+																
43. <i>S. reitteri</i>		+															
44. <i>Scleropatrum arenarium</i>								+									
45. <i>S. strigatum</i>		+															
46. <i>Mesomorphus laticulus</i>							+										
47. <i>M. villiger</i>		+					+										
48. <i>M. vitalisi</i>		+															
49. <i>Platynotus deyrollei</i>								+									
50. <i>P. excavatus</i>		+															
51. <i>Strongylium dubium</i>	+																
52. <i>S. schowni</i>	+																

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
53. <i>S. bengalensis n. sp.</i>	+																
54. <i>Anthracius punctipennis</i>														+			
55. <i>Derosphaerus cribrum</i>		+															
56. <i>Encyalesthus cribrum</i>		+															
57. <i>Indenicmosoma pocsi</i>		+															
58. <i>Lyprops gracilior</i>	+																
59. <i>Lyprops indicus</i>	+																
60. <i>Setenis indisinica</i>	+																
61. <i>S. laevis</i>	+																
62. <i>S. mandibularis</i>		+															
63. <i>Toxicum assamense</i>	+																
64. <i>T. richesianum</i>	+																
65. <i>Stenosis medinipurensis n. sp.</i>														+			
66. <i>Mesostena lineatopunctata</i>								+									
67. <i>Alphitobius diaperinus</i>		+															
68. <i>A. laevigatus</i>		+															
69. <i>A. piceus</i>		+							+								
70. <i>Hypophloeus cephalotes</i>	+																
71. <i>H. tripartitus</i>		+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
72. <i>Latheticus oryzae</i>		+															
73. <i>Lyphia elongata</i>	+	+															
74. <i>Palorus foveicollis</i>		+															
75. <i>P. ratzeburgii</i>		+															
76. <i>Platybolium alveolarium</i>		+															
77. <i>Tribolium casteneum</i>		+				+		+									
78. <i>T. confusum</i>		+															
79. <i>Uloma Javana</i>	+											+					
80. <i>U. Kulzeri</i>	+																
81. <i>U. orientallis</i>	+																
82. <i>U. solita</i>	+																
83. <i>U. rubripes</i>	+																
84. <i>U. rufilabris</i>	+																
85. <i>U. Scita</i>	+																
86. <i>Tenebroides mauritanicus</i>																	+
87. <i>Anacycus navicularis</i>		+															
88. <i>Heterotarsus inflatus</i>																	

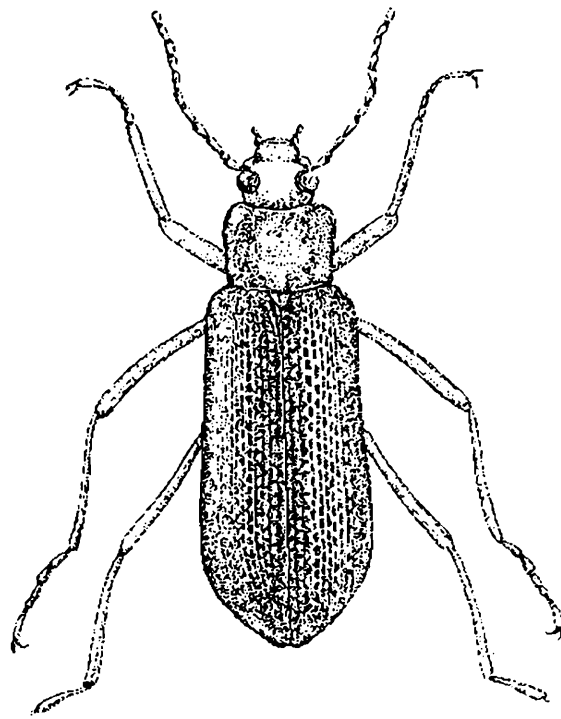


Fig. 1. *Strongylium bengalensis* n.s.p.

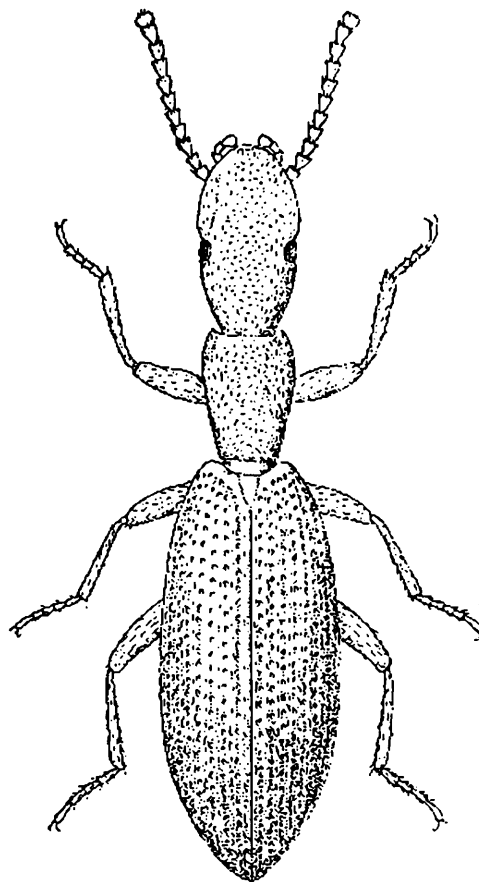


Fig. 2. *Stenosis medinipurensis* n.s.p.

## SUMMARY

The paper presents an account of 88 species of Tenebrionid beetles belonging to 42 genera and 16 tribes, recorded from West Bengal. It also includes descriptions of two new species, namely, *Stenosis medinipurensis* and *Strongylium bengalensis* and almost all new records from the different localities of WB. Keys, wherever necessary have been provided; details of collection data, distribution, in many cases additional diagnostic characters and illustrations have been given.

## ACKNOWLEDGEMENTS

We are grateful to the Director, Z.S.I., Calcutta, for kindly providing us with necessary laboratory facilities and encouragement. Dr. S. K. Bhattacharya, Dr. A.K. Ghosh, Joint Director and Dr. T. Sengupta, Deputy Director, Z.S.I. are remembered with gratitude for valuable suggestions and necessary corrections of the present paper.

## REFERENCES

- Kaszab, Z. 1975. Tenebrioniden aus Indien (Coleoptera) *Acta Zool. Acad. Scien. Hung.*, **25**(2-3) : 1-31.
- Kaszab, Z. 1976. Tenebrionidae der Nepal Expeditiones Von. Dr. J. Martens (1969-1974). *Biol.* **57**(4/6) : 241-283.
- Kaszab, Z. 1979. Tenebrioniden aus Sudindien (Coleoptera) *Acta zool. Acad. Scien. Hung.*, **25**(3-4) : 285-275.
- Saha, G.N. 1977. The Darkling Beetles (Tenebrionidae : Coleoptera) from Rajasthan. *Newsl. Zool. Surv. India*, **3** (2) : 89-91.
- Saha, G.N. 1984. Discovery of Genus *Tentyrina* Reitter (Coleoptera : Tenebrionidae) from India with description of a new species *Bull. zool. Surv. India*, **6**(1-3) : 253-255.
- Saha, G.N. 1988 (a) A new genus of Amarygmini (Coleoptera : Tenebrionidae) from India *Rec. zool. Surv. India*, **85**(3) : 429-432.

Saha G.N. 1988 (b). Discovery of Genus *Platolenes* (Coleoptera : Tenebrionidae) from India with description of a new species. *Rec. zool. Surv. India*, **85**(3) : 433-437.

Saha, G.N. 1990. Ethological and Ecological Adaptions in Taxonomy (In Environment and Biology. edited by Director, Z.S.I.), : 317-321.

Saha, G. N. Desert adaptation of invertebrate animals with special reference to darkling beetles (Tenebrionidae : Coleoptera) (In press).

(Represented in National Symposium entitled "Zoological Research in relation to Man and Environment" organised by the Zoological Society, Calcutta)



## INSECTA : COLEOPTERA : CHRYSOMELIDAE

C. R. BASU

*Zoological Survey of India, Calcutta*

### INTRODUCTION

The present work is based on the collection of Chrysomelidae, made by various survey parties from Zoological Survey of India, from West Bengal mainly during 1960-1970 in Calcutta Insect Survey and a few surveys in Darjiling district. A small lot from recent Mopping Survey and the other older collections were also included.

Monographic works on Indian fauna of Chrysomelidae were done by Jacoby (1908), Maulik (1919, 1926, 1936) and Scherer, (1969, on Alticinae). Subsequently Kimoto (1970, '77, '81, '82, '86), Kimoto & Takizawa (1983, '85, '87; '89), Takizawa & Basu (1987), Daccordi (1979) and Lopatin (1979, '84) done some stray but important works from Indian region. But none of these workers studied extensively the fauna of West Bengal.

### SYSTEMATICS

The Chrysomelidae is one of the largest families of the Order Coleoptera. It probably includes around 50,000 species in the World. About 1460 species were recorded so far from India of which 320 species were from West Bengal. The present collection comprises about 5000 examples spreading over 376 species in 115 genera under 13 subfamilies, namely Sagrinae, Megalopodinae, Donacinae, Criocerinae, Zeugophorinae, Cryptoccephalinae, Clytrinae, Chlamisinae, Chrysomelinae, Lamprosomatinae, Eumolpinae, Galerucinae and Cassidinae, (Subfamilies Alticinae and Hispinae are not included here as it involve another such volume of work which is not possible within this time schedule). Of these species dealt with here 4 species are new to science, 6 species with 2 genera are new records from India and 53 species with 4 genera are new records from West Bengal. Besides, the species reported by the earlier worker, materials of which is not available during the study, have also been included here to get an up-to-date account of the Chrysomelid-fauna of West Bengal.

The keys to the subfamilies and genera are provided but key to the species can not be given here due to the fact that a large number of species could not be studied as they have been included here from literature records. So the species arrangement keeps here as followed in Fauna of British India. The taxa marked with asterisks in the key are not included in the text.

Systematic arrangement : The subfamilies, which have been included here, are treated in the following order :

1. Sagrinae
2. Donacinae

3. Zeugophorinae
4. Megalopodinae
5. Criocerinae
6. Ciytrinae
7. Cryptocephalinae
8. Chlamisinae
9. Lamprosomatinae
10. Eumolpinae
11. Chrysomelinae
12. Galerucinae
13. Cassidinae

### SYSTEMATIC ACCOUNT

#### Subfamily (i) SAGRINAE

1. *Sagra femorata* (Drury)
2. *S. empyrea* Lacordaire

#### Subfamily (ii) DONACINAE

3. *Donacia delesserti* Guerin
4. *D. reticollis* Jacoby
5. *D. javana* Wiedemann

#### Subfamily (iii) ZEUGOPHORINAE

6. *Zeugophora longicornis* Westwood
7. *Z. pallidicincta* Gressitt

#### Subfamily (iv) MEGALOPODINAE

8. *Temnaspis bengalensis* Westwood
9. *Colabaspis speciosus* Baly

#### Subfamily (v) CRIOCERINAE

10. *Oulema downesi* Baly
11. *Lema nigrofrontalis* Clark
12. *L. praeclara* Clark
13. *L. coromandelina* (F.)
14. *L. atkinsoni* Jacoby
15. *L. palpalis* Lacordaire

16. *L. singularis* Jacoby
  17. *L. fulvula* Lacordaire
  18. *L. lacertosa* Lacordaire
  19. *L. rufotestacea* Clark
  20. *L. impotens* Lacordaire
  21. *L. castanea* Jacoby
  22. *L. rugifrons* Jacoby
  23. *L. assamensis* Jacoby
  24. *L. suturella* Baly
  25. *L. constrictofasciate* Jacoby
  26. *L. maindroni* Jacoby
  27. *L. fulvofrontalis* Jacoby
  28. *L. fulvimana* Jacoby
  29. *L. rufofrontalis* Jacoby
  30. *L. psyche* Baly
  31. *L. gahani* Jacoby
  32. *L. cyanea* Fabricius
  33. *L. nigricollis* Jacoby
  34. *L. macei* Lacordaire
  35. *L. indicola* Takizawa & Basu
  36. *Lilioceris malabarica* (Jacoby)
  37. *L. impressa* (Fabricius)
  38. *L. semipunctata* (Fabricius)
  39. *L. semicostata* (Jacoby)
  40. *L. nepalensis* Takizawa
  41. *L. quadripustulata* (Fabricius)
  42. *L. laosensis* (Pic)
- Subfamily (vi) CLYTRINAE
43. *Aspidolopha decora* (Fabricius)
  44. *A. spilota* (Hope)

45. *A. egregia* (Boheman)
  46. *A. melanophthalma* Lacordaire
  47. *A. himalayensis* Medvedev
  48. *Diapromorpha dejeani* Lacordaire
  49. *D. pallens* (Fabricius)
  50. *D. turcica* (Fabricius)
  51. *Aetheomorpha malayana* (Baly)
  52. *A. unifasciata* Jacoby
  53. *A. tonkinensis* (Jacoby)
  54. *A. pseudonagaensis* Medvedev
  55. *A. apicata* Medvedev
  56. *Coptocephala nair* Lacordaire
  57. *C. minuta* Jacoby
  58. *Clytrasoma palliatum* (Fabricius)
  59. *Physosmaragdina tonkinensis* (Lefevre)
  60. *Clytra succincta* Lacordaire
  61. *C. indica* (Jacoby)
  62. *C. lefevrei* Jacoby
  63. *Smaragdina laticollis* (Duvivier)
  64. *S. minuta* Jacoby
  65. *S. divisa* (Duvivier)
  66. *S. sikkima* Jacoby
  67. *Aetheanta fasciata* Medvedev
- Subfamily (vii) CRYPTOCEPHALINAE
68. *Adiscus hauseri* (Weise)
  69. *Coenobius birmanicus* Jacoby
  70. *C. cyaneus* Lopatin
  71. *Cryptocephalus ensifer* Hope
  72. *C. exsulans* Suffrian
  73. *C. crucipennis* Suffrian

74. *C. sikhimensis* Jacoby
75. *C. dimidiatipennis* Jacoby
76. *C. insubidus* Suffrian
77. *C. difficiens* Suffrian
78. *C. sehestedi* Fabricius
79. *C. vittipennis* Suffrian
80. *C. suavis* Duvivier
81. *C. tricinctus* Redtenbacher
82. *C. sexsignatus* Fabricius
83. *C. bissexsignatus* Suffrian
84. *C. analis* Olivier
85. *C. oppositus* Jacoby
86. *C. sannio* Redtenbacher
87. *C. triangularis* Hope
88. *C. vahli* Fabricius
89. *C. herbsti* Suffrian
90. *C. darjeelingensis* Jacoby
91. *C. nigronotatus* Bryant
92. *C. baroniurbanii* Lopatin
93. *C. senguptai* Lopatin
94. *C. maytreiae* Lopatin

Subfamily (viii) CHLAMISINAE

95. *Chlamisus pashokensis* Maulik

Subfamily (ix) LAMPROSOMATINAE

96. *Oomorhoides sakaii* Takizawa
97. *O. nepalensis* Takizawa

Subfamily (x) EUMOLPINAE

98. *Callisina brunnea* Jacoby
99. *Pagria signata* (Motschulsky)
100. *P. kanaraensis* (Jacoby)

101. *Nodina indica* Jacoby
102. *N. pusilla* Motschulsky
103. *N. nepalensis* Takizawa
104. *Basilepta pretiosum* (Jacoby)
105. *B. fabrei* (Lefevre)
106. *B. quadrifasciatum* (Jacoby)
107. *B. plagiosum* (Baly)
108. *B. latefasciatum* (Jacoby)
109. *B. puncticollis* (Lefevre)
110. *B. sikhimense* (Jacoby)
111. *B. indicum* (Jacoby)
112. *B. femoratum* (Jacoby)
113. *B. variabile* (Duvivier)
114. *B. obscurum* (Jacoby)
115. *B. angulicolle* (Duvivier)
116. *B. kumatai* Kimoto & Takizawa
117. *Pseudostonopa castanea* Jacoby
118. *P. picea* Jacoby
119. *Chrysonopa apicalis* Takizawa
120. *Scelodonta vittata* Olivier
121. *S. indica* Duvivier
122. *S. dillwyni* (Stephens)
123. *S. purpurea* Papp
124. *Colasposoma downesi* Baly
125. *C. rufipes* Jacoby
126. *C. semicostatum* Jacoby
127. *C. bicallosum* Lefevre
128. *C. serratum* Lefevre
129. *C. metallicum* Clark
130. *C. pretiosum* Baly

131. *C. nigriventris* Baly
132. *C. asperatum* Lefevre
133. *C. ornatum* Jacoby
134. *C. auripenne* Motschulsky
135. *Trichochrysea antennata* Jacoby
136. *T. hirta* (F)
137. *Trichotheca hirta* Baly
138. *T. sikkimensis* Takizawa
139. *T. basifemorata* Duvivier
140. *Aulexis tibialis* Jacoby
141. *Aoria nigripes* (Baly)
142. *A. bowringi* (Baly)
143. *Xanthonia oblonga* Takizawa & Basu
144. *Aloria caerulea* (Jacoby)
145. *Abirus elongatus* Jacoby
146. *Eurypelta modesta* (Fabricius)
147. *Bromiodes indicus* Jacoby
148. *Pachnephorus lewisii* Baly
149. *P. impressus* Rosenh.
150. *Cleorina aeneomicans* (Baly)
151. *C. bevani* (Baly)
152. *C. jacobyi* Duvivier
153. *C. assamensis* Jacoby
154. *C. nepalensis* Takizawa
155. *Heminodes unicolor* (Duvivier)
156. *Colaspoides subrugosa* Jacoby
157. *C. sublaevicollis* Duvivier
158. *C. bengalensis* Duvivier
159. *Platycorynus pyrophorus* (Parry)
160. *P. peregrinus* (Herbst)

161. *P. mouhoti* (Baly)
  162. *P. speciosus* (Lefevre)
  163. *P. gratiosus* Baly
  164. *P. impressicollis* (Jacoby)
  165. *P. chrysis* Olivier
  166. *P. lateralis* (Hope)
  167. *P. nitidus* (Fabricius )
  168. *P. chalybaeus* (Marshall)
- Subfamily (xi) CHRYSOMELINAE
169. *Chrysolina exanthematica* (Wiedemann)
  170. *C. vishnu* (Hope)
  171. *C. coelestina* (Baly)
  172. *C. conglomerata* Maulik
  173. *C. coerulipes* (Harold)
  174. *C. baronii* Daccordi
  175. *C. inconstans* ( Wiedemann)
  176. *Agrosteomela indica* (Hope)
  177. *A. fallacios̄a* Stal
  178. *Humba cyanicollis* (Hope)
  179. *Phaedon indicus* Chen
  180. *P. chujoi* Daccordi
  181. *P. cheni* Daccordi
  182. *P. thompsoni* Daccordi
  183. *Plagiodera rufescens* (Gyllenhal)
  184. *Agasta formosa* Hope
  185. *Chrysomela populi* Linnaeus
  186. *Linnaeidea chlorina* (Maulik)
  187. *Paropsides nigropunctata* Jacoby
  188. *Potanina assamensis* ( Baly)

## Subfamily (xii) GALERUCINAE

189. *Madurasia obscurella* Jacoby
190. *Apophyllia lebongana* Maulik
191. *A. sericea* (Fabricius)
192. *A. crotchi* (Jacoby)
193. *A. assamensis* Jacoby
194. *A. viridis* Jacoby
195. *A. pallipes* (Jacoby)
196. *Pseudadimonia variolosa* (Hope)
197. *P. debria* Maulik
198. *Periclitena vigorsi* (Hope)
199. *P. cyanea* Clark
200. *Lochmaea maculata* Kimoto
201. *Sastra indicus* (Jacoby)
202. *Galerucella placida* Baly
203. *Pyrrhalta darjeelingensis* Kimoto
204. *Meristata dohrni* Baly
205. *M. sexmaculata* (Kollar & Redtenbacher)
206. *M. trifasciata* (Hope)
207. *M. fallax* (Harold)
208. *M. quadrifasciata* (Hope)
209. *M. spilota* (Hope)
210. *Oides andrewesi* Jacoby
211. *O. bengalensis* Maulik
212. *O. coccinelloides* Gahan
213. *O. maculata* (Olivier)
214. *O. livida* (Fabricius)
215. *O. semipunctata* Duvivier
216. *O. flava* (Oliver)
217. *Hoplasoma sexmaculata* (Hope)

218. *H. costatipennis* Jacoby
219. *H. unicolor* (Illiger)
220. *H. carinata* Kimoto
221. *Aulacophora almora* Maulik
222. *A. nilgiriensis* Jacoby
223. *A. foveicollis* (Lucas)
224. *A. excavata* Baly
225. *A. lewisii* Baly
226. *A. frontalis* Baly
227. *A. bicolor* (Weber)
228. *A. cincta* (Fabricius)
229. *A. impressa* (Fabricius)
230. *A. cruenta* (Fabricius)
231. *A. gestroi* Jacoby
232. *A. indica* (Gmelin)
233. *Pseudocophora bicolor* Jacoby
234. *P. pectoralis* Baly
235. *P. flaveola* Baly
236. *Agetocera mirabilis* (Hope)
237. *A. hopei* Baly
238. *A. lobicornis* Baly
239. *Phyllobrotica komiyai* Takizawa
240. *Sumatrasia unicolor* Jacoby
241. *Paridea approximata* Duvivier
242. *P. octomaculata* (Baly)
243. *P. unifasciata* Jacoby
244. *P. perplexa* (Baly)
245. *P. ruficollis* Jacoby
246. *P. livida* Duvivier
247. *Haplosomoides krishna* (Maulik)

248. *H. krishila* (Maulik)
249. *H. egena* Weise
250. *H. nirada* (Maulik)
251. *Cerophysa darjeelingensis* Takizawa & Basu
252. *Arthrotidea nepalensis* (Kimoto)
253. *A. rubrica* Chen & Jiang
254. *Liroetis flavipennis* Bryant
255. *L. nepclensis* Chujo
256. *Mimastra arcuata* Baly
257. *M. quadripartita* Baly
258. *M. cyanura* (Hope)
259. *M. gracilis* Baly
260. *M. nitida* Maulik
261. *Cneorane rubicollis* (Hope)
262. *C. rugullipennis* Baly
263. *C. varipes* Jacoby
264. *C. braeti* Duvivier
265. *C. orientalis* Jacoby
266. *C. tibialis* Chujo
267. *Miltina dilatata* Chapuis
268. *Morphosphaera japonica* (Hornstedt)
269. *M. montivaga* Maulik
270. *M. prava* Maulik
271. *Calomicrus flavovittis* Motschulsky
272. *Stenoluperus bhutanensis* Motschulsky
273. *S. darjeelingensis* Takizawa
274. *S. punctatus* Takizawa
275. *S. smetanai* Takizawa
276. *Atrachya kusamai* Takizawa
277. *Medythia nigrobilineata* (Motschulsky)

278. *Monolepta conformis* Weise
279. *M. madrasensis* Wilcox
280. *M. birmanensis* Jacoby
281. *M. orientalis* Jacoby
282. *M. bifasciata* (Hornstedt)
283. *M. signata* (Olivier)
284. *M. nigripes* (Olivier)
285. *M. braeti* (Duvivier)
286. *M. erythrocephala* (Baly)
287. *M. limbata* (Olivier)
288. *M. leechi* Jacoby
289. *M. himalayaensis* Kimoto
290. *M. lunata* Gressitt & Kimoto
291. *M. bengali* n. sp.
292. *M. pahari* n. sp.
293. *M. tumpai* n. sp.
294. *M. tuai* n. sp.
295. *Paleosepharia costata* Takizawa & Basu
296. *Macrima armata* Baly
297. *M. pallida* (Laboissiere)
298. *M. aurantica* (Laboissiere)
299. *Aplosonyx chalybaeus* (Hope)
300. *A. scutellatus* Baly
301. *A. duvivieri* Jacoby
302. *A. rufipennis* Duvivier
303. *Khasia kraatzi* Jacoby
304. *Spitiella collaris* Baly
305. *Leptarthra abdominalis* Baly
306. *Sphenoraia (Sphenoraiodes) rutilans* (Hope)
307. *Sphenoraia (Sphenoraia) bicolor* (Hope)

308. *Trichobalya bowringii* ( Baly)
  309. *T. apicalis* Kimoto
  310. *T. viridipennis* Kimoto
  311. *Palpoxena* sp.
  312. *Arthrotus pallidus* Laboissiere
  313. *A. persimilis* Kimoto
  314. *Dercetina posticata* (Baly)
  315. *D. flavocincta* (Hope)
  316. *D. mandarensis* (Jacoby)
  317. *D. histrio* (Baly)
  318. *D. miniaticollis* ( Hope)
  319. *D. viridicyanea* Kimoto
  320. *D. hainana* Gressitt & Kimoto
  321. *D. major* Kimoto
  322. *Doryida mouhoti* Baly
  323. *Hylaspes longicornis* Baly
  324. *Gallerucida singularis* Harold
  325. *G. indica* Harold
  326. *G. nigricornis* Laboissiere
  327. *Dercetisoma concolor* (Jacoby)
  328. *Doryscus testaceus* Jacoby
  329. *Kanarella unicolor* Jacoby
  330. *Stethidea balyi* (Duvivier)
  331. *Mandarella nagpurensis* Duvivier
  332. *Pseudoides bivittata* Jacoby
- Subfamily (xiii) CASSIDINAE
333. *Craspedonta leayana* (Latreille)
  334. *Epistictina viridimaculata* (Boheman)
  335. *Notosacantha maculipennis* (Boheman)
  336. *N. tenuicula* (Spaeth)

337. *Basiprionota punctipennis* (Wagner)
338. *B. decemmaculata* (Boheman)
339. *B. impustulata* (Boheman)
340. *Sindia clathrata* (Fabricius)
341. *S. sedecimaculata* Boheman
342. *Aspidomorpha fuscopunctata* Boheman
343. *A. indica* Boheman
344. *A. sanctaegrucis* (Fabricius)
345. *A. dorsata* (Fabricius)
346. *A. chandrika* Maulik
347. *A. furcata* (Thunberg)
348. *A. miliaris* (Fabricius)
349. *A. orientalis* Boheman
350. *Laccoptera quadrimaculata* (Thunberg)
351. *Conchyloctenia nigrovittata* (Boheman)
352. *Oocassida cruenta* (Fabricius)
353. *O. obscura* (Fabricius)
354. *Chiridopsis septemnotata* (Boheman)
355. *C. promiscua* (Boheman)
356. *C. bipunctata* (Linnaeus)
357. *Glyphocassis trilineata* (Hope)
358. *Cassida enervis* Boheman
359. *C. pusillula* Boheman
360. *C. nigriventris* Boheman
361. *C. obtusata* Boheman
362. *C. circumdata* Herbst
363. *C. stupa* Maulik
364. *C. icterica* Boheman
365. *C. petulans* Spaeth
366. *C. dorsonotata* Boheman
367. *C. syratica* Boheman

- 368. *C. justa* Spaeth
- 369. *C. occursans* Spaeth
- 370. *C. belliformis* Maulik
- 371. *C. desultrix* (Spaeth)
- 372. *C. flavoscutata* Spaeth
- 373. *C. varians* Herbst
- 374. *C. catenata* Boheman
- 375. *C. conchylata* (Spaeth)
- 376. *C. australica* Boheman

Key to the Sub-families of Chrysomelidae from West Bengal  
(largely after Gressitt & Kimoto, 1961)

- 1. Head with vertex projecting strongly forward and mouth directed posteriorly below, and often partly hidden by the prosternum.....16
  - Head with vertex not projecting and with mouth directed forward and downward..... 2
- 2(1) Antennae closely inserted on front of head; elytra not very rigid.....15
  - Antennae not very closely inserted separated by frons or vertex; elytra generally rigid.... 3
- 3(2) Prothorax not completely margined laterally; eyes prominent and head more or less constricted behind them ..... 4
  - Prothorax completely margined laterally, eyes not very prominent and head not strongly constricted behind them .....10
- 4(3) Posterior femur largely and strongly dilated, often armed with teeth..... 5
  - Posterior femur generally not greatly dilated rarely armed with teeth.....6
- 5(4) Antenna long, with most segments longer than broad..... Sagrinae
  - Antenna short, rarely reaching beyond humerus, apical segments generally broader than long, more or less dentate ..... Megalopodinae
- 6(4) Antennal insertions separated by width of frons..... 7
  - Antennal insertions not separated by width of frons, relatively close ..... Donacinae

- 7(6) Tarsal claws generally bifid or toothed internally; prothorax usually toothed laterally..... 8  
 Tarsal claws simple, not toothed; prothorax never toothed laterally..... Criocerinae
- 8(7) Side of prothorax with a prominent swelling or with 2-3 distinct teeth..... 9  
 Side of prothorax plain, evenly rounded, body rather flat and narrow .....Orsodacninae\*
- 9(8) Side of prothorax with a prominent swelling anterior to constricted base; body not very flat.....  
 .....Zeugophorinae  
 Side of prothorax rounded with 2-3 sharp teeth; body rather flattened.....Synetinae\*
- 10(3) Middle three abdominal sternites constricted at middle ; subcylindrical.....11  
 Middle three abdominal sternites not constricted; body more or less ovate or rounded often strongly convex and constricted anteriorly..... 13
- 11(10) Antenna relatively short and serrate.....12  
 Antenna long and slender, not serrate..... Cryptocephalinae
- 12(11) Prothoracic pleuron without antennal groove; body surface smooth..... Clytrinae  
 Prothoracic pleuron with groove for reception of antenna; body surface rough or tuberculate .....  
 .....Chlamisinae
- 13(10) Wing venation not reduced; cubital veins present; clypeus not divided into two parts..... 14  
 Wing venation greatly reduced; cubital veins lacking, clypeus divided into two parts .....  
 ..... Chrysomelinae
- 14(13) Prothorax as broad as elytra basally; its side grooved for reception of antenna; abdomen grooved for reception of hind leg.....Lamprosomatinae  
 Prothorax generally narrower than elytra basally; its side not grooved for reception of antenna; abdomen not grooved for reception of leg ..... Eumolpinae
- 15(2) Posterior femora not greatly dilated..... Galerucinae  
 Posterior femora greatly dilated .....Alticinae\*
- 16(1) Pronotum and elytron with broad marginal expansions, head often covered by the pronotum .....  
 .....Cassidinae

Pronotum and elytron without broad marginal expansion, but often with spines, head never covered..... Hispinae\*

### Subfamily (i) SAGRINAE

The subfamily Sagraeae is represented in India by a single genus *Sagra*.

#### Genus *Sagra* Fabricius

1792. *Sagra* Fabricius, *Ent. Syst.* 1 (2) : 51.  
 1908. *Sagra* : Jacoby, *Fauna Brit. India. Col., Chry.*, 1 : 4.

So far six species of this genus were recorded from India of which one species from West Bengal. The present study includes another species from West Bengal.

#### 1. *Sagra femorata* (Drury)

1773. *Tenebrio femorata* Drury, *Ill Exot. Ins.* 2 : 64.  
 1792. *Sagra femorata* : Fabricius, *Ent. Syst.* 1, 2 : 51.  
 1908. *Sagra femorata* : Jacoby, *Fauna Brit. India, Col., Chry.*; 1 : 4

*Diagnostic characters* : Pronotum extremely finely or absolutely punctate, with a longitudinal groove below the anterior prothoracic tubercles; colour varies from red, purple, cupreous, blue, green to black; length 11.0-26.0 mm.

*Material examined* : Jalpaiguri : Naxalbari, 12. ix. 1974 (8 exs.) H. K. Bhowmik coll.

*Distribution* : India : West Bengal (Jalpaiguri dist.), Assam. Elsewhere : Borneo, Burma, Cambodia, China, Java, Laos, Sri Lanka, Thailand and Vietnam.

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

#### 2. *Sagra empyrea* Lacordaire

1845. *Sagra empyrea* Lacordaire, *Mon. Phytoph.* : 31  
 1908. *Sagra empyrea* : Jacoby, *Fauna Brit. India. Col., Chry.*, 1 : 5.

*Diagnostic characters* : General colour metallic violaceous or blue; sides of elytra purplish; antennal segments 1-6 blue, rest black; pronotum impunctate; elytral rows of punctures paired at sides; abdominal segment 1 longitudinally depressed; length 18.0 mm.

*Distribution* : India : West Bengal

*Remarks* : Jacoby (1908) recorded this species and mentioned only Bengal.

## Subfamily (ii) DONACINAE

The subfamily Donacinae is represented by a single genus *Donacia* in India.

Genus *Donacia* Fabricius

1775. *Donacia* Fabricius, *Syst. Ent.* 195.  
 1908. *Donacia* : Jacoby, *Fauna Brit. India, Col., Chrys.*, 1 : 10.

Out of five Indian species two species were recorded so far from West Bengal. The present paper includes another species from West Bengal.

3. *Donacia delesserti* Guerin

1844. *Donacia delesserti* Guerin, *Ins., Icon., Reg. Anim.*, : 258.  
 1908. *Donacia delesserti* : Jacoby, *Fauna Brit. India, Col., Chrys.*, 1 : 10 - 11.

*Diagnostic characters* : Antennal segment 3 subequal to 2; frontal tubercles weakly developed; abdominal segment 5 of male acute; hind femora of male without an extra tooth on inner side, sometimes with very small teeth near main tooth; length 6.5 mm 8.0 mm.

*Material examined* : Calcutta : Eden garden 11. xi. 1961 (1 ex.), 7.v. 1965 (1 ex.) all S. Ali coll., 3. v. 1965 (2 exs.), K. K. Roy & P. K. Biswas coll; Calcutta, 22. x. 1983 (1 ex. ) , S. Biswas coll.

*Distribution* : India : West Bengal (Calcutta), Tamil Nadu. Elsewhere : Burma, Japan, Malay, Sri Lanka, Thailand.

4. *Donacia recticollis* Jacoby

1893. *Donacia recticollis* Jacoby, *Ann. Soc. ent. Belg.*, **37** : 261.  
 1908. *Donacia recticollis* : Jacoby, *Fauna Brit. India, Col., Chrys.*, 1 : 11.

*Diagnostic characters* : General colour almost blackish; antennae and legs reddish brown, prothorax brassy or golden green; elytra dark brown; length 8.0 mm. Closely allied to *D. delesserti* Guerin but can be separated in having the antennal segment 3 longer than segment 2; sides of prothorax straight; elytral interstices smooth and antenna reddish brown.

*Material examined* : Calcutta (1 ex.)

*Distribution* : India : West Bengal (Calcutta), Orissa.

*Remarks* : First record from West Bengal

5. *Donacia javana* Wiedemann

1821. *Donacia javana* Wiedemann, *Mag. Ent.* 4 : 173.

*Diagnostic characters* : General colour dark brown; apex of each antennal segment, tarsi and dorsal part of femora darker; length 6.0-9.0 mm. This species is also somewhat close to *D. delessarti* Guerin but can be easily separated in having antennal segment 3 much longer than segment 2, hind tarsal segment 2 longer than broad or as long as broad, hind femora of male with an extra tooth on inner side before main tooth, abdominal segment 5 of female rounded not acute.

*Material examined* : Calcutta : Eden Garden 11. xi. 1964 (2 exs.), 7. v. 1965 (1 ex.) all S. Ali coll.

*Distribution* : India : West Bengal (Calcutta), Assam. Elsewhere : Burma, Cambodia, Celebes, China, Java, Laos, Malayasia, Singapore, Sri Lanka, Sumatra, Thailand and Vietnam.

## Subfamily (iii) ZEUGOPHORINAE

This subfamily is represented by a single genus *Zeugophora* Kunze with three species from India of which two are from West Bengal

Genus *Zeugophora* Kunze

1818. *Zeugophora* Kunze, *Neue Schr. Naturf. Ges. Halle*, 2 (4) : 17.

1908. *Zeugophora* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 14.

6. *Zeugophora longicornis* Westwood

1864. *Pedrillia longicornis* Westwood, *Trans. ent. Soc. Lond.* (3) 2 : 280.

1908. *Pedrillia longicornis* : Jacoby, *Fauna Brit. India, Col, Chry.*, 1 : 13.

1979. *Zeugophora (Pedrillia) longicornis* : Kimoto & Gressitt, *Pac. Ins.* 20 (2-3) : 205.

*Diagnostic characters* : Dorsal side reddish brown ventral side black; antennae long and slender; head impunctate; side of prothorax tuberculate; length 4.0 mm.

*Distribution* : India : West Bengal (Darjiling), Tamil Nadu. Elsewhere : Nepal and Thailand

*Remarks* : Takizawa (1989) recorded this species from Darjeeling dist.

7. *Zeugophora pallidicincta* Gressitt

1917. *Zeugophora unifasciata* Pic (nec Baly, 1885), *Met. Exot.*, 24 : 9.

1945. *Zeugophora pallidicincta* Gressitt, *Lingnan Sci. J.* 21 : 139 (new name for *unifasciata* Pic)

*Distribution* : India : West Bengal (Darjiling). *Other Indian State* : Sikkim

*Remarks* : Takizawa (1989) recorded this species from Darjiling dist. Neither the material nor the specific literature was available. So the diagnostic characters could not be given.

#### Subfamily (iv) MEGALOPODINAE

It is a very small subfamily representing by two genera from India and also from West Bengal State.

#### Key to the Genera of Megalopodinae from West Bengal (after Kimoto and Gressitt, 1979)

1. Posterior femur with a tooth near middle or apex of underside; prothorax with a small projection at side, just anterior to hind angle ..... 2  
  
Posterior femur without ventral tooth but sometimes with a slender oblique postmedian tooth in male; prothorax with a small projection at side just anterior to hind angle..... *Temnaspis*
- 2(1). Posterior femur with one or two subapical teeth, sometimes one on middle of underside also; body sometimes broad..... *Colabaspis*  
  
Posterior femur with a single stout tooth at a right angle on middle of underside and without any subapical tooth; body oblong, not very broad; prothorax stout, subcylindrical  
..... *Clythraxcloma\**

#### Genus *Temnaspis* Lacordaire

1845. *Temnaspis* Lacordaire, *Mon. Plytoph.*, 1 : 716  
1908. *Temnaspis* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 87.

Five species of this genus were recorded so far from India of which one species from West Bengal

#### 8. *Temnaspis bengalensis* Westwood

1864. *Temnaspis bengalensis* Westwood. *Trans. ent. Soc. Lond.* (3) 2 : 276.  
1908. *Temnaspis bengalensis* : Jacoby *Fauna Brit. India, Col., Chry.*, 1 : 87.

*Diagnostic characters* : General colour reddish brown with pale yellowish hairs; the basal margin of head and a spot on the anterior portion brownish; prothorax with two large black spots before the middle and another small spot near base; the shoulders and a large spot behind middle of each elytron black; metasternum entirely and a band at the apex of abdomen black; length 8.0 mm.

*Distribution* : India: West Bengal.

*Remarks* : Jacoby (1908) recorded this species and mentioned only Bengal.

Genus *Colabaspis* Fairmaire

1894. *Colabaspis* Fairm. *Ann. Soc. ent. Belg.* **38** : 225  
 1908. *Colabaspis* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 91

9. *Colabaspis speciosus* Baly

1859. *Temnaspis speciosus* Baly, *Ann. Mag. nat. Hist.* (3) 3 : 208.  
 1908. *Colabaspis speciosus* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 92.

So far three species were recorded from India of which a single one from West Bengal

*Diagnostic characters* : General colour black; pronotum brown with a large black spot at middle; elytra brown with a black spot on shoulder another large spot at apex and a transverse band at middle; base and apex of abdomen and metasternal tubercles brown. In male posterior femora strongly thickened and with two spines; in female posterior femora scarcely thickened and with single spine; abdomen brownish with median black patch; length 10.0-12.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling dist.), Sikkim. Elsewhere : Nepal.

*Remarks* : Kimoto (1967) reported this species from Darjiling dist.

Subfamily (v) CRIOCERINAE

Out of five Indian genera only three genera were recorded so far from West Bengal.

Key to the Genera of Criocerinae from West Bengal  
 (followed Kimoto and Gressitt, 1979)

1. Head constricted posteriorly ..... 2  
 Head not constricted posteriorly but with a tooth beneath at each side anteriorly ....*Manipuria*\*
- 2(1). Tarsal claws fused at base..... 3  
 Tarsal claws free, not fused at base ..... 5
- 3(2). Prothorax generally broader than long, or as broad as long, side rather strongly constricted at or behind middle; elytron rarely much more than 3 times as long as broad .....4  
 Prothorax much longer than broad sides hardly constricted; elytron four times as long as broad ..... *Ortholema*\*

4(3). Occiput abbreviated, wider than long, with sides forming a front angle of 120° or so  
 ..... **Oulema**

Occiput not abbreviated, not wider than long, with sides forming a front angle of less than 90°  
 ..... **Lema**

5(2). Head as broad as long, with a transverse depression across top at constriction behind eye, and with a deep groove on sides of constriction of neck continuing upward and forward as grooves setting off central portion of occiput, prothorax constricted near middle ..... **Liliocerus**

Head as broad as long, without a transverse depression across top at constriction, and without grooves extending forward from constriction along sides of central portion of occiput  
 ..... **Criocerus\***

#### Genus **Oulema** DesGozis

1886. *Oulema* DesGozis, *Rech. l'Espece Typique* : 33

1961. *Oulema* : Gressitt and Kimoto, *Pac. Ins. Monogr.* 1 A : 75

So far three species of this genus were recorded from India of which one from West Bengal.

#### 10. **Oulema downesi** (Baly)

1865. *Lema downesi* Baly, *Ann. Mag. nat. Hist.* (3) 16 : 156.

1908. *Lema downesi* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 43

1983. *Oulema downesi* : Takizawa, *Ent. Rev. Japan*, 38 (1) : 66.

*Diagnostic characters* : General colour pale brownish yellow; antennae (except the basal segments) and tarsi blackish; scutellum black; elytra with a sutural band abbreviated before apex; length 4.0 mm.

*Material examined* : Calcutta : Horti. Garden, 14. ix. 1905 (1 ex.), J. C. Das coll; Barddhaman : Kulti, viii. 1909 (1 ex.) B. Lord coll.; Bankura : Heraparbat, 28. viii. 1986 (1 ex.), Radhanagar, 31. viii. 1986, (1 ex.), all P. Mukhopadhyay coll., Mukutmanipur, 28. x. 1986 (1 ex.), M. Datta coll.

*Distribution* : India : West Bengal (Bankura, Barddhaman, Calcutta), Maharashtra, New Delhi, Orissa, TamilNadu/Kerala (Malabar coast). Elsewhere : Nepal.

#### Genus **Lema** Fabricius

1798. *Lema* Fabricius, *Ent. Syst. Suppl.* : 90

1908. *Lema* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 15.

It is a large genus. So far about eighty species were recorded from India of which twenty one species were from West Bengal. The present paper includes another four species from West Bengal.

11. *Lema nigrofrontalis* Clark

1866. *Lema nigrofrontalis* Clark, *App. Cat. Phytoph.* : 40  
 1908. *Lema nigrofrontalis* : Jaxoby, *Fauna Brit. India, Col. Chry.*, 1 : 17.

*Diagnostic characters* : Head, thorax and legs brownish red, labrum and underside blackish, antenna darker, elytra metallic blue; frons separated from occiput by a pair of posterior swellings, separated by a groove; pronotum distinctly broader than long, sparsely punctate, length 6.0 mm.

*Material examined* : Darjiling : Rangpo, 1700 m., 5. iv. 1973 (1 ex.), H. S. Sharma coll; Manibhanjang, 1900 m., 19. v. 1975 (1 ex.), J. K. Jonathan coll. ;Bijanbari, 900 m., 21 v. 1974 (1 ex.), J. K. Jonathan coll.; Mirik, 1650 m., 21. ix. 1974 (1 ex.), H. K. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling dist.) Elsewhere : China, Nepal.

12. *Lema praeclara* Clark

1866. *Lema praeclara* Clark, *App. Cat. Phytoph.* : 38  
 1908. *Lema praeclara* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 23.

*Diagnostic characters* : General colour yellowish, elytra dark violaceous; the lateral constrictions of the thorax form deep triangular cavities; the interstices between the rows of punctures on elytra strongly costate at apical area; length 8.0 mm.

*Material examined* : Calcutta (2 exs.); Darjiling: Pashok, 26. v-14 vi. 1916 (1 ex.), F. H. Gravely coll.; Singla, 20. iii. 1973 (1 ex.), H.S. Sharma coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling ).

13. *Lema coromandelina* (F.)

1798. *Leptura coromandelina* Fabricius, *Ent. Syst. Suppl.* : 154.  
 1801. *Lema coromandelina* : Fabricius, *Syst. Eleuth.* 1 : 475.  
 1908. *Lema coromandelina* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 25.

*Diagnostic characters* : Variable colouration, (1) reddish brown with elytra, antenna and legs blackish, (ii) blackish blue to blackish brown, (iii) elytron brownish yellow with a broad longitudinal bluish band, abruptly narrowed at base or basal portion of band much reduced (iv) head reddish brown with labrum and fronto- clypeus blackish, (v) reddish brown with meso- and metathorax blackish; antenna and legs blackish, length 4.0-6.5 mm.

*Material examined* : Calcutta : Eden Garden, 30 viii. 1960 (1 ex.), 25. x. 1960 (1 ex), all A. P. Kapur coll., 30. viii. 1963 (2 exs.) S. Munshi coll., Calcutta (18 exs.), Horti. Garden, 14. ix. 1965 (7 exs.), J. C. Das coll., Dhapa, 23. viii. 1961 (2 exs.), S. Ali Coll., Haora : Bot. Garden, 20. iv. 1961 (8 exs.), S. Ali Coll. 10. xi. 1961 (2 exs.), K. R. Rao coll.; Belur, 14. i. 1966 (2 exs), T. R. Mitra coll., Hugli : Mankundu, 14.

ix. 1965 (5 exs.), K. K. Roy coll., Bankura : Hatirampur, 10. ix. 1986 ( 1 ex.), P. Mukhopadhyay coll. ; Jalpaiguri : Naxalbari, 12. ix. 1974 (1 ex.), H K. Bhowmik coll., 20. vi. 1979 (1 ex.), P. Halder coll; Darjiling: Tarkhola, 20. iv. 1976 ( 1 ex.), A.R. Bhaumik Coll., Darjiling Chawk, 2000 m. 15. v. 1974 (1 ex.), J K. Jonathan coll; Pashok, 1050 m 26. v. -14. vi. 1916 ( 1 ex. ) F. H. Gravely coll.

*Distribution* : India : West Bengal ( Bankura, Calcutta, Darjiling, Haora, Hugli, and Jalpaiguri), Himachal Pradesh Karnataka, Orissa, Sikkim, Tamil Nadu and Uttar Pradesh. Elsewhere : Borneo, Cambodia , Celebes, China, Java, Laos, Nepal, Phillippines, Sri Lanka Sumatra, Taiwan, Thailand and Vietnam.

#### 14. *Lema atkinsoni* Jacoby

1908. *Lema atkinsoni* Jacoby, *Fauna Brit. India Col. ,Chry.*, 1 : 28.

*Diagnostic characters* : General colour reddish brown; tibia, tarsi and antennae (except two basal segments), black; broad and robust form; elytra without any basal depression, interstices between the rows of punctures finely punctate; prothorax deeply constricted at sides and with a single transverse groove, length 10.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling ).

*Remarks* : Jacoby (1908) described this species from Darjiling dist.

#### 15. *Lema palpalis* Lacordaire

1845. *Lema palpalis* Lacordaire, *Mon. Phytoph.*, 1 : 315.

1908. *Lema palpalis* : Jacoby, *Fauna Brit. India, Col. ,Chry.* ,1 : 29.

*Diagnostic characters* : General colour entirely pale yellowish; last segment of maxillary palpi enlarged ; prothorax with out any central foveae but with a pair of shallow longitudinal furrows at anterior parts of the sides; length 8.0 mm.

*Material examined* : Darjiling dist.: Kalimpong, 24. iv.- 10. v. 1965. (1 ex.), Pashok, 26. v.- 14. vi. 1916 (1 ex.), all F. H. Gravely coll.

*Distribution* : India : West Bengal ( Darjiling), Andaman Is., Karnataka and Sikkim. Elsewhere : Nepal, Sumatra, Java, Laos Vietnam, Thailand.

#### 16. *Lema singularis* Jacoby

1908. *Lema singularis* Jacoby, *Fauna Brit. India Col. ,Chry.*,1 : 32.

*Diagnostic characters* : Entirely pale yellow brown; frons without groove or fovea; elytral basal punctures partly foveate, as large as interspaces; length 6.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Assam. Elsewhere : Hainan Is.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

#### 17. *Lema fulvula* Lacordaire

1845. *Lema fulvula* Lacordaire, *Mon. Phytoph.* 1 : 338.

1908. *Lema fulvula* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 35.

*Diagnostic characters* : General colour reddish; breast and abdomen black; tibiae and tarsi fuscous; head covered with fine pubescents and with short central groove; prothorax impunctate and with two transverse groove; length 4.5-5.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal, Tamil Nadu; Kerala ( Coromandel). Elsewhere : Sri Lanka, Sumatra.

*Remarks* : Jacoby (1908) mentioned only Bengal.

#### 18. *Lema lacertosa* Lacordaire

1845. *Lema lacertosa* Lacordaire, *Mon. Phytoph.* 1 : 339.

1908. *Lema lacertosa* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 35.

*Diagnostic characters* : Head reddish brown ; anterior legs reddish brown, middle and hind legs entirely black; ventral surface black; pronotum with single transverse groove; length 5.0-7.0 mm.

*Material examined* : Calcutta : Eden Garden 25. x. 1960 (1 ex.), A. P. Kapur coll., 14. iv. 1961 (3 exs.), K. R. Rao Coll. ; Calcutta, 16. viii. 1950 (1 exs.), T. G. Vazirani coll; Dhapa, 22. viii. 1961 (1 exs.). S. Ali coll.; 24 Parganas : Sonarpur, 19. iii. 1966 (1 ex.), G. S. Arora coll; Lakshmikantapur, 15. x. 1965 (1 ex.), S.P. Chakraborty coll., Hugli : Tribeni, 12. xi. 1965 (1 ex.), M. M. Ghosh coll.; Jalpaiguri: Khairbari, 27.viii.1975 (1ex.) Naxalbari 12. ix. 1974 ( 1 ex.), all H. K. Bhowmik coll; Darjiling : Goke. Singla, 400 m. 17. iv. 1973 (1 ex.), H.S. Sharma coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling, Hugli, Jalpaiguri and 24 Parganas), Orissa. Elsewhere : Burma, China, Laos, Malayasia, Malaya, Singapore and Vietnam.

19. *Lema rufotestacea* Clark

1866. *Lema rufotestacea* Clark, *App. Cat. Phytoph* : 29  
 1908. *Lema rufotestacea* : Jacoby *Fauna Brit. India, Col., Chry.* 1 : 36.

*Diagnostic characters* : Reddish or yellowish brown antenna blackish, pronotum with only one transverse groove; interocular area swollen and shiny with deep central groove; elytron swollen near base, finely punctate behind subbasal depression; length 5.0-6.0 mm.

*Material examined* : Haora : Bot. Garden 20. iv. 1961 (5 exs.), S. Ali coll., 20. viii. 1957 (1 ex.), S. P. Shukla coll; Calcutta : Horti. Garden 14. ix. 1965 (1 exs.), J. C. Das coll; Darjiling : Goke, Singla, 400 m. 17. iv. 1973 (2 exs.), Rangiroom. 750 m. 10. iv. 1973 (2 exs.), Rayang, 300m., 28. iii. 1973 (1 ex.), all H. S. Sharma coll., Garubathan, 115 m., 19. xii. 1973 (1 ex.), Srivastava coll; Rangpo, 450 m. 1. vi. 1974 (1 ex.), Bijanbari, 900 m. 20-21. v. 1974 (14 exs.) all J. K. Jonathan coll; Tarkhola, 20. iv. 1976 (1 exs.), C.R. Basu coll; Bankura : 29. x. 1985 (2 exs.), Bishnupur, 25. x. 1985 (2 exs.), all M. Datta coll., Hatirampur, 10. ix., 1986 (1 ex.), P. Mukhopadhyay coll., Malda : Bhaluk station, 26. vi. 1987 (1 ex), K. P. Mukherjee coll.

*Distribution* : India : West Bengal (Bankura, Calcutta, Darjiling, Haora and Malda), Assam, Mahe, Orissa, Sikkim, South Indian States (Deccan). Elsewhere : Burma, China, Nepal and Thailand.

20. *Lema impotens* Lacordaire

1845. *Lema impotens* Lacordaire. *Mon. Phytoph.* 1 : 335.  
 1908. *Lema impotens* : Jacoby, *Fauna Brit. India, Col., Chry.* 1 : 36.

*Diagnostic characters* : General colour yellowish brown; antennae and legs pale yellowish, length 4.0-5.0 m.

*Material examined* : Calcutta : Eden Garden, 29. vii. 1964 (1 ex.), G. Prasad coll; Calcutta (1 ex.); Darjiling : Goke, 19. iv. 1975 (1 ex.), H.S. Sharma coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling).

21. *Lema castanea* Jacoby

1908. *Lema castanea* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 37.

*Diagnostic characters* : General colour dark red brown; labrum, antennae, legs and the underside, black; the underside of anterior femora reddish; length 4.5 mm.

*Material examined* : Calcutta 17. ix. 1909 (1 ex.). N. Anandale coll.

*Distribution* : India : West Bengal (Calcutta); Arunachal Pradesh and Assam.

*Remarks* : First record from West Bengal

22. *Lema rugifrons* Jacoby

1889. *Lema rugifrons* Jacoby, *Ann. Mus. Civ. Genova*, 27 : 151.

1908. *Lema rugifrons* : Jacoby, *Fauna Brit. India, Col. ,Chry.*, 1 : 40

*Diagnostic characters* : Dorsal side brownish; labrum and anterior portion of frontoclypeus blackish; antenna black with basal segments brownish; sometimes meso- and metathorax blackish; vertex of head flat and closely covered with fine hairs; pronotum with two distinct transverse groove; length 4.0-5.3 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal ( Calcutta), Tamil Nadu. Elsewhere : Burma, Laos, Taiwan, Thailand and Vietnam.

*Remarks* : Jacoby (1908) recorded this species from West Bengal (Calcutta),

23. *Lema assamensis* Jacoby

1891. *Lema assamensis* Jacoby, *The Entomologist, Suppl.* : 31

1908. *Lema assamensis* : Jacoby, *Fauna Brit. India, Col. ,Chry.*, 1 : 40.

*Diagnostic characters* : Head, antennae prothorax and underside black; elytra reddish; abdomen margined with brownish yellow. length 7.0-8.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal ( Darjiling), Assam.

*Remarks* : Takizawa (1985) reported this species from Darjiling dist.

24. *Lema suturella* Baly

1865. *Lema suturella* Baly, *Ann. Mag. nat. Hist. London*, (3) 16 : 156.

1908. *Lema suturella* : Jacoby, *Fauna Brit. India, Col. ,Chry.*, 1 : 42.

*Diagnostic characters* : General colour Twany yellow; tibiae and tari blackish; breast and abdomen at base black; apical segments of antennae blackish ; elytral suturalstripe narrowly blue and not extended to apex; length 4.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal

Remarks : Jacoby (1908) mentioned only Bengal.

### 25. *Lema constrictofasciata* Jacoby

1908. *Lema constrictofasciata* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 46.

*Diagnostic characters* : General colour yellowish ; head and prothorax brownish yellow, breast black; antennae dark brown, almost black; elytra with sutural and lateral stripes metallic blue; antennal segments short and stout; length 4.0 mm.

*Material examined* : Bankura dist: Hatirampur, 10. ix. 1986 ( 1 ex.), Taldangra, 11. ix. 1986 (3 exs.), all P. Mukhopadhyay coll; Birbhum dist.: Bolpur, 4. x 1987 ( 2 exs.), M. Prasad coll.; Darjiling dist: Mirik, 1650 m., 21. ix. 1974 ( 1 ex.), H. K. Bhowmik coll.

*Distribution* : India : West Bengal ( Bankura, Birbhum and Darjiling), Orissa, Sikkim, Uttar Pradesh. Elsewhere : Nepal.

### 26. *Lema maindroni* Jacoby

1908. *Lema maindroni* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 56.

*Diagnostic characters* : General colour brownish yellow; antennae, extreme apex of tibiae and tarsi black; elytra with a spot near scutellum and a short elongated band near apex, bluish; length 4.5-5.0 mm.

*Material examined* : 1 ex. Calcutta

*Distribution* : India : West Bengal (Calcutta), Mahe and Tamil Nadu.

Remarks : First time recorded from West Bengal.

### 27. *Lema fulvofrontalis* Jacoby

1900. *Lema fulvofrontalis* Jacoby, *Mem. Soc. ent. Belg.*, 7 : 97.

1908. *Lema fulvofrontalis* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 61

*Diagnostic characters* : General colour black ; head with frontal tubercles brownish yellow; elytra dark metallic blue with a short, deep sutural depression at below the base; length 5.0 mm.

*Material examined* : Darjiling dist: Lebung, 2000 m., 16. v. 1974 ( 2 exs.), Manibhanjang, 1900 m., 19. v. 1975 (5 exs.), Lepchajagat, 2100 m 4. vi. 1975 (1 ex.), Darjiling Chawk, 2000 m., 15. v. 1974 (2 exs.), Bot. Garden, 2000 m., 11. v. 1975 (1 ex.), all J. K. Jonathan coll.; Darjiling, 7. vi. 1917 ( 1 ex.); Gorabari, Sonada, 1952 m., 13.v. 1971 (1 ex.), Kurseong, 1445 m., 3. v. 1971 ( 1 ex.), Jorpokri. 2220 m., 22. v. 1971 ( 1 ex.), Mahanadi, 1250 m.. 28. iv. 1971 (6 exs.), all A. R. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : First record from West Bengal

28. *Lema fulvimana* Jacoby

1900. *Lema fulvimana* Jacoby, *Mem. Soc.ent. Belg.*, 7 : 98.

1908. *Lema fulvimana* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 62.

*Diagnostic characters* : General colour black; vertex of head brownish yellow and tuberculated as in *fulvofrontalis* Jac. legs brownish yellow, tarsi blackish ; thorax and elytra blackish blue; length 6.0 mm.

*Material examined* : Calcutta : Horti. Garden, 14. ix. 1965 ( 3 exs.), J. C. Das coll., Eden Garden, 30. v. 1964 (1 ex.), Mandal & Party coli.

*Distribution* : India : West Bengal (Calcutta).

29. *Lema rufofrontalis* Jacoby

1908. *Lema rufofrontalis* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 62.

*Diagnostic characters* : Head black with two strong reddish tubercles between the eyes; antennae and thorax black; elytra metallic greenish blue, subcylindrical without any basal depression.

*Material examined* : Darjiling : Ghumti ( 1 ex.), F. H. Gravely coll.; Kurseong, 9. vii. 1908 (1 ex.); Calcutta ( 1 ex.)

*Distribution* : India : West Bengal ( Calcutta Darjiling). Elsewhere : Nepal

*Remarks* : First record from West Bengal.

30. *Lema psyche* Baly

1865. *Lema psyche* Baly, *Ann. Mag. nat. Hist., London*, (3) 16 : 157.

1908. *Lema psyche* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 63.

*Diagnostic characters* : General colour metallic blue; antennae and legs black; elytra purplish; head with vertex coarsely punctate; elytral transverse depression shallow and obsolete wrinkled; length 6.0 mm.

*Material examined* : Darjiling : Lepchajagat, 2100 m. 4.vi. 1975 (2 exs.) J.K. Jonathan coll; Gorabari, Sonada, 1952 m, 13.v. 1971 ( 1 ex.), Mahanadi, 1250 m. ,28. iv. 1971 (1 ex.), all A. R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling).

31. *Lema gahani* Jacoby

1899. *Lema gahani* Jacoby, *The Entomologist*. **32** : 67.  
 1908. *Lema gahani* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 63.

*Diagnostic characters* : General colour dark metallic blue; antennae, tibiae, and tarsi black; prothorax elongated; elytral punctures stronger at basal half and the apical half with only striae in place of punctures; length 6.0 mm.

*Material examined* : Darjiling : Singla, 4 km. S.W. of Goke, 400 m, 1973 ( 1 ex.), Andherikhola, 2 km. S. W. of Rangpo, 400 m., 1973 ( 1 ex.), all P. K. Maiti coll.

*Distribution* : India : West Bengal (Darjiling ), Meghalaya.

32. *Lema cyanea* Fabricius

1798. *Lema cyanea* Fabricius, *Ent. Syst. Suppl.* : **92**.  
 1908. *Lema cyanea* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 64.

*Diagnostic characters* : Dorsal surface entirely metallic blue; antennae and legs black; pronotum with single transverse groove near base; occiput not distinctly raised and with short longitudinal sulcus starting from apex; length 4.0-5.0 mm.

*Material examined* : Darjiling : Darjiling Chawk, 2000 m., 15. v. 1974 (2 exs.), Rangpo, 450 m., 1. vi. 1974 ( 1 ex.), Bijanbari, 900 m., 20 v. 1974 ( 2 exs.), 21. v. 1974 (4 exs.), Manibhanjang, 1900 m., 19. v. 1973 ( 3 exs.), all J. K. Jonathan coll; Kureseong 1445 m. 3. v. 1971 ( 1 ex.), Mahanadi, 1250 m., 28. iv. 1971 ( 2 exs.), all A. R. Bhaumik coll.

*Distribution* : India : West Bengal ( Darjiling), Assam, Himachal Pradesh, Sikkim and Tamil Nadu. Elsewhere : Burma, China, Laos, Nepal, Sumatra, Thailand and Vietnam.

33. *Lema nigricollis* Jacoby

1891. *Lema nigricollis* Jacoby *The Entomologist, Suppl.* : 31  
 1909. *Lema nigricollis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 69.

*Diagnostic characters* : General colour black; head with frontal tubercles reddish; elytra reddish; pronotum with two transverse groove; length 5.5-6.0 mm.

*Material examined* : Darjiling : Rangpo, 8. iv. 1973. ( 5 exs.), 10. iv. 1973 ( 1 ex.), Goke, Singla, 18-20. iv. 1973 ( 2 exs.), Tarkhola, 1500 m., 24. iii. 1973 ( 2 exs.), all H. S. Sharma coll; Bijanbari, 900 m. 21. v. 1974 ( 3 exs.), 20. v. 1974 ( 2 exs.), J.K. Jonathan coll.; Mahanadi, 1250 M., 28. iv. 1971 (2 exs.), A. R. Bhaumik coll. ; Tiger Hill, 2123 m., 21. v. 1979 ( 1 ex.), M.S. Shishodia coll; Tarkhola, 20. iv. 1976 ( 2 exs.), C. R. Basu coll; Mangpu. 150 m., iv. -v. 1917 ( 1 ex.), S. W. Kemp coll., Lebong, 2000 m., 16. v. 1974 ( 1 ex.), Darjiling Chawk, 2000 m. 15. v. 1974 ( 1 ex.) all J. K. Jonathan coll. ;Teesta Bazar,

214 m., 18. iv. 1976 ( 2 exs.) C.R. Basu coll.

*Distribution* : India : West Bengal (Darjiling ), Arunachal Pradesh, Assam, Sikkim. Elsewhere : Burma, Laos, Thailand and Vietnam.

34. *Lema macei* Lacordaire

1845. *Lema macei* Lacordaire, *Mon. Phytoph.*, 1 : 387

1908. *Lema macei* : Jacoby, *Fauna Brit. India, Col. Chry.*, 1 : 71

*Diagnostic characters* : General colour reddish; pronotum with two black spots, each of which near the anterior angle; elytra black with its apex narrowly yellowish; length 6.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal.

*Remarks* : Jacoby (1908) recorded this species and mentioned only Bengal.

35. *Lema indicola* Takizawa and Basu

1987. *Lema indicola* Takizawa and Basu, *Kontyu, Tokyo*. 55 (2) : 273.

*Diagnostic characters* : Dorsal surface with antenna metallic dark blue; legs and thorax ventrally black; abdomen light reddish brown; length 4.8 mm.

*Material examined* : Darjiling : Gorabari, Sonada, 1952 m., 13. v. 1971 (3 exs.), A. R. Bhaumik coll.

*Distribution* : India : West Bengal ( Darjiling).

Genus *Lilioceris* Reitter

1912. *Lilioceris* Reitter, *Fauna Germanica*, 4 : 79.

1908. *Crioceris* : Jacoby, *Fauna Brit. India, Col. ,Chry.*,1 : 71 (Part)

1961. *Lilioceris* : Gressitt & Kimoto, *Pac. Ins. Monogr.* 1 A : 42.

Twentyone species of this genus were record so far from India of which five species were from West Bengal. The present paper includes another two species from West Bengal.

36. *Lilioceris malabarica* (Jacoby)

1904. *Crioceris malabarica* Jàcoby, *Ann. Soc. ent. Belg.* ,48 : 381.

1908. *Crioceris malabarica* : Jacoby, *Fauna Brit.India, Col.Chry.* 1 : 72.

1987. *Lilioceris malabarica* : Basu & Halder, *Fauna Orissa : State Fauna Series* No. 1 (1) : 223

*Diagnostic characters* : General colour dark brownish yellow; underside black; elytra reddish brown with regular rows of punctures; legs reddish brown with the knees darker; length 9.0 mm.

*Material examined* : Jalpaiguri : Lankapara, 27. viii. 1986 ( 1 ex. ), Hasimara, 22. viii. 1986 ( 1 ex. ), all T. K. Pal coll.

*Distribution* : India : West Bengal ( Jalpaiguri), Kerala; Tamil Nadu, Orissa.

*Remarks* : First record from West Bengal.

### 37. *Lilioceris impressa* (Fabricius)

1787. *Crioceris impressa* Fabricius, *Mant. Ins.* 1 : 88.

1908. *Crioceris impressa* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 72

1929. *Lilioceris impressa* : Winkler, *Cat. Col. Reg. Palaearc.* 2 (10) : 1234

*Diagnostic characters* : Head reddish or black ; elytra reddish; antenna robust, preapical segments broader than long; pronotal punctures arranged in one or two longitudinal rows; outer half of metasternum without any distinct stripe or dense hairs; length 8.5-11.0 mm.

*Material examined* : Calcutta ( 9 exs. ) ; Darjiling: Mangpu ( 7 exs. ) F. H. Gravely coll.; Tarkhola, 20. iv. 1976 ( 1 ex. ), C. R. Basu coll.

*Distribution* : India : West Bengal ( Calcutta and Darjiling), Andaman & Nicobar Is., Sikkim. Elsewhere : Burma, Cambodia, China; Hainan, Japan, Laos, Malaya, Nepal, Phillippines, Sri Lanka, Sumatra, Taiwan, Thailand and Vietnam.

### 38. *Lilioceris semipunctata* (Fabricius)

1801. *Lema semipunctata* Fabricius, *Syst. Eleuth.*, 1 : 472.

1845. *Crioceris semipunctata* : Lacordaire, *Mon. Phytoph.* 1 : 558.

1961. *Lilioceris semipunctata* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, 1 A : 58.

*Diagnostic characters* : General colour reddish brown; pronotum with 1-2 rows of fine punctures; scutellum pubescent; preapical antennal segments longer than broad; elytron with distinct transverse depression behind postbasal area; length 8.0-9.0 mm.

*Material examined* : Darjiling : Manibhanjang, 1920 m., 17. v. 1975 ( 1 ex. ), J. K. Jonathan coll; Reyang, 370 m., 30. iii. 1973 ( 1 ex. ), H. S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim and Tamil Nadu. Elsewhere : Borneo, China

(Hainan), Java, Nepal, Sri Lanka, Sumatra and Thailand.

39. *Lilioceris semicostata* ( Jacoby), *New combination*

1908. *Crioceris semicostata* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 77.

*Diagnostic characters* : General colour metallic blue; antenna black; elytra yellowish; length 9.0 mm. It can be distinguished from its allied species *flavipennis* Baly in having smaller size, anterior portion of thorax not produced and elytral punctures stronger and regular.

*Material examined* : Calcutta ( 1 ex.), Darjiling: Lebung, 1500m,...ix. 1908, H.M.L. coll.

*Distribution* : India : West Bengal (Calcutta & Darjiling), Manipur.

*Remarks* : First record from West Bengal.

40. *Lilioceris nepalensis* Takizawa

1989. *Lilioceris nepalensis* Takizawa, *Jpn. J. Ent.*, **57**(2) : 327.

*Diagnosis characters* : General colour light yellowish brown; eyes, mandibles at apices and tarsal claws black; meso-and metathoraxes, first two visible abdominal sternites largely black; mesothoracic process largely yellowish brown; elytron with a round, dark opaque patch on sub-basal elevation.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Nepal.

*Remarks* : Takizawa (1989) described this species from Darjiling dist.

41. *Lilioceris quadripustulata* (Fabricius)

1787. *Crioceris 4-pustulata* Fabricius, *Mant. Ins.*, **1** : 88.

1845. *Crioceris quadripustulata* : Lacordarie, *Mon. Phytoph.*, **1** : 558.

1958. *Lilioceris quadripustulata* : Medvedev. *Ent. Arb. Mus. Frey*, **9** (1) : 108.

*Diagnostic characters* : Head, prothorax, underside, antennae and legs black; elytra black with humeral and subapical transverse band brownish; length 10.0-11.2 mm.

*Material examined* : Jalpaiguri : Jalapara Sanctuary, 28.viii. 1986(1 ex.), T.K. Pal coll.

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri).

*Elsewhere* : Burma, Java, Laos, Malayasia, Thailand and Vietnam.

42. *Lilioceris laosensis* (Pic)1916. *Crioceris losensis* Pic. *Mel. Exot. Ent.*, **19** : 16.1979. *Lilioceris laosensis* : Kimoto & Gressitt, *Pac. Ins.*, **20** (2-3) : 227.

*Diagnostic characters* : This species is very close to *L. impressa* (F) and *L. cheni* Gressitt & Kimoto but can be easily separated from *L. impressa* in having pronotal punctures randomly distributed on disc, and from *L. cheni* in having the outer half of metasternum without any hairs and the surface smooth not wrinkled; length 8.2.-9.5 mm.

*Material examined* : Darjiling : Bijanbari, 900m., 20-21.vi.1974 (4 exs.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : China, Laos, Nepal and Thailand

## Subfamily (vi) CLYTRINAE

Key to the Genera of Clytrinae from West Bengal  
(largely after Kimoto & Gressitt, 1961 and 1981)

1. Posterior angles of prothorax more or less raised in male, posterior margin strongly sinuate  
.....*Labidostomis*
- Posterior angles of prothorax not raised in male.....2
- 2(1). Elytral epipleuron strongly lobed at base; pygidium exposed..... 3
- Elytral epipleuron not or very slightly convex; pygidium not exposed.....5
- 3(2). Body fairly parallel-sided; epipleural lobe of elytron distinct but not conspicuously large..... 4
- Body strongly narrowed anteriorly and posteriorly; epipleural lobe of elytron very large  
.....*Aspidolopha*
- 4(3). Posterior angle of pronotum strongly angulate; hind margin of pronotum strongly produced in middle.....*Diapromorpha*
- Posterior angle of pronotum weakly angulate, hind margin of pronotum not so distinctly produced  
.....*Aetheomorpha*
- 5(2). Front legs distinctly larger and more slender than others
- Front legs slightly longer and more slender than others..... 8

- 6(5). Posterior angles of pronotum not strongly angulate..... 7  
 Posterior angles of pronotum strongly angulate.. ..... *Physauchenia\**
- 7(6). Tarsal segment 1 of intermediate legs not broader than that of anterior legs.....*Coptocephala*  
 Tarsal segment 1 of intermediate legs broader than that of anterior legs..... *Aetheodactyla*
- 8(5). Antenna normal, not very strongly widened or serrate; elytron not dilated in male  
 ..... *Clytrasoma*  
 Antenna very strongly widened and serrate; elytron strongly dilated in male  
 ..... *Clytrasoma*
- 9(8). Posterior angles of pronotum rounded, not distinctly angulate..... 10.  
 Posterior angles of pronotum distinctly angulate, tarsus robust, broad, with segment 1-2 widened,  
 especially in male.. .....*Physosmaragdina*
- 10(9). Tarsus robust, broad, with segment 1-2 widened; segment 1 about as long as segment 2; body  
 generally large.....*Clytra*  
 Tarsus slender, segment 1 of fore tarsus twice as long as segment 2; body generally small  
 ..... *Smaragdina*
- (For want of material the genus *Aetheanta* Medvedev, 1988 could not be included in the key)

Genus *Aspidolopha* Lacordaire

1948. *Aspidolopha* Lacordaire, *Mon. Phytoph.*, **2** : 252.  
 1908. *Aspidolopha* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 134.

Thirteen species of this genus were recorded so far from India of which four were from West Bengal. The present paper includes another one species from West Bengal.

43. *Aspidolopha decora* (Fabricius)

1801. *Clythra decora* Fabricius, *Syst. Eleuth.*, **2** : 35.  
 1908. *Aspidolopha decora* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 136.

*Diagnostic characters* : General colour metallic blue; elytra reddish brown; antennae reddish brown with five basal segments yellowish brown; abdominal foveae absent; length 6.0-7.0 mm.

*Material examined* : No material.

*Distribution* : India : West Bengal; Assam and Tamil Nadu.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

#### 44. *Aspidolopha spilota* (Hope)

1831. *Cryptocephalus spilota* Hope, *In Gray, Zool. Misc.* : 30  
 1891. *Aspidolopha rugosa* Jaoby, *Entomologist Supl.*, **24** : 32.  
 1923. *Aspidolopha spilota* : Bryant, *Ann. Mag. nat. Hist.* (9) **12** : 136 (= *rugosa*).

*Diagnostic characters* : General colour metallic dark blue; elytron reddish brown, with a humeral spot, another spot at apex and a transverse band at middle, dark blue; antenna bluish black with basal segments brownish; legs bluish black with tibiae and tarsi brownish; elytra rugose and very feebly costate; pronotum strongly punctate and with a transverse blue band; length 6.0 mm.

*Material examined* : Darjiling : Mungphu (3 exs.).

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal and Thailand.

#### 45. *Aspidolopha egregia* (Boheman)

1858. *Clythra egregia* Boheman, *Ins. Cugenies Resa.* : 154.  
 1890. *Aspidolopha distincta* Duvivier, *Bull. Soc. ent. Belg.*, **35** : 32.  
 1890. *Aspidolopha thoracica* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 879  
 1981. *Aspidolopha egregia* : Kimoto & Gressitt, *Pac. Ins.*, 23(2-3) : 290 (= *distincta* = *thoracica*)

*Diagnostic characters* : General colour dark blue; antenna black; prothorax partly brownish yellow or blue; elytra brownish yellow with a humeral spot, a large median spot, and another subapical spot near suture, blue; tibiabrownish yellow; sometimes prothorax brownish yellow with blue transverse basal band, or elytra without apical spot, or elytra with a humeral spot and one median spot, or elytra without any spots; length 6.0-8.0 mm.

*Material examined* : Jalpaiguri : Rajabhatkhawa, Bijanbari Forest, 19.iii.1986 (1 ex.), A.K. Hazra coll.

*Distribution* : India : West Bengal (Jalpaiguri), Bihar and Sikkim. Elsewhere : Burma, China, Laos, Malaya, Nepal, Thailand, Vietnam.

*Remarks* : First record from West Bengal.

#### 46. *Aspidolopha melanophthalma* Lacordaire

1848. *Aspidolopha melanophthalma* Lacordaire, *Mon. Phytoph.*, **2** : 254.  
 1908. *Aspidolopha melanophthalma* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 144.

*Diagnostic characters* : General colour metallic blue; antenna blackish; thorax, scutellum and elytra yellowish; elytral spots variable, from without spot to three spots on each elytron; thorax almost impunctate at the middle but distinctly punctate at sides; elytral punctuation strong and close and almost impunctate at apex; length 2.5-5.0 mm.

*Material examined* : Medinipur : Kharagpur, 17-30.vi. 1911 (2exs.), R. Hodgart coll.; Calcutta, 1.vi. 1907 (1 ex.); Murshidabad : Beldnga, 2.iii. 1986 (1 ex.), Kadampur, Jiaganj, 1.iii. 1986 (1 ex.), Bhakri. Berhampore, 28.iv.1986 (1 ex.), all S.K. Mitra coll.; Azamganj, 5.ii. 1986 (1 ex.), I.J. Gupta coll.; Bankura : Hatirampur, 10.x. 1986 (1 ex.), P. Mukhopadhyay coll.; Jalpaiguri : Hasimara, 22.viii. 1986 (1 ex.), T.K. Pal coll.

*Distribution* : India : West Bengal (Bankura, Calcutta, Darjiling, Jalpaiguri, Medinipur and Murshidabad). Elsewhere : Borneo, Burma, Cambodia, China, Java, Laos, Malaya, Sri Lanka, Sumatra, Thailand and Vietnam.

#### 47. *Aspidolopha himalayensis* Medvedev

1988. *Aspidolopha himalayensis* Medvedev, *Ent. Basiliensia*, **12** : 475.

*Diagnostic characters* : General colour greenish black; labrum, base of antenna, prothorax, elytra, upper side of venter, tibiae and tarsi, yellowish brown; each elytron with humeral spot and two spots in the middle, one connected with lateral margin, other on disc near suture.

*Material examined* : No material.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Medvedev (1988) described this species from Darjeeling dist.

#### Genus *Diapromorpha* Lacordaire

1848. *Diapromorpha* Lacordaire, *Mon. Phytoph.*, **2** : 227.

1908. *Diapromorpha* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 162.

Eight species of this genus were recorded sofar from India of which three were from West Bengal (including one new record).

#### 48. *Diapromorpha dejeani* Lacordaire

1848. *Diapromorpha dejeani* Lacordaire, *Mon. Pytoph.*, **2** : 235.

1908. *Diapromorpha dejeani* : Jacoby. *Fauna Brit. India, Col. Chry.*, **1** : 166.

*Diagnostic characters* : General colour black; dorsal surface dark brown; prothorax with two angulate black spots in male or with a transverse sinuate black band near base in female; elytra with a short

transverse black band at basal area and another longer one near apical area; length 5.0-6.5 mm.

*Material examined* : Darjiling : Mungphu (2 exs.), Pashok, 26.v.-14.vi. 1914 (3 exs.), Kalimpong, 10-12.vi. 1916 (1ex.), all F.H. Gravely coll; Kalimpong, 1400 m, 23.vi. 1979 (1 ex. ), M. Prasad coll.

*Distribution* : India : West Bengal (Darjiling), Kerala; Tamil Nadu (Coromandel) and Sikkim. Elsewhere : Nepal and Malaya Is.

#### 49. *Diapromorpha pallens* (Fabricius)

1787. *Cryptocephalus pallens* Fabricius, *Ment. Ins.*, **1** : 81.

1808. *Clythra pallens* : Olivier, *Ent.*, **6** : 836

1961. *Diapromorpha pallens* : Gessitt & Kimoto, *Pac. Ins. Monogr.* **1A** : 84.

*Diagnostic characters* : Head black with clypeus and labrum yellowish brown to dark brown, sometimes head entirely blackish; dorsal surface entirely yellowish brown; ventral surface black; antenna dark brown to pitchy black with basal segments brownish; legs yellowish brown with femora bluish black, sometimes legs entirely blackish; clytra distinctly and closely punctate, interstices narrower than diameter of these punctures; length 6.2-7.2 mm.

*Material examined* : Darjiling : Kalimpong, 24.iv-10.v.1915 (2 exs.), F.H. Gravely coll., 12.ix.1901 (15 exs.), .... vi. 1934 (1 ex.), S.L. Hora coll.; Teesta, 30.vi. 1979 (1 ex.), M. Prasad coll.; Calcutta (24 exs.), 12.x.1906 (3exs.) 14.xi.1906 (2 exs.); Maldah ( 1 ex.); 24 Parganas : Kakandighi, 18.ix.1909 (1 ex.), J.T. Jenkins Coll.; Subhasgram, Kodaliala, 29.x. 1965 (1 ex.), S.C. Mitra coll., Dum Dum Air Port, 24.xi. 1965 (2 exs.) P. Parui coll., Dutta Pukur, 6.xii. 1966 (3exs.), A.N.T. Joseph coll.; Hugli : Bandel, 6.ix. 1909 (1 ex.), B. Richardson coll, 28.xi.1964 (1 ex.) S.K. Ghosh coll.; Chandan Nagar, 18.xi. 1965 (2 exs.), P.K. Maiti coll., 14. xii. 1965 (2` exs.). P. Parui coll., 16.x. 1965 (4 exs.), H.C. Ghosh & H.L. Pal coll; Serampur, Choto Bally, 2.xi. 1965 (7 exs.), P. Parui coll., Serampur, Baro Bally, 2.xi. 1965 (1 ex.) P. Parui coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling, Hugli, Maldah and 24 Parganas), Arunachal Pradesh and Sikkim. Elsewhere : Burma, China, Laos, Phillipines, Thailand and Vietnam.

#### 50. *Diapromorpha turcica* (Fabricius)

1801. *Clythra turcica* Fabricius, *Syst. Eleuth.*, **2** : 37.

1908. *Diapromorpha turcica* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 169.

*Diagnostic characters* : Dorsal side brownish; thorax with two black spots (sometimes united); elytra with a transverse band at middle, one spot at base and another at apex, black; underside black; very variable colour pattern (i) tibiae and tarsi reddish brown, subapical spot of elytra absent; (ii) thorax black, anterior and lateral margins and a median line reddish brown ; (iii) thorax with two small spots at base and two at middle, black; (iv) thorax entirely reddish brown; (v) elytra with two transverse bands and a subapical spot; (vi) elytra with a single transverse line and a subapical spot; length 6.0 mm.

*Material examined* : Bankura : Bishnupur. Amtala more. 27.viii. 1986 (2 exs.), Ranibandh, 7.ix.

1986 (1 ex.), all P. Mukhopadhyay coll.; Burbhum : Palitpur, 3 x. 1987 ( 1 ex.), M. Prasad coll.

*Distribution* : India : West Bengal (Bankura and Birbhum), Orissa, Uttar Pradesh and Tamil Nadu  
Elsewhere : Sri Lanka.

*Remarks* : First record from West Bengal.

Genus *Aetheomorpha* Lacordai[re

1848. *Aetheomorpha* Lacordaire, *Mon. Phytoph.*, 2 : 311.

1908. *Aetheomorpha* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 123.

Out of seventeen Indian species only three were recorded so far from West Bengal and another one is recorded here for the first time.

51. *Aetheomorpha malayana* (Baly)

1865. *Gynandrophthama malayana* Baly, *Trans. ent. Soc. London* (3)4:51.

1891. *Gynandrophthama nigropicta* Lefevre, *Bull. Soc.ent. Belg.* 35:252.

1908. *Aetheomorpha nigropicta* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 124.

1981. *Aetheomorpha malayana* : Kimoto & Gressitt, *Pac. Ins.*, 23(2-3) : 298 (=nigropicta)

*Diagnostic characters* : Elytron reddish brown with humeral and subbasal spots, together with transverse band united at lateral margin, and sometimes humeral spot and postmedian transverse band united at lateral margin, and sometimes this postmedian band divided into two spots; head reddishbrown. with vertex black; ventral surface black; antenna black with basal segments brownish; length 3.8-5.0 mm.

*Material examined* : Calcutta ( 1 ex.); Darjiling : Kalimpong, 24.iv.-10.v. 1915 (2 exs.), F.H. Gravely coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling), Bihar, Karnataka, Kerala and Tamil Nadu.  
Elsewhere : Burma, Laos, Nepal, Sri Lanka and Vietnam.

*Remarks* : First record from West Bengal.

52. *Aetheomorpha unifasciata* Jacoby

1908. *Aetheomorpha unifasciata* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 129.

*Diagnostic characters* : General colour black; prothorax black with margins reddish brown:

scutellum reddish brown, elytra yellowish with a short transverse black band near apex which does not extend to the extreme margin; length 6.0-6.5 mm.

*Material examined* : Nil

*Distribution* : India: West Bengal.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Northern India' and 'Bengal'

### 53. *Aetheomorpha tonkinensis* (Jacoby)

1893. *Gynandrophthalma apicalis* Lefvre (nec Jacoby 1891), *Ann. Soc. ent. Fr.*, **62** : 114.

1895. *Gynandrophthalma tonkinensis* Jacoby, *Dtsch. Ent. Z.*, **1895** : 172 (n.n. for *G. apicalis* Lefev.)

1981. *Aetheomorpha tonkinensis* : Kimoto & Gressitt, *Pac. Ins.*, **23**(3-4) : 299.

*Diagnostic characters* : Elytron yellowish brown with apical marking blackish, scutellum yellowish, antenna mostly reddish brown; ventral surface yellowish brown, legs reddish brown; length 3.5 mm.

*Material examined* : Darjiling : Goke, Singla, 450 m., 20.iv. 1973 (1 exs.), Reyang, 1.iv. 1973 (1 ex.). Rangpo, 950m, 10.iv. 1973 (1 ex.), all H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Vietnam.

### 54. *Aetheomorpha pseudonagaensis* Medvedev

1988. *Aetheomorpha pseudonagaensis* Medvedev, *Ent. Basiliensia*, **12** : 474.

*Diagnostic characters* : General colour yellowish brown or reddish brown, scutellum and tarsi black, elytron with humeral spots, one spot between humerus and scutellum, two spots in transverse row behind middle, extreme apex narrowly pitch brown; aedeagus with very characteristic subquadrate apical process. (from original description).

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Medvedev (1988) described this species from Darjiling dist.

55. *Aetheomorpha apicata* Medvedev

1988. *Aetheomorpha apicata* Medvedev, *Ent. Basiliensis*, **12** : 474.

*Diagnostic characters* : General colour yellowish brown; apical one-fifth of elytra, sides of breast, pygidium and sometimes sides of last abdominal sternites, black; length 4.0-4.1 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Medvedev (1988) described this species from Darjiling dist.

Genus *Coptocephala* Chevrolat

1837. *Coptocephala* Chevrolat, in Dejean, *Cat. Col. ed. 3* : 419.

1848. *Ceratobasis* Lacordaire, *Mon. Phytoph.*, **2** : 362.

1956. *Coptocephala* : Monros, *Rev. Fr. Ent.* : **163** (= *Ceratobasis*)

Out of six Indian species only two species are recorded from West Bengal (including one new record).

56. *Coptocephala nair* Lacordaire

1848. *Ceratobasis nair* Lacordaire, *Mon. Phytoph.*, **2** : 363.

1987. *Coptocephala nair* : Takizawa & Basu, *Kontyu, Tokyo*, **55** (2) : 269.

*Diagnostic characters* : General colour yellowish; breast, vertex of head and two spots on prothorax black; generally elytra with two subquadrate bluish black spots, one before and another behind middle. sometimes elytra with an additional humeral spot or wholly black with the margins all round brown; length 4.0-4.5 mm.

*Material examined* : Bankura : Bishnupur Sericulture Nursery, 26.x.1985 (1 ex.). Sonamukhi, 30.x.1985 (1 ex.), all M. Datta coll.; Roy Pukur, Jayrambati (1 ex.). M. Prasad coll.

*Distribution* : India : West Bengal (Bankura), Uttar Pradesh, Maharashtra.Kerala/Tamil Nadu (recorded as Malabar).

*Remarks* : First record from West Bengal.

57. *Coptocephala minuta* Jacoby

1908. *Coptocephala minuta* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 175.

*Diagnostic characters* : General colour reddish brown; elytra and legs pale brown; terminal segments of antenna almost blackish; head broader than long with truncate anterior margin of clypeus; prothorax strongly transverse about three times as broad as long; length 3.0 mm.

*Material examined* : No material.

*Distribution* : India : West Bengal, Maharashtra.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

Genus *Clytrasoma* Jacoby

1908. *Clytrasoma* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 149.

Out of two Indian species only one species was recorded from West Bengal.

58. *Clytrasoma palliatum* (Fabricius)

1801. *Clythra palliata* Fabricius, *Syst. Eleuth.*, **2** : 30.

1908. *Clytrasoma palliata* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 150.

1961. *Clytrasoma palliatum* : Gressitt & Kimoto, *Pac. Ins. Monogr.* **1A** : 92

1948. *Clythra (Clythra) conformis* Lacordaire, *Mon. Phytoph.*, **2** : 194.

1908. *Clytrasoma conformis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 150.

1981. *Clytrasoma palliatum* : Kimoto & Gressitt, *Pac. Ins.* **23**(3-4) : 303 (= *conformis*).

*Diagnostic characters* : Head, antenna, underside and legs black; pronotum yellowish brown with a pair of black spots, scutellum black; elytron yellowish brown with three black transverse bands, sometimes this median band divided into two spots; In male elytron strongly dilated, in female slightly or not at all dilated and abdominal segment 5 with deep fovea at middle; length 12.0-15.0 mm.

*Material examined* : Maldah (5 exs.).

*Distribution* : India : West Bengal (Maldah), Jammu & Kashmir, Punjab and Tamil Nadu/Kerala (recorded as Malabar).

Genus *Physosmaragdina* Medvedev

1971. *Physosmaragdina* Medvedev, *Zool. Zh.*, **50**(5) : 693

Only a single species of this genus was recorded from India (West Bengal).

59. *Physosmaragdina tonkinensis* (Lefevre)

1891. *Damia tonkinensis* Lefevre, *Ann. Soc. ent. Belg.*, **35** : 254  
 1908. *Gynandrophthalma mungphuensis* Jacoby, *Fauna Brit. India, Col., Chry.* **1** : 109.  
 1981. *Smaragdina tonkinensis* : Kimoto & Gressitt, *Pac. Ins.* **23**(3-4) : 321.  
 1987. *Physosmaragdina tonkinensis* : Takizawa & Basu, *Knotyu*, **53**(2) : 269.

*Diagnostic characters* : Head yellowish brown with vertex black; antenna dark brown with four basal segments paler; pronotum yellowish brown with large black spot; scutellum black; elytron yellowish brown with large basal and postmedian black band, sometimes these bands merging; ventral surface black; legs yellowish brown; length 4.0 mm.

*Material examined* : Darjiling : Kalimong, 24.iv.-10.v. 1915 (2 exs.); Reyang, 29.iii. 1973 (5 exs.), Rangpo, 950 m., 10.iv. 1973 (3 exs.), Rambi bazar, 2.iv. 1973 (1 ex.), all H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh and Sikkim. Elsewhere : Nepal and China.

Genus *Clytra* Laicharting

1781. *Clytra* Laicharting, *Verz. Tyrol. Ins.*, **1** : 165.  
 1848. *Miochira* Lacordaire, *Mon. Phytoph.*, **2** : 315.  
 1981. *Clytra* : Kimoto & Gressitt, *Pac. Ins.*, **23**(3-4) : 304 (= *Miochira*).

Out of twelve Indian species only three species were recorded sofar from West Bengal.

60. *Clytra succincta* Lacordaire

1848. *Clytra succincta* Lacordaire, *Mon. Phytoph.*, **2** : 201.  
 1908. *Clytra succincta* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 152.

*Diagnostic characters* : General colour black; elytra reddish brown with a humeral spot and transverse band behind the middle black; elytral band sometimes partly, often entirely interrupted, but extends generally across the entire elytra; length 8.0-12.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal, Tamil Nadu. Elsewhere : China and Java.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

61. *Clytra indica* (Jacoby)

1889. *Melitonoma indica* Jacoby, *Ann. Mus. Civ. Genova*, **29**:158.  
 1908. *Miochira indica* : Jacoby, *Fauna Brit. India* : 161.

1989. *Clytra indica* : Takizawa, *Japan J. Ent.* **57**(2) : 320.

*Diagnostic characters* : General colour reddish brown; apical segments of antennae dark brown; head with a black spot at vertex; each elytron with four spots subquadrately placed, extreme apex black; breast and abdomen partly black; length 5-0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Burma.

*Remarks* : Takizawa (1989) recorded this species from Darjiling dist.

#### 62. *Clytra lefevrei* Jacoby

1895. *Clytra lefevrei* Jacoby, *Ann. Soc. ent. Belg.*, **39**:254

1908. *Clytra lefevrei* : Jacoby, *Fauna Brit. India, Col. Chry.*, **1** : 154.

*Diagnostic characters* : General colour reddish brown; head generally with a black band or spot; prothorax with four or five black spots; each elytron with six spots (1 : 2 : 2 : 1), sometimes merged; underside and legs spotted with black; length 3.0-5.5 mm.

*Material examined* : No material.

*Distribution* : India : West Bengal, Karnataka, Kerala, Maharashtra and Tamil Nadu.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

#### Genus *Smaragdina* Chevrolat

1837. *Smaragdina* Chevrolat, *Cat. Col., ed. 3* : 420.

1848. *Gynandrophthalma* Lacordaire, *Mon. Phytoph.*, **2** : 256.

1953. *Smaragdina* : Monros, *Col. Bull.*, **7**(6) : 46 (= *Gynandrophthalma*)

Thirty two species of this genus were recorded so far from India of which four species from West Bengal.

#### 63. *Smaragdina laticollis* (Duvivier), **New Combination**

1892. *Gynandrophthalma laticollis* Duvivier, *Aun. Soc. ent. Belg.*, **36**:399.

1908. *Gynandrophthalma laticollis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 105.

*Diagnostic characters* : Head, prothorax, prosternum, mesosternum and legs brownish yellow; elytra bright blue; scutellum, metasternum and abdomen, black; length 3.0 mm.

It can be separated from its allied species *S. dohertyi* (Jac.) in having strongly transverse prothorax,

elytral punctures strong, close and arranged in regular rows.

*Material examined* : No material.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

64. *Smaragdina minuta* Jacoby

1908. *Gynandrophthalma minuta* Jacoby, *Fauna Brit. India. Col., Chry.*, **1** : 115.

1987. *Smaragdina minuta* : Takizawa & Basu, *Kontyu*, **55**(2) : 269.

*Diagnostic characters* : General colour yellowish; breast and abdomen black; elytra finely punctate-striate, not lobed at sides and covered the pygidium; length 2.5 mm.

*Material examined* : Darjiling : Rangpo, 750m., 10.iv. 1973 (1 ex.). H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Maharashtra. Elsewhere : Burma. Sri Lanka and Thailand.

65. *Smaragdina divisa* (Duvivier)

1889. *Gynandrophthalma divisa* Duvivier, *Ann. Mus. Civ. Genova*, **27**:156.

1908. *Gynandrophthalma divisa* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 117.

1981. *Smaragdina divisa* : Kimoto & Gressitt, *Pac. Ins.* **23**(3-4) : 319.

*Diagnostic characters* : Entirely yellowish brown to pale brown; antennae (except basal segments), and tarsi black; elytral punctures arranged in rows; length 3.0.-5.0 mm.

*Material examined* : Calcutta (1 ex.); Darjiling : Rangpo, 750 m., 10.iv. 1973 (1ex.), H.S. Sharma coll.; Bankura : Ranibandh, 7.ix. 1986 (1 ex.), P. Mukhopadhyay coll.; Maldah : Ganga Rampur, 15-16.vi. 1987(1 ex.), K.P. Mukherjee coll.

*Distribution* : India : West Bengal (Calcutta, Bankura, Darjiling and Maldah), Maharashtra, Kerala/ Tamil Nadu (recorded as coromandel). Elsewhere : Burma. Sri Lanka and Thailand.

66. *Smaragdina sikhima* Jacoby

1903. *Gynandrophthalma sikhima* Jacoby, *Ann. Soc. ent. Belg.*, **47**:86.

1908. *Gynandrophthalma sikhima* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 117.

1988. *Smaragdina sikhima* : Medvedev, *Ent. Basiliensia*, **12** : 471.

*Diagnostic characters* : Dorsal surface pale brown; pronotum with five or six very obsolete blackish spots; antennae black with three basal segments yellowish; underside black, tarsi black; length

6.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam and Sikkim. Elsewhere : Bhutan and Nepal.

*Remarks* : Medvedev (1988) recorded this species from Darjiling dist.

#### Genus *Aetheanta* Medvedev

1988. *Aetheanta* Medvedev, *Ent. Basiliensia*, **12** : 476.

Medvedev established this genus on a single species from India (West Bengal and Meghalaya) and Nepal.

#### 67. *Aetheanta fasciata* Medvedev

1988. *Aetheanta fasciata* Medvedev, *Ent. Basiliensia*, **12** : 476.

*Material examined* : Darjiling dist : Bijanbari, 900 m., 20-21.vi. 1974 (4 exs.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Meghalaya. Elsewhere : Nepal.

*Remarks* : Medvedev (1988) described this species from Darjiling dist.)

#### Subfamily (vii) CRYPTOCEPHALINAE

Out of five Indian genera three were recorded so far from West Bengal.

Key to the genera of Cryptocephalinae from West Bengal (largely after Gressitt & Kimoto 1961)

1. Scutellum invisible from above, eyes emarginate..... *Adiscus*  
    Scutellum distinct and large..... 2
- 2(1). Antenna short, apical segments widened..... 3  
    Antenna long and filiform, apical segments not widened..... 4
- 3(2). Eyes very close, sometimes touching above..... *Coenobius*  
    Eyes not very close, never touching..... *Melixanthus*\*
- 4(2). Thorax closely fitted to base of elytra, base of prothorax not margined..... *Cryptocephalus*  
    Thorax not closely fitted to base of elytra, base of prothorax narrowly margined.. *Pechybrachys*\*

Genus *Adiscus* Gistel

1837. *Adiscus* Gistel, *Achthundert und Zwanzig neue oder unbeschriebene wirbellose thiere Vacuana*, **2** : 604.

So far this genus was unrecorded from West Bengal and now it is being recorded here for the first time. Although eight species of this genus were recorded from India.

**68. *Adiscus hauseri* (Weise) New Combination**

1895. *Atropidius hauseri* Weise, *Deut. ent. Zeit.* : 327.

1908. *Dioryctus hauseri* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 181.

*Diagnostic characters* : General colour reddish brown; six apical antennal segments and all the ridges on the prosternum and mesosternum blackish; size 3.0 mm.

*Material examined* : Darjiling, -- vii. 1908 (1 ex.).

*Distribution* : India : West Bengal (Darjiling), Sikkim.

*Remarks* : First record from West Bengal.

Genus *Coenobius* Suffrian

1857. *Coenobius* Suffrian, *Linn. Ent.*, **11** : 61.

1908. *Coenobius* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 182.

So far eighteen species of this genus were recorded from India of which two were from West Bengal.

**69. *Coenobius birmanicus* Jacoby**

1892. *Coenobius birmanicus* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 889.

1908. *Coenobius birmanicus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 184.

*Diagnostic characters* : Head, prothorax and legs entirely reddish brown, antennae black with basal segments reddish, elytra and abdomen (except segment 5) black; pronotum with a pair of long, transverse groove laterally; length 2.0-3.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Burma, Thailand and Vietnam.

*Remarks* : Lopatin (1984) recorded this species from Darjiling dist.

**70. *Coenobius cyaneus* Lopatin**

1979. *Coenobius cyaneus* Lopatin, *Ent. Basiliensia*, **4** : 437.

*Diagnostic characters* : It is a very distinct species can be easily separated from others by its metallic blue colour, smooth pronotum and larger size (2.4 mm).

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Lopatin (1979) described this species from Darjiling dist.

### Genus *Cryptocephalus* Geoffroy

1762. *Cryptocephalus* Geoffroy, *Ins. Paris*, **1** : 231.

1908. *Cryptocephalus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 192.

This is the largest genus of this subfamily included about ninety six Indian species of which twenty one from West Bengal. The present paper includes another three species from the state.

#### 71. *Cryptocephalus ensifer* Hope

1831. *Cryptocephalus ensifer* Hope, in Gray, *Zool. Misc.* : 30.

1908. *Cryptocephalus ensifer* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 199.

*Diagnostic characters* : Dorsal side yellowish; underside partly and legs entirely yellowish; two transverse spots on thorax, posterior margin and scutellum, black; elytra with two basal spots, a transverse band behind middle and the sutural margin at middle, black, the transverse band usually joints the sutural band; length 5.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal.

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

#### 72. *Cryptocephalus exsulans* Suffrian

1854. *Cryptocephalus exsulans* Suffrian, *Linn. ent.*, **9** : 149.

1908. *Cryptocephalus exsulans* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 195.

*Diagnostic characters* : General colour black; apical part of head yellowish; elytron black with four yellow spots (1:2:1), prothorax black with lateral margins and a median line yellow; legs yellow; length 4.0-5.0 mm.

*Material examined* : Darjiling : Sureil, Mungphu, 14.v. 1917 (4 exs.), S.W. Kemp coll.; Darjiling, 11.vi. 1914 (1 ex.), F.H. Gravely coll.; Ghumti, vii. 1911 (1 ex.) F.H. Gravely coll.; Darjiling vi-vii. 1916 (2 exs.), Brunetti coll.; near Ghoom, 11.vi. 1914 (2 exs.); Rangiroom, 2000 m., 7.vi. 1975 (3 exs.), 25.v. 1974 (1 ex). Lepchajagat, 2086m, 4.vi. 1975 (2 exs.). Manibhanjang, 1900 m., 19.v. 1975 (1 ex.), all J.K.

Jonathan coll.; Jorpokri, 2220 m., 22.v. 1971 (3 exs.), Mahanadi, 1220 m., 28.iv.1971 (2 exs.), Tibetan Naya Basti, 1965 mm., 7.v. 1971 (2 exs.), all A.R. Bhaumik coll.; Darjiling 29.1.1973 (1 ex.), H.K. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam, Meghalaya, Sikkim. Elsewhere : Bhutan, Nepal and Tibet.

### 73. *Cryptocephalus crucipennis* Suffrian

1854. *Cryptocephalus crucipennis* Suffrian, *Linn. Ent. Mongr.*, 9:64.

1908. *Cryptocephalus crucipennis* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 200.

*Diagnostic characters* : General colour yellowish; prothorax with an obscure transverse band; two anterior spots and a transverse band on elytra, black; sometimes these anterior spots united and covered the whole basal area; legs entirely yellowish brown; length 4.0-5.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal, Elsewhere : Burma, China, Vietnam, Laos, Thailand.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

### 74. *Cryptocephalus sikhimensis* Jacoby

1908. *Cryptocephalus sikhimensis* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 203.

*Diagnostic characters* : General colour black; head and basal segments of antennae pale yellowish; prothorax and legs darker; elytra black with apex pale yellowish; length 2.0 mm.

*Material examined* : Darjiling : Darjiling Chawk, 2000 m., 15.v. 1974 ( 1 ex.). J.K. Jonathan coll.; Darjiling, 2000 m., 8.viii. 1909, J.T. Jenkins coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal.

### 75. *Cryptocephalus dimidiatipennis* Jacoby

1895. *Cryptocephalus dimidiatipennis* Jacoby, *Ann. Soc. ent. Belg.*, 39 : 269.

1908. *Cryptocephalus dimidiatipennis* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 224.

*Diagnostic characters* : General colour black; clypeus and basal segments of antennae yellowish; elytra with anterior half yellowish, posterior half black; length 4.0 mm.

This species is close to *Cr. lefevrei* Jac. but can be recognised in having the elytra without a humeral spot, more strongly punctured, and the black colour of elytra extends obliquely upwards at the suture towards the scutellum.

*Material examined* : Darjiling : Mirik, 1650m., 21.ix. 1974 (1 ex.), A.R. Bhaumik coll.; Lebong (1 ex.).

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal.

#### 76. *Cryptocephalus insubidus* Suffrian

1854. *Cryptocephalus insubidus* Suffrian, *Linn. ent.*, **9** : 36.

1908. *Cryptocephalus insubidus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 225.

*Diagnostic characters* : General colour dark reddish brown ; two spots on the pronotum and the base of elytra, black; length 2.5 mm. This species is near *Cr. vahli* F. but can be separated from the latter species in having smaller size (2.50mm), strong elytral punctation distinct to apex also and-dark epipleural lobe.

*Material examined* : Nil.

*Distribution* : India : West Bengal.

*Remarks* : Jacoby (1908) reported this species and mentioned only 'Bengal'

#### 77. *Cryptocephalus dificiens* Suffrian

1854. *Cryptocephalus dificiens* Suffrian, *Linn. ent.*, **9** : 146.

1908. *Cryptocephalus dificiens* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 226.

*Diagnostic characters* : General colour black; clypeus, basal segments of antennae and legs yellowish; elytra with its anterior half yellow, posterior half black; length 2.5 mm.

*Material examined* : Darjiling : Kurseong, 1525m., 6.ix. 1909 ( 1 ex.) N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling), Assam and Meghalaya. Elsewhere : Nepal.

*Remarks* : First record from West Bengal.

#### 78. *Cryptocephalus sehestedti* Fabricius

1798. *Cryptocephalus sehestedti* Fabricius, *Ent. Syst. Supl.* : 107.

1908. *Cryptocephalus sehestedti* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 228.

*Diagnostic characters* : General colour brownish; elytra with a broad longitudinal black band, abbreviated posteriorly; ventral surface black with the legs brown; length 2.0-3.0 mm.

*Material examined* : Calcutta : 21.v. 1912 ( 1 ex.); 24 Parganas : Basanti, 16.xi. 1909 (1 ex.), J.T. Jenkins coll.; Hugli : Bandel. 5.vii. 1908 ( 1 ex.), C. Paiva coll.; Birbhum : Sainthia, 24.i.1986 (1ex.), Bagmara, 22.i.1986(1ex.), Nalhati 21.i.1986 (1 ex.) all S.B. Roy coll.; Murshidabad : Berhampur Sericulture Camp., 26.ii.1986 ( 1 ex.). S.K. Mitra coll.

*Distribution* : India : West Bengal (Calcutta, 24 Parganas, Hugli, Birbhum, Murshidabad), Karnataka, Madhya Pradesh, Maharashtra, 'Malabar', Orissa and Tamil Nadu. Elsewhere : Sri Lanka.

79. *Cryptocephalus vittipennis* Suffrian

1854. *Cryptocephalus vittipennis* Suffrian, *Linn. ent.*, **9** : 31.

1908. *Cryptocephalus vittipennis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 230.

*Diagnostic characters* : General colour pale brown; two obscure spots on pronotum, suture and a broad more or less divided longitudinal band on elytron, black; sometimes the extreme lateral margins of prothorax black; sometimes tibiae and tarsi black and sometimes the elytral stripe trifurcated; length 2.5 mm.

*Material examined* : Calcutta (1 ex.); Hugli : Dankuni, 13.vi.1987 (1 ex.); Maldah : Nimbari, 26.vi.1987 (2exs.), K.P. Mukherjee coll.

*Distribution* : India : West Bengal (Calcutta, Hugli and Maldah), Bihar, Haryana and Uttar Pradesh. Elsewhere : Pakistan.

80. *Cryptocephalus suavis* Duvivier

1892. *Cryptocephalus suavis* Duvivier, *Ann. Soc. ent. Belg.*, **36** : 401

1908. *Cryptocephalus suavis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 234.

*Diagnostic characters* : Reddish; elytra brown; the following parts black : elytral epipleuron entirely or basal half, elytral longitudinal stripe broadly, suture and lateral margins narrowly, scutellum, breast, apices of tibiae, tarsi and two spots on pronotum; length 3.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Karnataka, Sikkim and Uttar Pradesh. Elsewhere : China and Nepal.

*Remarks* : Jacoby (1908) described this species from Darjiling dist.

81. *Cryptocephalus tricinctus* Redtenbacher.

1848. *Cryptocephalus tricinctus* Redtenbacher, *Hugel's Kaschm.*, **4** : 562

1908. *Cryptocephalus tricinctus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 237.

*Diagnostic characters* : General colour yellowish; pronotum with a transverse basal band, extended at middle towards anterior margin; elytra with two transverse bands connected each other along suture, elytral apical edge also black and connected along the suture, all these bands black; length 6.0-7.0 mm.

*Material examined* : Darjiling : Kurseong, 1700m., 21-29.v. 1906 (1 ex.), N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling), Jammu & Kashmir and Uttar Pradesh. Elsewhere : Nepal.

### 82. *Cryptocephalus sexsignatus* Fabricius

1801. *Cryptocephalus sexsignatus* Fabricius, *Syst. Eleuth.*, 2 : 41.

1908. *Cryptocephalus sexsignatus* : Jacoby, *Fauna Brit. India., Col., Chry.*, 1 : 241.

*Diagnostic characters* : General colour darker red; underside brownish; each elytron with narrow black basal margin and three black spots (1:2). These spots are variable, elytral humeral spot widened into a transverse band and similarly posterior spots joined and formed a transverse band and it may extends and covers the whole apical surface; length 5.0.-8.0 mm.

*Material examined* : Medinipur : Kharagpur, 17-30.vi. 1911 (1 ex.), R. Hodgart coll.; Hugli : Uttar Para, 17.v. 1963 (1 ex.), R.K. Kacker coll.; Calcutta (1 ex.), J.B.R. coll.

*Distribution* : India : West Bengal (Calcutta, Hugli and Medinipur), Elsewhere : Nepal and Sri Lanka.

*Remarks* : First record from West Bengal.

### 83. *Cryptocephalus bissexsignatus* Suffrian

1854. *Cryptocephalus bissexsignatus* Suffrian, *Linn. ent.*, 9 : 56.

1908. *Cryptocephalus bissexsignatus* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 242.

*Diagnostic characters* : General colour dark red; vertex of head blackish at middle; pronotum and elytra each with four black spots; sometimes pronotum with two spots or elytra with only one spot instead of two behind middle; antenna black with four or five basal segments reddish brown; ventral surface partly blackish and partly brownish; legs reddish brown with median portion of femora blackish; length 7.0-8.0 mm..

*Material examined* : Nil

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

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

### 84. *Cryptocephalus analis* Olivier

1808. *Cryptocephalus analis* Olivier, *Ent.* 6 : 786

1908. *Cryptocephalus analis* : Jacoby, *Fauna Brit. India, Col., Chry.* 1 : 247.

*Diagnostic characters* : General colour dark red; pronotum with two and elytra with three black

spots (2:1); these spots are variable (i) pronotum without spots, elytra with three spots (2:1), (ii) pronotum with two transverse spots, (iii) pronotum with two large transverse patches, elytra with a transverse band at base and a large transverse spot behind middle; length 5.0-7.0 mm.

*Material examined* : Madah : Harishchandrapur, 22.vi. 1987 (1 ex.). K.P. Mukherjee coll.

*Distribution* : India : West Bengal (Maldah), Kerala and Tamil Nadu.

#### 85. *Cryptocephalus oppositus* Jacoby

1908. *Cryptocephalus oppositus* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 249.

*Diagnostic characters* : General colour almost entirely brownish; pronotum with two and elytra with three black spots; length 5.0 mm.

This species is allied to *Cr. herbsti* Suffr. and *Cr. pulvillatus* Suffr. but the present species without any sutural and marginal stripes.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh and Sikkim. Elsewhere Nepal

*Remarks* : Lopatin (1984) recorded this species from Darjiling dist.

#### 86. *Cryptocephalus sannio* Redtenbacher

1848. *Cryptocephalus sannio* Redtenbacher, *Hugel's Reise Kaschm.*, 4:561.

1908. *Cryptocephalus sannio* : Maulik, *Fauna Brit. India, Col., Chry.*, 1 : 251.

*Diagnostic characters* : General colour yellowish; pronotum with two, elytra with five (2:2:1), black spots; head black with brownish marking at middle; underside black; allied to *Cr. triangularis* Hope but can be separated in having the last antennal segment dilated inwardly near middle, and last two segments densely pubescent; length 4.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Jammu & Kashmir and Uttar Pradesh. Elsewhere Nepal.

*Remarks* : Lopatin (1984) recorded this species from Darjiling dist.

#### 87. *Cryptocephalus triangularis* Hope

1831. *Cryptocephalus triangularis* Hope, in Gray, *Zool. Misc.* : 30

1985. *Cryptocephalus triangularis* : Takizawa, *Ent. Rev. Japn*, **40**(2) : 103.

*Diagnostic characters* : General colour yellow; two spots on pronotum, five on elytra (2:2:1), underside, and scutellum, black; head black with brownish marking at middle; abdomen margined with yellow; legs reddish brown; length 4.0-4.5 mm. Differing from its strongly allied species *Cr. sannio* Redt. in having last antennal segment very long with its apical half narrowly elongated and without pubescence.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Jammu & Kashmir and Uttar Pradesh. Elsewhere : Nepal, Tibet and Laos.

*Remarks* : Lpatin (1984) recorded this species from Darjiling dist.

#### 88. *Cryptocephalus vahli* Fabricius

1798. *Cryptocephalus vahli* Fabricius, *Syst. Ent. Suppl.* : 108.

1908. *Cryptocephalus vahli* : Jacoby, *Fauna Brit. India. Col., Chry.*, **1** : 254.

*Diagnostic characters* : General colour reddish-brown; pronotum and elytra spotted with black or without spots or elytra black with reddish band near middle; elytral epipleurae below shoulders yellowish; scutellum red; length 3.0-4.0 mm.

*Material examined* : Birbhum : Sainthia, 24.i. 1986 (1 ex.), Nalhati, 21.i. 1986 (1 ex.), all S.B. Roy coll.

*Distribution* : India : West Bengal (Birbhum), Elsewhere : Sri Lanka.

*Remarks* : Generally distributed throughout India but there was not specific record. So it is first record from West Bengal.

#### 89. *Cryptocephalus herbsti* Suffrian

1854. *Cryptocephalus herbsti* Suffrian, *Linn. ent.*, **9** : 25.

1908. *Cryptocephalus herbsti* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 258.

*Diagnostic characters* : General colour reddish; elytra with its basal margin and three spots (2:1) on the disc, black; suture black posteriorly; antenna black with five basal segments yellowish; scutellum yellowish with margins darker; pygidium pale yellowish; abdomen sometimes brownish with paler margins; length 2.5-4.0 mm.

*Distribution* : India : West Bengal, Assam. Elsewhere : No record.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

90. *Cryptocephalus darjeelingensis* Jacoby

1908. *Cryptocephalus darjeelingensis* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 263.

*Diagnostic characters* : General colour reddish; antennae (except basal segments) black; elytra brownish, margins narrowly and three spots on each (2:1) black; head impunctate; prothorax scarcely transverse and impunctate; length 2.0 mm.

*Material examined* : Darjiling : Lepchajagat, 1-4.vi. 1975 (1 ex.), J.K. Jonathan Coll.; Darjiling, 14.vi. 1914 (1 ex.), F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Nepal.

91. *Cryptocephalus nigronotatus* Bryant

1954. *Cryptocephalus nigronotatus* Bryant, *Ann. Mag. nat. Hist.* (12) 7(78) : 453.

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Nepal.

*Remarks* : Lopatin (1984) recorded this species from Darjiling dist. Neither material nor sufficient information were available. Hence Diagnostic characters could not be given.

92. *Cryptocephalus baroniurbanii* Lopatin

1982. *Cryptocephalus baroniurbanii* Lopatin, *Ent. Basiliensia*, 7:414.

*Diagnostic characters* : Body broad, oval; general colour yellowish brown to red-brown. Vertex of head black; antennal segments 1-4 reddish yellow, segment 5 brownish yellow, segments 6-11 black; prothorax with two longitudinal curved black patches united at base, basal margin black; elytra black with four yellowish spots on each elytron; length 3.40 - 4.30 mm.

*Distribution* : India : West Bengal (Darjiling), Meghalaya and Sikkim. Elsewhere : Bhutan and Nepal.

*Remarks* : Lopatin (1982) described this species from Darjiling dist.

93. *Cryptocephalus senguptai* Lopatin

1979. *Cryptocephalus senguptai* Lopatin, *Ent. Basiliensia*, 4:432.

*Diagnostic characters* : Head dark yellow, shining; basal margin of prothorax, scutellum, elytra, epipleura, and the rows of punctures on side margin, pitch black; pygidium with a black spot at middle; antennal segments 5-11 pitch black; length 3.0 mm.

*Distribution* : India : West Bengal (Darjiling), Meghalaya.

*Remarks* : Lopatin (1979) described this species from Darjiling dist.

94. *Cryptocephalus maytreiae* Lopatin

1979. *Cryptocephalus maytreiae* Lopatin, *Ent. Basiliensia* 4 : 434.

*Diagnostic characters* : Body robust, convex and very shiny; dorsal side reddish yellow ; head, underside and pygidium yellow ; basal margin of prothorax black; abdominal sternites 1-3 moderately broadly black; legs and antennal segments 1-5 yellow, segments 6-11 pitch black; tarsi darker than tibiae and tarsal segment 3 lobed and reddish brown; length 5.50 mm.

*Distribution* : India : West Bengal (Darjiling), Sikkim.

*Remarks* : Lopatin (1979) described this species from Darjiling dist. and Sikkim.

Subfamily (viii) CHLAMISINAE

Only two genera *Chlamisus* Rafinesque and *Hymetes* Lacordaire are known from India. Of these only the genus *Chlamisus* Raf. is known from West Bengal.

Genus *Chlamisus* Rafinesque

1815. *Chlamisus* Rafinesque, *Analyse Nat. Tab. l'Univ. Corps Organ.* : 16

1961. *Chlamisus* : Gressitt & Kimoto, *Pac. Ins. Monogr.* ,1A : 171.

So far fourteen species were recorded from India, of which a single species was recorded from West Bengal.

95. *Chlamisus pashokensis* Maulik **New Combination**

1920. *Chlamys pashokensis* Maulik, *Rec. Ind. Mus.*, 19 : 19.

*Diagnostic characters* : General colour dark reddish brown; the following parts black or piceous: eyes, mandibles, elevated parts of pronotum, the posterior edges of prothorax, anterior edges of elytra, depressed area on elytra, edges of episterna; antenna, a large area on each side of prothorax, a tubercle on prothorax in the middle at base, two tubercles on the posterior edge of elytra, a large lateral area of the first abdominal segment and the pygidium beneath, light brown; length 5.0 mm.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Maulik (1920) described this species from Darjiling dist.

Subfamily (ix) LAMPROSOMATINAE

This subfamily contains only one genus *Oomorhoides* Monros in India.

Genus *Oomorphoides* Monros

1956. *Oomorphoides* Monros, *Rev. Agron. Noro. Argent.* 2(1) : 54  
 1961. *Oomorphoides* : Gressitt & Kimoto, *Pac. Ins. Monogr.* ,1A : 189.

So far five species were recorded from India of which two were from West Bengal.

96. *Oomorphoides sakaii* Takizawa

1989. *Oomorphoides sakaii* Takizawa, *Jpn. J. Ent.* 57(2) : 329.

*Diagnostic characters* : General colour black with cupreous luster; elytra with strong cupreous luster, sometimes with dark bluish luster; antenna with two basal segments partly dark brown; length 2.0-2.4 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Takizawa (1989) described this species from Darjiling dist.

97. *Oomorphoides nepalensis* Takizawa

1987. *Oomorphoides nepalensis* Takizawa, *Proc. Jpn. Soc. Syst. Zool.*, (35) : 43, 49.

*Diagnostic characters* : Dorsal side dark cupreous, sometimes blackish blue; ventral side blackish with cupreous luster; mandibles dark brown; antenna dark brown with two basal segments yellowish brown on underside; head finely granulated with a distinct transverse ridge between eyes; length 2.4-2.8 mm.

*Material examined* : Darjiling : Gorabari, Sonada, 1952 m., 13.v. 1971 (1 ex.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Nepal.

Subfamily (x) EUMOLPINAE

Key to the Genera of Eumolpinae from West Bengal.

(Largely after Kimoto & Gressitt, 1982)

1. Anterior margin of proepisterna straight or concave..... 2  
 Anterior margin of proepisterna convex... .. 24



13(12). Body above clothed with hairs or scale like hairs.....	14
Body above glabrous.....	<i>Colasposoma</i>
14(13). Lateral margins of prothorax marginate.....	15
Lateral margins of prothorax not marginate.....	16
15(14). Intermediate and posterior tibiae not emarginate at apex.....	<i>Osnaparisa</i> *
Intermediate and posterior tibiae, or intermediate tibiae emarginate at apex .....	<i>Trichochrysea</i>
16(14). Prothorax longer than broad or nearly as long as broad.....	17
Prothorax much broader than long.....	20
17(16). Anterior femora normal, not abnormally enlarged.....	18
Anterior femora abnormally enlarged.....	<i>Piomera</i> *
18(17). Femora unarmed beneath; body small, metallic.....	<i>Malegia</i> *
Femora distinctly toothed beneath.....	19
19(18). Fore femur thicker than hind femur; generally red or brown.....	<i>Trichotheca</i>
Fore femur not thicker than hind femur; ground colour generally black, sometimes reddish .....	<i>Lypesthes</i> *
20(16). Body clothed with scales above.. .....	<i>Pseudometaxis</i> *
	<i>Hemiplatys</i> *
	<i>Demotina</i> *
	<i>Hyperaxis</i> *
Body clothed with hairs above.....	21
21(20). Prothorax not toothed at side.....	22
Prothorax with two or three fairly prominent teeth at side; length 3.0-4.0 mm.....	<i>Aulexis</i>
22(21). Mesosternum transverse, generally longer than 4 mm.....	23
Mesosternum oblong or subquadrate; generally 2.3 mm in length.....	<i>Xanthonia</i>

- 23(22). Mesosternum bifurcate at apex, antenna 11 segmented..... **Aoria**  
 Mesosternum not bifurcate at apex, antenna 9 segmented.....**Aloria**
- 24(1). Dorsal side covered with hairs or scales..... 25  
 Dorsal side glabrous..... 28
- 25(24) Dorsal side with strong transverse rugosities and short, adpressed spars hairs.....**Abirus**  
 Dorsal side without transverse rugosities, closely covered with hairs or scales..... 26
- 26(25). Mid and hind tibiae emarginate on outer side near apex, dorsal side covered with scales  
 ..... **Pachnephorus**  
 Mid and hind tibiae not emarginate on outer side near apex..... 27
- 27(26). Tarsal claws appendiculate, dorsal side with very short pubescence.....**Eurypelta**  
 Tarsal claws bifid, dorsal side covered with adpressed scales.....**Bromiodes**
- 28(24). Mid and hind tibiae emarginate on outer side near apex..... 29  
 Mid and hind tibiae simple, not emarginate.....33
- 29(28). Tarsal claws bifid..... 30  
 Tarsal claws appendiculate.....32
- 30(29). Fore femur with large tooth beneath; head without a deep groove above eye .....31  
 Fore femur unarmed or minutely toothed beneath; head with a deep groove above eye and groove large and deeply emarginate..... **Cleoporus\***
- 31(30). Elytron dilated posteriorly and with epipleuron convex.....**Celophytorus\***  
 Elytron subparallel-sided and with epipleuron flat..... **Tricliona\***
- 32(29). Antenna filiform, with terminal segments widened..... **Cleorina**  
 Antennae with four basal segments cylindrical, following segments compressed, slightly dilated  
 ..... **Mouhotina\***
- 33(28). Head without sulcus above eye..... 34

- Head with broad sclucus above eye..... 37
- 34(33). Prothorax subquadrate or cylindrical, distinctly narrower at base than elytron.....35
- Prothorax transverse, as broad or nearly as broad as elytron.....36
- 35(34). Prothorax cylindrical, subparallel- sided, lateral margin not visible from above... *Chalcolema*\*
- Prothorax subquadrate, widest slightly before middle, narrowed anteriorly and posteriorly; lateral margins distinct, visible from above..... *Heminodes*
- 36(34). Posterior femur with long projection subapically in male, and with distinct spine in female  
..... *Olorus*\*
- Posterior femur sometimes with distinct spine subapically..... *Colaspoides*
- 37(33). Sulcus above eye deep and broad, antenna with apical segments widened..... *Pltycorynus*
- Sulcus above eye not deeper and not so broad as in *Platyorynus*; antenna with apical segments either cylindrical or not distinctly flattened..... *Chrysochus*\*

Genus *Callisina* Baly

1860. *Callisina* Baly, *J. Ent.*, **1** : 30.

1908. *Callisina* : Jacoby, *Fauna Brit. India, Col. ,Chry.*, **1** : 362.

Five species of this genus were so far recorded from India. Of these only one species was recorded from West Bengal.

98. *Callisina brunnea* Jacoby

1908. *Callisina brunnea* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 362

*Diagnostic characters* : General colour dark brown; antennae black with basal three segments brownish; legs black; length 4.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) described this species from Darjiling dist.

Genus *Pagria* Lefevre

1884. *Pagria* Lefevre, *Bull. Soc. ent. Fr.* : 67

1908. *Pagria* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 356

Five species of this genus were recorded so far from India, of which one from West Bengal. Present paper includes another species from West Bengal.

#### 99. *Pagria signata* (Mostchulsky)

1858. *Metachroma signata* Motschulsky, *Etud. Ent.* : 110.

1908. *Pagria signata* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 356

*Diagnostic characters* : Very short oval species with variable colouration : pronotum yellowish or reddish brown or entirely black; elytron (1) reddish or yellowish brown with subbasal area paler, sutural margin blackish. lateral margin entirely or partly blackish, postbasal area with black spot, (2) entirely blackish; antenna yellowish brown with apical segments black; legs yellowish brown; length 1.8-2.4 mm.

*Material examined* : Calcutta, 7.i. 1957 (1 ex), S.P. Shukla coll.; Darjiling : Andherikhola, 500 m., 9.iv. 1973 (1 ex.), H.S. Sharma coll.; Bankura : Hatirampur, 10.ix.1986 (1 ex.), P. Mukhopadhyay coll.

*Distribution* : India : West Bengal (Bankura, Calcutta and Darjiling), Himachal Pradesh, Karnataka, Madhya Pradesh, Rajasthan and Tamil Nadu. Elsewhere : Bangladesh, Burma, China, Japan, Laos, Korea, Phillippines, Indonesia, Sri Lanka, Thailand, Taiwan, U.S.S.R. (Siberia), Vietnam.

#### 100. *Pagria kanaraensis* (Jacoby)

1885. *Nodostoma kanaraensis* Jacoby, *Ann. Soc. ent. Belg.*, **39** : 279.

1908. *Pagria kanaraensis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:360.

*Diagnostic characters* : General colour blackish; head with two reddish spots between the eyes; apical margin of clypeus brownish; antennae pale yellowish; pronotum blackish golden green with the anterior margin reddish; elytra yellowish with suture, lateral margins and a small spot below base blackish; length 2.0 mm.

*Material examined* : Calcutta (2 exs.).

*Distribution* : India : West Bengal (Calcutta), Karnataka, Maharashtra and Tripura.

*Remarks* : First record from West Bengal.

#### Genus *Nodina* Motschulsky

1858. *Nodina* Motschulsky, *Etud. Ent.*, **7** : 108.

1908. *Nodina* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 292.

Thirteen species of the genus *Nodina* were recorded so far from India of which two were from West Bengal. In the present study another species is recorded here from West Bengal.

101. *Nodina indica* Jacoby

1895. *Nodina* Jacoby, *Ann. Soc. ent. Belg.*, **39** : 271  
 1908. *Nodina* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 292.

*Diagnostic characters* : Dorsal side greenish-golden or greenish bronzy; ventral side black; antenna and legs reddish; mandibles black; palpi reddish; elytra strongly punctate-striate, but in female three short costae at lateral sides; length 1.0-2.0 mm.

*Material examined* : Darjiling : Pashok, 1500 m., 26.v.-14. vi. 1916 ( 1ex.) F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh and Maharashtra.

*Remarks* : First record from West Bengal.

102. *Nodina pusilla* Motschulsky

1858. *Nodina pusilla* Motschulsky, *Etud. Ent.*, **7** : 108.  
 1908. *Nodina pusilla* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 295.

*Diagnostic characters* : Dorsal side generally greenish golden or greenish bronzy, sometimes bluish; ventral side black with legs entirely reddish brown; labrum reddish brown; antenna reddish brown; length 1.4-2.3 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), No report. Elsewhere : Thailand.

*Remarks* : Takizawa (1983) recorded this species from Darjiling dist.

103. *Nodina nepalensis* Takizawa

1987. *Nodina nepalensis* Takizawa, *Proc. Jpn. Soc. Syst. Zool.*, (35) : 42

*Diagnostic characters* : General colour greenish cupreous; labrum, palpi and legs brown; antenna yellowish brown with five apical segments dark brown; ventral side dark brown to blackish; length 1.5-1.7 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling dist.). No record. Elsewhere : Nepal.

*Remarks* : Takizawa (1989) recorded this species from Darjiling dist.

Genus *Basilepta* Baly

1860. *Basilepta* Baly, *J. Ent.*, **1** : 23.  
 1860. *Nodostoma* Motschulsky. In Schrenk, *Reise u. Forsch. Amur*, **2**(2) : 176.

1908. *Nodostoma* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 301.

1922. *Basilepta* : Weise, *Tijdschr. Ent.*, **65** : 47 (= *Nodostoma* Mts.)

Sixty nine species of this genus were recorded sofar from India. Of these eleven species were recorded from West Bengal. The present paper deals with thirteen species of which two species are recorded here for the first time from West Bengal.

104. *Basilepta pretiosum* (Jacoby)

1908. *Nodostoma pretiosum* Jacoby *Fauna Brit. India, Col., Chry.*, **1** : 304.

1987. *Basilepta pretiosum* : Takizawa & Basu, *Kontyu, Tokyo*, **55**(2) : 270.

*Diagnostic characters* : Dorsal side metallic cupreous, blue or green; antenna with basal segments brownish, terminal segments black; labrum and palpi brownish; base of femora brownish and tarsi black; ventral side greenish; sometimes legs entirely metallic blue or green; pronotum very strongly punctate; length 4.5-5.0 mm.

*Material examined* : Darjiling : Gorabari, Sonada, 1952 m., 13.v. 1971 (1 ex.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Bangladesh (Sylhet).

105. *Basilepta fabrei* (Lefevre)

1887. *Nodostoma faberi* Lefevre, *Bull. Soc. ent. Fr.*, 1887 : 175

1908. *Nodostoma fabrei* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:308.

1982. *Basilepta fabrei* : Kimoto & Gressitt, *Esakia* (18) : 35.

*Diagnostic characters* : General colour bluish; antennae brownish yellow with the five apical segments blackish; prothorax not angulated at sides; elytron with weak ridge at side, partly rough behind middle; length 5.0-5.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Burma and Vietnam.

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

106. *Basilepta quadrifasciatum* (Jacoby)

1908. *Nodostoma quadrifasciatum* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 314.

1973. *Basilepta quadrifasciatum* : Kimoto & Takizawa, *Kontyu, Tokyo*, **41**(2) : 175.

*Diagnostic characters* : General colour brownish yellow; apical segments of antennae and the tarsi blackish; elytra with a longitudinal broad band on the disc, and a narrow band near lateral margin, bluish black; sometimes these bands extend from base to the middle or entirely reddish brown to almost wholly

black on the dorsal side with apical areas dark brownish; the colouration of ventral side and legs also varies from reddish brown to blackish; length 4.0-5.0 mm.

*Material examined* : Darjiling : Bijanbari, 900 m., 20.v. 1974 (28 exs.), Rangiroom, 2000 m, 7.vi.1975 (1 ex.), all J.K. Jonathan coll.; Darjiling, 21.i.1973 (2 exs.), H.K. Bhowmik coll.; Jorpokri, 2220 m., 22.v. 1971 (1 ex.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling). Arunachal Pradesh and Sikkim. Elsewhere : Nepal.

#### 107. *Basilepta plagiosum* (Baly)

1880. *Nodostoma plagiosum* Baly, *Cist. ent.*, 2 : 373.

1908. *Nodostoma plagiosum* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 315.

1967. *Basilepta plagiosum* : Kimoto & Takizawa, *Esakia* (6) : 69.

*Diagnostic characters* : Head, prothorax and ventral side blackish; antennae and legs blackish brown, sometimes basal segments of antennae and legs yellowish; elytra pale yellowish with the suture and lateral margins narrowly and a transverse patch below soulder black; the extreme anterior margin of prothorax yellowish; length 3.0 mm.

*Material examined* : Darjiling : Reyang, 1.iv. 1973 (1 ex.), Reung, 29.iii. 1973 ( 1 ex.), all H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Punjab and Sikkim. Elsewhere: Burma, China, Laos, Nepal, Tonin, Thailand and Vietnam.

#### 108. *Basilepta latefasciatum* (Jacoby) **New Combinztion**

1908. *Nodostoma latefasciatum* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 319.

*Diagnostic characters* : General colour brownish yellow; antennae with the basal four and part of segment 5 pale yellowish, the rest blackish; a broad sutural band on elytra black, extending from base to apex and widened at apex; length 3.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal.

*Remarks* : Jacoby (1908) recorded this species and in the locality he mentioned only 'Bengal'

#### 109. *Basilepta puncticollis* (Lefevre)

1889. *Nodostoma puncticolle* Lefevre, *Ann. Soc. ent. Fr.*, (6) 9 : 295

1908. *Nodostoma puncticolle* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 321.

1935. *Basilepta puncticolle* : Chen, *Sinensia* 6 (3) : 314.

1982. *Basilepta puncticollis* : Kimoto & Gressitt. *Esakia* (18) : 47.

*Diagnostic characters* : Variable colouration : reddish, brownish, bluish, greenish, violaceous or blackish. This species can be separated from its closely allied species *B. frontalis* (Baly) in having laeral margin of prothorax less abruptly and rather roundedly covering anteriorly; pronotal puncture not smaller than elytral punctures; length 3.7-4.3 mm.

*Material examined* : Darjiling : Reyang, 1.iv. 1973 ( 1 ex.), Reung, 29.iii. 1973 ( 1 ex.), all H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Punjab. Elsewhere : Burma, China, Nepal. Laos, Thailand, Vietnam.

#### 110. *Basilepta sikhimense* (Jacoby)

1900. *Nodostoma sikhimense* Jacoby, *Mem. Soc. ent. Belg.*, **7** : 102.

1908. *Nodostoma sikhimense* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 332.

1989. *Basilepta sikhimense* : Takizawa, *Jpn. J. Ent.*, **57**(2) : 322.

*Diagnostic characters* : head and prothorax brownish; antenna black with two basal segments brownish; scutellum black; elytra metallic green; legs brownish with tarsi black; ventral side black; sometimes the knees, tibiae and tarsi of the anterior and intermediate legs and the whole of the posterior legs black; length 6.0 mm.

*Material examined* : Darjiling : Kurseong, 4.vi. 1910 (2 exs.), N. Annandale coll., 14.iii. 1909 ( 1 ex.). C. Paiva coll., 7-10.vi. 1922 ( 2 exs.), Fletcher coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim.

#### 111. *Basilepta indicum* (Jacoby) **New Combination**

1892. *Nodostoma indicum* Jacoby, *Entomologist Supl.* : 86

1908. *Nodostoma indicum* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 332.

*Diagnostic characters* : General colour metallic green; antennae black with four basal segments brownish; head and prothorax brownish; legs metallic green; abdomen bluish black; length 4.0 mm.

*Material examined* : Darjiling : Kurseong ( 1 ex.).

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Burma.

*Remarks* : First record from West Bengal.

#### 112. *Basilepta femoratum* (Jacoby)

1908. *Nodostoma femoratum* Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:333.

1967. *Basilepta femoratum* : Kimoto, *Esakia* (6) : 69.

*Diagnostic characters* : General colour metallic green; head reddish; antennae black with the basal four segments reddish; prothorax reddish; bases of anterior and intermediate femora reddish, sometimes the anterior femora alone are reddish at base, the rest of the anterior and the whole of intermediate and posterior legs metallic green; prothorax not strongly angulated at sides; length 5.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam, Sikkim.

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

### 113. *Basilepta variabile* (Duvivier)

1892. *Nodostoma variabile* Duvivier, *Ann. Soc. ent. Belg.*, **36** : 406.

1908. *Nodostoma variabile* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 333.

1967. *Basilepta variabile* : Kimoto, *Esakia* (6) : 69

*Diagnostic characters* : Ventral side, legs, part of head and prothorax, blackish, often with greenish tint; antennae with basal four segments and base of segment 5 brownish, rest black; elytra blackish or greenish black. sometimes head, prothorax, ventral side and legs, yellowish or the whole body yellowish; length 4.0-5.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Bihar, Himachal Pradesh and Sikkim. Elsewhere : Nepal.

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

### 114. *Basilepta obscurum* (Jacoby)

1908. *Nodostoma obscurum* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 338.

1987. *Basilepta obscurum* : Takizawa & Basu, *Konlyu. Tokyo*, **55**(2) : 269.

*Diagnostic characters* : General colour blackish; three basal segments of antennae and femora brownish; length 3.5 mm. Differs from its allied species *B. lefevrei* (Jacoby) in having the head sparsely punctate; prothorax less transverse and the sides of elytra not rugose.

*Material examined* : Darjiling : Rangiroom, 2000 m., 7.vi. 1975 ( 1 ex.), J.K. Jonathan coll. Darjiling, 29.i. 1973 ( 2 exs.), H.K. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling), Assam and Sikkim.

115. *Basilepta angulicolle* (Duvivier) **New Combination**

1892. *Nodostoma angulicolle* Duvivier, *Ann. Soc. ent. Belg.*, **36** : 408.

1908. *Nodostoma angulicolle* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 408.

*Diagnostic characters* : Head blackish with labrum and clypeus brownish; antennae black with the base yellowish; prothorax blackish, strongly angulated near base; scutellum brownish; elytra greenish black; length 4.3 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) recorded this species from (Darjiling dist.).

116. *Basilepta kumatai* Kimoto & Takizawa

1973. *Basilepta kumatai* Kimoto & Takizawa, *Kontyu*, **41** (2) : 175.

*Diagnostic characters* : General colour deep reddish brown; eyes and legs entirely black; antenna black with three basal segments reddish brown; length 5.0 mm.

This species can be separable from *B. binhanum* Pic in having robust antennae, and from *B. nigripectus* Gresitt & Kimoto in having the punctures of the pronotum strongly impressed and close and the pronotum entirely bright red.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Nepal.

*Remarks* : Kimoto & Takizawa (1973) recorded this species from Darjiling dist.

Genus *Pseudostonopa* Jacoby

1903. *Pseudostonopa* Jacoby, *Ann. Soc. ent. Belg.*, **47** : 98.

1908. *Pseudostonopa* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 350.

Out of three Indian species two species were recorded so far from West Bengal.

117. *Pseudostonopa castanea* Jacoby

1908. *Pseudostonopa castanea* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 352.

*Diagnostic characters* : General colour reddish brown; antennae black with two basal segments brownish; legs black; length 4.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) described this species from Darjiling dist.

118. *Pseudostonopa picea* Jacoby

1908. *Pseudostonopa picea* Jacoby, *Fauna Brit. India, Col., Chry.*, 1:352

*Diagnostic characters* : Dorsal side more or less blackish; antennae and apex of elytra pale brown; ventral side black. Differing from other species in having the elytra not wider at base than prothorax. very strongly and deeply punctate striate; length 4.0 mm.

*Material examined* : Darjiling : Rangpo, 450 m., 1.vi. 1974 ( 1 ex.), J.K. Jonathan coll; Kalimpong, 1300 m., 1.ii. 1974 ( 1 ex.), Srivastva & Maiti coll.; Teesta bazar, 214 m.. 18.iv. 1976 ( 2 exs.). C.R. Basu. coll.

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

Genus *Chrysonopa* Jacoby

1908. *Chrysonopa* Jacoby, *Fauna Brit. India., Col., Chry.*, 1 : 353.

So far three species of this genus were recorded from India of which one species was from West Bengal.

119. *Chrysonopa apicalis* Takizawa

1989. *Chrysonopa apicalis* Takizawa, *Jpn. J. Ent.*, 57(2) : 323, 329

*Diagnostic characters* : Dorsal surface dark brown with elytra brownish apically; legs and antenna brown to dark brown; pronotum with a pair of lateral depressions; apical part of elytra impunctate; length 4.2-4.3 mm.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal.

*Remarks* : Takizawa (1989) described this species from Darjiling dist.

Genus *Scelodonta* Westwood

1837. *Scelodonta* Westwood. *Proc. Zool. Soc. Lond.*, 5 : 129

Out of nine Indian species only two species were recorded so far from West Bengal. One species is recorded here for the first time from West Bengal and also from India and another one only from West Bengal.

120. *Scelodonta vittata* Olivier

1808. *Eumolpus vittata* Olivier, *Ent.*, **6** : 907.

1889. *Scelodonta vittata* : Lefevre, *Ann. Soc. ent. Fr.* (6) **9** : 291.

1908. *Scelodonta vittata* : Jacoby, *Fauna Brit India, Col., Chry.*, **1** : 382.

*Diagnostic characters* : General colour metallic cupreous; antennae black; elytron with four longitudinal stripes of pale golden pubescence; length 8.5 mm.

*Material examined* : Maldah (1 ex.).

*Distribution* : India : West Bengal (Maldah), Andaman Is., Bihar and Maharashtra. Elsewhere : Cambodia, Laos, Thailand and Vietnam.

*Remarks* : First record from West Bengal.

121. *Scelodonta indica* Duvivier

1891. *Scelodonta indica* Duvivier, *Bull. Soc. ent. Belg.*, **35** : 39.

1908. *Scelodonta indica* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 383.

*Diagnostic characters* : General colour bronze; antennae black with basal two segments golden green; palpi brownish; elytra with three smooth purplish spots; length 4.5 mm.

*Material examined* : Calcutta : 10.v. 1907 (1 ex.), 28.vi. 1908 (1 ex.), without date (2 exs.); Bankura : Bishnupur, Amtalamore, 27.viii. 1986 (1 ex.), Heraparbat, 29.viii. 1986 (2 exs.), all P. Mukhopadhyay coll.; Darjiling : Goke, Singla, 450 m., 6.iv. 1973 (1 ex.), H.S. Sharma coll.; Medinipur; Kharagpur, 17-30.vi. 1911 (1 ex.), R. Hodgart coll.

*Distribution* : India : West Bengal (Calcutta, Bankura, Darjiling and Medinipur). *Other Indian States* : Bihar and Orissa.

122. *Scelodonta dillwyni* (Stephens)

1831. *Eumolpus dillwyni* Stephens, *Illustr. Brit. Entom.*, **4** : 364

1899. *Scelodonta dillwyni* : Champon, *Ent. Month. Mag.*, (2), **10** : 269

1908. *Scelodonta dillwyni* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 385.

*Diagnostic characters* : General colour greenish to metallic cupreous; terminal segments of antennae and tarsi black; elytra with suture anteriorly and three spots (2:1) purplish cupreous; length 3.2-3.8 mm.

*Material examined* : Calcutta (5 exs.).

*Distribution* : India : West Bengal (Calcutta), Elsewhere : Burma, Borneo, Cambodia, China,

Hainan, Laos, Malaya, Nepal, Phillippines, Singapore, Sumatra, Thailand and Vietnam.

*Remarks* : First record from India (West Bengal).

123. *Scelodonta purpurea* Papp

1950. *Scelodonta purpurea* Papp, *Tijdschr. Ent. Amsterdam*, **93** : 131.

*Distribution* : India : West Bengal.

*Remarks* : Neither the material nor the relevant literatures were available. So the diagnostic characters of the species could not be given. Papp (l.c.) described this species from West Bengal.

Genus *Colasposoma* Castelnau

1833. *Colasposoma* Castelnau, *In Silbermann. Rev. Ent.*, **1** : 22.

1908. *Colasposoma* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 439.

Out of twenty four Indian species eight species were recorded so far from West Bengal. The present paper includes eleven species of which three are new records from West Bengal.

124. *Colasposoma downesi* Baly

1862. *Colasposoma downesi* Baly, *Ann. Mag. nat. Hist.* (3) **10** : 19

1908. *Colasposoma downesi* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 442.

*Diagnostic characters* : General colour metallic green; labrum reddish brown; antennae black with the base reddish brown; legs reddish brown with the knees golden green and tarsi blackish; elytra cupreous with the margins golden green; sometimes elytra with a lateral cupreous stripe, and legs metallic green; preapical segments of antenna three times as long as wide; length 4.5-7.2 mm.

*Material examined* : Darjiling : Kalimpong, 24.iv.-10.v. 1915 (3 exs.), Pashok, 26.v.-14.vi. 1916 (2 exs.), all F.H. Gravely coll.; Goke, 450m, 16-17.iv. 1973 (2 exs.). Bijanbari, 900m, 21.v. 1974 (1 ex.), all J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Sikkim and Tamil Nadu. Elsewhere : Burma, Cambodia, Laos, Nepal, Thailand and Vietnam.

125. *Colasposoma rufipes* Jacoby

1900. *Colasposoma rufipes* Jacoby, *Mem. Soc. ent. Belg.*, **7** : 114.

1908. *Colasposoma rufipes* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 442.

*Diagnostic characters* : General colour greenish cupreous; labrum and antenna brownish; legs and ventral side brownish with the breast metallic green; length 7.0 mm.

*Material examined* : Darjiling : Pashok, 26.v.-14.vi. 1916 (1 ex.). F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Orissa.

*Remarks* : First record from West Bengal.

126. *Colasposoma semicostatum* Jacoby

1908. *Colasposoma semicostatum* Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 443.

*Diagnostic characters* : General colour metallic green; labrum brownish; antennae with basal six or seven segments brownish, rest black; ventral side golden green; legs brownish with the knees metallic green; sometimes dorsal side reddish cupreous or elytra green and pothorax violaceous; length 4.5-5.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Assam, Sikkim and Uttar Pradesh. Elsewhere : Nepal.

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

127. *Colasposoma bicallosum* Lefevre

1891. *Colasposoma bicallosum* Lefevre, *Bull. Soc. ent. Belg.*, 35:268.

1908. *Colasposoma bicallosum* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 443.

*Diagnostic characters* : General colour cupreous with greenish golden gloss; labrum and palpi black; antennae black with basal three segments golden green; each elytron with an oblong tubercle near apex and suture; length 9.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

128. *Colasposoma serratulum* Lefevre

1885. *Colasposoma serratulum* Lefevre, *Cat. Eumol.*, : 106.

1908. *Colasposoma serratulum* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 445.

*Diagnostic characters* : General colour greenish cupreous; labrum brownish; antennae brownish or black with basal segments brownish; abdomen black; breast metallic greenish; legs golden green; femora sometimes brownish at base; head remotely and finely punctate; interstices on the pronotum wider than the punctures; no elytral basal depression in male but feebly depressed in female; length 4.0-5.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal. Elsewhere : Malaya.

*Remarks* : Jacoby (1908) recorded this species and mentioned only 'Bengal'

129. *Colasposoma metallicum* Clark

1865. *Colasposoma metallicum* Clark, *Ann. Mag. nat. Hist.* (3) 15 : 142.

1908. *Colasposoma metallicum* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 446.

*Diagnostic characters* : General colour bronze, metallic blue or green; labrum, mandibles and base of palpi blackish; antennae blackish with the basal segments bluish; ventral side and the legs bronzy; lateral portion of elytra rugose and strongly so in female; length 6.0-7.0 mm.

*Material examined* : Darjiling : Bijanbari, 900 m., 20.v. 1974 ( 1 ex.), J.K. Jonathan coll.; Jorpokri, 2020 m., 22.v. 1971 (1 ex.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling); Andaman Is., Maharashtra and Orissa. Elsewhere : Burma, China, Laos and Vietnam.

130. *Colasposoma pretiosum* Baly

1880. *Colasposoma pretiosum* Baly, *J. Ent.*, 1 : 36.

1908. *Colasposoma pretiosum* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 449.

*Diagnostic characters* : Dorsal surface entirely dark blue, violaceous, blue or violaceous with elytron reddish cupreous; antenna with its preapical segments one and half times as long as wide; in male middle tibia strongly curved in apical portion and strongly expanded at apex; lateral portion of elytron obsoletly rugose in female, and never rugose in male; length 6.5-8.0 mm.

*Material examined* : Darjiling : Pashook, 26.v.-14.vi. 1916, ( 1ex), F.H. Gravely coll.; Maldah ( 1 ex.).

*Distribution* : India : West Bengal (Darjiling and Maldah), Assam, Maharashtra, Meghalaya, Sikkim and Tamil Nadu. Elsewhere : Burma, China, Laos, Sri Lanka and Vietnam.

131. *Colasposoma nigriventris* Baly

1867. *Colasposoma nigriventris* Baly, *Tans. ent. Soc.* (3) 4 : 273.

1908. *Colasposoma nigriventris* : Jacoby, *Fauna Brit. India, Col. Chry.*, 1 : 450.

*Diagnostic characters* : General colour metallic green, cupreous or blue; labrum brownish; antennae with the basal segments metallic, following four or five segments brownish, rest blackish; abdomen black; tarsi blackish; length 4.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal, Assam, Karnataka and Pondicherry. Elsewhere : Burma.

Malaya, Sri Lanka and Sumatra.

*Remarks* : Jacoby (1908) recorded this species but in its locality he mentioned only 'Bengal'

132. *Colasposoma asperatum* Lefevre

1885. *Colasposoma asperatum* Lefevre, *Cat. Eunolp.* : 104.

1908. *Colasposoma asperatum* : Jacoby, *Fauna Brit. India., Col., Chry.*, **1** : 452.

*Diagnostic characters* : General colour metallic green, golden green or bluish; labrum brownish; antennae brownish with the apical segments blackish; legs sometimes brownish; elytra strongly depressed below shoulders with the sides strigose, and in female a row of tubercles near lateral margin; length 3.7-6.0 mm.

*Material examined* : Darjiling : Goke, Singla, 450 m., 13.iv. 1973 (1 ex.), Reyang, 300 m, 1.iv. 1973 (1 ex.), all H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Burma and China.

133. *Colasposoma ornatum* Jacoby

1881. *Colasposoma ornatum* Jacoby, *Proc. Sci. Meet. Zool. Soc. Lond.* : 1445.

1908. *Colasposoma ornatum* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 453.

*Diagnostic characters* : Dorsal side aureo-cupreous with the margins of elytra and an angulate longitudinal band blue or purplish; antennae black with its basal segments metallic; margins of prothorax purplish - blue; ventral side blackish with the breast cupreous; sometimes the dorsal side metallic dark green or blue; length 5.0-7.0 mm.

*Material examined* : Maldah ( 1 ex.).

*Distribution* : India : West Bengal (Maldah), Maharashtra. Elsewhere : Celebes.

*Remarks* : First record from West Bengal.

134. *Colasposoma auripenne* Motschulsky

1860. *Colasposoma auripenne* Motschulsky, *In Schrenck, Reise Amur.*, **2** : 179.

1908. *Colasposoma auripenne* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 454.

*Diagnostic characters* : Head, pronotum and scutellum darkblue, elytron reddish cupreous with suture, margins and a large triangular patch purplish-blue; length 4.5-5.0 mm.

*Material examined* : Darjiling : Singla 150 m., v. 1913 ( 1 ex.), Lord Carmichael coll.

*Distribution* : India : West Bengal (Darjiling), Andaman Is., Sikkim and Tamil Nadu. Elsewhere: Burma, China, Laos, Malaya, Taiwan and Vietnam.

*Remarks* : First record from West Bengal.

Genus *Trichochrysea* Baly

1861. *Trichochrysea* Baly, *J. Ent.*, **1** : 195

1908. *Trichochrysea* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 387.

Four species of this genus were recorded so far from India of which two were from West Bengal.

135. *Trichochrysea antennata* Jacoby

1908. *Trichochrysea antennata* Jacoby, *Fauna Brit. India., Col. Chry.*, **1** : 389.

*Diagnostic characters* : General colour violaceous ; labrum metallic green; palpi brownish; antennae black with its basal three segments brownish; pronotum finely punctate, interstices wider than the diameter of the punctures; apical segments of antennae dilated; length 6.0-7.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Burma.

*Remarks* : Jacoby (1908) described this species from Darjiling dist.

136. *Trichochrysea hirta* (F.)

1801. *Eumolpus hirta* Fabricius, *Syst. Eleuth.*, **1** : 420.

1908. *Trichochrysea hirta* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 390.

*Diagnostic characters* : General colour variable : metallic blue or green or violaceous or golden green; densely pubescent; pronotum with distinctly raised latero-anterior tubercles which is smooth, shining and without distinct punctures; pronotum distinctly punctate and the diameter of the punctures nearly as wide as their interstices; length 6.0-11.0 mm.

*Material examined* : Calcutta ( 1 ex.); Darjiling : Rangpo, 360 m., 7.iv. 1973 ( 1 ex.), Goke, Singla, 19.iv. 1973 ( 1 ex.), all H.S. Sharma coll.

*Distribution* : India : West Bengal (Calcutta and Darjiling), Sikkim. Elsewhere : Bangladesh, Burma, Cambodia, China, Java, Laos, Malayan Is., Sumatra, Thailand and Vietnam.

Genus *Trichotheca* Baly

1860. *Trichotheca* Baly, *J. Ent.*, **1** : 26

1908. *Trichotheca* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 400.

Out of five Indian species three species were recorded from West Bengal.

137. *Trichotheca hirta* Baly

1860. *Trichotheca hirta* Baly, *J. Ent.*, **1** : 26.

1908. *Trichotheca hirta* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 400.

*Diagnostic characters* : General colour brownish black; each elytron with two or three black patches; pronotum with median and a lateral black spots; sometimes elytra entirely black or brownish; length 4.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam, Jammu and Kashmir, Manipur and Sikkim. Elsewhere : Burma and Nepal.

138. *Trichotheca sikkimensis* Takizawa

1987. *Trichotheca sikkimensis* Takizawa, *Proc. Japan. Soc. Syst. Zool.*, (35) : 45, 53.

*Diagnostic characters* : Wholly light yellowish brown; sometimes variable in colour : dorsal side, ventral side and legs with blackish patches or largely blackish; dorsal side densely covered with long yellowish-white suberect hairs; length 3.3.-3.5 mm.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal.

*Remarks* : Takizawa (1987) described this species from Darjiling dist.

139. *Trichotheca basifemorata* Duvivier

1892. *Trichotheca basifemorata* Duvivier, *Ann. Soc. ent. Belg.*, **36**:410.

1908. *Trichotheca basifemorata* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 401.

*Diagnostic characters* : Head blackish with the sides of vertex brownish; prothorax and scutellum brownish; elytra blackish golden green; metasternum and abdomen blackish; pro-and mesosternum, base of femora, a spot on the tibiae and base of antennae brownish; length 5.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

Genus *Aulexis* Baly

1863. *Aulexis* Baly, *J. Ent.*, **2** : 153.

1908. *Aulexis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 410.

Two species of this genus were recorded from India of which one was from West Bengal.

140. *Aulexis tibialis* Jacoby

1889. *Aulexis tibialis* Jacoby, *Ann. Mus. Civ. Genova*, **27** : 167

1908. *Aulexis tibialis* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 411.

*Diagnostic characters* : General colour brownish; finely covered with whitish pubescence; antennae brownish or blackish, filiform; palpi yellowish; prothorax dark brown, sometimes head and prothorax blackish; tibiae and tarsi blackish, length 5.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), *Other Indian States* : Manipur. *Elsewhere* : Burma and Nepal.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

Genus *Aoria* Baly

1863. *Aoria* Baly, *J. Ent.* **2** : 149.

1908. *Aoria* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 396

Two species of this genus were recorded from India and also from West Bengal.

141. *Aoria nigripes* (Baly)

1860. *Adoxus nigripes* Baly, *J. Ent.*, **1** : 28.

1908. *Aoria nigripes* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 396.

*Diagnostic characters* : General colour dark brown or yellowish brown, antennae (except four basal segments) and legs black; length 5.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam, Malabar (Kerala/Tamil Nadu). *Elsewhere*: Burma, China and Sumatra.

*Remarks* : Takizawa (1989) recorded this species from Darjiling dist.

142. *Aoria bowringi* (Baly)

1860. *Adoxus bowringi* Baly, *J. Ent.*, **1** : 27.

1867. *Aoria bowringi* : Baly, *Trans. ent. Soc. Lond.* (3) **4** (2) : 79

1908. *Aoria bowringi* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 397.

*Diagnostic characters* : Almost entirely reddish brown with the ventral surface partly blackish, pronotum with or without a blackish marking at middle, and elytron with five or six black spots; ength 5.5-6.0 mm.

*Material examined* : Darjiling : Mangphu, 10.v. 1917 ( 1 ex.), S.W. Kemp coll.; Pashok, 600m., 11.vi. 1916 ( 1 ex.), L.C. Hartless coll.

*Distribution* : India : West Bengal (Darjiling), Andaman Is. and Meghalaya. Elsewhere : Burma, Borneo, China, Cambodia, Hainan, Laos, Malaya, Nepal, Sumatra, Thailand and Vietnam.

#### Genus *Xanthonia* Baly

1863. *Xanthonia* Baly, *J. Ent.*, **2** : 151.

1961. *Xanthonia* : Gressitt & Kimoto, *Pac. Ins. Mongr.*, **1A** : 225.

This genus is represented by a single species from India described from West Bengal.

#### 143. *Xanthonia oblonga* Takizawa & Basu

1987. *Xanthonia oblonga* Takizawa & Basu, *Kontyu, Tokyo*, **55**(2) : 275

*Diagnostic characters* : General colour yellowish brown with head and pronotum slightly darker; dorsal surface covered with yellowish pubescence; ventral surface of prothorax, legs and lateral area of elytra sometimes darker; length 3.0-4.3 mm.

*Material examined* : Darjiling : Bot. Garden, 16.v. 1974 (1 ex.), J.K. Jonathan coll.; Darjiling, 2000 m., 29.i. 1973 (3 exs.) H.K. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling).

#### Genus *Aloria* Bryant

1939. *Aloria* Bryant, *Arkiv. far Zool.*, **31A**(21) : 9.

The genus *Aloria* is represented by only one species from India (West Bengal).

#### 144. *Aloria caerulea* (Jacoby)

1908. *Pseudaoria caerulea* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 400.

1939. *Aloria caerulea* : Bryant, *Akriv. Zool.*, **31A** (21) : 9.

*Diagnostic characters* : General colour metallic blue or violaceous; labrum, antennae, tibiae and tarsi, black; basal segments of antennae brownish; breast and abdomen black; antennal segments 2 and 3 short and more or less equal in length; length 5.0 mm.

*Material examined* : Darjiling : Ghoombhanjang, 200m., 29.v. 1975 ( 1 ex.), Rangpo, 450 mm.,

31.v. 1974 ( 3 exs.), Bijanbari, 900 m, 20.v. 1974 ( 1 ex.), Rangiroom, 2000 m, 7.vi. 1985 (46 exs.), all J.K. Jonathan coll.; Jorpokri, 2220 m, 22.v. 1971 ( 2exs.), A.R. Bhaumik coll.; Darjiling, 4.vi. 1917 ( 2 exs.), Brunetti coll., 29.i. 1973 ( 5 exs.), H.K. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling), Manipur. Elsewhere : Burma.

Genus *Abirus* Chapuis

1874. *Abirus* Chapuis, *Genera Coleopt.*, **10**:310.

1908. *Abirus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 456.

Three species of this genus were recorded from India of which one was from West Bengal.

145. *Abirus elongatus* Jacoby

1908. *Abirus elongatus* Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:457.

*Diagnostic characters* : General colour cupreous or greenish; labrum brownish; antenna brownish with apical segments blackish; legs brownish or bronzy; sometimes dorsal side bronzy or green with cupreous lateral margins; length 5.5-6.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) described this species from Darjiling dist.

Genus *Eurypelta* Lefevre

1885. *Eurypelta* Lefevre, *Cat. Eumolp.* : 118.

1908. *Eurypelta* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 464.

This genus is represented by a single species in India.

146. *Eurypelta modesta* (Fabricius)

1792. *Chrysomela modesta* Fabricius, *Ent. Syst.*, **1** : 323

1908. *Eurypelta modesta* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:464.

*Diagnostic characters* : Head golden cupreous with the sides purplish; antenna black with basal segments brownish; pronotum with four purple and three golden bands alternatively; elytra with alternate golden and purplish longitudinal bands; ventral side greenish or blackish; length 6.0-8.0 mm.

*Material examined* : Calcutta ( 3 exs.).

*Distribution* : India : West Bengal (Calcutta), Karnataka.

Genus *Bromiodes* Jacoby

1895. *Bromiodes* Jacoby, *Ann. Soc. Ent. Belg.*, **39** : 286

1908. *Bromiodes* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 465.

This genus is also represented by a single species in India.

147. *Bromiodes indicus* Jacoby

1895. *Bromiodes indicus* Jacoby, *Ann. Soc. ent. Belg.*, **39** : 287

1908. *Bromiodes indicus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:465.

*Diagnostic characters* : Entirely covered with greyish scales on the black background; antennae and legs dark reddish brown; pronotum with a whitish longitudinal median line; elytra with whitish spots or entirely grayish-white; length 2.5-3.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh and Jammu & Kashmir.

*Remarks* : Kimoto (1967) recorded this species from Darjiling dist.

Genus *Pachnephorus* Chevrolat

1837. *Pachnephorus* Chevrolat, *In Dejean, Cat. Col, ed. 3*:403

1908. *Pachnephorus* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 460.

Two species of this genus were recorded so far from India and also from West Bengal.

148. *Pachnephorus lewisii* Baly

1878. *Pachnephorus lewisii* Baly, *J. Linn. Soc. Lond., Zool.*, **14**:357

1982. *Pachnephorus lewisii* Kimoto & Gressitt, *Esakia* (18) : 92.

*Diagnostic characters* : General colour blackish with bronzy gloss, covered with whitish scales; antennae and legs reddish; elytra with a number of small whitish pubescent spots; length 2.5 mm.

*Material examined* : Calcutta, 7-9.iv. 1950 (6 exs.), A.P. Kapur coll.; Eden Garden, 11.ix. 1964 (1 ex.), S. Ali coll.; 24 Parganas : Canning, Malirdhar, 18.x. 1965 (1 ex.) A.N.T. Joseph coll.; Barasat, 17.xii. 1965 ( 1 ex.), S.C. Mitra & R. Kulin coll.; Koch Bihar : Balabhat, 12.xii. 1986 ( 1ex.), R.S. Barman coll.; Darjiling : Sukna, 200 m., 7.i. 1976 ( 4 exs.). G.K. Srivastava coll.; Jalpaiguri : Tufanganj, 13.viii. 1986 ( 1 ex.), T.K. Pal coll.

*Distribution* : India : West Bengal (Calcutta, 24 Parganas, Koch Bihar, Darjiling and Jalpaiguri), Bihar and Orissa. Elsewhere : Burma, Combodia, China, Korea, Laos, Nepal, Pakistan, Sumatra, Taiwan, Thailand and Vietnam.

149. *Pachnephorus impressus* Rosenh

1856. *Pachnephorus impressus* Rosenh, *Thiere Andal.* : 310.

1908. *Pachnephorus impressus* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 461.

*Diagnostic characters* : General colour dark golden green or cupreous; antennae, tibiae and tarsi brownish; more elongated than *P. lewisii* Baly, the sides of prothorax distinctly angulate before middle.

*Material examined* : Bankura : Bishnupur, Amtalamore, 27.viii. 1986 (10 exs.). Ganga Jachati, 8.ix. 1986 (3 exs.), all P. Mukhopadhyay coll.

*Distribution* : India : West Bengal (Bankura). Elsewhere : Phillippines, Macassar, Europe and Africa.

Genus *Cleorina* Lefevre

1885. *Cleorina* Lefevre, *Mem. Soc. Sci. Liege*, (2) 11 : 143.

1908. *Cleorina* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 482

Eleven species of this genus were recorded sofar from India of which four were from West Bengal. The present paper includes another species from West Bengal.

150. *Cleorina aeneomicans* (Baly)

1867. *Nodostoma aeneomicans* Baly, *Trans. ent. Soc. Lond* (3) 4(2) : 237

1982. *Cleorina aeneomicans* : Kimoto & Gressitt, *Esakia* No. 18 : 105.

*Diagnostic characters* : Dorsal surface entirely greenish, violaceous, bluish or blackish, sometimes green with elytron cupreous; antennae blue or green with three basal segments brownish; abdomen bluish-black ; proepimeron distinctly punctured; length 3.0-4.2 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Andaman Is. and Sikkim. Elsewhere : Burma, Cambodia, China, Hainan, Java, Laos, Malaya, Sumatra, Taiwan, Thailand and Vietnam.

151. *Cleorina bevani* (Baly)

1877. *Nodostoma bevani* Baly, *Trans. ent. Soc. Lond.* : 40.

1908. *Cleorina bevani* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1:484.

*Diagnostic characters* : General colour greenish golden or bronzy; antennae black with basal four

segments yellowish; elytra aeneous, narrowly margined with metallic green; length 5.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Sikkim and "Southern India"

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

#### 152. *Cleorina jacobyi* Duvivier

1892. *Cleorina jacobyi* Duvivier, *Ann. Soc. ent. Belg.*, **36**:415

1908. *Cleorina jacobyi* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:485

*Diagnostic characters* : Dorsal surface entirely metallic green; palpi brownish yellow; antennae black with segment 3 and a part of segment 4 brownish; breast and femora blackish green; labrum, tibiae and tarsi brownish; abdomen black; sometimes prothorax green with elytra violaceous; length 3.0-3.5 mm.

*Material examined* : Nil.

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

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

#### 153. *Cleorina assamensis* Jacoby

1908. *Cleorina assamensis* Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:486

*Diagnostic characters* : General colour violaceous blue; margin of elytra, breast and legs, metallic green; edge of clypeus metallic green; labrum blackish; antennae black with basal two or three segments brownish beneath and metallic green above; length 4.0 mm.

*Material examined* : Darjiling : Kurseong, 26.iv. 1922 ( 3 exs.), Fletcher coll.; Calcutta, 14.vi.1907 ( 1 ex.)

*Distribution* : India : West Bengal (Calcutta and Darjiling), Assam.

*Remarks* : First record from West Bengal.

#### 154. *Cleorina nepalensis* Takizawa

1985. *Cleorina nepalensis* Takizawa, *Ent. Rev. Japan*, **40**(2):97

*Diagnostic characters* : Dorsal surface shining metallic green; labrum, lower mouth parts, apices of femora, tibiae and tarsi light brown; femora dark brown with metallic luster; tarsi blackish; antenna blackish with four basal segments light brown; length 3.0-3.5 mm.

*Material examined* : Darjiling : Rangiroom Tea Estate, 2000 m., 25.v. 1974 ( 1 ex.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal.

Genus *Heminodes* Jacoby

1895. *Heminodes* Jacoby, *Ann. Soc. ent. Belg.*, **39** : 287  
 1908. *Heminodes* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 512,

The genus *Heminodes* is represented by a single species in India (West Bengal).

155. *Heminodes unicolor* (Duvivier)

1891. *Dermorhytis unicolor* Duvivier, *Ann. Soc. ent. Belg.*, **35**:38.  
 1908. *Heminodes unicolor* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:513

*Diagnostic characters* : General colour bright metallic green or blue; palpi, labrum and tarsi blackish, antennal segments 4-5 brownish yellow, rest blackish; length 7.5-9.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Karnataka and Maharashtra.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

Genus *Colaspoides* Laprote

1833. *Colaspoides* Laprote, in Silberm. *Rev. ent.* **1** : 20.  
 1908. *Colaspoides* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 514

Eight species of this genus were recorded so far from India of which three were from West Bengal.

156. *Colaspoides subrugosa* Jacoby

1908. *Colaspoides subrugosa* Jacoby, *Fauna Brit. India, Col. Chry.*, **1**:515

*Diagnostic characters* : General colour golden green with slight cupreous gloss; antennae blackish with basal five segments brownish; legs blackish; lateral margins of prothorax metallic green; pronotum very closely punctate; elytral punctures strong, its interstices longitudinally costate near apex, and transversely rugose at sides; length 6.0 mm.

*Material examined* : Darjiling : Kurseong, 20.vi. 1910 (1 ex.), N. Annandale coll.; Darjiling 14.vi. 1914 (1 ex.), Lebong, 1350m., vi. 1909 ( 1 ex.), Ghoom, 15.vi. 1914 ( 1 ex.), all F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling).

157. *Colaspoides sublaevicollis* Duvivier

1892. *Colaspoides sublaevicollis* Duvivier, *Ann. Soc. ent. Belg.*, **36**:417.

1908. *Colaspoides sublaevicollis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 520.

*Diagnostic characters* : Entirely brownish; palpi, antennae and legs pale brown; elytra with slight bronze reflection; elytral punctation strong and regularly arranged on the anterior half in double rows with the interstices flat, and the posterior half punctured in single rows with the interstices convex; length 6.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) reported this species from Darjiling dist.

#### 158. *Colaspoides bengalensis* Duvivier

1892. *Colaspoides bengalensis* Duvivier, *Ann. soc. ent. Belg.*, **36**: 418.

1908. *Colaspoides bengalensis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 520.

*Diagnostic characters* : General colour reddish brown; sides of pro-and metasternum and the middle of abdomen golden green; legs reddish brown; apices of tibiae and tarsi blackish; ventral side greenish-bronze; length 5.0-6.5 mm.

*Material examined* : Nil.

*Distribution* : India: West Bengal (Darjiling), Sikkim.

*Remarks* : Jacoby (1908) reported this species from Darjiling dist.

#### Genus *Platycorynus* Chevrolat

1837. *Platycorynus* Chevrolat, In Dejean, *Cat. Col. ed.* **3** : 413.

1840. *Corynodes* Hope, *Col. Man.*, **3** : 162.

1908. *Corynodes* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 492.

1961. *Platycorynus* : Gressitt & Kimoto, *Pac. Ins. Mngor.*, **1A** : 286.

Twenty three species of this genus were recorded so far from India of which six species were from West Bengal. The present paper deals with ten species of which four are new records from West Bengal including one from India.

#### 159. *Platycorynus pyrophorus* (Parry)

1843. *Eumolpus pyrophorus* Parry, *Poc. ent. Soc. Lond.* : 87

1866. *Corynodes pyrophorus* Marshall, *J. Linn. Soc. Lond.* **8**:34.

1908. *Corynodes pyrophorus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:492.

1961. *Platycorynus pyrophorus* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1A** : 294.

*Diagnostic characters* : General colour dark violaceous or purplish; elytra cupreous, a humeral spot and the apex purplish or violaceous; tarsal claw bifid; length 10.0-12.0 mm.

*Material examined* : Darjiling : Singla, 450 m., vii. 1912 (1 ex), Pashok, 600m., 26.v.-14.vi.1916 (3 exs.), F.H. Gravely coll; Darjiling (2 exs.), Hannington coll.

*Distribution* : India : West Bengal (Darjiling), Assam and Sikkim. Elsewhere : Burma, China, Laos, Nepal and Vietnam.

#### 160. *Platycorynus peregrinus* (Herbst)

1783. *Cryptocephalus peregrinus* Herbst, *In Fuessly, Arch. Ins.* : 63  
 1865. *Corynodes peregrinus* : Marshall, *J. Linn. Soc. Lond.*, 8:34.  
 1908. *Corynodes peregrinus* : *Fauna Brit. India, Col., Chry.*, 1 : 493.  
 1961. *Platycorynus peregrinus* : Gressitt & Kimoto, *Pac. Ins. Mongr.*, 1A : 294.

*Diagnostic characters* : Dorsal side entirely metallic blue; antennae dark blue; punctures on elytron stronger, interstices not wider than the diameter of punctures, especially on lateral and latero subapical portion; front of head with a pair of depressions or transverse furrow between eyes; length 9.0-12.0 mm.

*Material examined* : Bardhaman : Raniganj (4 exs.), A. Martin coll.; Durgapur, 3.ix. 1986 (1 ex.), K.K. Roy coll.; Calcutta (20 ex.), Horti Garden, 14.ix., 1965 (1 ex.), J.C. Das coll.; Khodar bazar, 14.ix. 1961 (2 exs.), M.B. Kripalani coll.; Calcutta, 20.v. 1949 (2 exs.), S. Ali coll. 24 Parganas : Garia, 4.ix. 1922 (2 exs.), S.H. Ribeira coll.; Sonarpur, 8.ix. 1965 (1 ex.), K.S. Pradhan coll., 18.vii. 1964 (1 ex.), S.K. Ghosh coll., Banipur, 18.ix. 1965 (3 exs.), G.N. Saha coll., Dattapukur, 6.xii. 1966 (3 exs.), A.N.T. Joseph coll.; Hugli : Bandel, 6.ix. 1909 (1 ex.), B. Richardson coll., 8.xi. 1965 (1 ex.), K.S. Pradhan coll.; Uttar Para, 17.v. 1963 (1 ex.), R.K. Kacker coll.; Chandannagar, 28.ix. 1965 (18 exs.), K.S. Pradhan coll.; Haorah : Mourigram, 19.ix. 1964 (2 exs.), H. Ghosh coll.; Panchpara, 29.viii. 1964 (2 exs.), K.R. Rao coll.; Darjiling : Sukna, 2.vi. 1908 (1 ex.), N. Annandale coll.

*Distribution* : India : West Bengal (Calcutta, 24-Parganas, Hugli, Haorah, Bardhaman, Darjiling). Orissa and Sikkim. Elsewhere : Burma, Cambodia, China, Laos, Malacca, Malaya, Nepal, Sri Lanka, Siam, Thailand and Vietnam.

*Remarks* : First record from West Bengal.

#### 161. *Platycorynus mouhoti* (Baly)

1864. *Corynodes mouhoti* Baly, *Desc. new gen. & Spec. Phytoph.*, : 7.  
 1908. *Corynodes mouhoti* : Jacoby, *Fauna Brit. India, Col., Chry.*, 1 : 496  
 1961. *Platycorynus mouhoti* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, 1A : 293

*Diagnostic characters* : General colour blackish blue with slight purplish or greenish reflections; head with interocular cavities deep, somewhat oblique or with side sloping upward to margin above antennal insertion; tarsal claws appendiculate; length 9.0-12.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Burma, Cambodia, China, Laos, Thailand and Vietnam.

*Remarks* : Jacoby (1908) recorded this species from Darjiling dist.

#### 162. *Platycorynus speciosus* (Lefevre)

1891. *Corynodes speciosus* Lefevre, *Bull. Soc. ent. Belg.*, **35** : 276  
 1908. *Corynodes speciosus*: Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 497  
 1973. *Platycorynus speciosus* : Kimoto & Takizawa, *Kontyu*, **41**(2) : 176

*Diagnostic characters* : General colour blackish blue; elytron reddish-cupreous with the sides greenish-cupreous, densely and strongly punctate, punctures subgeminately arranged, especially near suture; length 8.0 mm.

*Material examined* : Darjiling : Lebong, 1500m., ( 1 ex.), H.M.L. coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal and Vietnam.

#### 163. *Platycorynus gratiosus* Baly

1864. *Platycorynus gratiosus* Baly, *Descr. new gen. & Spec. Phytoph* : 7.  
 1864. *Corynodes gratiosus* : Marshall, *J. Linn. Soc. Lond.* **8** : 41.  
 1908. *Corynodes gratiosus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:498  
 1961. *Platycorynus gratiosus* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1A** : 291

*Diagnostic characters* : General colour metallic greenish-blue; vertex of head strongly raised above the level of inter ocular area; five apical segments of antennae wider than long; tarsal claws appendiculate; length 9.0 - 12.0 mm.

*Material examined* : Bardhaman : Raniganj (1 ex.), A. Martin coll.

*Distribution* : India : West Bengal (Bardhaman). Elsewhere : Burma, Cambodia, China, Laos, Malaya Peninsula, Thailand and Vietnam.

*Remarks* : First record from India.

#### 164 *Platycorynus impressicollis* (Jacoby) New Combination

1908. *Corynodes impressicollis* Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 499.

*Diagnostic characters* : General colour violaceous; antennae purplish; apical antennal segments longer than broad; pronotum with a deep fovea near base; tarsal claws appendiculate; length 10.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Jacoby (1908) described this species from Darjiling dist.

165. *Platycorynus chrysis* (Olivier) **New Combination**

1808. *Eumolpus chrysis* Olivier, *Ent.* **6** : 901.

1908. *Corynodes chrysis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 500.

*Diagnostic characters* : General colour metallic blue, green or cupreous; labrum black; basal segments of antennae black; prothorax subconical with the surface sparsely and deeply punctate; elytral punctures strong and close and sometimes arranged in pairs; length 10.0-11.0 mm.

*Material examined* : Bardhaman: Raniganj (3 exs.), A. Martin coll.; Calcutta (2 exs.); Murshidabad (1 ex.).

*Distribution* : India : West Bengal (Bardhaman, Calcutta and Murshidabad).

166. *Platycorynus lateralis* (Hope)

1831. *Eumolpus lateralis* Hope, in Gray, *Zool. Misc.* : 30.

1908. *Corynodes lateralis* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1** : 501.

1985. *Platycorynus lateralis* : Takizawa, *Ent. Rev. Japan*, **40**(2) : 104

*Diagnostic characters* : General colour metallic green; tarsi purplish in male : sides of elytra with two acute longitudinal costae; tarsal claws appendiculate; length 11.0 mm. Distinguished from other species in having prothorax less convex, more or less flat.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Sikkim.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

167. *Platycorynus nitidus* (Fabricius)

1792. *Chrysomela nitidus* Fabricius, *Ent. Syst.*, **1** : 325

1908. *Corynodes nitidus* : Jacoby, *Fauna Brit. India, Col., Chry.*, **1**:506.

1982. *Platycorynus nitidus* : Kimoto & Gressitt, *Esakia* (18) : 134.

*Diagnostic characters* : General colour dark blue to bluish green or violaceous; elytron with an acute costa at side from before middle to apex in female; middle femur slightly dilated into a small tooth beneath; vertex of head not strongly raised above the level of interocular area; length 8.3 - 10.0 mm.

*Material examined* : Bardhaman : Raniganj (5 exs.), A. Martin coll.; Calcutta (6 exs.).

*Distribution* : India : West Bengal( Bardhaman and Calcutta), Karnataka. Elsewhere : Burma.

Java, Malaya, Penang, Sumatra and Thailand.

*Remarks* : First record from West Bengal.

168. *Platycorynus chalybaeus* (Marshall)

1865. *Corynodes chalybaeus* Marshall, *J. Linn. Soc. Lond.* **8** : 44.

1961. *Platycorynus chalybaeus* : Gressitt & Kimoto, *Pac. Ins. Monogr.* **1A** : 290.

1892. *Corynodes dilaticollis* Jacoby, *Ann. Mus. Civ. Genova*, **32**:916

1982. *Platycorynus chalybaeus* : Kimoto & Gressitt, *Esakia* (18) : 130. (= *dilaticollis*).

*Diagnostic characters* : General colour greenish, violaceous or blackish blue, sometimes elytron greenish cupreous with pronotum violaceous blue; preapical antennal segments nearly as long as wide; vertex of head not strongly raised above the level of interocular area; length 7.0-11.0 mm.

*Material examined* : Calcutta, 12.vi. 1911 ( 1 ex.), F.H. Gravely coll.

*Distribution* : India : West Bengal (Calcutta). Elsewhere : Burma, Cambodia, China, Laos, Thailand and Vietnam.

*Remarks* : First record from West Bengal and also from India.

Subfamily (xi) CHRYSOMELINAE

Key to the Genera of Chrysmelinae of West Bengal.

(largely after Gressitt & Kimoto, 1963)

- |       |  |                  |
|-------|--|------------------|
| 1.    | Anterior coxal cavities open posteriorly .....   | 2                |
|       | Anterior coxal cavities closed posteriorly.....  | 17               |
| 2(1). | Tarsal claws simple.....   | 3                |
|       | Tarsal claws appendiculate or bifid.....   | 14               |
| 3(2). | Inner margin of elytral epipleuron ciliate, atleast posteriorly.....                                     | 4                |
|       | Inner margin of elytral epipleuron not ciliate.....  | 8                |
| 4(3). | Hind tarsal segment 3 entirely pubescent beneath.....  | 5                |
|       | Hind tarsal segment 3 pubescent only at sides beneath, deeply emarginate and acute at each side<br>..... | <i>Crosita</i> * |
| 5(4). | Intercoxal process of metasternum not margined anteriorly.....   | 6                |

- Intercoxal process of metasternum margined anteriorly.....*Chrysolina*
- 6(5). Basal border of pronotum margined..... 7
- Basal border of pronotum not margined..... *Ambrostoma*\*
- 7(6). Elytral puncturation in regular paired rows..... *Agrosteomela*
- Elytral puncturation in irregular rows, not paired..... *Humba*
- 8(3). Elytron with regular rows of punctures..... 9
- Elytron with confused or irregular rows of punctures..... 10
- 9(8). Body short and oval, strongly convex above..... *Phaedon*
- Body narrow and parallel sided, weakly convex above, prothorax narrower than elytra.....  
..... *Prasocuris*\*
- 10(9.) Body convex; mesosternum shorter than prosternum between coxae..... 11
- Body strongly flattened; mesosternum well developed, as long as prosternum between coxae.....  
..... *Gastrolina*\*
- 11(10). Elytral epipleuron flat..... 12
- Elytral epipleuron concave, with outer edge sharp.....*Plagiodera*
- 12(11). Antennal segment 3 as long as, or barely longer than 4..... 13
- Antenal segment 3 nearly as long as segment 4 and 5 combined.....*Agasta*
- 13(12). Pronotum with lateral callus separated by punctured depression; tarsal segment 3 deeply emarginate; metasternum unmargined anteriorly.....*Chrysomela*
- Pronotum evenly convex and smooth, without callus; tarsal segment 3 shallowly emarginate; metasternum margined and truncate anteriorly.....*Linaeidea*
- 14(2). Elytral epipleuron vertical; tarsal claws bifid..... 15
- Elytral epipleuron horizontal; tarsal claws appendiculate..... 16
- 15(14). Prosternum emarginate behind..... *Paropsides*

- Prosternum truncate behind..... *Asiperopsis*\*
- 16(14). Tibiae angularly dilated apically; tarsal segment 3 not bilobed..... *Gonioctena*\*
- Tibiae not angularly dilated apically; tarsal segment 3 bilobed..... *Pharatora*
- 17(1). Tarsal claws bifid or appendiculate..... 18
- Tarsal claws simple..... 20
- 18(17). Tarsal claws appendiculate..... 19
- Tarsal claws bifid..... *Lycaria*\*
- 19(18). Clypeus subtriangular, depressed; antenna moniliform..... *Phyllocharis*\*
- Clypeus trapezoidal, not depressed; antenna subfiliform..... *Phola*\*
- 20(17). Apterous; body short and slender..... *Apaksha*\*
- Winged; body short and broad, tibiae not dentate apically..... *Potanina*

Genus *Chrysolina* Motschulsky

1860. *Chrysolina* Motschulsky, *Schrenck's Reisen Amurl.*, 2 : 206.
1926. *Chrysolina* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 17

Twenty one species of this genus were recorded so far from India. Of these only seven species were recorded from West Bengal.

169. *Chrysolina exanthematica* (Wiedemann)

1821. *Chrysolina exanthematica* Wiedemann, in *Germ. Mag. Ent.*, 4 : 178.
1926. *Chrysolina exanthematica* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 22.

*Diagnostic characters* : General colour metallic steel, blue or violet, sometimes dorsal surface mixed with curpeous; apical antennal segments and abdominal segments edged with brown; each elytron with five longitudinal series of round impunctate spots; length 7.5-9.5 mm.

*Material examined* : Murshidabad (4 exs.).

*Distribution* : India : West Bengal (Murshidabad), Bihar, Himachal Pradesh, Jammu & Kashmir, Punjab and Uttar Pradesh. Elsewhere : China, Japan, U.S.S.R. (Siberia).

170. *Chrysolina vishnu* (Hope)

1831. *Chrysolina vishnu* Hope, in *Gray, Zool. Miscell.* : 30.

1926. *Chrysolina vishnu* : Maulik, *Fauna Brit. India, Col. Chry. (Chry. & Halti.)* : 23.

*Diagnostic characters* : General colour blackish green or bronzy or cupreous; antenna blackish blue; elytra with the outer margin bordered with red-brown; length 7.0-9.0 mm.

*Material examined* : Darjiling : Mungphu, iv-v. 1917 ( 3 exs.), S.W. Kemp coll.; Ghoom, 15.vi. 1914 ( 2exs.), F.H. Gravely coll.; Darjiling, 1912 m. ( 2exs.), Maj. Bennett coll.; Sureil, 11-31.x. 1917 (4 exs.), N. Annandale and F.H. Gravely coll.; Kalimpong, Sutherland ( 2 exs.); Lebong, 13.vi. 1914 ( 1 ex.), Kalimpong, 24.iv.-10.v. 1915 (31 exs.), all F.H. Gravely coll.; Murshidabad : Berhampur ( 1 ex.).

*Distribution* : India : West Bengal (Darjiling and Murshidabad), Sikkim and Uttar Pradesh. Elsewhere : Nepal.

#### 171. *Chrysolina coelestina* (Baly)

1879. *Crosita coelestina* Baly, *Trans. ent. Soc. Lond.* : 193.

1926. *Chrysolina coelestina* : Mauik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.,)* : 33.

*Diagnostic characters* : Dorsal side shining deep blue or violet, ventral side black mixed with blue; pronotum with a deep longitudinal channel at each side bordered by a raised strip; length 8.0-10.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Punjab (Peshwar) and Uttar Pradesh. Elsewhere : China and Afghanistan.

*Remarks* : Kimoto (1967) recorded this species from Darjiling dist.

#### 172. *Chrysolina conglomerata* Maulik

1926. *Chrysolina conglomerata* Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 37.

*Diagnostic characters* : Head, pronotum and scutellum blue; elytra brown; ventral side partly blue and partly brown, or entirely dark blue; sometimes head and pronotum with brassy tinge; length 6.5-7.5 mm.

*Material examined* : Murshidabad ( 2 exs.); 24 Parganas: Diamond Harbour, 2.ii. 1966 ( 1 ex.), A.N.T. Joseph coll.; Lakshikantapur, 15.x.1965 ( 1 ex.), S.P. Chakraborty & K.D. Chatterjee coll.; Bankura : Radhanagar, 31.viii. 1986 ( 2 exs.), P. Mukhopadhyay coll.; Sonamukhi, 30.x. 1985 ( 1 ex.), M. Datta coll.

*Distribution* : India : West Bengal (Bankura, Murshidabad and 24 Parganas). Bihar and Uttar Pradesh.

#### 173. *Chrysolina coerulipes* (Harold)

1874. *Chrysomela coerulipes* Gemminger & Harold, *Cat. Col.*, **11** : 3417.

1926. *Chrysolina coerulipes* : Maulik, *Fauna Brit. India. Col., Chry. (Chry. & Halti.)* : 34.

*Diagnostic characters* : General colour black with golden green tinge; head with green tinge; scutellum and ventral side blue; length 10.0-11.0 mm.

*Material examined* : Bardhaman : Raniganj, vi. 1910 ( 5 exs.), A. Martin coll.

*Distribution* : India : West Bengal (Bardhaman and Murshidabad), Bihar, Madhya Pradesh and Orissa.

#### 174. *Chrysolina baronii* Daccordi

1979. *Chrysolina (Pierryvettia) baronii* Daccordi, *Ent. Basiliensia*, 4:443.

*Distribution* : India : West Bengal (Darjiling), Sikkim

*Remarks* : Daccordi (1979) described this species from Darjiling dist.

#### 175. *Chrysolina incostans* (Wiedemann)

1823. *Chrysolina incostans* Wiedemann, *Zool. Mag.*, 2(1) : 74

1926. *Chrysolina incostans* : Maulik, *Fauna Brit. India, Col., Chry., (Chry. & Halti.)* : 35.

*Diagnostic characters* : General colour bright cupreous or dark bronze, sometimes blue, antennae black, head, scutellum and legs obscure bronze; length 7.0-8.0 mm.

*Material examined* : Jalpaiguri dist.: Patranjuth, 19.vii. 1988 ( 1 ex.), A. Mukherjee coll.

*Distribution* : India : West Bengal (Jalpaiguri), Uttar Pradesh. Elsewhere : Bangladesh and Sri Lanka

#### Genus *Agrostemela* Gistel

1857. *Agrostemela* Gistel, *Vacuna*, 2 : 605.

1859. *Paralina* Baly, *Trans. ent. Soc. Lond.* (2) 5 : 155

1908. *Paralina* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 46.

1963. *Agrostemela* : Gressitt & Kimoto, *Pac. Ins. Mongr.* 1B : 331.

This genus includes only two species from India and all these two species were recorded also from West Bengal.

#### 176. *Agrostemela indica* (Hope)

1831. *Chrysolina indica* Hope, in Gray, *Misc. Zool.*, 39

1926. *Paralina indica* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 47.

1956. *Agrostemela indica* : Monros & Bechyne, *Ent. Arb.*, 7(3) : 1130.

*Diagnostic characters* : General colour metallic green, sometimes mixed with blue or entirely blue; elytra reddish brown; abdominal sternites entirely or largely metallic green; pronotum green; length 13.5.-15.5 mm.

*Material examined* : Darjiling : Sureit, iv-v. 1917 (2 exs.), S.W. Kemp coll.; Kurseong, 5.viii. 1909 (2 exs.) D'Abreu coll., 1445 m., 3.v. 1971 (2 exs.), A.R. Bhaumik coll.; Pashok, 20.v.-14.vi. 1916 (1 ex.), F.H. Gravely coll.; Lava, 1800 m., 11.ix. 1978, A.N.T. Joseph coll; Jorpokri, 2200m., 16.x. 1941 (1 ex.).

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Himachal Pradesh, Manipur, Nagaland, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, Burma, China, Nepal and Vietnam.

### 177. *Agrosteomela fallaciosa* Stal

1862. *Paralina fallaciosa* Stal, *Nova Acta Upsal.* (3) 4 : 5.

1963. *Agrosteomela fallaciosa* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, 1B : 331 (Key)

*Diagnostic characters* : General colour green with purplish tinge; elytra shining drak brown; abdominal segments (except first) reddish brown; length 11.0 mm.

*Material examined* : Darjiling : Kalimpong, 24.iv.-10.v. 1916 (1 ex.), F.H. Gravely coll.; Pashok, v. 1916 (1 ex.), L.C. Hartless coll.; Sureil (1 ex.), Major A. Alcock coll.; Darjiling, 2000 m., 30 v. 1910 (1 ex.), Brunetti coll.; Kurseong, ix. 1913 (1 ex.), A.G. Warner coll., 1445 m., 3.v. 1971 (3 exs.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling), Meghalaya and Sikkim Elsewhere : No report.

### Genus *Humba* Chen

1875. *Eumela* Baly, (nec. Stal, 1867), *Trans. ent. Soc. London.* : 23

1934. *Humba* Chen, *Rech. Chrysom. Chine et Tonkin* : 47 (new name for *Eumela* Baly).

1963. *Humba* : Gressitt & Kimoto, *Pac. Ins. Monogr.* 1B : 332.

Out of four Indian species only one species was so far recorded from West Bengal.

### 178. *Humba cyanicollis* (Hope)

1831. *Chrysomela cyanicollis* Hope, in Gray, *Zool. Miscell* : 29.

1891. *Eumela cyanicollis* : Duvivier, *Ann. Soc. ent. Belg.*, 35 : 43

1934. *Humba cyanicollis* : Chen, *Rech. Chrysom. Chine et Tokin* : 47

*Diagnostic characters* : Generally metallic blue; elytra and abdominal segments (except first) yellowish brown to dark brownish red; length 14.0-15.0 mm.

*Material examined* : Darjiling : Kalimpong, 24.iv.-10.v. 1915 (1 ex.), F.H. Gravely coll.; Sureil (1 ex.); Kurseong (1 ex.).

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam, Manipur and Sikkim.  
Elsewhere : Burma and Sri Lanka.

Genus *Phaedon* Latreille

1829. *Phaedon* Latreille, *In Cuvier, Regne Anim.* ed, **25** : 151

1926. *Phaedon* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti)* : 59.

So far five species were recorded from India, of which four were from West Bengal. Neither material nor the specific, literatures were available. Hence the diagnostic characters could not be given at present.

179. *Phaedon indicus* Chen

1933. *Phaedon indicus* Chen, *Bull. Mus. Hist. nat., Paris* (2) **5** : 381.

1985. *Phaedon indicus* : Takizawa, *Ent. Rev. Japan*, **40**(2) : 105.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

180. *Phaedon chujoi* Daccordi

1979. *Phaedon chujoi* Daccordi, *Ent. Basiliensia*, **4** : 446.

*Distribution* : India : West Bengal (Darjiling), Assam

*Remarks* : Daccordi (1979) described this species from Darjiling dist.

181. *Phaedon cheni* Daccordi

1979. *Phaedon cheni* Daccordi, *Ent. Basiliensia*, **4** : 451.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Daccordi (1979) described this species from Darjiling dist.

182. *Phaedon thompsoni* Daccordi

1977. *Phaedon thompsoni* Daccordi, *Bull. Ann. Soc. r. belge Ent.*, **114** : 220.

*Distribution* : India : West Bengal (Darjiling), Sikkim.

*Remarks* : Takizawa (1983) recorded this species from Darjiling dist.

Genus *Plagioder* Chevrolat

1837. *Plagioder* Chevrolat, *In Dejean, Cat. Col. ed. 3* : 404  
 1926. *Plagioder* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti)* : 60.

Five species of this genus were so far recorded from India but there was no record from West Bengal. The present paper includes one species from West Bengal.

183. *Plagioder rufescens* (Gyllenhal)

1808. *Chrysomela rufescens* Gyllenhal, *In Schonh. Syn. Ins.*, 1 (2); 267  
 1926. *Plagioder rufescens* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 64.

*Diagnostic characters* : Head, pronotum, elytral margin all round and ventral side, reddish brown; disc of elytra dark brown with bronzy reflections; length 5.0 mm.

*Material examined* : Bankura : Radhanagar, 31.viii.1986 (1 ex.), P. Mukhopadhyay coll.; Maldah: Nalakhokson, 20.vi.1987 (1 ex.), Alal, 19.vi.1987 (1 ex.), all K. P. Mukherjee coll.; Murshidabad : Khandua, Lalgola, 5.iii.1986 (1 ex.), S. K. Mitra coll.

*Distribution* : India : West Bengal (Bankura, Maldah and Murshidabad), Himachal Pradesh, Orissa, Punjab, Sikkim and Uttar Pradesh. Elsewhere : Burma and Sri Lanka.

*Remarks* : First record from West Bengal.

Genus *Agasta* Hope

1840. *Agasta* Hope, *Col. Man.*, 3 : 177.  
 1926. *Agasta* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 56.

The present genus is represented in India by a single species.

184. *Agasta formosa* Hope

1840. *Agasta formosa* Hope, *Col. Man.*, 3 : 177.  
 1926. *Agasta formosa* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 56.

*Diagnostic characters* : General colour varies from pale yellowish brown to dark brown; blue black or purplish spots or patches (1) One on head, (2) five on pronotum and (3) seven on each elytron; length 10.0-11.5 mm.

*Material examined* : Darjiling : Kurseong, 9.ix.1909 (1 ex.), N. Annandale coll., Ghumti, vii.1911 (7 exs.), F. H. Gravely coll.; Pashok, 26.v.-14.vi.1916 (1 ex.), F. H. Gravely coll.; Siliguri, 10-20.vii.1907 (1 ex.).

*Distribution* : India : West Bengal (Darjiling), Assam, Meghalaya and Sikkim. Elsewhere : Burma, Bangladesh, China, Java, Laos, Siam, Singapore, Thailand, Vietnam.

Genus *Chrysomela* Linnaeus

1758. *Chrysomela* Linnaeus, *Syst. Nat. ed.* 10 : 368.

1926. *Chrysomela* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 67.

This genus is represented by a single species from India and also from West Bengal.

185. *Chrysomela populi* Linnaeus

1758. *Chrysomela populi* Linnaeus, *Syst. Nat. ed.* 10 : 370.

1926. *Chrysomela populi* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 68.

*Diagnostic characters* : General colour light brown to red-brown; pronotum, scutellum and ventral side blue-black; six apical segments of antenna blackish; elytral sutural margin with a black spot at apex; ventral side sometimes brownish; length 8.0-11.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Jammu & Kashmir, Meghalaya and Uttar Pradesh. Elsewhere : China, Japan, Korea, U.S.S.R. (Siberia), Europe and N. Africa.

*Remarks* : Maulik (1926) recorded this species from Darjiling dist.

Genus *Linaeidea* Motschulsky

1860. *Linaeidea* Motschulsky, *Schrenck's Reisen Amrui.* 2 : 199.

1963. *Linaeidea* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, 1B : 351.

Only one species of this genus was recorded from India (West Bengal).

186. *Linaeidea chlorina* (Maulik)

1926. *Chrysomela chlorina* Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 69.

1985. *Linaeidea chlorina* : Takizawa, *Ent. Rev. Japan*, 40(2) : 105.

*Diagnostic characters* : Elytra and ventral side metallic greenish with bronzy or brassy tinge, sometimes greenish colour replaced by purple or violaceous; pronotum brownish with five small spots; legs and lateral margins of abdominal sternites faintly brown; six or seven basal segments of antenna shining brown, rest blackish; length 6.5-8.0 mm.

*Material examined* : Darjiling : Nr. Rambii.. 1900 m, 13.iv.1973. (3 exs.), 14.iv.1973 (1 ex.), all H. S. Sharma coll.

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

Genus *Paropsides* Motschulsky

1860. *Paropsides* Motschulsky, in *Schrenck's Reisen Amurl.*, 2 : 192.  
 1926. *Paropsides* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 71.

So far two species were recorded from India of which one was from West Bengal.

187. *Paropsides nigropunctata* Jacoby

1892. *Paropsides nigropunctata* Jacoby, *Ann. Mus. Civ. Genova*, 32 : 918  
 1926. *Paropsides nigropunctata* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 74.

*Diagnostic characters* : General colour shining dark reddish brown to light yellowish; two round black spots on head; four black spots or patches on pronotum and three or four spots on each elytron, largest one near the suture in a shape of inverted comma; length 11.0-12.0 mm.

*Material examined* : Darjiling, vii.1918 (3 exs.).

*Distribution* : India : West Bengal (Darjiling), Manipur, Meghalaya and Sikkim. Elsewhere : Burma and Nepal.

Genus *Potanina* Weise

1889. *Potanina* Weise, *Horae Soc. Ent. Ross.*, 23 : 603.  
 1926. *Potanina* : Maulik, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 92.

Only one species is known from India (West Bengal).

188. *Potanina assamensis* (Baly)

1879. *Entomoscelis assamensis* Baly, *Cist. Ent.*, 2 : 437  
 1896. *Potanina assamensis* : Jacoby, *Ann. Soc. ent. Belg.*, 40 : 253  
 1926. *Potanina assamensis* : Jacoby, *Fauna Brit. India, Col., Chry. (Chry. & Halti.)* : 93.

*Diagnostic characters* : Dorsal side reddish black, ventral side shining blackish; length 5.5-8.0 mm.

*Material examined* : Darjiling : Reyang, 2.iv.1973 (2 exs.), H. S. Sharma coll.; Ghoom bhanjang. Hima Falls, 2180 m., 27.v. 1971 ( 1 ex.), A.R. Bhaumik coll.; Manibhanjang, 2000m., 19.v. 1975 ( 1 ex.), J.K. Jonathan coll., Takdah, 6.vi. 1978 ( 1 ex.), C.R. Basu coll.

*Distribution* : India : West Bengal (Darjiling), Assam and Sikkim. Elsewhere : Nepal.

## Subfamily (xii) GALRUCINAE

Key to the Genera of Galerucinae from West Bengal  
(largely after Gressitt & Kimoto, 1963)

1. Mesosternum free, horizontal or inclined, not covered by metasternum..... 2  
 Mesosternum largely covered by the anterior process of metasternum..... 95
- 2(1). Mid coxae contiguous or close, the space between them much less than the width of a coxae; prosternum narrow or lacking between the coxae..... 3  
 Mid coxae widely separated, with space between them at least as wide as a coxa; hind coxae more widely separated; prosternum broad..... *Cupula\**
- 3(2). Antennal insertions generally close, at level of anterior margins of eyes or further anterior; occiput and pronotum deeply punctured; last abdominal sternite of male with a triangular or rounded depression with posterior border often emarginate, but never trilobed.....4  
 Antennal insertions generally separated, situated near, but behind the anterior borders of eyes, but when weakly separated or placed further forward, occiput and pronotum not heavily punctured; last abdominal sternite of male trilobed, with median lobe always distinct.....26
- 4(3). Anterior coxal cavities closed behind .....5  
 Anterior coxal cavities open or partly open behind..... 9
- 5(4). Tarsal claws bifid on insissed..... 6  
 Tarsal claws simple..... *Theone\**
- 6(5). Lateral border of pronotum rounded, widest near middle;elytra hardly wider than prothorax basally; antenna rather robust..... 7  
 Lateral border of pronotum squarish; elytra distinctly wider than prothorax basally; antenna rather slender, with remarkable sexual diamorphism..... *Triaplatarthris\**
- 7(6). Lateral border of elytron with flat reflexed area; prpnotum and elytron not thickly covered by fine hair .....8  
 Lateral border of elytron without flat area; prnotum and elytron thickly covered by fine hairs ..... *Menippus\**
- 8(7). Mid tibia spined in both sexes, onychium of hind tarsus not longer than segment 1; segment broad, simply emarginate apically; tibiae generlly carinate; elytra generally widened behind.....  
 ..... *Galeruca \**

Mid tibia simple in female; onychium of hind tarsus longer than segment 1; segment 3 narrow, deeply emarginate, nearly bilobed; tibiae not crinate above ..... *Diorhabda*\*

- 9(4). Elytral epipleuron obsolete..... *Swargia*\*  
*Geinula*\*
  
- Elytral epipleuron distinct..... 10
  
- 10(9). Tarsal claws bifid or appendiculate..... 12
  
- Tarsal claws simple..... 11
  
- 11(10). Elytron metallic, with short pubescence; epipleuron narrow, reaching to middle of elytra  
..... *Melaxioides*\*
  
- Elytron non-metallic, without pubescence; epipleuron broad at base, narrowing behind middle  
..... *Madurasia*
  
- 12(10). Primary setigerous pore on anterior part of lateral margin of pronotum..... 13
  
- Primary setigerous pore on anterior corner of pronotum..... 14
  
- 13(12). Nearly wingless; lateral margin of pronotum feebly margined; claws bifid in both sexes  
..... *Pterophthinus*\*
  
- Winged; side of pronotum unmargined; claws bifid in male, appendiculate in female  
..... *Apophyllia*
  
- 14(12). Side of prothorax with lateral margin incomplete; tibiae unspined..... 15
  
- Side of prothorax with complete lateral margin..... 16
  
- 15(14). Side of prothorax without distinct lateral margin; dorsal surface pubescent, densely punctured but more heavily so on occiput and pronotum, anterior border of pronotum weakly margined  
..... *Atysa*\*
  
- Side of prothorax with margin disappearing towards anterior one-third; dorsal surface glabrous, densely and grossly punctured, anterior border of pronotum unmargined; tibiae long  
..... *Pseudadimonia*
  
- 16(14). Pronotum with separate lateral depressions, and median portion raised and often grooved..... 17
  
- Pronotum with lateral depressions confluent, forming a deep transverse impression occupying much of disc, but not reaching lateral margin; elytron densely and finely punctured..... *Anadimonia*\*

- 17(16). Subbasal area of elytron raised and distinctly separated behind by a transverse depression.....18  
 Subbasal area of elytron not separated from behind by transverse depression..... 19
- 18(17). Elytral epipleuron distinct in about basal one-fourth.....*Periclitena*  
 Elytral epipleuron distinct at least to apical one- fourth.....*Clitenella\**
- 19(17). Dorsal surface entirely glabrous..... 20  
 Elytra covered with hairs.....21
- 20(19). Elytral epipleuron distinct in basal one- third; large species, over 10 mm in length; elytron without any costa along lateral margin..... *Doryxenoides\**  
 Elytral epipleuron distinct for almost entire length; smaller species, about 6 mm in length; elytron with a costa along lateral margin.....*Lochmaea*
- 21(19). Pronotum glabrous and elytra thickly or sparsely covered with hairs..... 22  
 Pronotum and elytra thickly or sparsely covered with hairs.....23
- 22(21). Lateral margin of pronotum angulated anterior to middle; elytron sub- parallel-sided, without longitudinal costa near side..... *Mimastracella\**  
 Lateral margin of pronotum straight or feebly rounded; elytron with a long costa from a little behind base to near apex, which is parallel to and near lateral margin, and with another costa extending posteriorly from humerus..... *Sastra*
- 23(21). Elytral epipleuron distinct at least in basal half; lateral border of pronotum somewhat rounded or sinuate..... 24  
 Elytral epipleuron distinct only in basal one-fourth or less; pronotum subquadrate; antenna slender, with segment 2 short, barely one-thord as long as segment 3..... *Chujoa\**
- 24(23). Labrum with a transverse row of six to eight setigerous pores; head deeply sunken into prothorax; occiput without a longitudinal groove; gena longer than eye; pronotum more or less convex...25  
 Labrum with irregular setigerous pores on each side; head large, not deeply sunken into prothorax; occiput with a longitudinal groove; gena shorter than eye; pronotum more or less concave, raised on anterior border ..... *Clitena\**
- 25(24). Disc of pronotum with a large glabrous space at middle..... *Galerucella*

Disc of pronotum entirely covered with hairs but in some cases anterior and lateral margins glabrous .....	<i>Pyrrhalta</i>
26(3). Tarsal claws bifid.....	27
Tarsal claws not bifid.....	35
27(26). Anterior coxal cavities closed behind.....	28
Anterior coxal cavities open behind.....	29
28(27). Elytron glabrous; anterior and posterior borders of pronotum not margined or hairy... <i>Meristata</i>	
Elytron pubescent; anterior and posterior borders of pronotum margined; pronotum with some hairs on anterior and posterior margins.....	<i>Trichocerophysa*</i>
29(27). Pronotum with out a transverse depression;disc subevenly convex.....	30
Pronotum with a transverse depression, sometimes divided at middle.....	31
30(29). Bdy elongate, subrectangular or parallel- sided; elytral epipleuron fairly narrow and simple .....	<i>Clerotilia*</i> <i>Falsoexosoma*</i>
Body broadly oval; elytral epipleuron wide, inferior, recurved basally.....	<i>Oides</i>
31(29). Tibiae distinctly spined apically.....	32
Tibiae not distinctly spined apically; elytral epipeluron narrow but distinct almost to apex .....	<i>Hoplasoma</i>
32(31). Elytral epipleuron strongly narrowed behind basal one-third.....	33
Elytral epipleuron gradually narrowed posteriorly.....	34
33(32). Elytral epipleuron abbreviated behind middle.....	<i>Aulacophora</i>
Elytrl epipleuron continued to apex.....	<i>Pseudocophora</i>
34(32). Elytron carinate behind humerus.....	<i>Paragetocera*</i>
Elytron not carinate behind humerus.....	<i>Agetocera</i>
35(26). Tarsal claws appendiculate or simple.....	36

Tarsal claws strongly lamellate but produced and appearing as if bifid; eye large; segment 3 of maxillary palpi strongly swollen; occiput grooved; prothorax twice as broad as long, unmarginated anteriorly; tibiae unspined.....**Haplomela\***

36(25). Anterior coxal cavities open behind or partly open..... 37

Anterior coxal cavities closed behind..... 71

37(36). Tarsal claws simple; each tibiae with a short spine at apex..... **Luperus\***  
**Marseulia\***

Tarsal claws appendiculate..... 38

38(37). Lateral border of pronotum distinctly margined..... 39

Lateral border of pronotum unmarginated; pronotum with distinct lateral depressions, obtusely prominent anterior angle; labrum with many irregular setigerous pore..... **Meristoides\***

39(38). Elytral epipleuron distinct..... 40

Elytral epipleuron not developed; pronotum with a shallow transverse impression near base, and with anterior border unmarginated; tibiae unspined.....**Phyllobrotica**

40(39). Metasternum between mid and hind coxae longer than coxa; elytra largely or entirely covering abdomen; hind wing developed..... 41

Metasternum shorter than coxa; elytra short, only covering base of abdomen, with apices obliquely truncate internally; hind wing not developed; head as broad as, and slightly longer than, pronotum .....**Geina\***

41(40). Posterior tibia unarmed..... 42

Mid and posterior tibiae spined..... 56

42(41). Anterior and posterior borders of pronotum unmarginated..... 43

Posterior border of pronotum margined..... 47

43(42). Pronotum with a distinct depression on each side or with a transverse depression..... 44

Pronotum without any depression..... **Sumatrasia**

44(43). Posterior border of pronotum rectangularly emarginate near angle, which is displaced anteriorly ..... 45

- Posterior border of pronotum without rectangular emargination near angle, sometimes obliquely truncate..... 46
- 45(44). Elytron with two carinae behind humerus.....*Japonitata*\*
- Elytron without carinae behind humerus.....*Euliroetis*\*
- 46(45). Prothorax not broader than long with a longitudinal depression on each side; basal margin twice angularly raised near scutellum; antennal segments 4-8 each less than twice as long as broad; body slender, parallel.....*Cerophysella*\*
- Prothorax atleast one and half times as broad as long, with a transverse groove behind middle which reaches side; basal margin simple; antennal segments beyond 3 atleast three times as long as broad; body ovoid, broadened behind .....*Paridea*
- 47(42). Anterior border of prothorax unmarginated..... 48
- Anterior border of prothorax margined; elytron more or less glabrous..... 52
- 48(47). Pronotal disc with distinct depressions..... 49
- Pronotal disc convex, without depressions; body large elongate oval; elytron without carinae or erect hairs; epipleuron narrow.....*Pseudoliroetis*\*
- 49(48). Elytron not carinate..... 50
- Elytron longitudinally carinate behind humerus, generally with a groove separating two carinae posteriorly; gena short; eye very large in male..... *Haplosomoides*
- 50(48). Gena much shorter than depth of eye; groove behind postantennal tubercles disappearing towards side, frons smaller..... 51
- Gena not shorter than smallest diameter of eye; groove behind postantennal tubercles complete; antennal segment 4 shorter than 3; frons of male with a large deep cavity and with a prominent process near antenna insertions..... *Fleutiauxia*\*
- 51(50). Dorsal surface with erect hairs; body slender, parallel-sided; occiput finely shagreened; penultimate segment of maxillary palpi strongly swollen; antenna much more than half as long as body; similar in males a female, with segment 4 much longer than segment 5..... *Trichomimastra*\*
- Dorsal surface glabrous; body elongate- oval, widened posteriorly; occiput smooth; penultimate segment of maxillary palpi moderately thickened; antenna slightly more than half as long as body; segments 3-6, or 7-8, or some of these enlarged in male, 3-4 subequal in female.....*Cerophysa*

- 52(47). Mesosternum wide..... 53
- Mesosternum narrow and not connected with metasternum.....54
- 53(52). Segment 3 of maxillary palpi large, segment 4 very small; elytra slightly wider than prothorax at base ..... **Cneoranidea\***
- Segment 3 of maxillary palpi as broad as long, segment 4 not much smaller than segment 3; elytra distinctly wider than prothorax at base..... **Arthrotidea**
- 54(52). Elytral epipleuron wide basally and narrow apically..... 55
- Elytral epipleuron narrow basally; antennal segments with close pubescence beyond segment 3, segment 4 not longer than segment 2 and 3 combined..... **Liroetis**
- 55(54). Labrum with a row of 6-8 setigerous pores; pronotum with distinct depressions; antennal segments with close pubescence beyond segment 4, segment 4 longer than segment 2 and 3 combined; elytral epipleuron broad basally, gradually narrowing in basal one-third; maxillary palpi with penultimate segment long, somewhat thick, and last segment long and acute.....**Mimastra**
- Labrum with numerous setigerous pores irregularly arranged on each side; pronotum convex; antennal segments with close pubescence beyond segments 3; elytral epipleuron broad basally, gradually narrowing to apex; maxillary palpi with penultimate segment long and thick, and last segment short and conical.....**Cneorane**
- 56(41). Basal border of pronotum margined; pronotal disc without a transverse depression, rarely with sublateral depressions..... 57
- Basal border of pronotum unmargined; pronotum with a broad transverse depression, deeper sublaterally; elytron with rows of punctures basally .....**Paridea (Part)**
- 57(56). Head simple; postgena shorter than diameter of eye; thorax never longer than broad..... 58
- Head elongated behind eyes; postgena not shorter than smallest diameter of eye; prothorax longer than broad; elytron short in female, with short recumbent hairs..... **Tshitsherinula\***
- 58(57). First segment of posterior tarsus distinctly shorter than remainder combined.....59
- First segment of posterior tarsus as long as, or longer than, remainder combined.....66
- 59(58). Elytral epipleuron not abbreviated basally..... 60
- Elytral epipleuron narrow, abbreviated or obsolete at base..... **Siemssenius\***

- 60(59). Preapical segments of maxillary palpi large, rounded, segment 4 much smaller than segment 3 and somewhat cubical..... 61
- Preapical segments of maxillary palpus not so large, slender, segment 4 much smaller than segment 3 and not cubical..... 62
- 61(60). In male antennal segments 2 and 3 minute and 4-10 with fairly long projections endoapically; in female segment 2 minute, segment 3 twice as long as 2, and 5-11 each somewhat flattened and 5-10 slightly produced endoapically; elytral epipleuron distinct until apex ..... *Miltina*
- Antenna filiform but not very slender, elytral epipleuron distinct only before middle  
.....*Morphosphaera*
- 62(60). Elytron without any reflexed area on suture..... 63
- Elytron with posterior portion of suture reflexed upwards and forming a narrow smooth space; disc distinctly convex basally, then transversely impressed; epipleuron broad postmedially, narrowed apically..... *Parexosoma*\*
- 63(62). Pygidium punctured uniformly..... 64
- Basal half of pygidium shiny, glabrous, finely shagreened, apical half densely punctured, pubescent; lateral margin of elytron visible from above; body ovoid, dilated posteriorly; tibiae carinate and finely grooved above. ....  
*Agelastica*\*
- 64(63). Antennal segment 3 as long as, or one and half times as long as segment 2..... 65
- Antennal segment 3 almost, or more than, twice as long as segment 2; pygidium uniformly punctured throughout; external margin of elytron not clearly visible throughout from above; oblong-oval, weakly broadened posteriorly; tibiae not distinctly carinate..... *Luperus*\*
- 65(64). Postantennal process elevated between coxal cavities, separating them, at least anteriorly; apices of epimera distinct, never reaching intra coxal lobes; coxal cavities open or partly open.*Exosoma*\*
- Postantennal process narrow and not elevated between coxal cavities and not separating them; apices of epimera distinct; coxal cavities open..... *Calomicrus*
- 66(58). Dorsal surface glabrous or elytron sparsely covered with short hairs.....67
- Dorsal surface thickly covered with fine hairs; densely and finely punctured; elytral epipleuron narrowed near middle.....*Hesperomorpha*\*

- 67(66). Elytral epipleuron wide at base..... 68  
 Elytral epipleuron narrow, feebly and gradually narrowed from base to apex; pronotum transversely rectangular with straight sides and with distinct sublateral depressions; hind femur slightly thickened..... *Stenoluperus*
- 68(67). Antennal insertions situated at level of middle of inner margin of eyes or slightly behind middle; anterior border of pronotum unmarginated.....69  
 Antennal insertions situated just behind anterior margin of eyes; anterior border of pronotum finely margined; setigerous pores at or near apex of anterior angle of pronotum..... *Calomicrus (Part)*
- 69(68). Anterior margin of labrum entire; post- antennal tubercles not widely separated by frons; frons not depressed but with a longitudinal interantennal ridge.....70  
 Anterior margin of labrum emarginate; postantennal swellings widely separated by frons; frons broad, depressed in middle, without a longitudinal interantennal ridge..... *Sinoluperus\**
- 70(69). Post antennal swellings transverse, with anterior angles short; apex of frontal carina inserted between these angles or confluent with them; gena short; antennal insertions at middle of eye; prothorax generally transverse; setigerous pore a short distance from anterior angle of prothorax; hind tibial spine longer than width of apex of tibia.....*Atrachya*  
 Postantennal swellings elongate-triangular with anterior angles acute, inserted between antennal insertions and separated by a deep groove; gena slightly shorter than smaller diameter of eye; antennal insertions situated just behind level of anterior borders of eyes; prothorax not broader than long; setigerous pore set back one-fifth to one-sixth length of prothorax from anterior angle; hind tibial spine not longer than width of apex of tibia.....*Medythia*
- 71(36). First segment of posterior tarsus distinctly longer than remainder combined; tibia with a long spine at apex..... 72  
 First segment of posterior tarsus usually shorter than, or sometimes subequal to, remainder combined.....77
- 72(71). Elytral epipleuron gradually narrowed behind, and wider at middle than half width in basal portion .....73  
 Elytral epipleuron suddenly narrowed at end of basal one-third and distinctly narrowed at middle than half-width in basal portion..... *Monolepta*
- 73(72). Apex of elytron truncate..... 74  
 Apex of elytron not truncate but rounded.....*Sermyloides\**

- 74(73). Dorsal surface of body not covered with fine pubescence..... 75  
     Dorsal surface of body covered with fine pubescence; body oval..... *Trichosepharia\**
- 75(74). Elytra subparallel-sided or feebly rounded, truncated apically; elytral epipleuron not unusually wide for Galerucinae..... 76  
     Elytra strongly widened and rounded laterally; elytral epipleuron abnormally wide for Galerucinae .....*Pseudosepharia\**
- 76(75). In male elytron with a pair of depressions; head without an excavation in male... *Paleosepharia*  
     In male elytron without such depression; head with excavation in male..... *Macrima*
- 77(71). Basal border of pronotum not margin except near side..... 78  
     Basal border entirely margined..... 83
- 78(77). Posterior corner of pronotum rounded and subobtuse..... 81  
     Posterior corner of pronotum distinctly angulated.....79
- 79(78). Tarsal segment 3 entire, not splitup ..... *Aplosomyx*  
     Tarsal segment 3 bilobed..... 80
- 80(79). Prothorax strongly constricted behind middle; apterous..... *Khasia*  
     Prothorax not constricted, wing present..... *Spitiella*
- 81(78) Antenna robust, segments 2 and 3 subequal..... 82  
     Antenna slender, segments 3 twice as long as segment 2..... *Leptarthra*
- 82(81). Pronotum with a large and deep fovea on each side of middle.....*Sermylassa\**  
     Pronotum without a distinct fovea laterally..... *Sphenoraia*
- 83(77). Pronotum without longitudinal furrows..... 84  
     Pronotum with a pair of longitudinal furrows start from basal margin..... *Cassena \**
- 84(83). Posterior tibia with a single spine at apex..... 85  
     Posterior tibia with many short spines at apex..... 89

- 85(84). Pronotum without a distinct depression laterally; antennae barely longer than one half body length  
..... *Erganoides\**  
..... *Euluperus\**  
..... *Brachyphora\**
- Pronotum with a distinct depression laterally..... 86
- 86(85). Elytral punctures regularly and longitudinally striated..... 87
- Elytral punctures not regularly striated..... *Haplosaenidea\**
- 87(86). Each elytron with double rows of punctures with an indistinct short scutellar row; interstices raised between double rows ..... 88
- Each elytron with 11 longitudinal rows of punctures including a short scutellar row, the rows equidistant; pronotum without distinct depression..... *Strobiderus\**
- 88(87). Dorsal surface of elytron thickly covered with hairs..... *Trichobalya*
- Elytral surfaces sparsely covered with hairs..... *Theopea\**
- 89(84). Pronotum not very short, with or without a pair of depressions, elytron without rugosities..... 90
- Pronotum very short, with a large depression which covers much of surface; elytral epipleuron narrow and disc with rugosities..... *Paraplotes\**
- 90(89). Eye rather small; gena subequal to, or deeper than, half transverse diameter of an eye..... 91
- Eye rather large; gena shallower than half transverse diameter of an eye ..... 92
- 91(90). Elytron with several weakly raised costae and punctation with tendency towards longitudinal rows along these costae ..... *Paraenidea\**
- Elytral surface with transverse depression behind subbasal area, with out any longitudinal costae or puncture rows ..... *Palpoxena*
- 92(90). Anterior border of pronotum unmarginated, or indistinctly marginated..... *Epaenidea\**  
..... *Acroxena\**  
..... *Hyphaenia\**
- Anterior border of pronotum distinctly marginated..... 93
- 93(92). Gena distinctly narrower than one third of transverse diameter of an eye ..... 94

- Gena wider than, or subequal to, one- third of transverse diameter of an eye; in male antennal segment 4 more than three times as long as segment 2 and 3 combined; pronotum subquadrate ..... *Proegmena*\*
- 94(93). In male antennal segment 2 subequal to or slightly longer than, segment 3; segment 4 more than twice as long as segment 2 and 3 combined ..... *Arthrotus*
- In male antennal segment 3 distinctly longer than segment 2; segment 4 distinctly shorter than segment 2 and 3 combined ..... *Dercetina*
- 95(1). Posterior tibia without any spine at apex ..... 96
- Posterior tibia with a minute but distinct spine at apex ..... 97
- 96(95). Lateral margin of pronotum straight and subparallel or constricted behind middle .....  
 ..... *Doryidomorpha*\*  
 ..... *Haemodoryida*\*
- Lateral margin of pronotum rounded ..... *Doryida*
- 97(95). Antennal segment 3 subequal to, or twice as long as, segment 2 ..... 98
- Antennal segment 3 four times as long as segment 2 ..... *Laphris*\*
- 98(97). Pronotum with or without a pair of depression ..... 99
- Pronotum with a transverse furrow which is narrow and runs more than three-fourth width of pronotum ..... *Agelasa*\*
- 99(98). Apical area of elytron somewhat depressed; length 9.5-12.0 mm ..... *Hylaspes*
- Apical area of elytron not depressed, length 6.0-9.5 mm ..... *Gallerucida*

The genera *Pseudoides*, *Mandarella*, *Stethidea*, *Kanarella*, *Dercetisoma*, *Doryscus* could not be included in the key due to non-availability of specimens and or sufficient informations from the literature.

Genus *Madurasia* Jacoby

1896. *Madurasia* Jacoby, *Ann. Soc. ent. Belg.*, **40** : 280.  
 1936. *Madurasia* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 72

This is a monotypic genus.

189. *Madurasia obscurella* Jacoby

1896. *Madurasia obscurella* Jacoby, *Ann. Soc. ent. Belg.* **40** : 281  
 1936. *Madurasia obscurella* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 74.

*Diagnostic characters* : General colour dirty brown; head almost black; prothorax darker brown; underside darker brown; an obscure, broad, blackish stripe common to both elytra; antenna blackish, sometimes two or three basal segments brownish; length 2.5 mm.

*Material examined* : Calcutta : Cossipore, 6.v. 1967 ( 1 ex.), K.K. Roy coll.; Bankura : Amdangra, 30.viii. 1986 ( 3 ex.), Amarkanan, 9.ix. 1986 ( 2 exs.), Hatirampur, 10.ix. 1986 ( 1 ex.) all C.R. Basu coll.; Murshidabad : Berhampur, 25.viii. 1987 ( 2 exs.), T. Sengupta coll.

*Distribution* : India : West Bengal (Bankura, Calcutta and Murshidabad), Tamil Nadu.

*Remarks* : First record from West Bengal.

Genus *Apophyllia* Duponchel & Chevrolat

1842. *Apophyllia* Dup. & Chev., in *d'Orbigny, Dict. Univ. Hist. Nat.* **2**:31  
 1936. *Apophyllia* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 78.

Nine species of this genus were recorded from India of which four were from West Bengal. The present paper deals with six species of which two are recorded here for the first time from West Bengal (including one from India). So the total Indian species comes to ten.

190. *Apophyllia lebongana* Maulik

1936. *Apophyllia lebongana* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 82.

*Diagnostic characters* : Elytra golden, sometimes with greenish tint; head black; pronotum reddish brown with a median black patch; ventral side, legs, antenna and scutellum black; three apical segments of antennae much shorter than others; length 5.75 mm.

*Material examined* : Darjiling; Gorabari, Sonada, 1952 m., 13.v. 1971 ( 1 ex.), Tindharia, 856 m., 4.v. 1976 ( 1 ex.), Tibetan Nayabusti, 1965 m., 7.v. 71 ( 4 exs.), all A.R. Bhaumik coll.; Lepchajagat, 2086m., 4.vi. 1975 ( 2 exs.), Rangiroom, 200 m., 7.vi. 1975 ( 2 exs.), J.K. Jonathan coll.; Kurseong, 1500 m., 24.ix. 1941 ( 1 ex.) H.A. Hafiz coll.; Darjiling 10.v.1974 ( 1 ex.), A.K. Gupta coll.

*Distribution* : India : West Bengal (Darjiling).

191. *Apophyllia sericea* (Fabricius)

1798. *Cantharis sericea* Fabricius. *Ent. Syst. Suppl.* : 69.  
 1936. *Apophyllia sericea* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 84.

*Diagnostic characters* : Head brown with a black patch; pronotum brown with a median black patch; antenna brown with apex black; elytra green; ventral side black with legs brown; length 4.0-7.0 mm.

*Material examined* : Medinipur : Kharagpur, 17-30.vi. 1911 ( 1 ex.), R. Hodgart coll.; Darjiling : Manibhanjang, 2000 m., 19.iv. 1975 ( 2 exs.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Calcutta, Medinipur and Darjiling), Assam, Bihar, Himachal Pradesh Meghalaya and Uttar Pradesh.

#### 192. *Apophylia crotchi* (Jacoby)

1887. *Galerucella crotchi* Jacoby, *Proc. Zool. Soc. Lond.* : 107.

1900. *Malaxia orientalis* Jacoby, *Mem. Soc. ent. Belg.*, 7 : 129

1936. *Apophylia crotchi* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)*: 85.

*Diagnostic characters* : Head brown with a black patch; pronotum brown with three black patches; antenna dark brown; elytra green; ventral side and legs brown; length 6.0 mm.

*Material examined* : Bankura : Amdangra, 30.viii. 1986 ( 2 exs.), C.R. Basu coll.; Bankura, 29.x. 1985 ( 15 exs.), M. Datta coll.

*Distribution* : India : West Bengal (Bankura), Kerala and Tamil Nadu. Elsewhere : Nepal and Sri Lanka.

#### 193. *Apophylia assamensis* Jacoby

1891. *Malaxia assamensis* Jacoby, *Entomologist Suppl.* 24 : 34.

1936. *Apophylia assamensis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 86.

*Diagnostic characters* : Head and pronotum black; elytra greenish, sometimes mixed with violaceous tint; length 5.0 mm.

*Material examined* : Darjiling : Kurseong, 1400-1500m., 22.vi. 1910 ( 1 ex.), N. Annandale coll.; Kalimpong, 1400m., 5-13.vi. 1934 ( 1 ex.), S.L. Hora coll.; Jalpaiguri : Kharibari, 27.viii. 1975 ( 1 ex.), H.K. Bhowmik coll.; Haora : Botanical Garden, 31.viii. 1965 ( 1 ex.), K.S. Pradhan & K.V.L. Narayan coll.

*Distribution* : India : West Bengal ( Darjiling Haora, Jalpaiguri.), Arunachal Pradesh and Assam. Elsewhere : Burma and Nepal.

#### 194. *Apophylia viridis* Jacoby

1884. *Apophylia viridis* Jacoby, *Notes Leyd. Mus.*, 6 : 63

*Diagnostic characters* : Head brown with vertex black; antenna black with the basal segments brown; pronotum brown; elytra green; ventral surface and legs brown, metasternum black; length 5.0 mm.

*Material examined* : Darjiling : Rangpo, 450 m., 31.v. 1974 ( 1 ex.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Sumatra.

*Remarks* : First record from West Bengal and also from India.

#### 195. *Apophylia pallipes* (Jacoby)

1892. *Malaxia pallipes* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 969

1936. *Apophylia pallipes* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 86

*Diagnostic characters* : Head and pronotum black; elytra green; ventral side and legs brownish, length 5.5 mm.

*Material examined* : Darjiling : Kurseong, 1500 m., 19.vii. 1908 ( 1 ex.).

*Distribution* : India : West Bengal (Darjiling), Assam.

*Remarks* : First record from West Bengal.

#### Genus *Pseudadimonia* Duvivier

1891. *Pseudadimonia* Duvivier, *Comptes-Rendus Soc. ent. Belg.*, **35** : 46.

1936. *Pseudadimonia* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 92.

Two species were recorded so far from India and also from West Bengal.

#### 196. *Pseudadimonia variolosa* (Hope)

1831. *Colaspis variolosa* Hope, *In Gray. Zool. Miscell.* : 30.

1891. *Pseudadimonia variolosa* : Duvivier, *Comptes-Rendus Soc. ent. Belg.*, **35** : 47.

1936. *Pseudadimonia variolosa* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 94.

*Diagnostic characters* : Dorsal surface black with a bronzy tinge; abdominal apex brown; antennal segments 3 and 4 subequal; prothorax strongly rounded at middle of side and suddenly widened between basal portion and middle; length 7.0-14.5 mm.

*Material examined* : Darjiling : Ghumti, 1400m, vii. 1911 ( 1 ex.), F.H. Gravely coll.; Lebong, 1500m., vii. 1909 ( 1 ex.), H.M. Lefroy coll., Pashok, 1050m., vi. 1916 ( 1 ex.), L.C. Hartless coll.; Darjiling ( 1 ex.), Hannyngton coll.

*Distribution* : India : West Bengal (Darjiling), Assam, Manipur, Meghalaya, Nagaland and Sikkim. Elsewhere : Burma, Bhutan, China, Nepal, Siam, Thailand and Yunnan.

197. *Pseudadimonia debria* Maulik

1936. *Pseudadimonia debria* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 96.

*Diagnostic characters* : General colour pitch brown; antennae, tibiae and apices of femora black; two apical segments of antenna yellow-brown; elytra somewhat flattened and abbreviated; wingless; length 7.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Maulik (1936) described this species from Darjiling dist.

Genus *Periclitena* Weise

1902. *Periclitena* Weise, *Archiv. f. Naturgesch.*, **68**(1) : 157.

1936. *Periclitena* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 210.

The present paper deals with two species of which one was known earlier from India and also from West Bengal, another one is recorded here for the first time from both India and West Bengal.

198. *Periclitena vigorsi* (Hope)

1831. *Galleruca vigorsi* Hope, *In Gray, Zool. Miscell.*, : 29.

1922. *Periclitena vigorsi* : Weise, *Tijdschr. Ent.*, **65** : 66.

1936. *Periclitena vigorsi* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 211.

*Diagnostic characters* : Ventral side entirely deep blue-violet; dorsal side very variable in colour, generally bluish to golden green; in male antennal segment 8 normal not enlarged, and segments 9-11 not greatly shortened; length 8.0-13.0 mm.

*Material examined* : Calcutta, 2.vi. 1909 ( 1 ex.); Darjiling : Singla, 450 m. vii. 1912 ( 2 ex.); Bijanbari, 900 m., 21.v. 1974 ( 1 ex.), J.K. Jonathan coll.; Lolegaon, 11.iv. 1976 ( 1 ex.). C.R. Basu coll.

*Distribution* : India : West Bengal (Calcutta and Darjiling), Assam, Arunachal Pradesh, Bihar, Manipur, Meghalaya, Punjab, Sikkim and Tamil Nadu/Kerala (Malabar coast). Elsewhere : Bangladesh, Burma, Bhutan, Malaya, Nepal and Tonkin.

199. *Periclitena cyanea* Clark

1865. *Clitena cyanea* Clark, *Ann. Mag. Nat. Hist.* (3) **16** : 259.

1936. *Periclitena cyanea* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 213 (Key).

*Diagnostic characters* : Pronotum metallic greenish blue; clytron strongly constricted at side before middle, considerably broadened and swollen behind middle; in male antennal segment 8 enlarged, angularly dilated at apex and excavated on underside; segment 9-11 considerably shortened.

*Material examined* : Calcutta ( 4 exs.).

*Distribution* : India : West Bengal (Calcutta). Elsewhere : Java.

*Remarks* : First record from West Bengal and also from India.

#### Genus *Lochmaea* Weise

1883. *Lochmaea* Weise, *Duet. Ent. Zeits.*, **27** : 316.

1963. *Lochmaea* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 416.

Two species were recorded from India of which one was from West Bengal.

#### 200. *Lochmaea maculata* Kimoto

1979. *Lochmaea maculata* Kimoto, *Ent. Basiliensia*, **4** : 466.

*Diagnostic characters* : General colour yellowish brown; head yellowish brown with vertex pitchy black, frontal tubercles dark brown; scutellum pitchy black with apex brownish; elytron with basisutural, humeral and postmedian patches black; sometimes postmedian patch divided into two smaller spots; ventral surface black; antennae dark brown with basal part of each segment paler; legs yellowish brown with tarsi and apical portion of tibiae darker; length 3.5-4.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan.

*Remarks* : Kimoto (1979) described this species from Darjiling dist.

#### Genus *Sastra* Baly

1865. *Sastra* Baly, *Ann. Mag. Nat. Hist.* (3) **16** : 253.

1936. *Sastra* : Maulik, *Fauna Brit. India, Col., Chry.* (Gal.) : 254.

Two species were recorded from India of which one was from West Bengal.

#### 201. *Sastra indicus* (Jacoby)

1895. *Sastroides indicus* Jacoby, *Novitates Zool.* **1** : 315.

1936. *Sastra indicus* : Maulik, *Fauna Brit. India, Col., Chry.* (Gal.) : 264.

*Diagnostic characters* : General colour pale brown; antennae yellowish brown except apical segments; elytral pubescence thin and gray; legs yellow-brown. Distinguished from its closely allied species *S. unicolor* Jac. in having shorter antennae with segment 3 longer; elytral epipleuron broader and continuing nearly to apex and larger size (11.25-12.5 mm).

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Assam and Manipur. Elsewhere : Nepal and Vietnam.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

#### Genus *Galerucella* Crotch

1873. *Galerucella* Crotch, *Proc. Acad. Sci. Philad.*, : 55.  
1936. *Galerucella* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 214.

Four species of this genus were recorded from India of which one was from West Bengal.

#### 202. *Galerucella placida* Baly

1878. *Galerucella placida* Baly, *Cist. Ent.*, 2 : 381.  
1936. *Galerucella placida* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 217.

*Diagnostic characters* : General colour dirty brown; antenna, apical area on head, scutellum, ventral side and legs black; sometimes basal halves of femora brown, abdomen wholly or central portion may be brown; apex of scutellum may be brownish in some cases; front part of the middle area of pronotum not plane, and covered with coarse punctures; antennal segment 3 about one and a half times as long as segment 4; length 5.0 mm.

*Material examined* : Calcutta (16 exs.), Bansdroni, 16.i. 1961 ( 15 exs.), 19.i. 1961 ( 3 exs.), A.P. Kapur coll.; 24 Parganas : Barasat, 5.i. 1966 ( 1 ex.), J.R. Singh coll.; Dattapukur, 6.xii. 1966(3 exs.), A.N.T. Joseph coll.; Hugli : Punduah, 29.i. 1966 (1 ex.), K.S. Pradhan coll.; Haora : Shantragachi, 19.ix. 1964 ( 1 ex.), K. Rai coll.; Barddhaman : Rangapalpur, 7.ix. 1964 ( 2 exs.), K.K. Roy coll. Darjiling : Mirik 1650 m., 21.ix. 1974 ( 1 ex.) H.K. Bhowmik coll.; Bankura : Bishnupur, 27.viii. 1986 ( 114 exs.), Patrasayer, 28.viii. 1986 ( 2 exs.), all P. Mukhopadhyay coll.

*Distribution* : India : West Bengal (Bankura, Barddhaman, Darjiling, Hugli, Haora, and 24 Parganas), Jammu and Kashmir, Punjab, Kerala/Tamil Nadu (Coromandel) and Uttar Pradesh. Elsewhere: Afghanistan, Bangladesh, Bhutan, Burma, Java Nepal and Sumatra.

#### Genus *Pyrrhalta* Joannis

1866. *Pyrrhalta* Joannis, Abeille, 3 : 82.  
1963. *Pyrrhalta* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, 1 B : 438.

Four species of this genus were recorded from India of which one was from West Bengal.

203. *Pyrrhalta darjeelingensis* Kimoto

1979. *Pyrrhalta darjeelingensis* Kimoto, *Ent. Basiliensia*, **4** : 463

*Diagnostic characters* : General colour entirely yellowish brown, sometimes antennae and tarsi very dark brown; length 5.5-6.0 mm. Differs from *P. meifena* Kimoto in having longer prothorax with more strongly and deeply impressed longitudinal furrow and lateral depressions.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Nepal.

*Remarks* : Kimoto (1979) described this species from Darjiling dist.

Genus *Meristata* Strand

1875. *Merista* Chapuis. *Gen. Col.*, **11** : 224, 228

1935. *Meristata* Strand, *Folla. Zool. Hydro-biol.*, **7** : 297.

Eight species of this genus were recorded from India of which six were from West Bengal.

204. *Meristata dohrni* Baly

1861. *Leptarthra dohrni* Baly, *J. Ent.* : 203.

1936. *Merista dohrni* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 143.

1983. *Meristata dohrni* : Kimoto & Takizawa, *Bull. Nat. Sci. Mus., Tokyo (A)* **9** (2) : 94.

*Diagnostic characters* : Head, prothorax, scutellum, ventral side and legs greenish with bronzy sheen, sometimes metallic blue; elytra red-brown; three basal segments of antennae metallic colour, the rest brown; length 12.0-15.0 mm. Regarding the colour and body formation of this species, it is very similar to *Parlina indica* (Chrysomelinae) and *Leptarthra abdominalis* and can be separated from the 1st species in having closely placed antennal insertions and from the 2nd species by appendiculate claws.

*Material examined* : Darjiling : Teesta Bazar, 214 m., 18.iv. 1976 (3 exs.), C.R. Basu coll.; Tiger Hill, 30.iv. 1978 (2 exs.), P. Roy coll.; P.N. Him. Zol. Park. 1950m., 14.v. 1978 (2 exs.), S.S. Roy coll.; Sukia Pokri, 2126 m., 18.v. 1971 (32 exs.), A.R. Bhaumik coll.; Rangiroom, 1900 m., 7.vi. 1975 (2 exs.), Pashupati Nagar, 1650m., 23.vi. 1975 (1 ex.), Manibhanjang, 1900m., 19.v. 1975 (2 exs.), Ghombhanjang, 2000m., 29.v. 1975 (1 ex.), Bot. Garden, 2000 m., 11-12.vi. 1975 (3 exs.), Darjiling, 2000 m., 13.v. 1974 (7 exs.), Bijanbari, 900 m., 24.v. 1974 (1 ex.), all J.K. Jonathan coll.; Bot. Garden, 2000 m., 7.x. 1974 (1 ex.), H.K. Bhowmik coll.; Dowhill, 1880m., 13.v. 1979 (1 ex.), Tiger Hill 2123 m., 21.v. 1979 (14 exs.), all M.S.S. coll.; Mahanadi, 1250 m., 28.iv. 1971 (9 exs.). A.R. Bhaumik coll.

*Distribution* : India West Bengal (Darjiling). Assam, Arunachal Pradesh, Manipur, Meghalaya and Sikkim. Elsewhere : Bhutan, Burma and Nepal.

205. *Meristata sexmaculata* (Kollar & Redtenbacher)

1848. *Galleruca sexmaculata* K. & R., *In Hugel, Kaschmir und des Reich der Siek*, 4 : 555.  
 1875. *Merista sexmaculata* : Chapuis, *Gen. Col.*, 11 : 127.  
 1936. *Merista sexmaculata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 145.  
 1983. *Meristata sexmaculata* : Kimoto & Takizawa, *Bull. Nat. Sci. Mus. Tokyo*, (A) 9 (2) : 94.

*Diagnostic characters* : General colour metallic violet-blue-black; scutellum metallic; elytra with three transverse brown bands; apical area of elytron without a dark spot; length 10.0-12.0 mm.

*Material examined* : Darjiling : Gorabari, Sonada, 1952 m., 13.v. 1971 ( 1 ex.), Tindharia, 856 m., 4.v. 1976 ( 1 ex.). Tibetan Naya busti, 1965 m., 7.v. 1971 ( 5 exs.), all A.R. Bhaumik coll.; Lepchajagat, 2086 m., 4.vi. 1975 ( 1 ex.), Rangiroom, 1900m., 7.vi. 1975 ( 1 ex.), all J.K. Jonathan coll.; Kurseong 1500m., 24.ix. 1941 ( 1 ex.), H.A. Hafiz coll.; Darjiling, 10.v. 1974 ( 1 ex.), A.K. Gupta coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh. Jammu & Kashmir. Orissa. Sikkim and Uttar Pradesh. Elsewhere : Bhutan and Nepal.

206. *Meristata trifasciata* (Hope)

1831. *Galleruca trifasciata* Hope, *In Gray, Zool. Miscell.* : 28.  
 1936. *Merista trifasciata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 147.  
 1985. *Meristata trifasciata* : Takizawa, *Ent. Rev. Japan*, 40(2) : 99, 106.

*Diagnostic characters* : General colour brown; head, antennae, three transverse bands including basal margin of elytron, ventral side (except abdominal sternites) and legs, black; apical area of elytron without any spot; length 10.5-13.5 mm.

*Material examined* : Darjiling : Palmajua, 2250 m., 21.vi.-7.vii. 1958 ( 3 exs.), H. Khajuria coll.; Darjiling, 4.vi. 1917 ( 2 exs.), Brunetti coll.; Tiger Hill, 2123 m, 21.v. 1979 (5 exs.), M.S.S. coll.; Tibetan Naya Busti, 1965 m., 7.vi. 1971 (5 exs.), A.R. Bhaumik coll.; Manibhanjang, 21-23.v. 1975 ( 5 exs.), Ghoombhanjang 25-30.v. 1975 ( 2 exs.); Bot Garden, 2000 m., 11-12.vi. 1975 (11 exs.), Rangiroom. 1900m., 7.vi. 1975 (11 exs.), all J.K. Jonathan coll.; Birch Hill, 15.v. 1975 ( 1 ex.). S. Saha coll.; Ghoom. 2250 m., 21.vii. 1979 ( 1 ex.), M. Prasad coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam. Sikkim and Uttar Pradesh. Elsewhere : Bhutan and Nepal.

207. *Meristata fallax* (Harold)

1880. *Merista fallax* Harold, *Stett. Ent. Zeit.*, 41 : 143.  
 1936. *Merista fallax* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 148.  
 1985. *Meristata fallax* : Takizawa, *Kontyu, Tokyo*, 56(3) : 536.

*Diagnostic characters* : Generally resembling *M. trifasciata* (Hope) and *M. quadrifasciata* (Hope) but easily distinguishable in having pronotum without a black patch, but sometimes with two round spots; antennae less flattened; elytral punctures finer and sparser; length 11.5-13.5 m.

*Material examined* : Darjiling : Kalimpong, 24.iv.-10.v. 1915 (12 exs.), Pashok, 1950 m., 26-v-14.vi. 1916 (1 ex.), all F.H. Gravely coll.; Kurseong 1500m., (4 exs.), Lynch coll.; Mungphu (4 exs.); Tiger Hill, 2660m., 19.v. 1970 (3 exs.), Lebung, 1759 m., 18.v. 1979 (1 ex.), all M.S.S. coll.; Tibetan Naya Busti, 1965 m., 7.v. 1971 (1 ex.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh, Assam, and Sikkim. Elsewhere : Bhutan and Nepal.

#### 208. *Meristata quadrifasciata* (Hope)

1831. *Galleruca quadrifasciata* Hope, In Gray, *Zool. Miscell.* : 28.

1879. *Merista quadrifasciata* : Baly, *Cist. Ent.*, 2 : 454.

1936. *Merista quadrifasciata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 149.

1983. *Meristata quadrifasciata* : Kimoto & Takizawa, *Bull. Nat. Sci. Mus., Tokyo (A)*, 9(2):94.

*Diagnostic characters* : General colour light to dark brown; head, antennae, a transverse patch on pronotum, scutellum, four transverse bands (sometimes broken up into spots) on each elytron, thoracic segments, transverse patch on each side of abdominal sternite, and legs black; antennae more flattened and the elytral punctures well impressed, more crowded than those of *M. fallax* (Harold); length 10.0.-11.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Jammu & Kashmir, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, Nepal and Pakistan.

#### 209. *Meristata spilota* (Hope)

1831. *Merista spilota* Hope. In Gray, *Zool. Miscell* : 28.

1983. *Meristata spilota* : Takizawa, *Ent. Rev. Japan*, 38(1) : 71.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan and Nepal.

*Remarks* : Takizawa (1983) recorded this species from Darjiling dist. Neither the material nor the specific literature were available. Hence the diagnostic characters of the species could not be given.

#### Genus *Oides* Weber

1801. *Oides* Weber, *Obs. Ent.*, : 26.

1936. *Oides* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 105.

Eleven species of the genus *Oides* Weber were recorded so far from India of which seven were from West Bengal.

210. *Oides andrewesi* Jacoby

1781. *Chrysomela bipunctata* Fabricius, (nec. Linnaeus, 1758), *Spec. Ins.*, **1** : 127.  
1801. *Oides bipunctata* : Weber, *Obs. Ent.* : 53.  
1900. *Oides andrewesi* Jacoby, *Mem. Soc. ent. Belg.*, **7** : 127.  
1936. *Oides bipunctata* var. *andrewesi* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 109.  
1963. *Oides andrewesi* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 475.

*Diagnostic characters* : General colour brown with the following parts black: apical part of antennal segment 4 and segments 5 to 11 (except extreme end of segment 11), greater part of tibiae; all tarsi; metasternum; abdominal sternites (except margins); and one large subrounded postmedian patch on elytron occupying about one-fourth area of disc; length 10.0.-15.5 mm.

*Material examined* : Calcutta : (4 exs.); 5.viii. 1911 (5 exs.), F.H. Gravely coll.; Eden Garden. 20.viii. 1966 (33 exs.), R.K. Singh coll.; Haora : Chunabhati, 30.vii. 1964 (8 exs.), S. Ali coll.; Nadia : Ranaghat, 18.viii. 1965 ( 1 ex.), D.K. Mandal coll.; Maldah : Gangarampur, 15-16.vi. 1987 ( 1 ex.), Harishchandrapur, 22.vi. 1987 ( 1 ex.), all K.P. Mukherjee coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling, Haora, Maldah and Nadia), Assam, Bihar, Maharashtra, Meghalaya and Orissa. Elsewhere : Burma, Laos and Vietnam.

211. *Oides bengalensis* Maulik

1936. *Oides bengalensis* Maulik, *Fauna Brit. India, Col., Chry. (Gal)* : 110.

*Diagnostic characters* : General colour brown; three apical segments of antennae, two round spots on each elytron and metasternum, black; length 10.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal.

*Remarks* : Maulik (1936) mentioned that on the label attached to the specimen the locality was simply 'Bengal'

212. *Oides coccinelloides* Gahan

1891. *Oides coccinelloides* Gahan, *Ann. Mag. nat. Hist.*, **7** : 458.  
1936. *Oides coccinelloides* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 110.

*Diagnostic characters* : General colour yellow-brown; pronotum with two elongated black patches on lateral area; elytra with three pairs of black patches; mesosternum and metasternum black; a row of five black patches on each side of abdomen; form almost hemispherical with the elytra extra ordinarily extended beyond epipleura; length 10.0.-13.0 mm.

*Material examined* : Darjiling : Lava, 1800 m., 11.ix. 1973 ( 1 ex.), A.N.T. Joseph coll.

*Distribution* : India : West Bengal (Darjiling), Manipur, Meghalaya and Sikkim.

### 213. *Oides maculata* (Olivier)

1807. *Adorium maculata* Olivier, *Entomologie*, **5** : 611.

1936. *Oides maculata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 113.

*Diagnostic characters* : General colour shining brown; three to six apical segments of antenna black; metasternum and a patch on each side of each abdominal sternite black; sides of elytra attain an extraordinary expansion beyond epipleura; length 10.5-13.0 mm.

*Material examined* : Darjiling : Pashok, 1050m., 26.v.-14.vi. 1914 ( 1 ex.), F.H. Gravely coll.; Mungphu (10 exs.).

*Distribution* : India : West Bengal (Darjiling and 24 Parganas), Andaman Is., Assam, Bihar, Meghalaya, Sikkim and Uttar Pradesh. Elsewhere : Burma, Cambodia, Java, Malaya and Penung.

### 214. *Oides livida* (Fabricius)

1801. *Adorium livida* Fabricius, *Syst. Eleuth.*, **1** : 410.

1865. *Rhambopalpa pectoralis* Clark, *Ann. Mag. nat. Hist.* (3), **15** : 144.

1884. *Oides pectoralis* : Jacoby, *Notes Leyd. Mus.*, **6** : 37.

1982. *Oides livida* : Kimoto, *Ent. Rev. Japan*, **37** (1) : 9 (= *pectoralis*)

*Diagnostic characters* : General colour brown; head black with vertex brown; upper side of four or five basal segments of antenna brown; on the ventral side head, mouth parts, antenna, breast, legs and a spot on each side of each abdominal sternite, black; elytral punctures of two sizes, the larger ones several times larger than smaller ones; length 9-0-13.5 mm.

*Material examined* : Darjiling : Kalimpong, 24.iv.-v.1915 (1 ex.). Pashok, 750m., 26.v.-14.vi. 1916 (1 ex.), all F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Manipur, Meghalaya, Orissa and Sikkim Elsewhere : Bhutan, Burma, China, Malaya Peninsula, Nepal, Siam, Sumatra and Thailand.

### 215. *Oides semipunctata* Duvivier

1884. *Oides semipunctata* Duvivier, *Comptes Rendus Soc. ent. Belg.*, **28**:133

1936. *Oides semipunctata* : Mauik, *Fauna Brit. India, Col., Chry. (Gal.)* : 116.

*Diagnostic characters* : General colour brown; two pairs of small black spots on pronotum at lateral areas; on the ventral side the metasternum and a tranverse patch on each side of each abdominal sternite black; sometimes the breast and legs completely or partly black; five apical segments of antenna black, the rest may be completely brown, or partly brown and partly black; length 10.0-11.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Burma.

*Remarks* : Maulik (1936) recorded this species from Darjiling dist.

### 216. *Oides flava* (Olivier)

1807. *Adorium flavum* Olivier, *Entomologie*, **5** : 611.

1936. *Oides flava* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 118.

*Diagnostic characters* : General colour brown; apical segments of antenna blackish; ventral surface entirely brownish; sometimes metasternum and abdominal sternites black; basal margin of elytra straight; elytral epipleuron less than one-fourth as broad as disc; length 7.5-10.5 mm.

*Material examined* : Calcutta (9 exs.); 24 Parganas : Bongaon 7.1.1966 (2 exs.), B.K. Biswas coll., 9.vii. 1965 (1 ex.), M. Ghosh coll.; Nadia : Ranaghat, 18.viii. 1965 (9 exs.), D. K. Mandal coll.

*Distribution* : India : West Bengal (Calcutta, 24 Parganas, Nadia), Assam, Bihar, Karnataka, Madhya Pradesh, Orissa and Tamil Nadu. Elsewhere : Bangladesh, Borneo, Burma, Hainan (China), Indonesia, Java, Malaya Peninsula, Nepal, Phillipines, Sumatra and Vietnam.

### Genus *Hoplasoma* Jacoby

1884. *Hoplasoma* Jacoby, *Notes Leyd. Mus.*, **6** : 233.

1936. *Hoplasoma* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 151

Seven species of this genus were recorded from India of which four were from West Bengal.

### 217. *Hoplasoma sexmaculata* (Hope)

1831. *Atchenia sexmaculata* Hope, *In Gray, Zool. Misc.* : 29.

1899. *Hoplasoma sexmaculata* : Jacoby, *Entomologist*, **32** : 82.

1936. *Hoplasoma sexmaculata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 154.

*Diagnostic characters* : General colour dark brown to pale yellow mixed with gray; antennae, scutellum, one postbasal and two postmedian patches on each elytron, whole ventral surface and legs black; length 8.5 mm.

*Material examined* : Darjiling : Pasupatinagar. 1650m., 23.v. 1975 (4 exs.): Lepchajagat, 1-4.vi. 1975 (2 exs.); all J.K. Jonathan coll.; Gorabari, Sonada, 1952 m., 12.v. 1971 (9 exs.). A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling), Bihar, Himachal Pradesh, Manipur, Meghalaya, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, China, Nepal and Pakistan.

218. *Hoplasoma costatipennis* Jacoby

1896. *Hoplasoma costatipennis* Jacoby, *Ann. Soc. ent. Belg.*, **40**:273.  
 1936. *Hoplasoma costatipennis* : Maulik *Fauna Brit. India, Col., Chry. (Gal.)* : 157.

*Diagnostic characters* : General colour entirely brown except abdomen, which is black; sometimes antennae and legs blackish; each elytron with a distinct lateral longitudinal costa, and the apical sutural angle with a tooth; length 6.0-8.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Assam, Meghalaya, Pondichery and Tamil Nadu. Elsewhere : Bangladesh and Sri Lanka.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

219. *Hoplasoma unicolor* (Illiger)

1800. *Galleruca unicolor* Illiger, *In Wiedem., Arch. fuer. Zool. u. Zoot.*, **1**(2) : 135.  
 1889. *Hoplosoma unicolor* : Allard, *Ann. Soc. ent. Fr.* (6) **8** : 327.  
 1936. *Hoplasoma unicolor* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 161.

*Diagnostic characters* : General colour shining yellow brown; ventral side black; prothorax with sides slightly sinuate and with basal and apical angles prominent; pronotal disc with transverse depression barely reaching forward of middle; elytron subregularly punctured and without any carinae on disc; length 7.0-8.5 mm.

*Material examined* : Calcutta ( 5 exs.), Alipore, 24.i. 1959 ( 1 ex.), P.C. Dhar coll.; Darjiling : Pashok, 750m., 16.v.-24.vi. 1916 ( 2 exs.), F.H. Gravely coll.; Sukna, 150m., 1.viii. 1908 ( 1 ex.), N. Annandale coll.; Kalimpong, 1400 m., 29.vi. 1979 ( 1 ex.); M. Prasad coll.; Medinipur : Kharagpur 17-30.vi. 1911 ( 2 exs.), R. Hodgart coll.; Digha, 26.xii. 1985 ( 1 ex.), A.K. Hazra coll.; Hugli : Bandel, 6.ix. 1909 ( 1 ex.), Richerson coll., 26.x. 1964 ( 3 exs.), A.N.T. Joseph coll., 28.xi. 1964 ( 1 ex.), S.K. Ghosh coll., 28.x. 1965 ( 2 exs.), P. Parui coll., Chandannagar, 9.vii. 1965 ( 1 ex.), M.S. Shishodia coll., 18.xi. 1965 ( 1 ex.), P.K. Maiti coll., 16.x. 1965 ( 1 ex.), H. Ghosh coll., 28.ix. 1965 ( 2 exs.), K.S. Pradhan coll.; Mankundu, 14.ix. 1964 ( 1 ex.), K.K. Roy coll.; Uttar Para, 17.v. 1963 ( 3 exs.), R.K. Kacker coll.; Chandannagar, 16.x. 1965 ( 1 ex.), H.C. Ghosh coll.; Chinchura, 11.vi. 1965 ( 1 ex.), M.M. Ghosh coll.; Haora : Mourigram, 19.ix. 1964 ( 3 exs.), H.C. Ghosh coll.; Serampur, 2.xi. 1965 ( 3 exs.), P. Parui coll.; Bot. Garden, 21. vi. 1961 ( 5 exs.), S. Ali coll.; Panchpara, 29.viii. 1964 ( 38 exs.), K. Rai coll.; Santragachi, 19.ix. 1964 ( 20 exs.), Mourigram, 19.ix. 1964 ( 3 exs.), all K. Rai coll.; Andul, 28.ix. 1964 ( 10 exs.), G.S. Arora coll.; Chuna Bhati, 30.viii. 1964 ( 7 exs.) S. Ali coll.; 24 Parganas : Dighara, 15.vi. 1965 ( 37 exs.), B.C. Saha; Kankinara, 18.viii. 1965 ( 3 exs.), K. Rai coll.; Barrackpore, 28.x. 1965 ( 2 exs.), O.B. Chhotani coll.; Subhasgram. 29.x. 1965 ( 15 exs.), S.C. Mitra coll.; 10.viii. 1965 ( 2 exs.), K.K. Roy coll.; Lakshikantapur, 15.x. 1965 ( 3 exs.), S.P. Chakraborty coll.; Santoshpur, 18.x. 1962 ( 14 exs.), S. Ali coll.; Dum Dum, 24.xi. 1965 ( 1 ex.), P. Parui coll.; Budge Budge, 5.x. 1966 ( 1 ex.), A.N.T. Joseph; Nadia : Kalyani, 20.viii. 1965 ( 3 exs.), H.C. Ghosh coll.; Koch Bihar : Mathabhanga, 11.xii. 1986 ( 1 ex.), R.S.

Barman coll.; Bankura : Simlapal, 31.x. 1985 ( 2 exs.), M. Datta coll.; Puruliya : Ajodhya, 700 m., 2-4.xi. 1985 ( 1 ex.), M. Datta coll.; Maldah : Bamangola, 23.vi. 1987 (7 exs.), Gangarampur, 15-16.vi. 1987(9 exs.), Bhaluk Station, 26.vi. 1987 (7 exs.), Nalakhokson, 20.vi. 1987 (9 exs.), Alal, 19.vi. 1987 ( 4 exs.), all K.P. Mukherjee coll.; Murshidabad : Berhampore, Bhakri, 28.ii. 1986 ( 1 ex.), S.K. Mitra coll.; Jalpaiguri: Jalapara Sanctuary, 28.viii. 1986 ( 9 exs.), Hasimara, 22.viii. 1986 ( 4 exs.), Rajabhatkhawa, 20.viii. 1986 ( 6 exs.), all T.K. Pal coll.

*Distribution* : India : West Bengal (Bankura, Birbhum, Calcutta, Darjiling, Hugli, Haora, Jalpaiguri, Maldah, Murshidabad, Nadia, Koch Bihar, 24-Parganas, Medinipur and Puruliya), Andaman Is., Arunachal Pradesh, Assam, Bihar, Karnataka, Kerala, Maharashtra, Meghalaya, Orissa, Sikkim, Tamil Nadu, Tripura and Uttar Pradesh. Elsewhere : Bhutan, China, Malay, Nepal. Phillippines and Sunda Is.

## 220. *Hoplasoma carinata* Kimoto

1977. *Hoplasoma carinata* Kimoto, *Ent. Basiliensia*, 2 : 355

*Diagnostic characters* : General colour reddish brown, scutellum pitchy black, elytron yellowish brown with subbasal, postero-lateral and postero-anterior margins black, antennae and legs almost entirely pitchy brown, ventral surface dark brown to pitchy black; length 6.0-7.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Bhutan and Nepal.

*Remarks* : Kimoto (1977) recorded this species from Darjiling dist.

## Genus *Aulacophora* Chevrolat

1837. *Aulacophora* Chevrolat, *In Dejean, Cat. Col., ed. 2* : 378.

1936. *Aulacophora* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 167.

Eighteen species of this genus were recorded so far from India of which seven species were from West Bengal. The present paper deals with twelve species of which five species are new records from the state including one new record from India.

## 221. *Aulacophora almora* Maulik

1936. *Aulacophora almora* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 170.

*Diagnostic characters* : Head, prothorax and elytra shining yellow-brown; antenna generally brown; sometimes seven apical segments blackish; scutellum entirely or largely black; in male sides of humerus not distinctly hairy; antenna simple not modified; legs largely blackish; length 7.0 mm.

*Material examined* : Darjiling : Barbati busti, 1900m., 18. iii. 1972 ( 1 ex.), Ghoombhanjang, 200 m., 19.ii. 1973 ( 2 exs.), Singhla, 400 m., 17.iv. 1973 (21 exs.), Rayang, 300 m., 28.iii. 1973 ( 1 ex.), Rangpo, 700 m., 8-10.iv. 1973 ( 3 exs.), all H.S. Sharma coll.; Tarkhola 20.iv. 1976 ( 1 ex.), C.R. Basu coll.; Sukia pokri, 2158 m., 16.v. 1971 ( 1 ex.), Rangtong, 13.iv. 1978 ( 1 ex.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam, Meghalaya, Sikkim and Uttar Pradesh. Elsewhere : China, Nepal and Tibet.

### 222. *Aulacophora nilgiriensis* Jacoby

1903. *Aulacophora*(*Orthaulaca*) *nilgiriensis* Jacoby, *Ann. Soc. ent. Belg.*, **47** : 116.

1936. *Aulacophora nilgiriensis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 172.

*Diagnostic characters* : Colour entirely yellow-brown to dark brown; lateral margin of elytra and pronotum not explanate; length 6.0-8.0 mm.

*Material examined* : Calcutta ( 1 ex.).

*Distribution* : India : West Bengal (Calcutta), Karnataka, Kerala and Tamil Nadu.

*Remarks* : First record from West Bengal.

### 223. *Aulacophora foveicollis* (Lucas)

1849. *Galeruca foveicollis* Lucas, *Explor. Alger. Ent.* : 542.

1879. *Aulacophora foveicollis* : Baly, *Cist. Ent.*, **2** : 445.

1936. *Aulacophora foveicollis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 173.

*Diagnostic characters* : General colour brown; metasternum and abdominal sternites entirely or largely black; in the male humerus covered with erect hairs; length 6.0-7.0 mm.

*Material examined* : Calcutta : Dhapa, 30.vi. 1962 (40 exs.), 23.viii. 1961 (13 exs.), 26.vii. 1963 ( 2 exs.), all S. Ali coll., 5.v. 1961 (8 exs.), Rao coll.; Calcutta (11 exs.), 20.v. 1949 ( 4 exs.), A.P. Kapur coll.; Eden Garden, 7.vi. 1965 (5 exs.), A.N.T. Joseph coll., 20.viii. 1966 (10 exs.), R.S. Pillai & G.P. coll., 17.iv. 1965 ( 2 exs.), B.K. Mudi coll., 20.vii. 1965 ( 3 exs.), R.K. Singh coll., 30.v. 1964 ( 2 exs.), 11.xi. 1964 ( 1 ex.), all S. Ali coll., 29.vi. 1964 ( 1 ex.), G. Prasad coll., 30.viii. 1963 ( 1 ex), S. Munsli coll., Bagmari, 24.viii. 1962 ( 2 exs.), B. Datta coll., Horti Garden, 14.ix. 1965 ( 2 exs.), J.C. D& B.K.M. coll., 26.vi. 1961 (5 exs.), H.K. Bhowmik coll., 24.ix. 1959 ( 1 ex.), P.C. Dhar coll.; Alipur, 19.i. 1967 ( 2 exs.), K. Rai coll.; Haora : Bot. Garden, 27.xi. 1965 (7 exs.), K.R. Rao. coll., 10.xi. 1961 (2 exs.), K.R. Rao & S. Ali coll., 21.vi. 1961 ( 1 ex.), S. Ali coll., 28.vi. 1965 ( 1 ex.), P. Parui coll., 30.viii. 1962 ( 1 ex.), K.V.L. Narayan coll; Belur, 14.i. 1966 ( 9 exs.), T.R. Mitra coll.; Chuna Bhati, 30.vii. 1964 ( 1 ex.), S. Ali coll.; Andul, 28.ix. 1964 ( 1 ex.), G.S. Arora coll.; Santragachi. 19.ix. 1964 ( 1 ex.), K. Rai coll.; Maheshpur, 25.i. 1986 ( 1 ex.). Jalpai, Bagnan, 29.i. 1986 ( 4 exs.), all B. Dutta coll.; 24 Parganas : Dighara, 15.vi. 1965 (52 exs.), B.C. Saha coll.; Canning, 18.xi. 1965 ( 16 exs.), G.S. Arora coll.; Sonarpur, 19.iii. 1966 (10 exs.). G.S. Arora coll., 28.xi. 1961 (5 exs.), R.K. Varshny coll.; Santoshpur, 18.x. 1962 ( 1 ex.), S. Ali coll.;

Lakshikantapur, 15.x.1965 ( 1 ex.), S.P. Chakraborty coll.; Banipur, 8.xii. 1966 (11 exs.), K.R. Ro coll.; Dattapukur, 6.xii. 1966 ( 1 ex.), A.N.T. Joseph coll.; Falta, 29.i. 1966 ( 1 ex.), R.K. Bhanotar coll.; Kharda, 24.viii. 1960 (3 exs.), P.C. Das coll.; 26.xi.1966 ( 1ex.), S.B. Roy coll.; Titagarh, 29.xii. 1961 ( 1ex.), K.L. Chatterjee coll.; Birati, 25.i. 1962 (4 exs.), R.K. Bhanotar coll.; Barasat, 5.i. 1966, (7 exs.), J.R. Singh coll.; Madhururali, 20.v. 1965 ( 3 exs.), M.S. Shishodia & B.K.B. coll.; Bongaon, 9.viii. 1965 (10 exs.), M.G. & K.D. Chatterjee coll., 7.i. 1966 ( 1 ex.), B.B.B. coll.; Kamalgachi, 7.i. 1956 ( 9 exs.), C. Sarkar coll.; Diamond Harbour, 9.ii. 1966 ( 2 exs.), A.N.T. Joseph coll.; Santoshpur, 18.x. 1962 ( 1 ex.), S. Ali coll.. 23. ix. 1961 ( 1 ex.), R.K. Varshany coll.; Hugli: Pundooah, 29.i. 1966 (6 exs.), K.S. Pradhan coll.; Chandannagar, 16.x. 1965 ( 1 ex.), H.L. Paul coll., 9.iii. 1965 ( 1 ex.), M.S. Shishodia coll.. 28.ix. 1965 ( 1 ex.), K.S. Pradhan coll.; Tribeni, 12.ix. 1965 ( 6 exs.), M.M.G. coll.; Bally, 19.iii. 1966 (16 exs.). P. Parui coll.; Nadia : Ranaghat, 18.viii. 1965 ( 1 ex.), D.K. Mandal coll.; Bankura : Bishnupur, 27.viii. 1986 ( 2 exs.), Harbatpur, 29.viii. 1986 ( 2 exs), Amdangra, 30.viii. 1986 ( 3 exs.), Piardoba, 1.ix. 1986 ( 8exs.). Lokpur, 6.ix. 1986 (9 exs.), Taldangra, 11.ix. 1986( 8 exs.), all P. Mukhopadhyay coll., Bishnupur Sericulture Nursery, 26.x. 1985 ( 4 exs.), Bankura, 29.x. 1985 ( 3 exs.), Mukutomanipur. 28.x. 1985 ( 3 exs.), Simlapal, 31.x. 1985 (2 exs.), Bishnupur, 25.x. 1985 ( 2 exs.), all M. Datta coll.; Taldangra, 11.x. 1986 (13 exs.), P. Mukhopadhyay coll.; Koch Bihar : Mathabhanga. 11.xii. 1986 ( 1ex.), R.S. Barman coll.. Darjiling : Rangpo, 300 m., 28.xii. 1975 ( 1 ex.), G.K. Srivastava coll., 1.vi. 1974 ( 1 ex.). J.K. Jonathan coll.; Tung, 25.iii. 1978 ( 1 ex.), S.K. Saha coll., Rangtang. 13.iv. 1978 (1 ex.), A.R. Bhaumik coll., Siliguri. 21.iii. 1945 ( 1 ex.), H.A. Hafiz coll., Mungphu ( 1 ex.); Rangpo, 450 m., 1.vi. 1974 ( 1 ex.). Singla. 400 m., 18-19.iv. 1973(1 ex.), all H.S. Sharma coll., Bijanbari, 900 m., 20.v. 1974 ( 1 ex.), J.K. Jonathan coll.; Chunabati, 27.xii. 1973 ( 1 ex.). G.K. Srivastava coll., Rayang, 300m., 1.v. 1973 ( 1 ex.). H.S. Sharma coll.; Jalpaiguri : Raydak Forest, 8.ix. 1973 ( 1 ex.), H.K. Bhowmik coll.; Falakata 28.viii. 1986 ( 1ex.), Rajabhatkhawa, 20.viii. 1986 ( 1 ex.), all T.K. Pal. \coll.; Saktigarh. New Jalpaiguri, 21.i. 1987 ( 1 ex.), V.D. Srivastava coll.; Khairbari, 27.viii. 1975 ( 1 ex.). H.K. Bhowmik coll.; Murshidabad : Bama Bildangi, 2.iii. 1986 ( 6 exs.), Jiaganj, Kadampur, 1.iii. 1986 ( 2 exs.), Berhampur, Bhakri, 28.ii. 1986 ( 2 exs.), all S.K. Mitra coll.; Jangipur, 12.ii. 1986 (2 exs.), Raichandpur, Jiaganj. 6.ii. 1986 (2 exs.), all I.J. Gupta coll.; Medinipur : Gangacharpur, Digha, 24.xii. 1985 ( 5 exs.), Palsandapur, 12.xii. 1985 ( 5 exs.), all A.K. Hazra coll.; Birbhum : Bank of Ajoy River, Illambazar, 28.i. 1986 ( 1 ex.), Khyrakwi, nr. Tilpara Barrage, 24.i. 1986 ( 1 ex.), Champti Bagan, Nalhati, 21.i. 1986 (7 exs.), all S.B. Roy coll.; Maldah : Pakhahat, 16.vi. 1987 ( 3 exs.), Bamangola, 23.vi. 1987 ( 1 ex.), Parbatidanga, 27.vi. 1987 ( 5 exs.), Bhaluk Station, 26.vi. 1987 ( 3 exs.), Nalakhokson, 20.vi.1987 (4 exs.), Tulshihata, 25.vi. 1987 (10 exs.), Harischandrapur, 22.vi. 1987 (4 exs.), all K.P. Mukherjee coll.

*Distribution* : India : West Bengal (Bankura, Birbhum, Calcutta, Koch Bihar, Darjiling, Haora, Hugli, Jalpaiguri, Maldah, Nadia, 24 Parganas, Medinipur and Murshidabad). *Other Indian States* : Arunachal Pradesh, Assam, Andaman Is., Bihar, Gujarat, Kerala, Maharashtra, Meghalaya, Orissa, Punjab, Tamil Nadu, Tripura and Uttar Pradesh. *Elsewhere* : Bangladesh, Burma, Nepal, Sri Lanka and also in Europe.

#### 224. *Aulacophora excavata* Baly

1886. *Aulacophora excavata* Baly, *J. Linn. Soc. Lond.* **20** : 3,5,18

1936. *Aulacophora excavata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 177.

*Diagnostic characters* : General colour brown; elytra not shining, steel-blue with an admixture of black; pronotal disc with a broad excavation, deeper in male; length 7.5-8.5 mm.

*Material examined* : 24 Parganas : Bishnupur (13 exs.).

*Distribution* : India : West Bengal (24 Parganas and Jalpaiguri), Bihar, Orissa and Uttar Pradesh.

### 225. *Aulacophora lewisii* Baly

1886. *Aulacophora lewisii* Baly, *J. Linn. Soc. Lond.*, **20** : 5,24.

1963. *Aulacophora lewisii* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B**:488

*Diagnostic characters* : General colour bright yellow-brown to dark yellow-brown; elytra black; antenna of male not modified but fairly stout; elytron slightly uneven, not very shiny, with punctures mostly one-third to half as wide as interspaces; length 5.5 mm.

*Material examined* ; Darjiling : Siliguri, 7.viii. 1906 (2 exs.), Chunabati, 27.xii. 1973 (1 ex.), G.K. Srivastava coll.; Singla, 450 m., 16-20.iv. 1973 (7 exs.), Goke, 450 m., 16.iv. 1973 (3 exs.), Rangpo, 450 m., 7.iv. 1973 (1 ex.), Mangsong, 700 m., 8.iv. 1973 (1 ex.), all H.S. Sharma coll.; Tibetan Naya busti, 1965 m., (1 ex.), A.R. Bhumik coll.; Barbati busti, 18.iii. 1973 (1 ex.), P.K. Maiti Coll.; Calcutta : 1.vii. 1949 (10 exs.), 20.v. 1949 (5 exs.), all A.P. Kapur coll., 14.iv. 1950 (3 exs.); Basdhanighat, 13.viii. 1957 (5 exs.), A.P. Kapur coll.; Dhapa, 30.vi. 1962 (6 exs.), 23.vii. 1961 (1 ex.), all S. Ali coll., 27.vii. 1963 (5 exs.), R.K. Kacker coll., 26.vii. 1963 (4 exs.), C.S. Roy coll.; Calcutta, 26.iii. 1950 (1 ex.), A.P. Kapur coll.; 16.vii. 1950 (2 exs.), M.B. Kripalani Coll., 16.vi. 1950 (1 ex.), T.G. Vazirani coll.; Eden Garden, 30.viii. 1963 (1 ex.), S. Munsii coll., 20.vii. 1966 (1 ex.), R.K. Singh coll.; Salt Lake, 27.vii. 1962 (1 ex.), B. Datta coll.; 24-Parganas : Subhasgram, Kodalia, 29.x. 1965 (1 ex.), S.C. Mitra coll.; Dattapukur, 8.ii. 1967 (1 ex.), K.K. Rao coll.; Lakshmikantapur, 15.x. 1965 (16 exs.), S.P. Chakraborty coll.; Baruipur, 8.xii. 1966 (3 exs.), K.R. Rao coll.; Budge Budge, 5.xi. 1966 (1 ex.), A.N.T. Joseph coll., 21.i. 1967 (1 ex.), K.R. Rao coll.; Sonarpur, 28.xi. 1961 (3 exs.), R.K. Varshney coll., 19.iii. 1966 (2 exs.), Canning, 18.x. 1965 (6 exs.), A.N.T. Joseph coll., 18.xi. 1965 (4 exs.), G.S. Arora coll.; G.S. Arora coll.; Kankinara, 18.viii. 1965 (1 ex.), K. Rai coll.; Kamalgashi, 10.v. 1962 (1 ex.), S. Lal coll.; Dighara, 15.vi. 1965 (1 ex.), B.C. Saha coll.; Jadavpur, 24.vii. 1964 (1 ex.), K.L. Bhatta coll.; Hugli: Baly, 19.iii. 1966 (2 exs.), P. Parui coll.; Bandel, 8.xi. 1965.; (1 ex.), K.S. Pradhan coll.; Nalikal, 11.vii. 1950 (1 ex.), N.C. Chatterjee coll.; Haora: Jalpai, Bagnan, 29.i. 1986 (1 ex.), Nantia, 30.i. 1986 (2 exs.), all B. Datta coll.; Bankura : Hera Parbat, 29.viii. 1986 (1 ex.), Piardoba, 1.ix. 1986 (3 exs.) Lokpur, 6.ix. 1986 (1 ex.), Taldangra, 11.ix. 1986 (33 exs.), all P. Mukhopadhyay coll.; Bishnupur Sericulture Nursery, 26.x. 1985 (1 ex.), Simlapal, 31.x. 1985 (1 ex.), Bishnupur, 25.x. 1985 (2 exs.), all M. Datta coll.; Murshidabad : Kadampur, Jiaganj, 1.iii. 1986 (1 ex.), Bama Bildanje, 2.iii. 1986 (1 ex.), Bhakri, Berhampore, 28.ii. 1986 (2 exs.), all S.K. Mitra coll.; Jangipur 12.ii. 1986 (1 ex.), I.J. Gupta coll.; Maldah : Tulshi Hata, 25.vi. 1987 (1 ex.), K.P. Mukherjee coll.; Jalpaiguri : Falakata, 28.viii. 1986 (1 ex.), T.K. Pal coll.

*Distribution* : India : West Bengal (Bankura, Calcutta, Darjiling, Haora, Hugli, Jalpaiguri, Maldah, Murshidabad and 24 Parganas), Assam, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Punjab, Sikkim, Tamil Nadu and Uttar Pradesh. Elsewhere : Bhutan, Burma, China, Japan, Taiwan and Sri Lanka.

226. *Aulacophora frontalis* Baly

1888. *Aulacophora frontalis* Baly, *J. Linn. Soc. Lond.*, **20** : 176, 181.  
1936. *Aulacophora frontalis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 183.

*Diagnostic characters* : General colour brown; elytra black; in male ventral area of head on each side with a prominence the upper edge of which is compressed and incurved; antennae with the segment 3 not shorter than segment 4; length 5.75 mm.

*Material examined* : Murshidabad : Moregram, Phulbari, 9.ii. 1986 ( 1 ex.), I.J. Gupta coll.; Bhakri, Berhampore, 28.ii. 1986 ( 2 exs.), S.K. Mitra coll.

*Distribution* : India : West Bengal (Murshidabad), Kanataka, Maharashtra, Tamil Nadu and Tripura.

*Remarks* : First record from West Bengal.

227. *Aulacophora bicolor* (Weber)

1801. *Galleruca bicolor* Weber, *Obs. Ent.* : 56.  
1886. *Aulacophora bicolor* : Baly, *J. Linn. Soc. Lond.*, **20** : 3,5,19  
1936. *Aulacophora bicolor* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 187.

*Diagnostic characters* : Head, antennae, pronotum and scutellum always brown; elytral pattern variable, humerus bearing a small dark spot, or with two basal spots and often one or two postmedian spots, each group sometimes merged into a large black area, but at least leaving pleae antemedian and apical areas; pronotum with a broad groove; antenna simple; ventral side clothed with silvery pubescence; length 5.0-10.0 mm.

*Material examined* : Darjiling : Pashok, 1050 m., vi. 1916 ( 1 ex.), 600 m., 11.v. 1916 ( 1 ex.), all L.C. Hartless coll., 26.v.-14.vi. 1916 ( 1 ex.), F.H. Gravely coll.; Singla, 400 m., 18.iv. 1973 (1 ex.), H.S. Sharma coll.; Tarkhola, 20.iv. 1976 ( 2 exs.), C.R. Basu coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Andaman and Nicobar Is. and Meghalaya. Elsewhere : Burma, Java, Phillipines, Sumatra and Taiwan.

228. *Aulacophora cincta* (Fabricius)

1775. *Crioceris cincta* Fabricius, *Syst. Ent.* : 119.  
1936. *Aulacophora cincta* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 198.

*Diagnostic characters* : General colour yellow-brown; elytra shining yellow-brown with the suture and margins (not extreme edges) all round, except external apical angles, narrowly and sharply black; length 6.5-7.0 mm.

*Material examined* : Calcutta ( 1 ex.).

*Distribution* : India : West Bengal (Calcutta.), Kerala and Tamil Nadu.

*Remarks* : First record from West Bengal.

### 229. *Aulacophora impressa* (Fabricius)

1801. *Galleruca impressa* Fabricius, *Syst. Eleuth.*, **1** : 485.

1936. *Aulacophora impressa* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 191.

*Diagnostic characters* : General colour brown, sometimes mixed with red; abdominal sternites black; elytra black, with the basal margin, lateral margin, a certain apical area and the suture narrowly, brown; pronotal transverse sulcus very large and deeply excavated; length 6.5-7.0 mm.

*Material examined* : Calcutta : Eden Garden, 20.vii. 1966 ( 1 ex.), R.K. Singh coll.

*Distribution* : India : West Bengal (Calcutta). *Other Indian States* : Bihar and Madhya Pradesh.

### 230. *Aulacophora cruenta* (Fabricius)

1792. *Gulleruca cruenta* Fabricius, *Ent. Syst.* **1**(2) : 19.

1936. *Aulacophora cruenta* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 194.

*Diagnostic characters* : Elytra black on basal half; rest of the body yellow-brown to red-brown; pronotal transverse sulcus distinct and straight; body broad; sometimes this sulcus interrupted in middle; length 6.0-7.75 mm.

*Material examined* : Darjiling : Sukna, 150m., 3.vii. 1908 ( 1 ex.), N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling), Kerala and Tamil Nadu. Elsewhere : Sri Lanka.

*Remarks* : First record from West Bengal.

### 231. *Aulacophora gestroi* Jacoby

1892. *Aulacophora gestroi* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 943.

1936. *Aulacophora gestroi* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 196.

*Diagnostic characters* : General colour shining yellow-brown; elytra with basal two-thirds black, apical area yellow-brown and covering the entire apex; tibiae very dark brown to blackish; length 7.5 mm.

*Material examined* : Koch Bihar : Jorai, 18.viii. 1986 ( 1 ex.), T.K. Pal coll.

*Distribution* : India : West Bengal (Koch Bihar). Elsewhere : Burma.

*Remarks* : First record from India.

232. *Aulacophora indica* (Gmelin)

1790. *Crioceris indicus* Gmelin, ed. *Linne, Syst. Nat.*, **1**(4) : 1720.  
 1936. *Crioceris indicus* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 197.  
 1972. *Aulacophora indica* : Kimoto, *Ent. Rev. Japan*, **24** (1/2) : 45.

*Diagnostic characters* : Head, prothorax, elytra and antenna yellow-brown to red-brown; legs yellow brown to dark brown; metasternum and abdominal sternites (except apex of last segment) black; length 7.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Assam, Haryana, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, Japan, Nepal, Pakistan and Sri Lanka.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

Genus *Pseudocophora* Jacoby

1884. *Pseudocophora* Jacoby, *Notes Leyden Mus.* **6** : 69, 214.  
 1936. *Pseudocophora* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 198.

Four species of this genus were recorded so far from India of which three species were from West Bengal.

233. *Pseudocophora bicolor* Jacoby

1887. *Pseudocophora bicolor* Jacoby, *Proc. Zool. Soc. Lond.* : 111.  
 1936. *Pseudocophora bicolor* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* 201.

*Diagnostic chracters* : General colour yellow to dark brown, with the elytra shining black; epipleuron lighter at base, darker for the rest; anterior side of postscutellar prminence in male with a pit; length 5.0-6.0 mm.

*Material examined* : Murshidabad : Jangipur, 12.ii. 1986 ( 1 ex.), I.J. Gupta coll.

*Distribution* : India : West Bengal (Murshidabad and Jalpaiguri), Meghalaya and Tamil Nadu. Elsewhere : Sri Lanka.

234. *Pseudocophora pectoralis* Baly

1888. *Pseudocophora pectoralis* Baly, *J. Linn. Soc. Lond.*, **20** : 169, 174  
 1936. *Pseudocophora pectoralis* : Maulik, *Fauna Brit. India, Col., Chry (Gal.)* : 202.

*Diagnostic characters* : General colour shining brown except for much of metasternum and abdomen black; in the male the postscutellar region not excavated, nearly flat, impunctate, with a foveum near suture; length 5.2-5.5 mm.

*Material examined* : Darjiling : Monsong, 700 m., 8.iv. 1973 (1 ex.), Rangpo, 8.iv. 1973 (2 exs.), all H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Assam, Manipur and Meghalaya. Elsewhere : China.

### 235. *Pseudocophora flaveola* Baly

1888. *Pseudocophora flaveola* Baly, *J. Linn. Soc. Lond.*, **20** : 169, 173.

1936. *Pseudocophora flaveola* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 206.

*Diagnostic characters* : General colour yellow-brown to redbrown ventral side largely black in male postscutellar prominence without a pit at anterior side; length 5.5. mm.

*Material examined* : Darjiling : Goke, Singla, 400 m., 18.iv. 1973 (1 ex.), H.S. Sharma coll.; Jalpaiguri : Falakata, 28.viii. 1986 (1 ex.), T.K. Pal. coll.

*Agetocera*

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Andaman Is. Elsewhere : Burma.

### Genus *Agetocera* Hope

1840. *Agetocera* Hope, *Col. Man.*, **3** : 170.

1936. *Agetocera* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 125.

Five species of this genus were recorded from India of which three were from West Bengal.

### 236. *Agetocera mirabilis* (Hope)

1831. *Agetocera mirabilis* Hope, in Gray, *Zool. Miscell.* : 29.

1840. *Agetocera mirabilis* : Hope, *Col. Manu.*, **3** : 170.

1936. *Agetocera mirabilis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 127.

*Diagnostic characters* : General colour brown; elytra deep violet or purple; two apical segments of antennae, tarsi and apical halves of tibiae, blackish; antennal segment 4 in both sexes with deep emargination on the inner side, segment 9 of male very broad basally and bearing a large flat membrane like surface; length 12.5-16.5 mm.

*Material examined* : Darjiling : Ranigroom, 2000 m., 7.vi. 1975 (1 ex.) J.K. Jonathan coll.; Bruch Hill, 29.vi. 1979 (3 exs.), S.S. Saha coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Bhutan, Burma, China, Laos and Nepal.

237. *Agetocera hopei* Baly

1865. *Agetocera hopei* Baly, *Trans. ent. Soc. Lond.* (3) 2 (5) : 438.  
 1936. *Agetocera hopei* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 130.

*Diagnostic characters* : General colour yellow-brown; elytra greenish to purplish black; forebody pale yellow; last 2-3 antennal segments blackish, segment 9 of male with a very strong external protuberance at base and a weak one at apex, forming a deep crescent between; length 10.5-13.0 mm.

*Material examined* : Darjiling : Kurseong, 1500 m., (7 exs.), Lynch coll.; Lebung, 1500 m., ix. 1908 ( 1 ex.), H.M.L. coll.; Kalimpong, 1400m., vi. 1934 (20 exs.), S.L. Hora coll., 29.vi. 1979 ( 2 exs.), M. Prasad coll.; Burch Hill, 29.vi. 1979 ( 2 exs.), S.S. Saha coll.; Pedong, 1200 m., 10.ix. 1975 ( 1 ex.), A.N.T. Joseph coll., Lebung, 1759m., 18.v. 1979 ( 1 ex.), M.S. Shishodia coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam, Manipur, Meghalaya, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, Burma, Tibet, Java and Nepal.

238. *Agetocera lobicornis* Baly

1865. *Agetocera lobicornis* Baly, *Trans. ent. Soc. Lond.*, (3) 2(5) : 437.  
 1936. *Agetocera lobicornis* : Maulik, *Fauna Brit. India, Col., Chry., (Gal.)* : 133.

*Diagnostic Characters* : General colour red-brown; elytra shining black; tarsi, middle and hind tibiae and upper side of front tibiae, and the apical halves of hind femora, blackish; antennae of male with segment 9 enlarged; length 10.0 mm.

*Material examined* : Darjiling : Kurseong, 19.vi. 1910 ( 1 ex.), N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling), Assam, Meghalaya, Nagaland and Sikkim. Elsewhere : Burma.

Genus *Phyllobrotica* Redtenbacher

1845. *Phyllobrotica* Redtenbacher, *Gall. Deut. Kaferf.* : 114.  
 1936. *Phyllobrotica* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 491

This genus is represented only by a single species in India.

239. *Phyllobrotica komiyai* Takizawa

1985. *Phyllobrotica komiyai* Takizawa, *Ent. Rev. Japan*, 40(2) : 107.

*Diagnostic characters* : General colour black; prothorax light brown; antenna dark brown with the basal segments light brown; apices of femora of front leg and middle leg light brown; length 3.0-3.6 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Takizawa (1985) described this species from Darjiling dist.

#### Genus *Sumatrasia* Jacoby

1884. *Sumatrasia* Jacoby, *Notes Leyden Mus.*, 6 : 67.

This genus was so far unknown from India and it is now being recorded here for the first time with a single species.

#### 240. *Sumatrasia unicolor* Jacoby

1884. *Sumatrasia unicolor* Jacoby, *Notes Leyden Mus.* 6 : 68.

*Diagnostic characters* : Entirely brown to reddish brown with apices of mandibles black; head and pronotum almost impunctate; elytra finely punctate; apical margin of elytra with a row of thin silvery hairs; length 5.5 mm.

*Material examined* : Darjiling : Tung, 25.iii. 1978 ( 1 ex.), Rangton, 13.iv. 1978 ( 2 exs.), all C.P. Basu coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Sumatra.

*Remarks* : Both Genus and Species are first record from West Bengal and also from India.

#### Genus *Paridea* Baly

1886. *Paridea* Baly, *J. Linn. Soc. Lond.*, 20:26.

1936. *Paridea* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 498.

Thirteen species of this genus were so far recorded from India of which six were from West Bengal.

#### 241. *Paridea approximata* Duvivier

1892. *Paridea approximata* Duvivier, *Ann. Soc. ent. Belg.*, 36:430.

1936. *Paridea approximata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 503.

*Diagnostic characters* : General colour light brown; antennae (except base), meso- and metasternum, basal portion of femora and tibiae, apical portion of tibiae, scutellum and two large patches on each elytron and a part of epipleuron, black; length 4.5-5.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Bihar.

*Remarks* : Maulik (1936) recorded this species from West Bengal (Darjiling).

#### 242. *Paridea octomaculata* (Baly)

1886. *Aulacophora octomaculata* Baly, *J. Linn. Soc. Lond.*, **20** : 17.

1936. *Paridea octomaculata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 504.

*Diagnostic characters* : General colour shining brown; head with two black patches; elytron with four black patches, two apical and two basal, these patches are variable, but elytron with suture and margins always all round red-brown; abdominal tergites with a broad median black stripe; exposed pygidium with two black patches, one on each side; abdominal sternites with three series of black spots, one median and two lateral; length 5.0-6.5 mm.

*Material examined* : Darjiling : Mungphu, 1500m., iv-v. 1917 (1 ex.) S.W. Kemp coll.; Bijanbari, 900 m., 21.v. 1974 (1 ex.), J.K. Jonathan coll.; Kalimpong, 1243 m., 23.v. 1979 (1 ex.), M.S. Shishodia coll.

*Distribution* : India : West Bengal (Darjiling), Arunchal Pradesh, Assam, Manipur, Sikkim and Uttar Pradesh. Elsewhere : Nepal and Tibet.

#### 243. *Paridea unifasciata* Jacoby

1892. *Paridea unifasciata* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 957.

1936. *Paridea unifasciata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 503.

*Diagnostic characters* : General colour black; head, antennae, prothorax, legs. a transverse band across the middle of elytra and a spot at extreme apical area, light brown to yellowish-white; labrum and scutellum black; uper margins of all femora, tibiae and posterior tarsi, black; length 4.0 mm.

*Material examined* : Darjiling : Gorabari, Sonada, 1952 m., 13.v. 1971 (7 exs.), A.R. Bhaumik coll.; Darjiling, 2123 m., 21.v. 1979 (1 ex.), M.S. Shishodia coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Burma and Nepal.

#### 244. *Paridea perplexa* (Baly)

1879. *Aulacophora perplexa* Baly, *Cist. Ent.*, **2** : 447.

1889. *Paridea perplexa* : Baly, *Trans. ent. Soc. Lond.*: 304.

1936. *Paridea perplexa* : Mauik, *Fauna Brit. India, Col., Chry. (Gal.)* : 505.

*Diagnostic characters*.: In form, structure and colouration it resembles *P. octomaculata* Baly but

differs in having elytral spots smaller and rounded, and more rounded in form, and somewhat larger in size (7.75 mm).

*Material examined* : Darjiling : Kalimpong, 21.iv.-10.v. 1915 ( 3 exs.), F.H. Gravely coll.; Chaikhola, 12.iv. 1976 ( 1 ex.), C.R. Basu coll.; Jalpaiguri : Buxa Duars, -iv. 1907 ( 1 ex.).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Assam, Manipur and Sikkim. Elsewhere : Burma and Nepal.

#### 245. *Paridea ruficollis* Jacoby

1892. *Paridea ruficollis* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 953

1936. *Paridea ruficollis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 510.

*Diagnostic characters* : General colour shining brown; breast, middle and hind tibiae, and tarsi, black; prothorax shining red; length 5.75 mm.

*Material examined* : Darjiling : Pashok, 1050 m., 26.v-14.vi. 1916 ( 1 ex.), F.H. Gravely coll.; Darjiling Chawk, 2000 m., 15.v. 1974 ( 1 ex.), Lava, 2150 m., 5.vi. 1974 ( 1 ex.), all J.K. Jonathan coll.; Darjiling, 29.i. 1975 ( 1 ex.), H.K. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling and Murshidabad), Assam. Elsewhere : Burma.

#### 246. *Paridea livida* Duvivier

1892. *Paridea livida* Duvivier, *Ann. Soc. ent. Belg.*, **36** : 432

1936. *Paridea livida* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 510.

*Diagnostic characters* : General colour dark brown; metasternum, abdomen (except last segment), upper side of anterior tibia, tibia and tarsi of middle and posterior legs, black; apex of antenna darker; palpi, head and pronotum, reddish to red-brown; length 6.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Meghalaya.

*Remarks* : Maulik (1936) recorded this species from Darjiling dist.

#### Genus *Haplosomoides* Duvivier

1890. *Haplosomoides* Duvivier, *Ann. soc. ent. Belg.*, **34** : 35.

1936. *Haplosomoides* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 517.

Seven species of this genus were recorded from India of which three species were from West

Bengal. Present paper includes another species from India (West Bengal). Thus total Indian species becomes eight and from West Bengal four.

247. *Haplosomoides krisha* (Maulik)

1936. *Hoplasomedia krisha* Maulik, *Fauna Brit. India, Col. Chry. (Gal.)* : 496

1987. *Haplosomoides krisha* : Takizawa & Basu, *Kontyu, Japan*, **55**(2) : 273.

*Diagnostic characters* : Entirely shining brown, elytra paler; breast and abdominal segments black; elytra not distinctly punctate and without any distinct rib; length 5.5 mm.

*Material examined* : Darjiling : Singla, 15.20.iv. 1973 ( 2 exs.), H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Burma.

248. *Haplosomoides krishila* (Maulik) **New Combination**

1936. *Hoplasomedia krishila* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 497.

*Diagnostic characters* : General colour brown; elytra pale yellowish-white; breast and abdominal sternites black; head and pronotum shining, elytra dull, elytral punctures not distinct; length 5.75 mm.

*Material examined* : Darjiling : Singla, 450 m., 16.iv. 1973 ( 1 ex.), Goke, 450 m., 16.iv. 1973 ( 1 ex.), H.S. Sharma coll.; Darjiling chawk, 2000 m., 15.v. 1974 ( 6 exs.), Bijanbari, 900 m., 21.v. 1974 ( 1 ex.), Rangpo, 450 m., 1.vi. 1974 ( 2 exs.), all J.K. Jonathan coll.; Darjiling 29.i. 1973 ( 1 ex.), H.K. Bhowmik coll.; Lolegaon, 11.iv. 1976 ( 1 ex.), Kalimpong, 1243 m., 11.iii. 1976 ( 1 ex.), Rangtong, 13.iv. 1976 ( 4 exs.), Tung, 25.iii. 1976 ( 1 ex.), all C.R. Basu coll.

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Burma and Nepal.

*Remarks* : First record from India ( West Bengal).

249. *Haplosomoides egena* Weise

1922. *Haplosomoides egena* Weise, *Tijdschr. Ent.*, **65** : 74.

1979. *Haplosomoides egena* : Kimoto, *Ent. Basiliensia* **4** : 470.

*Diagnostic characters* : Dorsal surface entirely pale yellowish; abdomen blackish; elytral carinae not very sharp, often quite weak; anterior margin of prothorax slightly emarginate at middle; length less than 6.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Assam and Meghalaya. Elsewhere : Bhutan, China, Nepal and Vietnam.

*Remarks* : Kimoto (1979) recorded this species from Darjiling dist.

250. *Haplosomoides nirada* (Maulik) **New Combination**

1936. *Hoplasomedia nirada* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 498.

*Diagnostic characters* : General colour red brown; head and prothorax shining, elytra not shining; breast and abdominal sternites black; length 6.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Jalpaiguri). *Elsewhere* : No other record from any where.

*Remarks* : Maulik (1936) described this species from Jalpaiguri dist. (Duars).

Genus *Cerophysa* Chevrolat

1837. *Cerophysa* Chevrolat, *In Dejean, Cat. Col. ed. 2* : 379.

1936. *Cerophysa* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 470.

Three species of this genus were so far recorded from India of which one species was from West Bengal.

251. *Cerophysa darjeelingensis* Takizawa & Basu

1987. *Cerophysa darjeelingensis* Takizawa & Basu, *Kontyu, Tokyo*, **52**(2) : 273, 280.

*Diagnostic characters* : General colour metallic bluish violaceous; antennae, mouthparts, trochanters, apices of femora, apical half of tibiae and tarsi, light brown to brown; pronotum and elytra finely granulated; length 4.5-4.7 mm.

*Material examined* : Darjiling : Goke. Singla. 400m., 15.iv. 1973 ( 1 ex.). H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling).

Genus *Arthrotidea* Chen

1942. *Arthrotidea* Chen, *Notes d'Ent. Chinoise*, **9** : 45.

1963. *Arthrotidea* : Kimoto & Gressitt, *Pac. Ins. Monogr.*, **1B** : 530.

Two species of this genus were recorded so far from India and both the two species were also recorded from West Bengal.

252. *Arthrotidea nepalensis* (Kimoto)

1970. *Derectina nepalensis* Kimoto, *Khumbu Himal*, **3** (3) : 418.

1972. *Arthrotidea nepalensis* : Kimoto & Takizawa, *Kontyu*, **40**(4) : 218.

*Diagnostic characters* : General colour pale yellowish brown to dark brown; pronotum ochraceous to reddish brown; antennae dark brown; legs yellowish brown with apex of femora, tibiae and tarsi, blackish; ventral surface partly dark in various degrees; length 9.0-11.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan and Nepal.

*Remarks* : Kimoto & Takizawa (1972) recorded this species from Darjiling dist.

### 253. *Arthrotidea rubrica* Chen & Jiang

1981. *Arthrotidea rubrica* Chen & Jiang, *Ins. Xizang*, **1**(10.):487

1987. *Arthrotidea rubrica* : Takizawa & Basu, *Kontyu, Japan*, **52**(2):272.

*Diagnostic characters* : Entirely bright reddish brown; elytra finely and obsoletely punctate; length 11.0-11.5 mm.

*Material examined* : Darjiling : Bot. Garden, 2000 m., 11.v. 1975 ( 1 ex.), Ghoombhanjang, 2000m., 25.v. 1975 ( 21. exs.), Lepchajagat, 2086 m., 4.vi. 1975 ( 9 exs.), Manibhanjang, 1900m., 19.v. 1975( 1 ex.), all J.K. Jonathan coll.; Tibetan Nayabusti, 1965 m., 7.v. 1971 ( 1 ex.), A.R. Bhaumik coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : China.

### Genus *Liroetis* Weise

1889. *Liroetis* Weise, *Horae Soc. Ent. Ross.* : **23** : 607.

1936. *Liroetis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 311.

Two species of this genus were recorded from India of which one from West Bengal.

### 254. *Liroetis flavipennis* Bryant

1954. *Liroetis flavipennis* Bryant, *Akriv. Zool.* (2) **6**(6) : 547.

*Diagnostic characters* : Head, prothorax and ventral side brown; elytra pale brown; tibiae and tarsi dark brown; elytron very finely punctate; length 12.0 mm.

*Material examined* : Darjiling : Gorabari, Sonada, 1952 m., 13.v. 1971. ( 1 ex.). A.R. Bhaumik coll.; Rangiroom, 2000 m., 25.v. 1974 ( 2 exs.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Burma and China.

### 255. *Liroetis nepalensis* Chujo

1966. *Liroetis nepalensis* Chujo, *Mem. Fac. Educ. Kagawa Univ.* (2), **148** : 15

1979. *Liroetis nepalensis* : Kimoto, *Ent. Basiliensia*, **4** : 472..

*Diagnostic characters* : General colour yellow-brown; antennae dark brown with segment 1 yellow-brown; mandible with the apical half black; elytra pale yellow-brown to yellowish; abdomen deep yellow-brown; tibiae dark brown, with the basal half dorsally black; tarsi blackish brown; claws red-brown; length 9.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan and Nepal.

*Remarks* : Kimoto (1979) recorded this species from Darjiling. dist.

#### 256. *Genus Mimastra* Baly

1865. *Mimastra* Baly, *Ann. Mag. nat. Hist.*, (3) 16 : 253.

1936. *Mimastra* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 524.

Eleven species of this genus were recorded so far from India of which five species were from West Bengal.

#### 256. *Mimastra arcuata* Baly

1865. *Mimastrarcuata* Baly, *Ann. Mag. nat. Hist.* (3) 16 : 253.

1936. *Mimastra arcuata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 527.

*Diagnostic characters* : General colour brightly yellow-brown to dark brown; antennae pitch-brown; vertex of head with a large pitch brown patch mixed with greenish blue; five black patches on pronotum; scutellum pitch brown; suture narrowly, margins of elytra all round broadly, a postmedian curved band on each elytron not touching the suture, yellow brown to dark brown; rest of the elytral surface blackish mixed with bluish green; breast and abdomen pitch brown with purplish reflexions; length 9.0 mm.

*Material examined* : Darjiling: 2000m., 4.vi. 1917 (3 exs.), Brunetti coll.; Pashok, 1500m., 26.v.-14.vi. 1916 (1 ex.), F.H. Gravely coll.; Mungphu, 1500m., iv-v. 1917 (2 exs.), S.W. Kemp coll.; Gorabri, Sonada, 1951 m., 13.v. 1971 (7 exs.), A.R. Bhaumik coll.; Rangiroom, 2000 m., 7.iv.-25.v. 1975 (3 exs.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Andaman Is.

#### 257. *Mimastra quadripartita* Baly

1879. *Mimastra quadripartita* Baly, *Cist. Ent.*, 2 : 448.

1936. *Mimastra quadripartita* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 528.

*Diagnostic characters* : General colour brown; antenna blackish, vertical area of head with a smoky patch; scutellum and two patches on each elytron brownish black; upper side of femora and tibiae blackish; length 7.0 mm.

*Material examined* : Darjiling : Tibetan Naya Busti, 1965 m., 7.v. 1971 ( 1 ex.), A.R. Bhaumik coll.; Rangiroom, 1900 m., 7.vi. 1975 ( 1 ex.), Lava 2150 m, 4.vi. 1974 ( 1 ex.), all J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Assam.

258. *Mimastra cyanura* (Hope)

1831. *Auchenia cyanura* Hope, *In Gray, Zool. Miscell.* : 29.

1891. *Mimastra cyanura* : Duvivier, *Comptes-Rendus Soc. ent. Belg.*, **35**:46.

1936. *Mimastra cyanura* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 529.

*Diagnostic characters* : General colour pale brown; basal segments of antennae pale brown, rest darker to blackish; posterior portion of head black with a three-branched patch on vertical area; pronotum light to dark brown with two lateral (one on each side) and one triangular-shaped black patches; each elytron with a large variable dark apical patch with blue-green reflections; length 9.5 mm.

*Material examined* : Calcutta : Behala, 21.vi. 1968 ( 2 exs.), R.K. Kacker coll.

*Distribution* : India : West Bengal (Calcutta), Himachal Pradesh, Jammu & Kashmir, Manipur, Punjab, Sikkim and Uttar Pradesh. Elsewhere : Burma, China and Nepal.

259. *Mimastra gracilis* Baly

1878. *Mimastra gracilis* Baly, *Cist. Ent.*, **2** : 378.

1936. *Mimastra gracilis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 532

*Diagnostic characters* : General colour pale brown to whitish; antennae blackish with segment 1 pale brown; fine black stripe on upper side of each femur and tibia; head and pronotum shining. elytra subnitid; length 7.5 mm.

*Material examined* : Darjiling : Pasupatinagar, 1650 m, 23.v. 1975(1 ex.). Ghoombhanjang. 2000m., 29.v. 1975 ( 1 ex.), Lepchajagat, 2068 m., 4.vi. 1975 ( 2 exs.), all J.K. Jonathan coll.; Darjiling. 2000m., 12.vi. 1914 ( 1 ex.), F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Assam, Jammu & Kashmir and Sikkim. Elsewhere: Bhutan, China, Nepal, Pakistan and Tibet.

260. *Mimastra nitida* Maulik

1936. *Mimastra nitida* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 540.

*Diagnostic characters* : General colour shining black; antenna pitch brown with the basal segment black; root of antennae bright brown; two light brown band on each elytron. one median and another preapical; tarsi pitch brown; antenna very long, more than one and a half times as long as body; length 4.75 mm.

*Material examined* : Darjiling : Mahanadi, 1280 m., 18.vi. 1914 ( 2 exs.), Pashok 1050 m., 26.v.-14.vi. 1916 ( 1 ex.), all F.H. Gravely coll.; Kurseong, 21.vi. 1910 ( 2 exs.), N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim.

#### Genus *Cneorane* Baly

1865. *Cneorane* Baly, *Ent. Monthly Mag.*, **2** : 97.

1936. *Cneorane* : Maulik *Fauna Brit. India, Col, Chry. (Gal.)* : 335.

Twelve species of this genus were recorded so far from India of which six were from West Bengal.

#### 261. *Cneorane rubicollis* (Hope)

1831. *Galleruca rubicollis* Hope, *In Gray, Zool. Miscell* : 29.

1936. *Cneorane rubicollis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 338.

*Diagnostic characters* : Head, prothorax, scutellum, breast and legs partly, bright brown; scutellum sometimes dark brown with metallic sheen; antennae, tibiae, apices of femora and tarsi, blackish; three basal segments and two apical segments of antennae and the under side for the rest light brown; three apical segments in male modified; length 9.0 mm.

*Material examined* : Darjiling: Kalimpong, 24.iv.-10.v. 1915 ( 1 ex.) F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh, Assam, Bihar and Sikkim. Elsewhere : Nepal.

#### 262. *Cneorane rugulipennis* Baly

1886. *Cneorane rugulipennis* Baly, *Trans. ent. Soc. Lond.* : 27.

1936. *Cneorane rugulipennis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 339.

*Diagnostic characters* : Elytra bronzy ; head, pronotum, pro-and mesothorax, front and middle femora deep rich brown; antennae, front and middle tibiae and tarsi, blackish; metathorax, abdominal sternites and hind legs black mixed with slight broze; length 5.5-9.0 mm.

*Material examined* : Darjiling : 2000 m., 1.iv. 1917 ( 1 ex.), Brunetti coll.; Sureil, Mongphu, 1500m., iv.-v. 1917 ( 1 ex./), S.W. Kemp coll.

*Distribution* : India: West Bengal (Darjiling), Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Meghalaya, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, Burma, Nepal, Pakistan and Taiwan.

#### 263. *Cneorane varipes* Jacoby

1896. *Cneorane varipes* Jacoby, *Ann. Soc. ent. Belg.*, **40** : 299.

1936. *Cneorane varipes* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 342.

*Diagnostic characters* : Head, prothorax, front-and middle legs (except tibiae and tarsi), pro-and meso-thorax, deep brown; antennae, front and middle tibiae and tarsi blackish; metasternum, abdominal sternites and hind legs black mixed with metallic blue; elytra and epipleura metallic blue; scutellum blackish; undersides of three or four basal segments of antennae brown, upper side blackish; length 6.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan and Nepal.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

#### 264. *Cneorane braeti* Duvivier

1892. *Cneorane braeti* Duvivier, *Ann. Soc. ent. Belg.*, **36** : 435.

1936. *Cneorane braeti* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 345.

*Diagnostic characters* : Elytra purple-violet; head, prothorax, pro-and meso-sternum, yellow-brown; antennae black except three basal segments which are brown; legs yellow-brown except tarsi which are blackish; epipleuron blue; ventral side deep blue with slight violet tint; length 3.5-4.25 mm.

*Material examined* : Darjiling : Pashok, 26.v.-14.vi. 1916 ( 1 ex.), F.H. Gravely coll.; Kalimpong ( 1 ex.), Sutherland coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Burma.

#### 265. *Cneorane orientalis* Jacoby

1892. *Cneorane orientalis* : Jacoby, *Ann. Mus. Civ. Genova*, **32** : 946

1936. *Cneorane orientalis* : Jacoby, *Fauna Brit. India, Col., Chry. (Gal.)* : 346

*Diagnostic characters* : Head, prothorax, scutellum, ventral side and legs, red-brown; epipleuron dark brown, almost blackish; antennae black except three basal and two epical segments, segment 1 entirely and underside of segment 2 and 3, brown, upper side of apex of segment 1, segment 2 partly and segment 3 almost entirely, blackish, segment 10 and 11 brown; elytra blue; length 9.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Elsewhere : Burma and Nepal.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

#### 266. *Cneorane tibialis* Chujo

1966. *Cneorane tibialis* Chujo, *Mem. Fac. Educ. Kagawa Univ. (2)*, **148** : 10

1985. *Cneorane tibialis* : Takizawa, *Ent. Rev. Japan*, **40**(2) : 109.

*Diagnostic characters:* Head, prothorax, pro- and mesosternum, femora, basal portion including ventral side of tibiae, yellowish brown; apical portion including dorsal side of tibiae and tarsi, black; antennae black except two or three basal segments which are partly yellowish; scutellum and abdomen black; elytra including epipleura blue; length 5.5 mm.

*Material examined :* Darjiling : Jhepi, 3.v. 1976 ( 1 ex.), C.R. Basu coll.; Gorabari, Sonada, 1952 m., 13.v. 1971 (8 exs.), Tibetan Naya busti, 1965 m., 7.v. 1971 ( 1 ex.), Ghoombhanjan Hima falls, 2180 m., 27.v. 1971 ( 1 ex.), all A.R. Bhaumik coll.; Meghma, 3000 m., 15.v. 1975 ( 2 exs.), Lepchajagat, 2086 m., 4.vi. 1975 ( 1 ex.), Darjiling Chawk, 2000 m., 13.v. 1974 ( 1 ex.), Rangiroom, 2000 m., 25.v. 1974 ( 4 exs.), Bot. Garden, 2000 m., 11.v. 1975 ( 1 ex.), all J.K. Jonathan coll.

*Distribution :* India : West Bengal (Darjiling). Elsewhere : Nepal.

#### Genus *Miltina* Chapuis

1875. *Miltina* Chapuis, *Gen. Col.* **11** : 172.

1936. *Miltina* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 313.

This is a monotypic genus.

#### 267. *Miltina dilatata* Chapuis

1875. *Miltina dilatata* Chapuis, *Gen. Col.*, **11** : 173.

1936. *Miltina dilatata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 316

*Diagnostic characters :* General colour shining brown; dorsal side varies from pale brown to red-brown; legs sometimes black, but sometimes tibiae and tarsi only are black; sometimes abdominal sternites darker; body three-fifth as broad as long; hind angle of prothorax rounded; length 7.5-11.5 mm.

*Material examined :* Darjiling : Mungphu, 10.iv. 1917 ( 1 ex.), S.W. Kemp coll.; Lebung, 1500 m., vi. 1909 ( 1 ex.), H.M.L. Coll.; Jalpaiguri : Buxa Duars, vi. 1907 ( 6 exs.).

*Distribution :* India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh, Assam, Manipur, Meghalaya and Sikkim. Elsewhere : Bhutan, Burma, China, Indo-China, Malaya and Sumatra.

#### Genus *Morphosphaera* Baly

1861. *Morphosphaera* Baly, *J. Ent.*, **1**(4) : 298

1936. *Morphosphaera* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 316.

Three species were recorded so far from India of which a single species was from West Bengal. This paper records another two species from West Bengal.

268. *Morphosphaera japonica* (Hornstedt)

1788. *Chrysomela japonica* Hornstedt, *Schrift. Ges. Naturf. Freunde Bert.*, **8** : 1.  
 1924. *Morphosphaera japonica* : Weise, *Col. Cat.*, **78** : 129.  
 1936. *Morphosphaera japonica* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 318.

*Diagnostic characters* : General colour black; pronotum yellow-brown to red-brown with four round black spots arranged almost transversely, sometimes an additional spot near basal margin; elytron and scutellum blue, sometimes mixed with violet or purple; length 7.0-9.0 mm.

*Material examined* : Darjiling : Sureil, Mungphu. 1500 m.. iv-v. 1917 ( 2 exs.), S.W. Kemp coll.

*Distribution* : India : West Bengal (Darjiling), Assam. Elsewhere : China and Japan.

*Remarks* : First record from West Bengal.

269. *Morphosphaera montivaga* Maulik

1936. *Morphosphaera montivaga* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 319.

*Diagnostic characters* : Elytra and scutellum blackish with a bluish-violet sheen: pronotum lightbrown with three black patches, one median and two lateral, the median patch very large and longitudinally placed from front margin to almost basal margin, lateral patches rounded and large; head and antennae black; ventral side and legs blackish; abdominal sternites blackish with the edges light brown; length 9.5-10.5 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Manipur.

*Remarks* : Maulik (1936) recorded this species from Darjiling dist.

270. *Morphosphaera prava* Maulik

1936. *Morphosphaera prava* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 320.

*Diagnostic characters* : Elytra brown with a metallic bluish greenish violet sheen; scutellum red-brown; pronotum brown to dark red-brown with five round black spots, four in a transverse line and one in the middle of basal area, sometimes this basal spot may be obsolescent; head red-brown, antennae black except two or three basal segments which are red-brown; ventral side and femora red-brown; tibiae and tarsi black; length 5.5-7.0 mm.

*Material examined* : Darjiling : Pashok. 1200 m.. 26.v.-14.vi. 1916 (1 ex.). F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Manipur. Elsewhere : Burma.

Remarks : First record from West Bengal.

Genus *Calomicrus* Stephens

1834. *Calomicrus* Stephens, *Brit. Ent. Mandb.*, **4** : 293.  
 1963. *Calomicrus* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1 B** : 568.

This genus was so far recorded from Nepal, Bhutan, Burma, China, Japan etc. but not yet been recorded from India. So in the present paper the genus is recorded here for the first time from India (West Bengal).

271. *Calomicrus flavovittis* Motschulsky

1859. *Calomicrus flavovittis* Motschulsky, *Etudes Ent.*, **7** : 101  
 1889. *Luperus flavovittis* : Jacoby, *Ann. Mus. Civ. Genova*, **27** : 213.  
 1936. *Calomicrus flavovittis* : Maulik, *Fauna Brit. India, Col., Chry. ( Gal. )* : 422.

*Diagnostic characters* : General colour shining brown; vertex of head partly black; elytron with the basal border, suture and a longitudinal stripe along the middle from humerus towards apex, black; sometimes the median longitudinal stripe and the sutural stripe may be very reduced or may be very broadened; length 3.5 mm.

*Material examined* : Calcutta ( 22 exs.), Mus. Collr. (No other data); Bankura : Radhanagar. 31 viii. 1986 (1 ex.), C. R. Basu coll.

*Distribution* : India : West Bengal ( Bankura and Calcutta). Elsewhere : Burma.

*Remarks* : First record from West Bengal and also from India.

Genus *Stenoluperus* Ogloblin

1936. *Stenoluperus* Ogloblin, *Fauna USSR*, **26**, 1 : 247, 408, 419  
 1963. *Stenoluperus* : Gressitt & Kimoto, *Pac. Ins. Mongor.*, **1 B** : 579.

Four species of this genus were recorded sofar from India and also from West Bengal.

272. *Stenoluperus bhutanensis* Kimoto

1977. *Stenoluperus bhutanensis* Kimoto, *Ent. Basiliensia*, **2** : 366.  
 1983. *Stenoluperus bhutanensis* : Takizawa, *Ent. Rev. Japan*, **38** (1) : 72.

*Diagnostic characters* : General colour bluish black, sometimes with violaceous luster; antenna dark brown with three basal segments reddish brown; legs reddish brown with femora, in some cases tibia also, dark reddish brown; length 3.0-3.8 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan.

*Remarks* : Takizawa (1983) recorded this species from Darjiling dist.

273. *Stenoluperus darjeelingensis* Takizawa

1985. *Stenoluperus darjeelingensis* Takizawa, *Ent Rev. Japan*, **40**(2) : 108.

*Diagnostic characters* : General colour bluish black; head and thorax with slight greenish tinge; scutellum and abdomen black; three basal segments of antennae light brownish; labrum with metallic tinge; mouth parts, legs (except femora) dark brown; length 3.5-4.7 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Takizawa (1985) described this species from Darjiling dist.

274. *Stenoluperus punctatus* Takizawa

1988. *Stenoluperus punctatus* Takizawa, *Kontyu, Tokyo* **56**(3) : 537, 542

*Diagnostic characters* : General colour bluish with slight metallic luster; elytra dark bluish with greenish tinge; scutellum blackish; antenna as long as or longer than the body with pale yellowish brown; mouth parts and epipleuron with brownish tinge; legs pale yellowish brown; length 2.4-3.2 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Nepal.

*Remarks* : Takizawa (1988) described this species from Darjiling dist.

275. *Stenoluperus smetanai* Takizawa

1988. *Stenoluperus smetanai* Takizawa, *Kontyu, Tokyo*, **56**(3) : 357, 544

*Diagnostic characters* : General colour bluish black; ventral side and legs black with slight metallic luster; antenna short robust and dark brown with basal segments reddish brown; tarsi slightly brownish; length 3.0-4.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Nepal

*Remarks* : Takizawa (1988) described this species from Darjiling dist.

Genus *Atrachya* Dejean

1837. *Atrachya* Dejean, *Cat Col. ed.* **2** : 377.  
 1963. *Atrachya* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 587.

Two species of this genus were recorded from India of which one was from West Bengal.

276. *Atrachya kusamai* Takizawa

1985. *Atrachya kusamai* Takizawa, *Ent. Rev. Japan*, **40**(2) : 109.

*Diagnostic characters* : General colour yellowish brown; elytron black with a broad median yellowish brown band not extending to epipleuron; mouth parts dark brown; meso- and metathorax and abdomen black; tibiae and tarsi of middle and hind legs dark brown; length 3.2-4.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Nepal.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

Genus *Medythia* Jacoby

1887. *Medythia* Jacoby, *Notes Leyden Mus.*, **9** : 242.  
 1981. *Medythia* : Kimoto, *Ent. Rev. Japan*, **35** (1&2) : 7.

Two species of this genus were recorded from India of which only one was from West Bengal.

277. *Medythia nigrobilineata* (Motschulsky)

1860. *Cnecodes nigrobilineata* Motschulsky, *Etudes Ent.*, **9**:26.  
 1936. *Monolepta nigrobilineata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 396.  
 1981. *Medythia nigrobilineata* : Kimoto, *Ent. Rev. Japan*, **35** (1&2) : 9.

*Diagnostic characters* : General colour brown; head, a longitudinal patch along middle, and a short patch along lateral margin on pronotum, black; breast, abdominal segments, and femora and tibiae partly, black; antennae blackish with segments 9-10 almost white; a wavy and broad black stripe along the middle of each elytron from basal margin to apex; length 3.75 mm.

*Material examined* : Calcutta ( 1 ex.); Nadia : Mohanpur, 8.viii. 1984 ( 2 exs.), S. Chakraborty coll.; Haora : Bot. Garden, 26.xi. 1957 ( 1 ex.), A.P. Kapur coll.; Hugli : Bhadreswar, 5.xi. 1964 ( 3 exs.), A.N. T. Joseph coll.; 24 Parganas : Barrackpore, 14.xi. 1961 ( 1 ex.), K.V.L. Narayan coll.; Canning, 18.x. 1965 ( 4 exs.), A.N.T. Joseph coll., Jalpaiguri : Rajabhatkawa, 20.viii. 1986 ( 1 ex.), T.K. Pal. coll.

*Distribution* : India : West Bengal (Calcutta, Hugli, Haora, Jalpaiguri and 24 Parganas), Bihar, Maharashtra, Orissa, Tamil Nadu and Uttar Pradesh. Elsewhere : China, Japan, Korea, USSR (Siberia).

Genus *Monolepta* Erichson

1843. *Monolepta* Erichson, *Archiv. f. Naturgesch.* **9** (1) : 265.  
 1936. *Monolepta* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 373.

Fortyfive species of this genus were recorded so far from India of which nine species were from West Bengal. The present paper added another eight species from West Bengal of which four are new to science and four are new records from West Bengal including one from India also.

278. *Monolepta conformis* Weise

- 1922 *Monolepta conformis* Weise, *Tijdschr. Ent.*, **65** : 105.  
 1936. *Monolepta conformis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 391.

*Diagnostic characters* : General colour brown; head black; apical segments of antennae smoky; length 2.8-3.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Assam. Elsewhere : Nepal.

*Remarks* : Maulik (1936) recorded this species from Darjiling dist.

279. *Monolepta madrasensis* Wilcox

1915. *Monolepta lineata* Weise, *Ergebnisse 2 Deut. Zentr.- Afr. Exp., Zool.*, **1** : 177 (nec *lineata* Karsch, 1882).  
 1936. *Monolepta lineata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 398.  
 1973. *Monolepta madrasensis* : Wilcox, *Col. Cat. suppl.* : **78** (3) : 562. (New name for *lineata* Weise)

*Diagnostic characters* : General colour dirty brown; antennae black with the three basal segments dark brown; mouth parts blackish; sides of prothorax black; elytral suture including scutellum, lateral margins, and a broad longitudinal stripe along middle of disc, black; length 3.0 mm.

*Material examined* : Calcutta : - v. 1927 (1 ex.), H.S. Pruthi coll.; 1935 (1 ex.); Eden Garden. 10.viii. 1957 (1 ex.), 29.vi. 1960 (1 ex.), all A.P. Kapur coll.; Haora : Bot. Garden. 20.viii. 1957 (3 exs.), S.P. Sukulacoll., 10.x. 1961 (1 ex.), K.R. Rao coll., 4.ix. 1957 (4 exs.), S. Ali coll.; Bankura : Bishnupur. 27.viii. 1986 (1 ex.), Lokpur, 6.ix. 1986 (1 ex.), Ganga Jacheti, 8.ix. 1986 (1 ex.), all P. Mukhopadhyay coll.; Birbhum : Kashipur, 28.i. 1986 (6 exs.), Birchandrapur, 24.i. 1986 (1 ex.), all S. B. Roy coll.

*Distribution* : India : West Bengal (Bankura, Birbhum, Calcutta and Haora). Tamil Nadu. Elsewhere : Bhutan, Nepal and Thailand.

*Remarks* : First record from West Bengal.

280. *Monolepta birmanensis* Jacoby

1892. *Monolepta birmanensis* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 982.

1936. *Monolepta birmanensis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 405.

*Diagnostic characters* : Head, antennae, prothorax, a median and an apical band on elytra, brown; elytra with a basal and a postmedian band black; underside (except prothorax) black; front legs entirely, middle and hind femora, light brown; middle and hind tibiae and tarsi blackish; sometimes middle legs entirely brown; length 3.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Burma.

*Remarks* : Maulik (1936) reported this species from Darjiling dist.

281. *Monolepta orientalis* Jacoby

1889. *Monolepta orientalis* Jacoby, *Ann. Mus. Civ. Genova*, **27** : 227.

1936. *Monolepta orientalis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 407.

*Diagnostic characters* : General colour brown; elytral pattern variable, a complete elytral pattern having successive transverse bands of black, red, black, yellowish brown, black and red; sometimes head dark brown or black; sometimes most of the middle and hind femora black with hind tibiae and tarsi blackish; length 4.5 mm.

*Material examined* : 24 Parganas : Palta, 15.v. 1956 ( 1 ex.)

*Distribution* : India : West Bengal (24 Parganas), Assam, Kerala, Maharashtra and Tamil Nadu.  
*Elsewhere* : Burma, Nepal and Sri Lanka.

282. *Monolepta bifasciata* (Hornstedt)

1788. *Chrysomela bifasciata* Hornstedt, *Schriften Ges. Naturf. Freunde*,

1884. *Monolepta bifasciata* : Jacoby, *Notes Leyden Mus.*, **6** : 53.

1936. *Monolepta bifasciata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 408.

*Diagnostic characters* : General colour shining pale yellow; each elytron with two dark red patch, one obliquely placed behind the middle without touch the margin. another one at basal area covering basal, laterl and sutural margins; sometimes the pre apical patch reached the apical margin, and sometimes reduced to a spot; length 3.5-4.0 mm.

*Material examined* : 24 Parganas : Sonarpur, 26.xi. 1965 ( 1 ex.). R.N. Tiwary coll.; Birbhum : Kashipur, 28.i. 1986 ( 1 ex.). S.B. Roy coll.

*Distribution* : India : West Bengal ( 24 Parganas and Birbhum), Tamil Nadu. Elsewhere : Singapore, Sri Lanka and Sumatra.

*Remarks* : First record from West Bengal.

283. *Monolepta signata* (Olivier)

1808. *Galeruca signata* Olivier, *Entomologie*, 6 : 665  
 1889. *Monolepta signata* : Jacoby, *Ann. Mus. Civ. Genova*, 27 : 229.  
 1936. *Monolepta signata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 410.

*Diagnostic characters* : Head, pronotum legs and abdominal sternites, reddish brown; antennae black with three basal segments brown; breast black; elytron black with two yellowish markings, before and behind middle, both the markings free from basal, lateral, apical and sutural margins; length 3.00-3.8 mm.

*Material examined* : Darjiling : 2000 m, 11-12.v. 1975 ( 1 ex.), Lepchajagat, 2086 m, 1-4.vi. 1975 ( 1 ex.), Kalimpong, 1400m, 3.vi. 1974 ( 4exs.), all J.K. Jonathan coll.; 1350 m, vi. 1934 ( 3 exs.), S.L. Hora coll., 29.vi. 1979 ( 3 exs.), M. Prasad coll., 1.ii. 1974 ( 1 ex.), Srivastava coll.; Siliguri, 21.iii. 1945 ( 5 exs.), H.A. Hafiz coll., 6.vi. 1930. ( 3 exs.), S.L. Hora coll., 13.i. 1971 ( 8 exs.), 16.i. 1971 ( 5 exs.), all J.M. Julka coll.; Rakyong, 28. v. 1930 ( 4 exs.), S.L. Hora coll.; Pedong, vi. 1940 ( 2 exs.), H.A. Hafiz coll., 30.v. 1980( 4 exs.), S.L. Hora coll.; Rangpo, 8.iv. 1973(2exs.), 450 m., 1.vi. 1974 ( 1 ex.), J.M. Julka coll.; Reyang, 1275 m., 30.iii. 1973 ( 1 ex.), 1.iv. 1973 ( 2 exs.), Rambi, 2.iv. 1973 ( 3 exs.), Karmata vill. nr. Goke, 19.iv. 1973 ( 2 exs.), all H.S. Sharma coll.; Neora valley, 4.xii. 1982 ( 1 ex.). R.K. Kacker coll.; Sukna, 7.i. 1976 ( 3 exs.), Singla Bazar, 400 m., 5.i. 1976 ( 2 exs.), Mahanadi, 1280 m.. 9.i. 1976 ( 2 exs.), all G.K. Srivastava coll.; Rangtong, 13.iv. 1978 ( 1 ex.), Tung, 25.iii. 1978 ( 3 exs.), Jhepi, 31.iii. 1978 ( 5 exs.), all C.R. Basu coll.;Lava, 2150 m., 4.vi. 1974 ( 1 ex.), Bijanbari, 900m., 20.v. 1974 ( 1 ex.), all J.K. Jonathan coll.; Nagrakola, 29.xii. 1973 ( 1 ex.) Samsing, 25.xii.1973 ( 8 exs.), Garubathan, 19. x ii.1973 ( 1 ex), Nuzcok , 305m., 7.i. 1974 ( 1 ex.) G.K. Srivastava coll.;Raidhap, Mirik, 21.ix. 1974 ( 1 ex.), H.K. Bhowmik coll.; Darjiling, 2100m., 23.vii. 1979 ( 2 exs.), M. Prasad coll., Calcutta : ( 2 esx.), 14.iv. 1950 ( 1 ex.), M.B. Kripalani coll., 6.iii. 1959 ( 1 ex.), 1930 ( 1 ex.); Eden Garden, 27.iv. 1964 ( 1 ex.). R.K. Kacker coll.; Tollygunge, 21.iii. 1961 ( 3 exs.), A.P. Kapur coll.; 24 Parganas : Titagarh, 15.v. 1962( 1 ex.), S.N. P. Coll.; Palta, 15.v.1936 ( 1 ex.); Sodepur, 23.iv. 1963(1 ex.), K.D. Chatterjee coll.; Dum Dum. 24.xi. 1965 ( 1 ex.), P. Parui, 19.ii.1950 ( 1 ex.), A.R. Bhaumik coll.; Datta Pukur, 6.xii. 1966 ( 1 ex.), A.N.T. Joseph coll., 8.ii. 1967 ( 3 exs.), K.R. Rao coll.; Koch Bihar : Baxirhat, 13.xii. 1986(11 exs.), Belabhai. 12.xii. 1986 ( 1 ex.), Mathabhanga, 11 .xii. 1986 ( 31 exs.), Jorai, 15.xii. 1986 ( 1 ex.), all R.S. Barman coll.; Jalpiguri : Panihati, 5.xii. 1986 ( 2 exs.), Fansidewa, 6.xii. 1986 ( 3 exs.), Joyga, 7. xii. 1986 ( 8 exs.), Teesta River side, 8.xii. 1986 ( 6 exs.), 4.xii. 1986 ( 4 exs.), Raniaguri, 20.xii. 1986 ( 1 ex.), Khairbari, 9.xii. 1986 ( 1 ex.), Sonapur, 21.xii. 1986 ( 1 ex.), all R.S. Barman coll.; Rajabhatkhawa, 10-13.i. 1987 (8exs.), Shaktigarh, N.J.P., 21.i. 1987 ( 5 exs.), Baribhasa, N.J.P., 20.i. 1987 ( 1 ex.), Subhasganj, Alipur Duar. 14.i. 1987 ( 2 exs.), Bhaktigarh, N.J.P., 22.i. 1987 ( 1 ex.), Damanpur. N.J.P., 22.i. 1987 ( 1 ex.), all V.D. Srivastava coll.; Birbhum : Mambazar, Forest Range, 27.i. 1986 (2 exs.), Bank of Ajoy River, Illam Bazar. 27.i. 1986 ( 28 exs.), Kashipur, 28.i.1986 ( 61 exs.), Sainthia, 24.i. 1986 ( 1 ex.), Lavpur, 24.i. 1986 (13 exs.), Mahammad Bazar, 24.i. 1986 (9 exs.), Khyrapuri, nr. Tilpara Barrage. 24.i. 1986 ( 6 exs.), Bagmara, 22.i. 1986 ( 17 exs.). Champti Bagan, Nalhati, 21.i. 1986 (22 exs.), Birchandrapur. 24.i. 1986 ( 2 exs.),

Nalhati, 21.i. 1986 ( 5 exs.), Eglegram Forest, Gopalpur, 24.i. 1986 ( 1 ex.), all S.B. Roy coll.; Murshidabad: Berhampur, Phulbani, 11.ii. 1986 ( 3 exs.), Raichandpur, Jiyaganj 6.ii. 1986 ( 2 exs.), all I.J. Gupta coll.; Beldanga, 2.iii. 1986 ( 3 exs.), Kadampur, Jiyaganj, 1.iii. 1986 ( 111 exs.), Bama Bildanje, 2. iii. 1986 ( 19 exs. ), Bhakri, Berhampore, 28. ii. 1986 ( 42 exs.), Jethkhamar, Lalgola, 4.iii. 1986 ( 6 exs.), Sericulture Campus, Berhampore, 26.ii. 1986 ( 2 exs.), Gorabazar, Berhampore, 25.ii. 1986 ( 2 exs.), all S.K. Gupta coll.; Azamganj, 5.ii. 1986 ( 1 ex.), I.J. Gupta coll.; Medinipur South beach of Digha, 23.xii. 1985 ( 1 ex.), A.K. Hazra coll.; Hugli : Bally, 19.iv. 1966 ( 1 ex.), P. Parui coll., 29.i. 1966 ( 2 exs.), K.S. Pradhan coll.; Haora : Bot. Garden, 31.viii. 1965 ( 2 exs.), K.S. Pradhan coll.; Belur, 14.i. 1966 ( 2 exs.), T.R. Mitra coll.; Bankura : Harapurbat, 29.viii. 1986 ( 1 ex.), P. Mukhopadhyay coll.

*Distribution* : India : West Bengal (Bankura, Birbhum, Calcutta, Koch Bihar, Darjiling, Haora, Hugli, Jalpaiguri, Medinipur, Murshidabad and 24-Parganas), Arunachal Pradesh, Assam, Gujarat, Haryana, Kerala, Karnataka, Maharashtra, Meghalaya, Orissa, Sikkim, Tamil Nadu, Tripura and Uttar Pradesh. Elsewhere : Bangladesh, Burma, Bhutan, China, Hongkong, Indo-China, Nepal, Pakistan, Sri Lanka, Tibet, Thailand and Vietnam.

#### 284. *Monolepta nigripes* (Olivier)

1808. *Galeruca nigripes* Olivier, *Entomologie*, 6 : 648.

1936. *Monolepta nigripes* : Maulik, *Fauna Brit. India, Col., Chry (Gal.)* : 414.

*Diagnostic characters* : General colour yellow brown to dark chocolate-brown; sometimes antenna black with three basal segments brown; sometimes tibiae and tarsi black; length 8.0-10.5 mm.

*Material examined* : Jalpaiguri : Buxa Duars, v. 1907 ( 1 ex.), D. Nowrajee coll.; Darjiling : Reyang, 28.iii. 1973 ( 1 ex.), H.S. Sharma coll.; Haora : Bot. Garden, 10.xi. 1961 ( 1 ex.), K.R. Rao coll.

*Distribution* : India : West Bengal (Darjiling, Haora and Jalpaiguri). Elsewhere : Bangladesh, Borneo, Burma, Phillippines, Malaya and Sri Lanka.

*Remarks* : First record from West Bengal.

#### 285. *Monolepta braeti* (Divivier)

1892. *Luperodes braeti* Duvivier, *Ann. Soc. ent. Belg.*, 36 : 437.

1936. *Monolepta braeti* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 416.

*Diagnostic characters* : Dorsal side bright dark brown; front part of head, underside of prothorax and legs lighter brown; breast and abdominal sternites black; In male the last abdominal segment with a large median depression; length 6.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling).

*Remarks* : Maulik (1936) described this species from Darjiling dist.

286. *Monolepta erythrocephala* (Baly)

1878. *Luperodes erythrocephala* Baly, *Cist. Ent.*, 2 : 380.

1936. *Monolepta erythrocephala* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 430.

*Diagnostic characters* : Almost entirely shining black with head red to reddish brown; sometimes antennae and tibiae blackish; legs dark red brown to black; length 4.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Jammu and Kashmir, Punjab, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, China and Nepal.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

287. *Monolepta limbata* (Olivier)

1808. *Altica limbata* Olivier, *Entomologie*, 6 : 691.

1936. *Monolepta limbata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 444.

*Diagnostic characters* : General colour pale brown; breast, elytra with allround border including epipleuron, humerus, scutellum, and a short sutural stripe starting from scutellum, black; length 4.25-4.75 mm.

*Material examined* : 24 Parganas : Nilgange, 13.xi. 1957 ( 1 ex.), A.P. Kapur coll.; Budge Budge, 24.i. 1967 ( 1 ex.), K.R. Rao coll.; Dighara, 15.vi. 1965 ( 1 ex.), B.C. Saha coll.; Hugli : Chinchura, 11.vi. 1965 ( 1 ex.), M.M. Ghosh coll.; Murshidabad : Kudampur, Jiaganj, 1.iii. 1986 ( 1 ex.), S.K. Mitra coll.; Moregram, Phulbari, 9.ii. 1986 ( 1 ex.), I.J. Gupta col.; Haora : Nantia, 30.i. 1986 ( 1 ex.), B. Datta coll.; Bankura : Sonamukhi, 30.x. 1985 ( 1 ex.), M. Datta coll.

*Distribution* : India : West Bengal (Bankura, Haora, Hugli, Murshidabad and 24 Parganas), Karnataka and Tamil Nadu.

288. *Monolepta leechi* Jacoby

1890. *Monolepta leechi* Jacoby, *Entomologist*, 23 : 216.

1982. *Monolepta leechi* : Kimoto, *Ent. Rev. Japan*, 37 (1) : 19.

*Diagnostic characters* : Elytron black with a yellowish or reddish band, which is broader than long and always touches the lateral margins but sometimes free from sutural margins; head yellowish to reddish; abdomen entirely black; fore femur entirely yellowish brown; length 3.0-3.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Meghalaya and Sikkim. Elsewhere : China, Nepal and Taiwan.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

289. *Monolepta himalayaensis* Kimoto

1970. *Monolepta himalayaensis* Kimoto, *Khumbu Himal*, B. 3 : 419.

*Diagnostic characters* : General colour yellowish brown; antennae blackish with two or three basal segments lighter; scutellum blackish; elytra with humeral, median, lateral and apical markings together with entire basal and lateral margins, elytral epipleurae and basal portion of suture, blackish; sometimes lateral margins of pronotum blackish; length 4.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Uttar Pradesh. Elsewhere : Nepal.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

290. *Monolepta lunata* Gressitt & Kimoto

1963. *Monolepta lunata* Gressitt & Kimoto. *Pac. Ins. Monogr.*, **1B** : 620.

*Diagnostic characters* : General colour reddish; elytron with a large pale yellowish rounded oblong spot behind the middle; antenna black with the segment 1 reddish; elytron reddish basally and somewhat blackish apically and slight patchy on parts of external margin and humerus in Chinese examples as described by Gressitt & Kimoto, but in Indian examples elytron uniformly reddish, and tibiae and tarsi completely dirty black; hind tarsal segment 1 about 1/4 longer than remaining segments combined, segment 2 slightly longer than segment 3; length 5.00 mm (Type : 6.6 mm).

*Material examined* : Koch Bihar : Mathabanga, 11.xii. 1986 ( 1 ex.), Jorai, 15.xii. 1986 ( 1 ex.), Baxirhat, 13.xii. 1986 ( 1 ex.), all R.S. Barman coll.; Jalpaiguri : Binaguri, 20.xii. 1986 ( 1 ex.). R.S. Barman coll.

*Distribution* : India : West Bengal (Koch Bihar and Jalpaiguri). Elsewhere : China (Hainan).

*Remarks* : This species was recorded earlier from China. now it is being recorded here for the first time from India (West Bengal.)

291. *Monolepta bengali* n. sp.

Small, somewhat broadened behind, general colour lightbrown to red-brown. antenna blackish except one or two basal segments, sometimes tarsi and extreme apex of tibia black.

*Head* (Fig. 5) with vertex smooth and impunctate; frontal tubercles well developed, transverse; transverse impressed line behind them well impressed, straight and extending obliquely to the eye margin. Antenna slender extending behind the middle of elytra, segment 2 one and a half times as long as broad and almost as long as segment 3, segment 4 longest and twice as long as segment 3, segment 5 slightly smaller than segment 4, segments 6-11 almost equal in length and each of them shorter than segment 5. *Prothorax* (Fig. 1) broader than long, sides slightly rounded before middle, posterior angles obtuse, basal margin widely rounded, surface very distinctly, finely and closely punctate, and with a shallow transverse depression on each side of the middle. *Scutellum* sharply triangular, smooth and impunctate. *Elytra* broader at base than prothorax, surface covered with close and strong punctures. Hind tarsus very long, slightly smaller than hind tibia. *Aedagus* (Fig.9) as figured.

Length 3.2-3.5 mm. breadth 1.5-1.7 mm.

*Holotype* (Male), INDIA : 24 Parganas : Kamalgachi, 10.v. 1962, S. Lal and S.N. Pal coll.; paratype (Female), other details as in holotype.

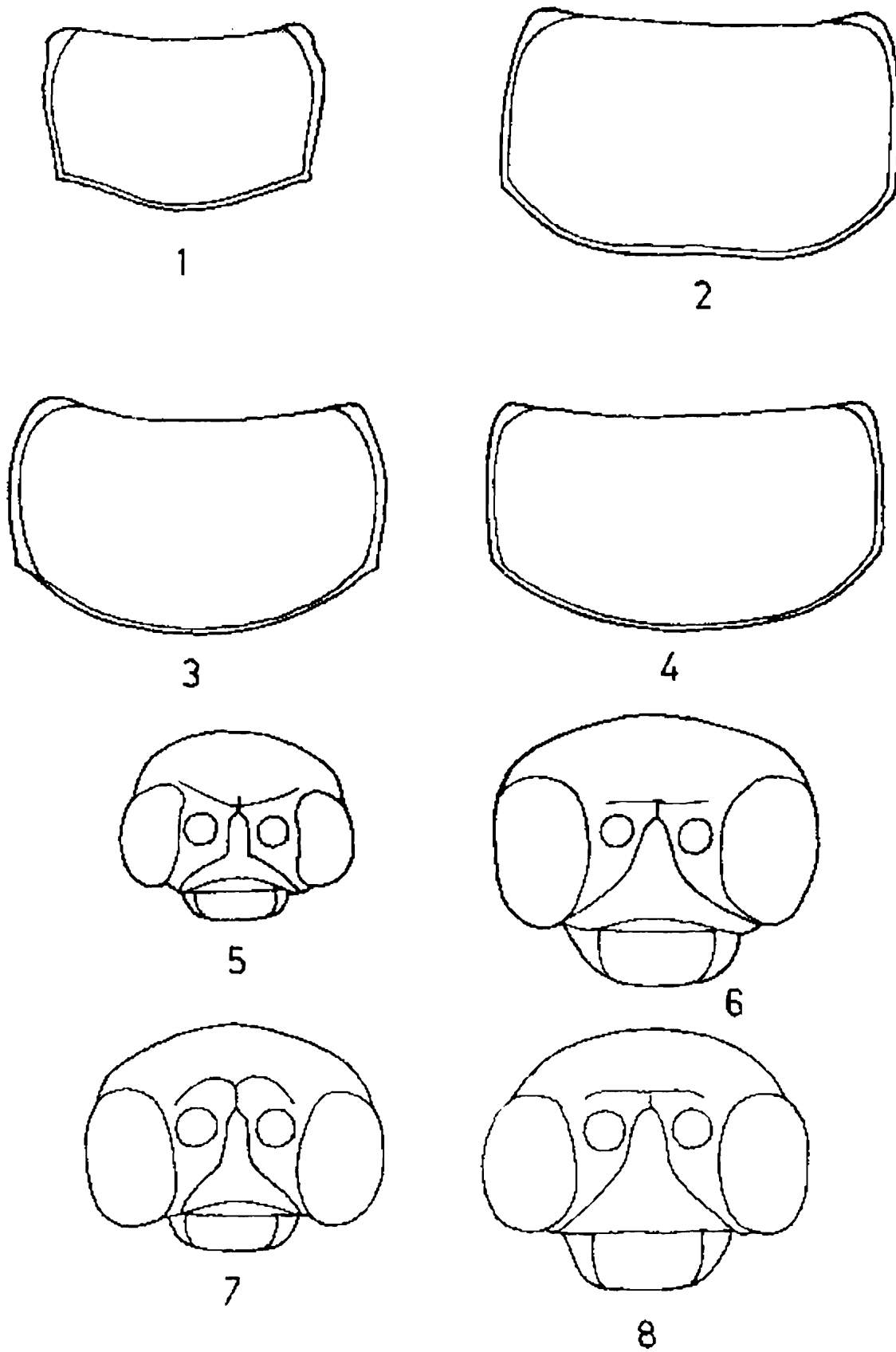
This species is near *M. severini* (Jacoby) but can be easily separated in having shorter antenna and each of the apical segments (6-11) distinctly shorter than segment 4 as against almost equal in length in *severini*; basal margin of prothorax distinctly rounded and its posterior angles are obtuse as against the almost straight basal margin and acute posterior angles in *severini*; pronotum distinctly and strongly punctate as against the indistinct punctures in *severini*. This species is also very near *M. pallidula* (Baly) but can be distinguished in having the brown tibia as against the black colour in *pallidula* and the pronotum is less transverse, 1.40 times wider than long as against 1.66 times wider than long in *pallidula*; size smaller 3.20-3.50 mm as against 3.6-5.5 mm in *pallidula*.

#### 292. *Monolepta pahari* n. sp.

Body oblong, slightly broadened behind. General colour black, antenna yellowish brown to dark brown at basal segments and gradually darker towards apical segments; head brown to yellowish with labrum, mandibles and palpi blackish; prothorax, a median transverse band on elytra, all the femora and tibia of front and middle legs and the femora of hind legs, yellowish, (sometimes tibia of middle legs black).

*Head* (Fig. 6) smooth and impunctate, frontal tubercles small and very weakly developed. Antenna nearly two thirds length of the body, segment 2 and 3 very short and equal in length, segment 4 longer than segment 2 and 3 combined, remainders almost equal. *Prothorax* (Fig. 2) one and a half times as broad as long, sides almost straight, front margin nearly straight, posterior margin rounded with slightly emarginated at middle, posterior angles obtuse, surface minutely punctate. *Scutellum* triangular, smooth and impunctate. *Elytra* broader at base than prothorax, sutural angle rounded, surface finely and densely punctate, elytral transverse band started from sutural margin and ended before lateral margin. Ventral side sparsely pubescent, segment 1 of posterior tarsus half the length of posterior tibia. *Aedeagus* (Fig.10) as figured.

Length 3.5-4.0 mm. breadth 1.75-2.0 mm.



Figs. 1-4 Prothorax : 1. *Monolepta bengali* n.sp., 2. *M. pahari* n.sp., 3. *M. tumpai* n.sp., 4. *M. tuai* n.sp.  
 Figs. 5-8 Head : 5. *Monolepta bengali* n.sp., 6. *M. pahari* n.sp., 7. *M. tumpai* n.sp., 8. *M. tuai* n.sp.

*Holotype* (Male), INDIA : West Bengal : Darjiling dist., 29.i. 1973, H.K. Bhowmik coll.; *Paratype* (Male & Female), INDIA : West Bengal : Darjiling dist., Rangiroom 2000 m., 25. v. 1974 (1 ex.) J. K. Jonathan coll. ; Rangiroom, 2000 m., 7. vi. 1975 ( 1 ex.) J. K. Jonathan coll. ; Lepchajagat, 2086 m. 4. vi. 1975 (2 exs.), J. K. Jonathan coll; Lebong, 2000 m., 16. v. 1974 (1 ex.) J. K. Jonathan coll; Mirik, Raidhap, 2000 m., 21 ix. 1974 (1 ex.), H. K. Bhowmik & A. R. Bhaumik coll. Manipur : Ukhrul, Awung Tang. 1. x. 1975. (1 ex.) M. S. Shishodia coll.

This species is near *M. dividua* Weise from Barma but can be easily separated in having the following characters : tibia of front legs yellowish as against tibia of all legs blackish in *dividua*; in *dividua* abdominal sternites pale brown but in the present specis abdominal sternites blackish; prosternum yellowish as against the black colour in *dividua*; pronotum minutely and distinctly punctate as against the impunctate pronotum in *dividua*. Size smaller 3.5-4.0 mm as against 6.0 mm in *dividua*.

### 293. *Monolepta tumpai* n. sp.

General colour yellowish brown with the following parts balck; antennal segments 4-11. labrum, mandible, palpi, scutellum, elytral margin broadly all round, including suture and epipleura ( leaving a large oval elongated yellowish brown patch on the disc from just behind humerus to near the apical margin). Ventral side black except head, prothorax and all tarsi.

*Head* (Fig. 7) smooth and impunctate, frontal tubercles moderately convex, smooth and separated by a median impression. Antenna stout and long extending behind the middle of elytra, segment 1 long and thickened apically, segment 2 nearly twice as long as broad (5 : 3), segment 3 equal to segment 2. segment 4 longer than segment 2 and 3 combined, segment 5 longer than segment 4, segment 6 and 7 equal and each of them shorter than segment 5, segment 8 and 9 equal and each of them shorter than segment 7, segment 10 shorter than segment 9, segment 11 longer than segment 10. *Prothorax* ( Fig. 3) twice as broad as long, anterior margin almost straight, posterior margin rounded, lateral margin feebly rounded, anterior angles rounded and swollen, posterior angles obtuse, surface very minutely punctate. *Scutellum* triangular with apex rounded, smooth and impunctate. *Elytra* broadened bhind, broadly rounded apically and rounded at sutural angle, disc very finely punctate. Ventral surface smooth, hind tarsal segment 1 one and 1/3 times as long as remainder combined and smaller than half as long as hind tibia. *Aedeagus* (Fig. 11) as figured. Length 3.4-4.0 mm, breadth 1.7-2.3 mm.

*Holotype* (Male), INDIA : Sikkim : Gangtok, 1700 m., 2. vi. 1979, M. S. Shishodia coll., *Paratype*. same as holotype ( 4 exs.), West Bengal : Darjiling dist., Gorabari, Sonada, 1952 m., 13. v. 1971 (1 ex.), A. R. Bhaumik coll; Sikkim : Rangay, Nathula Road, 1900 m., 12. vii. 1979 (1 ex.), M. Prasad coll.

This species is near *M yunnanica* Gressitt & Kimoto from China but can be separated in having stouter and longer antenna with segment 2 nearly twice as long as broad instead of 1.5 times as long as broad in *yunnanica*, segment 2 as long as segment 3 as against the slightly longer 2nd segment in *yunnanica*. segment 4 longer than segment 2 and 3 combined but in *yunnanica* segment 4 slightly longer than segment 3; elytral spot longer occupying about three fourth length of elytra instead of 1/2 or less occupying spot in *yunnanica*.

### 294. *Monolepta tuai* n. sp.

General colour brownish with the following parts blackish : labrum (except the extreme apical edge

which is whitish), papli, antennal segments 4-11, clytral disc broadly allround including sutural margin and epipleuron (leaving a small rounded-oval brownish spot occupying nearly at centre of the disc). Ventral surface behind prosternum black, legs mostly blackish with the bases and apices of all the femora and bases of all the tibia, brownish.

*Head* (Fig. 8) smooth and impunctate, frontal tubercles weakly developed and smooth, separated by a longitudinal impression. Antenna about two-third as long as body, segment 1 long and thickened apically, segment 2 small, nearly twice as long as broad, segment 3 almost as long as segment 2, segment 4 slightly longer than segment 3 and 4 combined, segment 4-8 equal in length, segment 9-11 shorter and more slender. *Prothorax* (fig. 4) 1.65 times as broad as long; anterior margin straight, posterior margin rounded, lateral margins feebly rounded; anterior angles rounded and swollen, posterior angles obtuse; surface very minutely and closely punctate. *Scutellum* triangular with apex rounded, smooth and impunctate. *Elytra* broadened behind, rounded apically including sutural angle, disc very finely and uniformly punctate, punctures larger than those of pronotum. Ventral surface smooth, hind tarsal segment 1 nearly twice as long as remainder combined and a half as long as hind tibia. *Aedeagus* (Fig. 12) as figured.

Length 3.6-4.2 mm, breadth 2.0-2.2 mm.

*Holotype* (Male), INDIA : West Bengal : Darjiling dist., Gorabari, Sonada, 1952 m., 13.v. 1971, A.R. Bhaumik coll.; *Paratype* same as holotype (4 exs.); Sikkim : Rangay, Nathula Road, 1900 m., 12.vii. 1979 ( 1 ex.), M. Prasad coll.

This species is near *M. tumpai* n. sp. and *M. yunnanica* Gressitt & Kimoto but can be easily separated from the above species in having elytral spot smaller, occupying only about 1/3 length of the disc as against the 3/4 length in *tumpai* and 1/2 length in *yunnanica*; legs almost black except bases and apices of femora, and bases of tibiae, which are brownish as against the almost yellowish-brown legs (except tarsi) in *tumpai*. *Aedeagus* (Fig. 12) completely different from that of *tumpai*.

#### Genus *Paleosepharia* Laboissiere

1936. *Paleosepharia* Laboissiere, *Ann. Soc. ent. France*, **105** : 251

Two species of this genus were recorded from India of which one was from West Bengal.

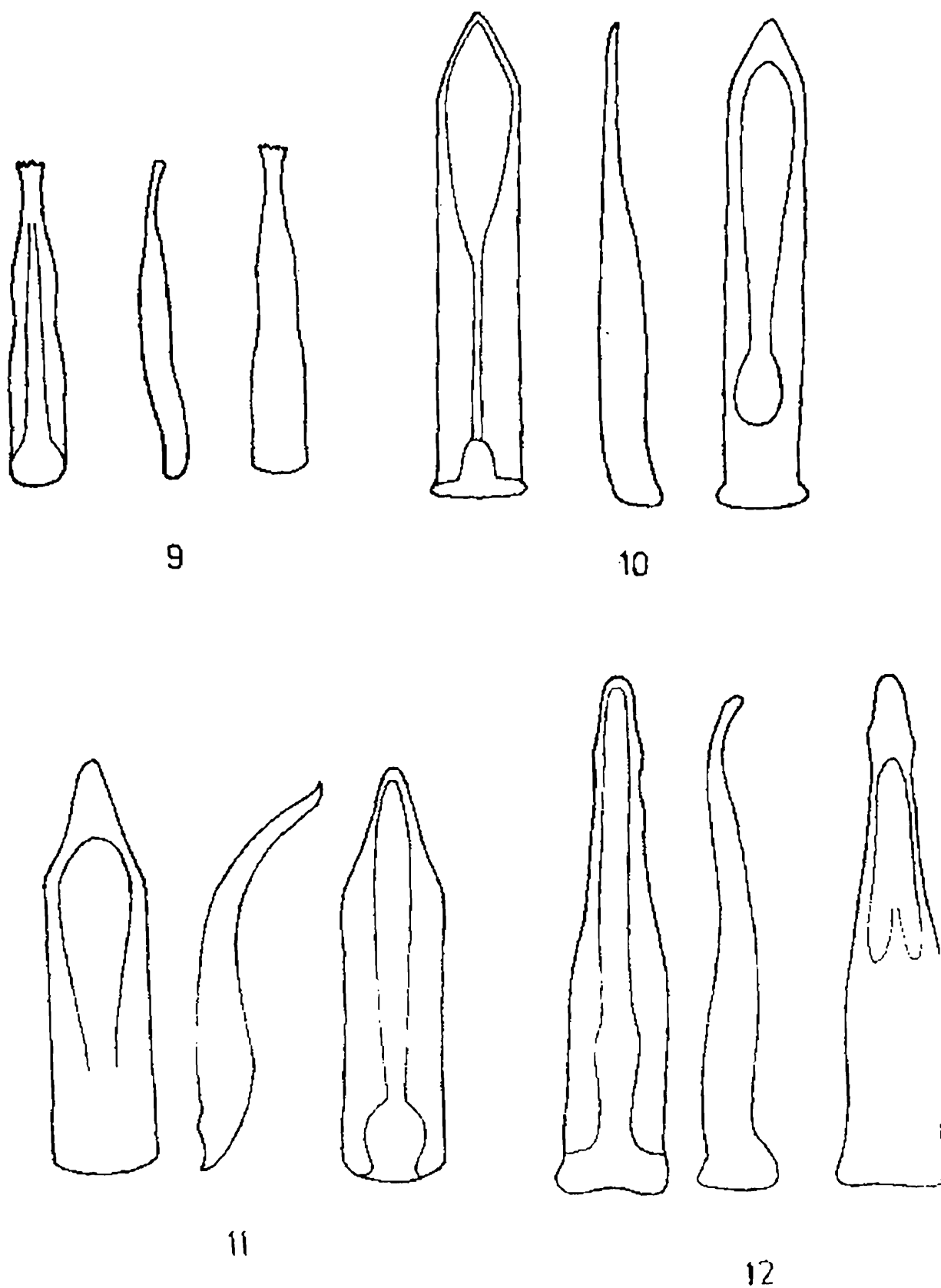
#### 295. *Paleosepharia costata* Takizawa & Basu

1987. *Paleosepharia costata* Takizawa & Basu, *Kontyu, Tokyo*, **55**(2) : 273, 278.

*Diagnostic characters* : General colour dirty yellowish brown; tibiae and tarsi dark brownish; pygidium and last visible abdominal sternite with reddish tinge; in male elytron with a short costa from humerus to middle; length 5.4 mm.

*Material examined* : Darjiling : Rangpo, 450 m., 10.iv. 1973 ( 1 ex.), H.S. Sharma coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim.



Figs. 9-12. Aedeagus (Ventral, lateral and dorsal view) : 9. *Monolepta bengali* n.sp., 10. *M. pahari* n.sp., 11. *M. tumpai* n.sp., 12. *M. tuai* n.sp.

Genus *Macrima* Baly

1878. *Macrima* Baly, *Cist. Ent.*, **2** : 377.

1936. *Macrima* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 561.

Three species of this genus were recorded sofar from India and also from West Bengal..

296. *Macrima armata* Baly

1878. *Macrima armata* Baly, *Cist. Ent.*, **2** : 377.

1936. *Macrima armata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 561.

*Diagnostic characters* : Raised portion of clypeus transverse; frontal depression continuing as a triangle between antennal insertions; clypeus divided by a median groove; prothorax more than twice as broad as long; length 7.0 mm.

*Material examined* : Darjiling : Dowhill, Kurseong, 1800m., 8.iii. 1924 ( 2 exs.), B.N. Chopra coll.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh and Jammu & Kashmir. Elsewhere : Pakistan and Tibet.

297. *Macrima pallida* (Laboissiere)

1936. *Sepharis pallida* Laboissiere, *Ann. Soc. ent. France*, **105** : 249.

1963. *Macrima pallida* : Gressitt & Kimoto, *Pae. Ins. Monogr.*, **1B** : 652

*Diagnostic characters* : Raised portion of clypeus transverse; frontal depression in a form of inverted heart with a small conical lobe in centre and another larger one under each antennal insertion; pronotum less than twice as broad as long.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Sikkim and Uttar Pradesh. Elsewhere : Nepal.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

298. *Macrima aurantiaca* (Laboissiere)

1936. *Sepharis aurantiaca* Laboissiere, *Ann. Soc. ent. France*, **105**:250.

1963. *Macrima aurantiaca* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 652.

*Diagnostic characters* : Raised portion of clypeus transverse; frontal depression transverse, sinuous, shallower and narrower at base and angulately dilated at apex, with a shallower triangular depression between antennae; pronotum less than twice as broad as long.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : China and Nepal.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

#### Genus *Aplosonyx* Chevrolat

1837. *Aplosonyx* Chevrolat, *In Dejean, Cat. Col., ed. 2* : 376.

1936. *Aplosonyx* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 612.

Five species of this genus were recorded sofar from India of which three were from West Bengal. The present paper records another species from West Bengal.

#### 299. *Aplosonyx chalybaeus* (Hope)

1831. *Galleruca chalybaeus* Hope, *In Gray, Zool. Miscell.* : 28

1892. *Haplosonyx chalybaeus* : Duvivier, *Ann. Soc. ent. Belg.*, **36** : 440.

1936. *Aplosonyx chalybaeus* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 614.

*Diagnostic characters* : Head and prothorax red; elytron blackish blue or purplish blue with fine punctures, irregular in strips alternating with impunctate strips; venter entirely pale; antennal segments 5-8 and apices of tibiae and tarsi black with metallic tinge; pronotum with four raised areas in front of median transverse line; length 13.0-18.0 mm.

*Material examined* : Darjiling : Pashok, 26. v. -14 vi. 1916 (1 ex.) Ghumti, 1200 m., vii. 1911 (11 exs.) Kalimpong 26 iv. 1915 (7 exs.) Darjiling 29. iv.- 10. v. 1915 (7 exs.) all F. H. Gravely coll.; Kurseong, 1745 m., 15. v. 1979 (4 ex.) M. S. Shishodia coll., 22. ii. 1910 (1 ex.), N Annandale coll., 3. v. 1971 (10 exs), A. R. Bhaumik coll ; Teesta, 214 m., 24. v. 1979 (1 ex.), M. S. Shishodia coll; Mirik. 22-23 vi. 1979 (2 exs.), P. Halder coll; Gorabari, Sonada, 1952 m., 13. v. 1971 (1 ex.), A. R. Bhaumik coll.: Darjiling chawk, 2000m 15. v. 1974 (2 exs.), Manibhanjang, 2123 m., 18-23 v. 1975 (1 ex.), all J. K. Jonathan coll; Rangli, 1450 m, 25. iii. 1973 (1 ex.), P K Maiti coll; Teesta bazar, 24. iv. 1979 (1 ex.) M. S. Shishodia coll; Tiger Hill, 2660 m., 7 v. 1978 (1 ex.), P. Roy coll.

*Distribution* : India : West Bengal (Darjiling), Arunchal Pradesh, Assam, Meghalaya and Sikkim. Elsewhere : Bhutan, Burma, Nepal, Tibet and Vietnam.

#### 300. *Aplosonyx scutellatus* Baly

1879. *Haplosonyx scutellatus* Baly, *Cist. Ent.*, **2** : 452.

1936. *Aplosonyx scutellatus* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 616

*Diagnostic characters* : Entirely brown; antenna, scutellum, breast and legs black; length 9.0-9.5 mm.

*Material examined* : Darjiling : Kurseong 24. iv. -10. v. 1915 (1 ex.), Kalimpong, 24. iv. -10 v. 1915 (1 ex.), Lebong, 1350 m., vi. 1909 (1 ex.), all F. H. Gravely coll; Jalpaiguri : Buxa Duars, ii. 1990 (3 exs.).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh, Assam, Himachal Pradesh and Sikkim. Elsewhere : Nepal and Pakistan.

### 301. *Aplosonyx duvivieri* Jacoby

1900. *Haplosonyx duvivieri* Jacoby, *Mem. Soc. ent. Belg.*, **7** : 130.

1936. *Aplosonyx duvivieri* : Maulik, *Fauna Brit. India, Col., Chry (Gal.)* : 618.

*Diagnostic characters* : Entirely brown; antenna and legs black; length 12.0 mm.

*Material examined* : Darjiling : Lebong, 1350 m., ix. 1908 ( 1 ex.), H.M.L. coll.; Jalpaiguri : Buxa Duaras, ii. 1907 ( 1 ex.).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh and Meghalaya.

*Remarks* : First time recorded from West Bengal.

### 302. *Aplosonyx rufipennis* Duvivier

1892. *Haplosonyx rufipennis* Duvivier, *Ann. Soc. ent. Belg.*, **36** : 439

1963. *Aplosonyx rufipennis* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 654.

*Diagnostic characters* : Head and prothorax black; elytra red with fine punctures and very widely spaced large punctures; venter black with abdomen and middle of metasternum brown; length 10.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : China and Vietnam.

*Remarks* : Duvivier (1892) recorded this species from Darjiling dist.

### Genus *Khasia* Jacoby

1899. *Khasia* Jacoby, *Entomologist*, **32** : 83.

1936. *Khasia* : Maulik. *Fauna Brit. India, Col., Chry. (Gal.)* : 273.

Two species of this genus were recorded so far from India of which one was from West Bengal.

303. *Khasia kraatzi* Jacoby

1899. *Khasia kraatzi* Jacoby, *Entomologist*, **32** : 83.

1936. *Khasia kraatzi* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 274.

*Diagnostic characters* : General colour shining dark brown, almost blackish; pronotum reddish brown; six basal segments of antennae dark brown, segments 7 and 8 yellowish, last three segments black; legs yellow-brown tibiae alternately lighter and darker colour patches, tarsi always darker; length 4.0 mm.

*Material examined* : Darjiling : Kurseong, 1500 m., 4-9.ix. 1909 ( 2 exs.), N. Annandale coll.; Lopchu, 1.v. 1976 ( 1 ex.), A.R. Bhaumik coll.; Darjiling, 2050 m., 18.v. 1974 ( 1 ex.). Darjiling Tea Estate. 2000 m., 25.v. 1974 ( 1 ex.), all J.K. Jonathan coll.; Takdah, 6.iv. 1978 ( 1 ex.), C.R. Basu coll.

*Distribution* : India : West Bengal (Darjiling), Meghalaya and Punjab. Elsewhere : Burma and Nepal.

Genus *Spitiella* Laboissiere

1931. *Spitiella* Laboissiere, *Ann. Soc. ent. France*, **100** : 150.

This genus is represented by a single species in India and also in West Bengal.

304. *Spitiella collaris* Baly

1878. *Leptarthra collaris* Bally, *Cist. Ent.*, **2** : 382.

1936. *Leptarthra collaris* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 611.

1979. *Spitiella collaris* : Kimoto, *Ent. Basiliensia*, **4** : 476.

*Diagnostic characters* : General colour shining black; antennae, except two basal segments, brownish black; pronotum yellow-brown; scutellum black; elytra dark red-brown with purple sheen; on each elytron an oblique fascia and two round spots, blackish; sometimes all these markings may be absent; length 11.5 mm.

*Material examined* : Darjiling : Ghoombhanjang, 2000 m., 25.v. 1975 ( 1 ex.), Ragiroom, 2000m., 7.vi. 1975 ( 1 ex.), all J.K. Jonathan coll.; Tiger Hill, 2660 m., 19.v. 1974 ( 1 ex.). M.S. Shishodia coll.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Jammu & Kashmir, Punjab and Sikkim. Elsewhere : Bhutan, Nepal and Pakistan.

Genus *Leptarthra* Baly

1861. *Leptarthra* Baly, *J. Ent.*, **1** : 202.

1936. *Leptarthra* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 609.

Two species of this genus were so far recorded from India including one from West Bengal.

305. *Leptarthra abdominalis* Baly

1861. *Leptarthra abdominalis* Baly, *J. Ent.*, **1** : 203.  
 1936. *Leptarthra abdominalis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 610.

*Diagnostic characters* : General colour black; elytra brown; scutellum bronze; head, prothorax, breast, legs and first three segments of antennae, somewhat mixed with blue; a red-brown round spot situated behind the inner margin of each eye; length 9.0-10.5 mm.

*Material examined* : Darjiling : 2000 m., 1912 ( 1 ex.), Mej. Brunetti coll.; Sukia Pokri, 2126 m., 18.v. 1971 ( 5 exs.), Ghoombhanjang, 2180 m., 27.v. 1971 ( 2 exs.), Mahanadi, 1250m., 28.iv. 1971 ( 8 exs.), Tibetan Naya Busti, 1965 m., ( 1 ex.), all A.R. Bhaumik coll.; Rangiroom, 2000 m., 7.vi. 1975 ( 2 exs.), Bot. Garden, 2050 m., 16.v. 1974 ( 1 ex.), Ghoombhanjang, 25-30. v. 1975 ( 2 exs.), Manibhanjang, 2123 m., 18.-23.v. 1975 ( 1 ex.), Rangiroom, 2000m., 25.v. 1974 ( 2 exs.), all J.K. Jonathan coll.; Rambhi, 2100 m., 14. ii. 1973 ( 1 ex.), H.S. Sharma coll.; Tiger Hill, 2123 m., 21.v. 1979 ( 1 ex.), M.S. Shishodia coll.; Ghoom, 2250 m., 21-vii.1979 (1ex.) M. Prasad coll.

*Distribution* : India : West Bengal (Darjiling), Jammu & Kamshmir, Punjab and Sikkim. Elsewhere: Bhutan and Nepal.

Genus *Sphenoraia* Clark

1865. *Sphenoraia* Clark, *Ann. Mag. nat. Hist.*, (3) **16** : 261.  
 1963. *Sphenoraia* : Gressitt & Kimoto, *Pac. Ins. Monogr.* **1B** : 655

Four species of this genus were recorded so far from India of which two were from West Bengal.

306. *Sphenoraia (Sphenoraiodes) rutilans* (Hope)

1831. *Eumolpus rutilans*, In Gray, *Zool. Miscell.* : 30.  
 1936. *Gallerucida rutilans* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 547  
 1963. *Sphenoraia (Sphenoraiodes) rutilans* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 657

*Diagnostic characters* : Dorsal side with varying metallic colours, blue, blue-green, purple-blue, purple, green, pure blue etc.; ventral side always metallic deep blue; legs blackish; antenna dull black with brownish pubesence; mouth parts generally black with edges of parts brownish; length 8.5-9.0 mm.

*Material examined* : Darjiling : Pashok, 750m., 26.v.-14.vi. 1916 ( 5 exs.), Kalimpong, 14.iv.-10.v. 1915 ( 1 ex.), all F.H. Gravely coll.; Darjiling Chawk. 2000 m., 15.v. 1974 ( 1 ex.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh, Assam, Bihar, Himachal Pradesh. Jammu & Kashmir, Meghalaya, Sikkim and Uttar Pradesh. Elsewhere : Bhutan, Burma, China and Nepal.

307. *Sphenoraia* (*Sphenoraia*) *bicolor* (Hope)

1831. *Galleruca bicolor* Hope *In Gray, Zool. Miscell.* : 29  
 1936. *Gallerucida bicolor* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* 554.  
 1972. *Sphenoraia* (*Sphenoraia*) *bicolor* : Kimoto & Takizawa, *Kontyu*, **40** (4) : 220

*Diagnostic characters* : General colour dark brown with black spots and patches on dorsal and ventral side in a great number of varieties; but generally each elytron with seven spots (2 : 2 : 2 : 1) and pronotum with four spots; scutellum always black; vertical area of head, labrum and antennae (except three basal segments) always black; pronotum distinctly convex at before middle; elytral punctures more regularly arranged in rows; length 8.0-8.5 mm.

*Material examined* : Haora : Bot. Garden, 21. vi. 1961 (3 exs.), S. Ali coll., 28. vi. 1965 (1 exs.), P. Parui coll; 24 Parganas : Dum Dum, 26. vi. 1959 (1 ex.), A. R. Bhaumik coll; 17. ix. 1957 (5 exs.), S.P. Shukla coll; Darjiling : Tarkhola, 20. iv. 1976 (3 exs.), C. R. Basu coll.

*Distribution* : India : West Bengal (Darjiling, Haora and 24 Parganas), Assam, Himachal Pradesh, Kerala, Maharashtra, Meghalaya, Sikkim, and Uttar Pradesh. Elsewhere : Burma and Nepal.

Genus *Trichobalya* Weise

1890. *Trichidea* Baly, (nec Hann, 1838) *Ent. Monthly Mag.*, **26** : 13  
 1924. *Trichobalya* Weise, *Col. Cat.*, **78** : 152 ( new name for *Trichidea* Baly)

Three species of this genus were recorded sofar from India and also from West Bengal

308. *Trichobalya bowringii* (Baly)

1890. *Trichidea bowringii* Baly, *Ent. Monthly Mag.*, **26** : 13.  
 1924. *Trichobalya bowringii* : Weise, *Col. Cat.*, **28** : 152.

*Diagnostic character* : Head, pronotum, antenna, ventral side and legs yellow to brown; elytron generally green or red and green; length 5.0-7.0 mm.

*Material examined* : Darjiling : Goke, Singla, 18-20.iv. 1973 ( 2 exs.), Rangpo, 750 m., 10.iv. 1973 ( 1 ex.), Rambazar, 2.iv. 1973 ( 1 ex.), all H.S. Sharma coll.; Mansong, 1516 m., 16.iv.1976 ( 1 ex.), C.R. Basu coll.

*Distribution* : India : West Bengal (Darjiling), Meghalaya. Elsewhere : China, Hongkong and Vietnam.

309. *Trichobalya apicalis* Kimoto

1982. *Trichobalya picalis* Kimoto, *Ent. Rev. Japan*, **37** (1) : 23.

*Diagnostic characters* : Head, prothorax and scutellum reddish brown; elytra yellowish brown with apical one-third blackish; antennae blackish with one or two basal segments paler, ventral surface and legs yellowish brown with abdominal segments blackish; length 5.0-7.0 mm.

*Material examined* : Darjiling : Nr. Barbati Busti, 190 m., 18.iii. 1973 ( 1 ex.), P.K. Maiti coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan.

### 310. *Trichobalya viridipennis* Kimoto

1977. *Trichobalya viridipennis* Kimoto, *Ent. Basiliensia*, **2** : 381

*Diagnostic characters* : Head, prothorax and scutellum reddish brown; elytra greenish blue; antennae black with three or four basal segments brownish, ventral side and legs reddish brown; length 6.0-7.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Sikkim. Elsewhere : Bhutan.

*Remarks* : Kimoto (1982) recorded this species from Darjiling dist.

### Genus *Palproxena* Baly

1861. *Palproxena* Baly, *J. Ent.*, **1** : 203.

1936. *Palproxena* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 568.

Sixteen species of this genus were recorded so far from India but there is no record from West Bengal. The present paper deals with a single specimen from West Bengal which can not be identified completely.

### 311. *Palproxena* sp.

*Material examined* : Haora : Bot. Garden, 28. vi. 1965 (1 ex.), P. Parui coll.

*Remarks* : Specific identification can be possible for want of sufficient material, but with the preliminary study it is near *P. rufofulva* ( Jac.).

### Genus *Arthrotus* Motschulsky

1857. *Arthrotus* Motschulsky, *Etudes Ent.*, **6** : 38.

1963. *Arthrotus* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 691.

Two species of this genus were recorded so far from India and also from West Bengal.

312. *Arthrotus pallidus* Laboissiere

1932. *Arthrotus pallidus* Laboissiere, *Ann. Assoc. Nat. Levallois Perret.*, **20** : 133.  
 1985. *Arthrotus pallidus* : Takizawa, *Ent. Rev. Japan*, **40**(2) : 106.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan, Nepal and Indo-China.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

313. *Arthrotus persimilis* Kimoto

1977. *Arthrotus persimilis* Kimoto, *Ent. Basiliensia*, **2** : 389  
 1985. *Arthrotus persimilis* : Takizawa, *Ent. Rev. Japan*, **40**(2) : 106.

*Diagnostic characters* : General colour reddish brown, antenna pitchy black, with two or three basal segments brownish, legs pitchy black with basal part of tibiae more brownish, sometimes antenna and legs entirely brownish; length 4.0-6.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

Genus *Dercetina* Gressitt & Kimoto

1865. *Dercetis* Clark, *Ann. Mag. nat. Hist.*, (3) **15**:146 (nec *Dercetis* Muenster & Agassiz, 1834).  
 1936. *Dercetis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 348.  
 1963. *Dercetina* : Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 704 (new name for *Dercetis* Clark).

Twenty species of this genus were recorded so far from India of which eight species were from West Bengal.

314. *Dercetina posticata* (Baly) *New Combination*

1879. *Antipha posticata* Baly, *Cist. Ent.*, **2** : 455.  
 1936. *Dercetis posticata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 354.

*Diagnostic characters* : General colour pale brown to deep brown; mouth parts slightly blackish; apical half to two-thirds of elytra including apical portion of epipleuron blue mixed with violet, front border of this elytral patch irregular-wavy; length 6.0-7.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam. Elsewhere : Burma and China.

Remarks : Maulik (1936) recorded this species from Darjiling dist.

### 315. *Dercetina flavocincta* (Hope)

1831. *Galleruca flavocincta* Hope, *In Gray, Zool. Miscell.* : 29.  
 1936. *Dercetis flavocincta* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 355.  
 1967. *Dercetina flavocincta* : Kimoto *Esakia* (8) : 70.

*Diagnostic characters* : Variable colour pattern but head always dark brown; general colour always uniform black; elytral transverse band extending to suture and lateral margins, never tending to form a transverse ovate patch; length 5.0-6.5 mm.

*Material examined* : Darjiling : Kurseong ( 1 ex.), D'Abrew coll., 1800 m., 7.ix. 1909 ( 1 ex.), N. Annandale coll., 24.viii. 1909 ( 1 ex.), D'Abrew coll., 24.vi. 1910 ( 1 ex.), N. Annandale coll.; Gorabari, Sonada, 1952 m., 13.v. 1971 ( 2 exs.), Tibetan Naya busti, 1965 m., 7.v. 1971 ( 2 exs.), Jorpokri, 2220m., 22.v. 1971 ( 1 ex.), Kurseong, 1445 m., 3.v. 1971 ( 1 ex.), Sukia Pokri, 2126 m., 18.v. 1971 ( 1 ex.), all A.R. Bhaumik coll.; Darjiling, 2000m., 11.-12.v. 1875 (2 exs.), 15.v. 1974 ( 1 ex.), Manibhanjang, 2123 m., 18-23.v. 1975 ( 1 ex.), Lebong, 2000m., 16.v. 1974 ( 1 ex.), Bijanbari, 900 m., 20.v. 1974 ( 2 exs.), all J.K. Jonathan coll.; Raidhap, Mirik, 2100 m., 21.ix. 1974 ( 2 exs.), H.K. Bhowmik coll.; Siliguri, nr. Mahanadi, 760 m., 13.i. 1971 ( 6 exs.), Siliguri, nr. Phuleswari & Jorapani Stream, 260 m., ( 1 ex.), Nr. Sau Stream, New Jalpaiguri, 200 m., 15.i. 1971 ( 1 ex.), all J.M. Julka coll.; Siliguri, 21.iii. 1975 ( 3 exs.), Pedong, vi. 1940 ( 1 ex.), all H.A. Hafiz coll.; Jalpaiguri : Buxa Duars ( 1 ex.); Sobhaganj, Alipur Duar, 14.i. 1987 ( 7 exs.), Damanpur, Alipur Duar, 9.i. 1987 ( 2 exs.), all V.D. Srivastava coll.

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh, Assam, Himachal Pradesh, Sikkim and Uttar Pradesh. Elsewhere : Nepal.

### 316. *Dercetina mandarensis* (Jacoby)

1900. *Antipha mandarensis* Jacoby, *Mem. Soc. ent. Belg.* : 134.  
 1936. *Dercetis mandarensis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 357  
 1985. *Dercetina mandarensis* : Takizawa, *Ent. Rev. Japan*, 40(2) : 105.

*Diagnostic characters* : Very variable colour pattern; head, antennae, prothorax, always pale brown; general colour varies from pale to red brown; the whole elytral pattern sometimes faint, elytra with a single transverse band on black back ground, this band not connected to suture or lateral margins and with a tendency to form a transversely ovate patch; length 4.5-5.0 mm.

*Material examined* : Darjiling : Lava, 2150 m., 4-5.vi. 1974 ( 2 exs.), Darjiling, 2050 m., 15.v. 1974 ( 14 exs.), Rangiroom, 2000 m., 7.vi. 1975 ( 1 ex.), Darjiling chawk, 2000 m., 13.v. 1974 ( 11 exs.), Manibhanjang, 1900 m., 19.v. 1975 ( 4 exs.), all J.K. Jonathan coll.; Tibetan Naya busti, 1965 m., 7.v. 1971 ( 8 exs.), Gorabari, Sonada, 1952 m., 13.v. 1971 ( 28 exs.), all A.R. Bhaumik coll.; Darjiling, 2123 m, 21.v. 1979 ( 1 ex), M.S. Shishodia coll.; Jalpaiguri : Sabhaganj, Alipur Duar, 14.i. 1987 ( 2 exs.), V.D. Srivastava coll.

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Sikkim.

317. *Dercetina histrio* (Baly) **New Combination**

1879. *Antipha histrio* Baly, *Cist. Ent.*, 2 : 456.

1936. *Dercetis histrio* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 358.

*Diagnostic characters* : Mouth parts blackish; frons and clypeus pale brown; a large transverse area on vertex black; pronotum light brown to pale brown; elytra with alternate bands of black, red, black, pale brown, black and red; ventral side varying from brown to blackish; length 4.5-5.5 mm.

*Material examined* : Darjiling : Siliguri, nr. Mahanadi, 13.i. 1971 (5 exs.), nr. Phuleswari and Jorapani Stream, 260 m., 16.i. 1971 (1 ex.), Nr. Sau Stream, New Jalpaiguri, 260 m., 15.i. 1971 (10 exs.), all J.M. Julka coll.; Rangtong, 13.iv. 1978 (1 ex.), Bijanbari, 900 m., 29.iii. 1978 (3 exs.), C.R. Basu coll.; Jalpaiguri : Panihati, 5.xii. 1986 (1 ex.), Fansidewa, 6.xii. 1986 (2 exs.), all R.S. Barman coll.; Sobhaganj. Alipur Duar, 14.i. 1987 (1 ex.) V.D. Srivastava coll.; Koch Bihar : Baxirhat, 13.xii. 1986 (1 ex.), Mathabanga, 11.xii. 1986 (1 ex.), Jorai, 15.xii. 1986 (1 ex.), all R.S. Barman coll.

*Distribution* : India : West Bengal (Koch Bihar, Darjiling and Jalpaiguri), Assam. Elsewhere : Bangladesh.

318. *Dercetina miniaticollis* (Hope)

1831. *Galleruca miniaticollis* Hope, *In Gray, Zool. Miscell.* : 29.

1936. *Dercetis miniaticollis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 365.

1985. *Dercetina miniaticollis* : Takizawa, *Ent. Rev. Japan*, 40(2) : 105

*Diagnostic characters* : Head and antennae brown, vertex with three blackish area, one on the middle and one on each side; pronotum red-brown with a large area at middle and at the sides blackish; scutellum and elytra black; ventral side black, legs brown except tibiae and tarsi which are blackish; sometimes all the parts are brown except scutellum, elytra and ventral side; length 6.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan and Nepal.

*Remarks* : Takizawa (1985) recorded this species from Darjiling dist.

319. *Dercetina viridicyanea* Kimoto

1977. *Dercetina viridicyanea* Kimoto, *Ent. Basiliensia*, 2:387.

*Diagnostic characters* : General colour bluish black, sometimes with greenish luster; antenna, legs and ventral surface entirely bluish black; length 4.5-5.0 mm. This species is separable from *D. itoi* Kimoto in having pronotum more transverse and abdomen entirely black.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan and Nepal.

*Remarks* : Kimoto & Takizawa (1983) recorded this species from Darjiling dist.

### 320. *Dercetina hainana* Gressitt & Kimoto

1963. *Dercetina hainana* Gressitt & Kimoto, *Pac. Ins. Monogr.*, **1B** : 707.

*Diagnostic characters* : General colour reddish brown to patchy brown and nearly black; head pale reddish brown with a blackish band at vertex; elytron pitchy with two yellowish brown spots on basal portion and a large subcentral yellowish brown patch; length 3.0-3.8 mm.

*Material examined* : Darjiling : Lava, 2150 m., 5.vi. 1974 (1 exs.) J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Nepal and Hainan (China).

### 321. *Dercetina major* Kimoto

1977. *Dercetina major* Kimoto, *Ent. Basiliensia*, **2** : 386.

*Diagnostic characters* : Entirely yellowish to reddish brown; sometimes ventral surface blackish. This species is closely resembles *D. shona* (Maulik), but differs in having its longer size (6.5-7.5 mm), pronotum more sparsely punctate, elytron more finely punctate and its subbasal area not distinctly raised.

*Material examined* : Darjiling : Rangpo, 8.iv. 1973 ( 1 ex.), Reyang, 300 m., 1.iv. 1973 ( 1 ex.), Goke, Singla, 450 m., 15-20.iv. 1973 ( 2 exs.), Andherikhola, 500 m., 9.iv. 1973( 1 ex.), all H.S. Sharma coll.; Rangpo, 450 m., 1.iv. 1974 ( 1 ex.), J.K. Jonathan coll.; Barbatibusti, 1900 m., 18.iii. 1973 ( 1 ex.), P.K. Maiti coll.; Melli, 450m., 17.iv. 1976 ( 1 ex.), Tarkhola, 450 m., 20.iv. 1976 ( 8 exs.), all C.R. Basu coll.

*Distribution* : India : West Bengal (Darjiling). Elsewhere : Bhutan.

### Genus *Doryida* Baly

1865. *Doryida* Baly, *Ent. Monthly Mag.*, **2** : 97.

1936. *Doryida* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 605.

This genus is represented by a single species in India and West Bengal.

### 322. *Doryida mouhoti* Baly

1865. *Doryida mouhoti* Baly, *Ent. Monthly Mag.*, **2** : 98.

1936. *Doryida mouhoti* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 606.

*Diagnostic characters* : General colour yellowish or reddish brown; pronotum with a black elongated patch at middle; each elytron with five black spots; scutellum black; length 9.5-10.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam. Elsewhere : Burma, Laos, Thailand and Vietnam.

*Remarks* : Maulik (1936) recorded this species from Darjiling dist.

Genus *Hylaspes* Baly

1865. *Hylaspes* Baly, *Trans. ent. Soc. Lond.*, (3) 2 : 436.

1936. *Hylaspes* : Maulik, *Fauna Brit. India, Col., Chry. (Gel.)* : 601.

Two species of this genus were recorded so far from India of which one from West Bengal.

323. *Hylaspes longicornis* Baly

1865. *Hylaspes longicornis* Baly, *Trans. ent. Soc. Lond.* (3) 2 : 436.

1936. *Hylaspes longicornis* : Maulik, *Fauna Brit. India, Col., Chry. (Gel.)*, : 602.

*Diagnostic characters* : General colour light brown to dark brown; antenna (except three basal segments), tibiae and tarsi black; colour of elytra varies from complete brown to partly black, apical portion always brown; length 10.0-12.0 mm.

*Material examined* : Darjiling : Pashok, 600 m., 26.v.-14. vi. 1916 (1 ex.), F.H. Gravely coll.; Kurseong, 1500 m., 21-29.vi.1906 (1 ex.), N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling). Other Indian States : Assam and Sikkim. Elsewhere : Bhutan, Burma and Nepal.

Genus *Gallerucida* Motschulsky

1860. *Gallerucida* Motschulsky, *Etud. Ent.*, 9 : 24.

1936. *Gallerucida* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 545.

Six species of this genus were recorded from India of which three from West Bengal.

324. *Gallerucida singularis* Harold

1880. *Gallerucida singularis* Harold, *Stett. ent. Zeit.*, 41 : 146.

1936. *Gallerucida singularis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 551.

*Diagnostic characters* : General colour shining light brown to dark reddish brown, sometimes with purplish sheen; antenna and legs black; elytra with some yellowish portion on apical area on which three round reddish spots arranged in a triangle; humerus with a yellowish patch; length 7.0-8.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam. Elsewhere : Burma, China, Formosa and Vietnam.

*Remarks* : Maulik (1936) recorded this species from Darjiling dist.

### 325. *Gallerucida indica* Harold

1880. *Gallerucida indica* Harold, *Stett. Ent. Zeit.* : 146.

1936. *Gallerucida indica* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 554.

*Diagnostic characters* : General colour red-brown; antennae (except three basal segments and root of segment 4) blackish, tarsi and apical portion of tibiae darker; length 8.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh. Elsewhere : Nepal.

*Remarks* : Maulik (1936) recorded this species from Darjiling dist.

### 326. *Gallerucida nigricornis* Laboissiere

1880. *Gallerucida nigricornis* Laboissiere, *Bull. Mus. nat. Hist. Belg.*, **16**(3) : 24.

1979. *Gallerucida nigricornis* : Kimoto, *Ent. Basiliensia*, **4** : 477.

*Diagnostic characters* : General colour brown to dark brown; head and prothorax reddish brown to pitchy black; legs reddish brown to pitchy black; antennae dull black (except three basal segments).

*Material examined* : Darjiling : Rangiroom, 2000 m., 7.vi.1975 (3 exs.), J. K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim.

### Genus *Dercetisoma* Maulik

1936. *Dercetisoma* Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 455.

This is a monotypic genus.

### 327. *Dercetisoma concolor* (Jacoby)

1889. *Antipha concolor* Jacoby, *Ann. Mus. Civ. Gnova*, **27**:222.

1936. *Dercetisoma concolor* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 455.

*Diagnostic characters* : Entirely brown to dark or reddish brown, shining; five or six apical segments of antennae blackish, sometimes all the segments blackish; length 4.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh and Uttar Pradesh. Elsewhere : Burma, Indonesia, Java, Malaya and Nepal.

*Remarks* : Takizawa (1983) recorded this species from Darjiling dist.

Genus *Doryscus* Jacoby

1887. *Doryscus* Jacoby, *Proc. Zool. Soc. London* : 115.

1936. *Doryscus* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 75.

This is a monotypic genus.

328. *Doryscus testaceus* Jacoby

1887. *Doryscus testaceus* Jacoby, *Proc. Zool. Soc. London* : 115.

1936. *Doryscus testaceus* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 77

*Diagnostic characters* : General colour brown; suture and elytral margins allround pitch-black; apical segments of antennae dark brown; each elytron with eleven ribs and twenty-one rows of punctures including short scutellar row; length 4.0-4.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Karnataka and Tamil Nadu. Elsewhere : Bhutan, China, Indo-China, Nepal, Phillipines, Sri Lanka and Sumatra.

*Remarks* : Kimoto (1979) recorded this species from Darjiling dist.

Genus *Kanarella* Jacoby

1896. *Kanarella* Jacoby, *Ann. Soc. ent. Belg.*, **40** : 280.

1936. *Kanarella* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 297.

This is a monotypic genus.

329. *Kanarella unicolor* Jacoby

1896. *Kanarella unicolor* Jacoby, *Ann. Soc. ent. Belg.*, **40** : 280.

1936. *Kanarella unicolor* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 299.

*Diagnostic characters* : Entirely yellowish brown to dark brown; eyes black; length 5.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Assam, Karnataka, Meghalaya and Sikkim.  
Elsewhere : Nepal

*Remarks* : Kimoto (1979) recorded this species from Darjiling dist.

Genus *Stethidea* Baly

1890. *Stethidea* Baly, *Ent. Monthly Mag.*, (2) 1 : 13.

1936. *Stethidea* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 607.

This is a monotypic genus. So far recorded from Andaman Is. and Assam, but now it is being recorded here for the first time from West Bengal.

330. *Stethidea balyi* (Divivier)

1885. *Doryida balyi* Duvivier, *Stett. Ent. Zeit.*, 46 : 394.

1890. *Stethidea balyi* : Baly, *Ent. Monthly Mag.*, (2) 1 : 13.

1936. *Stethidea balyi* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 608.

*Diagnostic characters* : General colour brown to red-brown; pronotum with two black spots, placed longitudinally at middle or transversely (one on either side); each elytron with six to seven black spots, three to four placed longitudinally along the suture and three along the lateral margin; on the ventral side one black patch on side of metasternum and one on first abdominal sternites; length 7.5 mm.

*Material examined* : Darjiling, Mangphu ( 2 exs.).

*Distribution* : India : West Bengal (Darjiling), Andaman Is. and Assam. Elsewhere : Burma and Malacca.

*Remarks* : First record from West Bengal.

Genus *Mandarella* Duvivier

1892. *Mandarella* Duvivier, *Ann. Soc. ent. Belg.*, 36 : 433.

1936. *Mandarella* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 458.

This is a monotypic genus in India.

331. *Mandarella nagpurensis* Duvivier

1892. *Mandarella nagpurensis* Duvivier, *Ann. Soc. ent. Belg.*, 36 : 434

1936. *Mandarella nagpurensis* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 459.

*Diagnostic characters* : General colour shining dark blue, sometimes mixed with violet or green; antennae blackish, with two basal segments more shining and less hairy; abdominal sternites and legs pitch-brown mixed with blue or violet; length 5.5-6.0 mm.

*Material examined* : Darjiling : 2100 m., 13.v. 1917 ( 1 ex.), Brunetti coll. (damaged).

*Distribution* : India : West Bengal (Darjiling), Bihar, Himachal Pradesh and Manipur. Elsewhere : Burma.

Genus *Pseudoides* Jacoby

1892. *Pseudoides* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 966

1936. *Pseudoides* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 302.

This is a monotypic genus. Sofar not recorded from India and now it is being recorded here for the first time from India (West Bengal).

332. *Pseudoides bivittata* Jacoby

1892. *Pseudoides bivittata* Jacoby, *Ann. Mus. Civ. Genova*, **32** : 966

1936. *Pseudoides bivittata* : Maulik, *Fauna Brit. India, Col., Chry. (Gal.)* : 303.

*Diagnostic characters* : General colour shining light brown; four apical segments of antennae blackish, segments 6 and 7 dark brown; an illdefined large blackish patch on head; elytron with a circular blackish patch along the margins leaving a longitudinal brown area along middle; length 3.5 mm.

*Material examined* : Calcutta, 19.vii. 1912 ( 1 ex.).

*Distribution* : India : West Bengal (Calcutta). Elsewhere : Burma, Bhutan, Cambodia, Nepal and Vietnam.

*Remarks* : First record from West Bengal.

Subfamily (xiii) CASSIDINAE

Key to the genera of Cassidinae from West Bengal.  
(largely after Maulik, 1919)

1. Head visible from above, not concealed under explanate margin of prothorax..... 2
- Head not visible from above, concealed under explanate margin of prothorax..... 5
- 2(1). Body oblong or oblong-ovate.....3
- Body subquadrate or rounded..... 4
- 3(2). Pronotum much narrower than elytra at base, grooved medially, its anterior margin obtusely emarginate.....*Craspidonta*

- Pronotum not narrower than elytra at base, not grooved medially, its anterior margin broadly and transversely emarginate..... ***Epistictina***
- 4(2). Antenna clubbed; basal margin of elytra not denticulate..... ***Notosacantha***  
 Antenna filiform; basal margin of elytra denticulate.....***Basiprionota***
- 5(1). Tarsal claws with a comb-like structure at base.....6  
 Tarsal claws without a comb-like structure at base..... 10
- 6(5). Comb-like structure on inner side only .....***Sindia***  
 Comb like structure on both side.....7
- 7(6). Body rounded or oval, elytron smooth, with broad, sub horizontal lateral expansion  
 .....***Aspidomorpha***  
 Body not rounded or oval, elytron rough and deeply punctured, with moderately broad, declivitous lateral expansion..... 8
- 8(7). Comb-like structure long on both sides of tarsal claws.....***Sindiola\****  
 Comb-like structure short on outer side of tarsal claws..... 9
- 9(8). Body triangular; elytral surface rough, humeral angles drawn forward.....***Laccoptera***  
 Body parallel-sided or elongate; elytral surface not rough, humeral angles not drawn forward  
 .....***Conchyloctenia***
- 10(5). Prosternum with a channel on side for reception of antenna..... 11  
 Prosternum without a channel on side for reception of antenna..... 13
- 11(10). Antenna short and stout, and lies completely in the channel.....***Oocassida***  
 Antenna with two basal segments only lie in the channel..... 12
- 12(11). Two apical segments of antenna passing beyond the posterior margin of pronotum, antenna finer; body more convex, more narrowed anteriorly.....***Chiridopsis***  
 Two apical segments of antenna not passing beyond the posterior margin of pronotum, antenna more robust; body less convex and parallel-sided.....***Glyphocassis***

13(10). Apical margin of elytron with a row of fine hairs on underside; tarsal claws without basal teeth or appendices..... *Thalaspida*

Apical margin of elytron without such hairs; tarsal claws often with basal teeth..... *Cassida*

#### Genus *Craspedonta* Chevrolat

1837. *Craspedonta* Chevrolat, *In Dejean, Cat. Col.*, ed. 3 : 391  
 1840. *Calopepla* Hope, *Col. Man.*, 3 : 152.  
 1919. *Calopepla* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 306.  
 1952. *Craspedonta* : Gressitt, *Proc. Calif. Acad. Sci.*, (4) 27 : 451.

Two species of this genus were recorded so far from India of which one was from West Bengal.

#### 333. *Craspedonta leayana* (Latreille)

1807. *Imatidium leayanum* Latreille, *Gen. Crust. et. Ins.*, 3 : 50.  
 1850. *Calopepla leayana* : Boheman, *Mon. Cassid.*, 1 : 9.  
 1952. *Craspedonta leayana* : Gressitt, *Proc. Calif. Acad. Sci.*, (4) 27 : 451.

*Diagnostic characters* : General colour variable; prothorax varies from light yellow to red-brown, with the basal margin edged with black; antenna black except for two basal segments which are yellow to red-brown; elytra greenish bronze with bluish violet margins, sometimes whole elytra bluish violet; ventral side and legs yellow to redbrown with the tarsi darker; length 14.0-15.5 mm.

*Material examined* : Darjiling : Mangphu ( 3 exs.); Nazeok, 300m., 7.i. 1974(1 ex.), Srivastava & Maiti coll.

*Distribution* : India : West Bengal (Calcutta and Darjiling), Arunachal Pradesh, Assam, Maharashtra, Meghalaya, Nagaland and Tamil Nadu. Elsewhere : Burma, Laos and Vietnam.

#### Genus *Epistictina* Hincks

1850. *Epistictia Boheman* (nec. Amyot), *Mon. Cassid.*, 1 : 12.  
 1919. *Epistictia* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cassid.)* : 318.  
 1950. *Epistictina* Hincks, *Ann. Mag. nat. Hist.* (12) 3 : 59 ( new name for *Epistictia* Boh.).

Three species of this genus were recorded sofar from India of which a single species was from West Bengal.

#### 334. *Epistictina viridimaculata* (Boheman)

1850. *Epistictia viridimaculata* Boheman, *Mon. Cassid.*, 1 : 15.  
 1919. *Epistictia viridimaculata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp & Cass.)* : 320.  
 1963. *Epistictina viridimaculata* : Gressitt & Kimoto, *Pac. Ins. Monogr.* 1B : 945.

*Diagnostic characters* : General colour varies from red to light brown or orange brown; antenna black; pronotum with two roundish greenish or bluish spots; each elytron with seven or nine greenish or bluish spots; length 8.0-12.0 mm.

*Material examined* ; Nil

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam, Manipur, Meghalaya, Punjab and Sikkim. Elsewhere : Burma, China, Cambodia, Malacca, Nepal, Thailand and Vietnam.

*Remarks* : Maulik (1919) recorded this species from Darjiling dist.

#### Genus *Notosacantha* Chevrolat

1837. *Notosacantha* Chevrolat, *In Dejean Cat. Col.*, ed. 3 ; 367,392  
 1840. *Hoplionota* Hope, *Col. Man.*, 3 ; 153.  
 1919. *Hoplionota* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp & Cass.)* : 284.  
 1952. *Notosacantha* : Gressitt, *Proc. Calif. Acad. Sci.*, (4) 27 : 444.

Sixteen species of this genus were recorded sofar from India of which two were from West Bengal.

#### 335. *Notosacantha maculipennis* (Boheman)

1856. *Hoplionota maculipennis* Boheman, *Cat. Col. Ins. Brit. Mus.* 9:5.  
 1919. *Hoplionota maculipennis* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* :293  
 1973. *Notosacantha maculipennis* : Kimoto & Takizawa, *Kontyu*, 41(2) : 180.

*Diagnostic characters* : General colour reddish brown; scutellum, two spots on pronotum, black (sometimes obsolete); each elytron with ten black spots and a few tubercles; a black patch on each of four corners of elytral expansion; length 5.0-5.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Meghalaya, Uttar Pradesh and Sikkim. Elsewhere : Kimoto (1981) recorded this species from Darjiling dist.

#### 336. *Notosacantha tenuicula* (Spaeth)

1913. *Hoplionota tenuicula* Spaeth, *Veth. Zool.-bot. Ges. Wien.*, 63 : (505).  
 1919. *Hoplionota tenuicula* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 295.  
 1981. *Notosacantha tenuicula* : Kimoto, *Ent. Rev. Japan*, 36 (1) : 56.

*Diagnostic characters* : General colour brownish black, with margins all round lighter, and a small yellowish patch on each elytral expansion nearly at middle; length 5.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Darjiling), Assam, Maharashtra and Meghalaya.

*Remarks* : Maulik (1919) recorded this species from Darjiling dist.

Genus *Basiprionota* Chevrolat

1837. *Basiprionota* Chevrolat, *In Dejean, Cat. Col.*, ed : 3 : 392.  
 1840. *Prioptera* Hope, *Col. Man.*, 3 ; 153.  
 1919. *Prioptera* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 310.  
 1952. *Basiprionota* : Gressitt, *Proc. Calif. Acad. Sci.*, (4) 27 : 454.

Ten species of this genus were recorded sofar from India of which three species were from West Bengal.

337. *Basiprionota punctipennis* (Wagner) **New Combination**

1877. *Prioptera punctipennis* Wagner, *Mitt. Munch. Ent. Ver.*, 1 : 59.  
 1919. *Prioptera punctipennis* : Maulik, *Fauna Brit India, Col., Chry. (Hisp. & Cass.)* : 314.

*Diagnostic characters* : General colour shining yellowish brown; two apical segments of antenna black; each elytron with four black patches, the posterior one extending to the edge of explanate margin; ventral side uniformly yellow brown; length 10.0 mm.

*Material examined* : Nil

*Distribution* : India : West Bengal (Calcutta). Elsewhere : Burma.

*Remarks* : Maulik (1919) recorded this species from Calcutta.

338. *Basiprionota decemmaculata* (Boheman)

1850. *Prioptera decemmaculata* Boheman, *Mon. Cassid.*, 1:60.  
 1919. *Prioptera decemmaculata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 314.  
 1972. *Basiprionota decemmaculata* : Vazirani, *Rec. Zool. Surv. India*, 66 (1-4) : 149.

*Diagnostic characters* : General colour varying from light yellow to black, sometimes partly blackish; pronotum with two round black spots; each elytron with four black spots, posterior outer one reaching the margin; metasternum with a black patch; length 9.0 mm.

*Material examined* : Darjiling : Pashok, 26.v.-14.vi. 1916 ( 5 exs.), Kalimpong, 24.iv.-10.v. 1915 ( 2 exs.), all F.H. Gravely coll.; Darjiling, vii. 1912 ( 2 exs.), Lord Carmichael coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam, Meghalaya and Sikkim. Elsewhere : Bhutan and Burma.

339. *Basiprionota impustulata* (Boheman)

1850. *Prioptera impustulata* Boheman, *Mon. Cassid.*, **1** : 46.  
 1919. *Prioptera impustulata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cassid)* : 316.  
 1972. *Basiprionota impustulata* : Vazirani, *Rec. Zool. Surv. India*, **66** (1-4) : 150.

*Diagnostic characters* : General colour uniform shining yellowish brown; apical segments of antennae black; sometimes head black, or a blackish spot at explanate margin on each elytron behind middle; elytral punctures coarse, large and deep especially at basal area near suture; length 10.5-11.0 mm.

*Material examined* : Calcutta ( 1 ex.).

*Distribution* : India : West Bengal (Calcutta); Assam and Sikkim.

Genus *Sindia* Weise

1897. *Sindia* Weise, *Deut. Ent. Zeits.* : 105.  
 1919. *Sindia* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 340.

Three species of this genus were recorded sofar from India of which two were from West Bengal.

340. *Sindia clathrata* (Fabricius)

1798. *Cassida clathrata* Fabricius, *Ent. Syst. Suppl.* : 83.  
 1897. *Sindia clathrata* : Weise, *Deut. Ent. Zeits* : 105.  
 1919. *Sindia clathrata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 341.

*Diagnostic characters* : General colour varies from light brown to dark red-brown; pronotum with nine black patches; each elytron with two costae and with six large black patches; ventral side brown with metasternum and middle portion of abdomen black; sometimes femora partly black; length 11.5-14.0 mm.

*Material examined* : Maldah (2 exs.) : Murshidabad : Berhampur (5 exs.), Atkinson coll.; Mednipur (1 ex.).

*Distribution* : India : West Bengal (Calcutta, Maldah, Medinipur and Murshidabad). Elsewhere : Maharashtra and Tamil Nadu.

341. *Sindia sedecimmaculata* Boheman

1856. *Cassida sedecimmaculata* Boheman, *Cat. Col. Ins. Brit. Mus.*, **9**:119.  
 1901. *Sindia sedecimmaculata* : Spaeth, *Verh.. Zool.- bot. Ges. Wien*, **51**:347.  
 1919. *Sindia sedecimmaculata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 343.

*Diagnostic characters* : General colour shining yellow brown; pronotum with two round black spots; each elytron with six round black spots and another two common spots on suture; abdominal segments and middle portion of prosternum black; length 7.0 mm.

*Material examined* : Darjiling : Ghumti, 1200m., vii. 1911 ( 1 ex.), F.H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh. Elsewhere : China.

Genus *Aspidomorpha* Hope

1840. *Aspidomorpha* Hope, *Col. Man.*, 2 : 158.

1919. *Aspidomorpha* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 324.

Thirteen species of this genus were recorded sofar from India of which eight were from West Bengal.

342. *Aspidomorpha fuscopunctata* Boheman

1854. *Aspidomorpha fuscopunctata* Boheman, *Mon Cassid.*, 2 : 298.

1919. *Aspidomorpha fuscopunctata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 326.

*Diagnostic characters* : General colour pale yellowish brown, elytral punctures black and with a tubercle at suture behind scutellum, neither anterior nor posterior lateral angles of explanate margin with dark patch; two apical segments of antenna black; length 9.0-10.0 mm.

*Material examined* : Haora : Bot. Garden, 10.xi. 1961 ( 2 exs.), K.R. Rao coll.

*Distribution* : India : West Bengal (Darjiling and Haora), Kerala and Tamil Nadu. Elsewhere : Burma, China, Indo-China, Malaya and Phillippines.

343. *Aspidomorpha indica* Boheman

1854. *Aspidomorpha indica* Boheman, *Mon. Cassid.*, 2 : 318.

1919. *Aspidomorpha indica* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 327.

*Diagnostic characters* : General colour shining yellowish brown; elytral disc (except explanate margins) dark brown; four corners of explanate margins with darker or blackish patches; pronotum almost impunctate; elytra strongly punctate with one or two depressions; body nearly rounded; length 8.0 mm.

*Material examined* : Darjiling : Pashok, 26.v.-14.vi. 1916 (1 ex.), F.H. Gravely coll.; Ghumti, vii. 1912 (40 exs.), Darjiling, v.-vi. 1912 (13 exs.), all Lord Carmichael coll.; Calcutta : 8.viii. 1914 ( 2 exs.), E. Ross. coll., 25.ix. 1912 ( 1 ex.), A. Mitra coll.; Gariahat, 28.viii. 1964 ( 1 ex.), G. Ramakrishna coll.; Bankura : Amdangra, 30. viii. 1986 ( 1 ex.), P. Mukhopadhyay coll., 24 Parganas : Jainagar, 7.xi. 1974 (4 exs.), P. Singh coll.; Sonarpur, 25.viii. 1965 ( 1 ex.), G.N. Saha coll.

*Distribution* : India : West Bengal (Bankura, Calcutta, Darjiling and 24 Parganas). Arunachal Pradesh, Assam, Orissa, Sikkim and Tamil Nadu. Elsewhere : China, Indo-China. Japan. Korea, Nepal, Pakistan, Taiwan and USSR.

344. *Aspidomorpha sanctaegrucis* (Fabricius)

1792. *Cassida sanctaegrucis* Fabricius, *Ent. Syst.*, 4 : 446  
 1854. *Aspidomorpha sanctaegrucis* : Boheman, *Mon. Cassid.*, : 2 : 287.  
 1919. *Aspidomorpha sanctaegrucis* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 329.

*Diagnostic characters* : General colour varying from light brown to dark brown; explanate margins transparent with a faint brown border all round; anterior and posterior lateral angles of elytral explanate margins with a dark patch; sometimes only anterior ones having such patch, elytral disc irregular; length 11.0-15.0 mm.

*Material examined* : Murshidabad ( 2 exs.); Darjiling : Sukna, 150m., 2.vii. 1908 ( 1 ex.), N. Annandale coll.; Kurseong, 1500 m., 9.vii. 1908 (1 ex.), 13-16.vii. 1907 ( 1 ex.); Goke, Singla, 400 m., 17.iv. 1973 ( 1 ex.), H.S. Sharma coll.; Jalpaiguri : Naxal Bari, 12.ix. 1974 ( 5 exs.), H.K. Bhowmik coll.

*Distribution* : India : West Bengal (Darjiling, Jalpaiguri and Murshidabad), Arunachal Pradesh, Assam, Karnataka, Kerala, Meghalaya, Orissa and Tamil Nadu. Elsewhere : Bhutan, Burma, China, Indo-China, Malaya, Nepal, Sri Lanka, Sunda Is. and Thailand.

345. *Aspidomorpha dorsata* (Fabricius)

1787. *Cassida dorsata* Fabricius, *Mant. Ins.* 1 : 64.  
 1854. *Aspidomorpha dorsata* Boheman, *Mon. Cassid.*, : 2 : 296  
 1919. *Aspidomorpha dorsata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 332.

*Diagnostic characters* : Dorsal surface varies from yellowish brown to red; more or less subtriangular in form, broadest at anterior angles of explanate margin; anterior lateral angles of elytral explanate margin only with dark patch; length 8.5-13.0 mm.

*Material examined* : Darjiling : Reyang, 275m., 29.iii. 1973 ( 1 ex.), H.S. Sharma coll.; Rangtong, 13.iv. 1978 ( 1 ex.), C.R. Basu coll.; Darjiling, v-vi. 1912 ( 4 exs.), Lord Carmichael coll.

*Distribution* : India : West Bengal (Darjiling), Assam, Karnataka, Meghalaya, Nagaland, Sikkim and Tamil Nadu. Elsewhere : Bangladesh, Bhutan, Burma, Celebes, Java, Malaya, Siam, Sumatra, Sunda Is. and Thailand.

346. *Aspidomorpha chandrika* Maulik

1918. *Aspidomorpha chandrika* Maulik, *Ann. Mag. Nat. Hist.*, (9) 1 : 322  
 1919. *Aspidomorpha chandrika* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 331.

*Diagnostic characters* : The disc of pronotum, elytra with the disc and anterior lateral angles of explanate margin, and apex of suture, dark brown; explanate margins light yellowish and transparent; two apical segments of antennae black; length 7.0-9.0 mm.

*Material examined* : Darjiling : Rangpo, 500 m., 31.vi. 1974 (1 ex.), J.K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh. Elsewhere : Burma.

347. *Aspidomorpha furcata* (Thunberg)

1789. *Cassida furcata* Thunberg, *Nov. Ins. Spec.*, 5 : 87.

1919. *Aspidomorpha furcata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cas.)* : 333

*Diagnostic characters* : Dorsal surface varying from pale yellow to yellowish brown; only anterior lateral angle of elytral explanate margin with dark patch; one or two apical segments of antennae black, except the extreme apex on the underside, length 6.5-7.5 mm.

*Material examined* : Calcutta ( 7 exs.) ; Darjiling : Pashok, 26. v.-14.vi. 1916(1ex.), F.H. Gravely coll.; 24 Parganas : Santoshpur, 21.xi. 1962 ( 1 ex.), K.R. Rao coll.

*Distribution* : India : West Bengal (Calcutta Darjiling and 24 Parganas), Arunachal Pradesh, Assam, Karnataka, Kerala, Meghalaya, Orissa, Sikkim and Tamil Nadu. Elsewhere : Burma, China, Malaya, Phillippines, Sri Lanka, Sumatra, Sunda Is., Thailand and Vietnam.

348. *Aspidomorpha miliaris* (Fabricius)

1775. *Cassida miliaris* Fabricius, *Syst. Ent.* : 91.

1854. *Aspidomorpha miliaris* : Boheman, *Mon. Cassid.* 2 : 261.

1919. *Aspidomorpha miliaris* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 334

*Diagnostic characters* : General colour pale yellow brown to dark brown; elytra with variable black markings, and its explanate margins transparent with a black spot or patch on each of four corners; elytra without any post basal tubercles; ventral side either entirely brown or entirely black or partly black; explanate margins of elytra at the widest almost as broad as disc; length 9.5-15.0 mm.

*Material examined* : Darjiling : Mungphu ( 1 ex.); Rangtong, 13.iv. 1978 ( 1 ex.), C.R. Basu coll.; Maldah ( 1 ex.); Calcutta : Horti-Garden, 14.ix. 1965 ( 1 ex.), J.C.D. & B.K.B. coll.; Calcutta ( 1 ex.), H. Jackson coll.; Bankura : Ganga Jachati, 8.ix. 1986 ( 6 exs.), Hatirampur, 10.ix. 1986 ( 1 ex.), all P. Mukhopadhyay coll.; Hugli : Chandannagar, vii. 1933 (22 exs.). Haora : Santragachi, 19.ix. 1964 ( 5 exs.), Mourigram, 19.ix. 1964 ( 3 exs.), all K. Rai coll.; Bot. Garden, 10.xi. 1961 ( 1 ex.), Panchpara. 29.viii. 1964 (72 exs.), all K.R. Ro. coll.; Bot Garden, 20.iv. 1961 ( 3 exs.), S. Ali. coll.; 24 Parganas : Sonarpur, 25.vii. 1965 (21 exs.), G.N. Saha coll., 8.ix. 1965 (23 exs.), K.S. Pradhan coll., 26.xi. 1965 ( 1 ex.), R.N. Tiwary coll., 28.xi. 1961 ( 2 exs.), R.K. Versney coll.; Subhasgram, 29.x. 1965 ( 1 ex.). S.C. Mitra coll.; Budge Budge, 13.xi. 1966 (12 exs.), K.V.L. Narayan coll.; Barrackpore, 29.ix. 1965 (44 exs.), O.B. Chhotani coll.; Sodepur, 23.iv. 1963 ( 1 ex.), K.D. Chatterjee coll.

*Distribution* : India : West Bengal (Bankura, Calcutta, Darjiling Hugli. Haora and 24 Parganas). Andaman Is., Assam, Bihar, Karnataka, Meghalaya, Orissa and Tamil Nadu. Elsewhere : Burma. China, Indo-China, New Guinea, Phillippines, Sri Lanka and Sunda Is.

349. *Aspidomorpha orientalis* Boheman

1856. *Aspidomorpha orientalis* Boheman, *Cat. Col. Ins. Brit. Mus.*, **9** : 107

1919. *Aspidomorpha orientalis* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 336.

*Diagnostic characters* : General colour varying from yellowish brown to red-brown; elytra with variable black spots and patches, but explanate margins with a black patch on each of the four corners; sometimes metasternum black or abdominal sternites and metasternum partly black; elongate-ovate in form; elytral explanate margin at the widest little more than half as broad as disc; length 8.5-10.0 mm.

*Material examined* : Darjiling : Singla, 900 m., v. 1913 ( 1 ex.), Lord Carmichael coll.

*Distribution* : India : West Bengal ( Darjiling).

Genus *Laccoptera* Boheman

1855. *Laccoptera* Boheman, *Mon. Cassid.*, **3** ; 55.

1919. *Laccoptera* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 346.

Four species of this genus were recorded sofar from India of which one from West Bengal.

350. *Laccoptera quadrimaculata* (Thunberg)

1789. *Cassida quadrimaculata* Thunberg, *Nov. Ins. Spec.*, **5** : 86.

1910. *Laccoptera quadrimaculata* var. *bohemani* : Weise, *Verh. Naturf. ver. Brunn*, **48** : 42.

1919. *Laccoptera quadrimaculata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 347.

*Diagnostic characters* : General colour varies from dark brown to light brown; elytral margin between antero and posterolateral spots yellowish; dorsal surface of the body generally with less than thirteen spots; pronotum with two small spots, one on each side; metasternum with transverse black patch; body more or less triangular; length 8.0-9.0 mm.

*Material examined* : Darjiling : Pashok, 24.iv.-11.vi.1915 (1 ex.), 26.v.-14.vi.1916 (3 exs.), all F.H. Gravely coll.; Bijanbari, 900m., 19.v.1974 (1 ex.), J. K. Jonathan coll.; Kurseong, 1459 m., 30.vi.1971 (1 ex.), A. R. Bhaumik coll., 1745 m., 15.v.1979 (24 exs.), Kalimpong, 1243 m., 23.v.1979 (1 ex.), all M. S. Shishodia coll.; Calcutta : Horti Garden, 30.ix.1963 (4 exs.), K. D. Chatterjee coll.; Alipur, 24.ix.1959 (1 ex.), P. C. Dhar coll.; Calcutta (1 ex.), Murshidabad (1 ex.), Atkinson coll.; Haora : Bot. Garden, 21.vi.1961 (6 exs.), S. Ali coll, 28.vi.1965 (1 ex.), P. Parui coll.; 24 Parganas : Sonarpur, 8.ix.1965 (8 exs.), K. S. Pradhan coll., 28.xi.1961 (1 ex.), R. K. Vershney coll.

*Distribution* : India : West Bengal (Calcutta, Darjiling, Haora, Murshidabad and 24 Parganas), Andaman Is., Arunachal Pradesh, Assam, Bihar, Karnataka, Kerala, Meghalaya, Orissa, Sikkim, Tamil Nadu and Uttar Pradesh. Elsewhere : Bhutan, Burma, China, Indo-China, Nepal, Sunda Is. and Taiwan.

Genus *Conchyloctenia* Spaeth

1902. *Conchyloctenia* Spaeth, *Ann. Soc. ent. Belg.*, **46** : 449.  
1919. *Conchyloctenia* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 339.

This genus is represented in India by a single species.

351. *Conchyloctenia nigrovittata* (Boheman)

1854. *Cassida nigrovittata* Boheman, *Mon. Cassid.*, **2** : 341.  
1919. *Conchyloctenia nigrovittata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 339.

*Diagnostic characters* : General colour red or yellowish; elytra with a black spot at each of four corners, two at apical sutural angle, a row of spots along suture from base to apex, a pair of rows on the outer slope of disc near explanate margin; underside mostly black; form elongated; length 8.5-10.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Calcutta), Gujarat and Madhya Pradesh.

*Remarks* : Maulik (1919) recorded this species from Calcutta.

Genus *Oocassida* Weise

1897. *Oocassida* Weise, *Deut. Ent. Zeits* : 110.  
1919. *Oocassida* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 355.

Three species of this genus were recorded so far from India of which two were from West Bengal.

352. *Oocassida cruenta* (Fabricius)

1792. *Cassida cruenta* Fabricius, *Ent. Syst.*, **1** : 293.  
1919. *Oocassida cruenta* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 356.

*Diagnostic characters* : General colour varying from pale brown to dark brown; elytra with three faint longitudinal red stripes, one on each elytron, and one along the suture, which continued to a short distance on pronotum; length 6.0-7.0 mm.

*Material examined* : Calcutta ( 2 exs.).

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

353. *Oocassida obscura* (Fabricius)

1792. *Cassida obscura* Fabricius, *Ent. Syst.* **1** : 295.  
1919. *Oocassida obscura* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 359.

*Diagnostic characters* : General colour uniform red-brown; ventral surface black, except sides of abdominal segments and legs; length 6.0-7.0 mm.

*Material examined* : Calcutta ( 3 exs.); Murshidabad ( 2 exs.); 24 Parganas : Chapra, 8.xii. 1965 (2 exs.), K.R. Rao coll.

*Distribution* : India : West Bengal (Calcutta, Murshidabad and 24 Parganas), Pondicherry.

#### Genus *Chiridopsis* Spaeth

1837. *Deloyala* Chevrolat, In Dejean, *Cat. Col.* ed. 3 : 371,395 (Part).

1896. *Chirida* : Weise, *Deut. Ent. Zeits* : 12 (Part).

1919. *Chridia* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 412.

1924. *Chiridopsis* Spaeth, *Voy. Alluad et Jeannel Afr. Or.* 18:337.

Thirteen species of this genus were recorded sofar from India of which a single species from West Bengal. The present paper includes another two speices from West Bengal.

#### 354. *Chiridopsis septemnotata* (Boheman)

1855. *Coptocycla septemnotata* Boheman, *Mon. Cassid.*, 3 : 133.

1919. *Chirida septemnotata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 420.

1981. *Chiridopsis septemnotata* : Kimoto, *Ent. Rev. Japan*, 36(1) : 61

*Diagnostic characters* : General colour brown, sometimes pronotum and elytra green with reddish reflections; suture with red stripes, sometimes continued to pronotum; pronotum with or without two parallel black lines in front of scutellum; each elytron with a curved row of three black spots; ventral side black except sides of abdominal sternites; length 6.0-7.0 mm.

*Material examined* : Darjiling : Kalimpong, 1200m.,- vi.1916 (20 exs.), D. Sutherland coll., 10-12.vi. 1916 ( 1 ex.), F.H. Gravely coll.; Mahanadi, 26.iii. 1978 (2 exs.), C.R. Basu coll.; Calcutta ( 1 ex.).

*Distribution* : India : West Bengal (Calcutta and Darjiling), Assam, Orissa and Sikkim. Elsewhere: Bangladesh, Bhutan, Malaya.

#### 355. *Chiridopsis promiscua* (Boheman) *New Combination*

1855. *Coptocycla promiscua* Boheman, *Mon. Cassid.*, 3 : 130.

1901. *Chirida promiscua* : Weise, *Deut. Ent. Zeits.* : 52.

1919. *Chirida promiscua* : Maulik, *Fauna. Brit. India, Col., Chry. (Hisp. & Cass.)* : 421.

*Diagnostic characters* : General colour brown; suture with a broad black stripe not continued to apex; pronotum with two short parallel median longitudinal lines, sometimes fused in middle; each elytron with three black spots; length 5.5-6.5 mm.

*Material examined* : Bankura : Hatirampur, 10.ix. 1986 ( 1 ex.), C.R. Basu coll.

*Distribution* : India : West Bengal (Bankura), Karnataka and Maharashtra.

*Remarks* : First record from West Bengal.

356. *Chiridopsis bipunctata* (Linnaeus) *New Combination*

1767. *Cassida bipunctata* Linnaeus, *Syst. Nat.* ed. 12, 1&2 : 578.

1919. *Chirida bipunctata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 426.

*Diagnostic characters* : General colour yellowish brown; usually each elytron with three small round black spots; sometimes one or two spots may be absent; sometimes pronotum with small parallel longitudinal lines in front of scutellum; sometimes apical segments of antenna blackish; sometimes suture with reddish tinge atleast at base; length 6.0-7.0 mm.

*Material examined* : Darjiling : Tindharia, 900m., (1 ex.); 24 Parganas : Sonarpur, 18.vii. 1964 (1 ex.), S.K. Ghosh coll.; Dattabad, 30.viii. 1962 (1 ex.), K.V.L. Narayan coll.

*Distribution* : India : West Bengal (Darjiling and 24 Parganas), Kerala, Maharashtra and Tamil Nadu.

*Remarks* : First record from West Bengal.

Genus *Glyphocassis* Spaeth

1914. *Glyphocassis* Spaeth, *Deut. Ent. Zeits.* : 547.

1919. *Glyphocassis* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 359.

So far only one species of this genus was recorded from India.

357. *Glyphocassis trilineata* (Hope)

1831. *Cassida trilineata* Hope, *In Gray, Zool. Miscell.* : 30.

1914. *Glyphocassis trilineata* var. *melanosticta* Spaeth, *Deut. ent. Zeits.* : 548.

1919. *Glyphocassis trilineata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 360.

*Diagnostic characters* : General colour varying from pale yellow to red-brown; pronotum and elytra with a black pattern which mainly consists of three broad stripes united by a transverse bands; five apical segments of antennae black; length 6.0 mm.

*Material examined* : Darjiling, v-vi. 1912 ( 4 exs.), Lord Carmichael coll.

*Distribution* : India : West Bengal (Darjiling). Sikkim and Uttar Pradesh. Elsewhere : China and Nepal..

Genus *Cassida* Linnaeus

1758. *Cassida* Linnaeus, *syst. Nat.* ed. 10, 1 : 362.

1919. *Cassida* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 361.

Forty eight species of this genus were recorded sofar from India of which fifteen species were from West Bengal. Present paper includes another four species from West Bengal.

358. *Cassida enervis* Boheman

1862. *Cassida enervis* Boheman, *Mon. Cassid.*, 4 : 338.

1919. *Cassida enervis* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 373.

*Diagnostic characters* : General colour entirely brown, pronotum and elytra without any markings; length 4.5 mm. It is very close to *C. pusillula* Boh. but can be distinguished from the latter in having elytral interspace between second and thord rows of punctures wider.

*Material examined* : Calcutta : Eden Garden, 19.viii. 1968 ( 3 exs.), R.L. Chowdhury coll., 30.viii. 1963 ( 6 exs.), S. Munshi coll., 29.ii. 1960 (17 exs.), 3.xii. 1957 (1 ex.), 19.i. 1961 ( 1 ex.), all A.P. Kapur coll., 27.iv. 1964 ( 1 ex.), R.K. Kacker coll., 29.viii. 1957 ( 1 ex.), 30.xi. 1962 ( 5 exs.), 15.xi. 1960 (9 exs.), 17. xii. 1964 ( 1 ex.), all S. Ali Coll., 23. x. 1959 ( 3exs.), 22. iv. 1960 (1 ex.), all H.N. Singh coll., Horti Garden, 30.ix. 1963 ( 1 ex.), K.D. Chatterjee coll., 11.viii. 1965 ( 1 ex.) B.K. Mudi coll., 30.viii. 1960 (160 exs.), A.P. Kapur coll; Dhapa, 23.viii. 1961 (2 exs.), S. Ali coll.; Zoo Garden, 31.iii. 1960 ( 3 exs.), A.P. Kapur coll.; Hugli : Pundooah, 29.i. 1966 ( 1 ex.), K.S. Pradhan coll.; Andul, 28.ix. 1964 ( 8 exs.), G.S. Arora coll.; Tribeni, 12.xi. 1965 ( 1 ex.), M.M. Ghosh and S.P. Chakraborty coll.; Haora : Bot. Garden, 10.xi. 1961 (3 exs.), 29.x. 1965 ( 2 exs.), all K.R. Rao coll., 31.viii. 1965 ( 1 ex.), K.S. Pradhan coll., 30.yi.1964 ( 5 exs.), D.K. Mandal & S. Ali coll., 24.iv. 1962 ( 1 ex.), S. ali coll.; Mourigram, 15.vi. 1977 ( 1 ex.), T. Sengupta coll.; 24 Parganas : Barrackpore, 29.ix. 1965 ( 1 ex.), O.B. Chhotani coll. Diamond Harbour, 31. xii. 1965 ( 1 ex.), S.K. Tandon coll.; Santoshpur, 21.xi. 1962 ( 1 ex.), R.K. Kacker coll.; Salt Lake, 27.vii. 1962 ( 3 exs.), B. Datta & S. Ali coll.; Datta bad, 12.ix. 1962 ( 7 exs.), S. Ali. & M. Lal coll.; Chaprasiabad, 24.x. 1962 ( 1 ex.), S.K. Ghosh coll.; Kharbaria, 9.xi. 1962 ( 4 exs.), Pooran Singh coll.

*Distribution* : India : West Bengal (Calcutta, Hugli, Haora and 24 Parganas), Maharashtra.

*Remarks* : First record from West Bengal.

359. *Cassida pusillula* Boheman

1862. *Cassida pusillula* Boheman, *Mon. Cassid.*, 4 : 327

1919. *Cassida pusillula* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 374.

*Diagnostic characters* : General colour red-brown; two or three apical segments of antennae blackish; metasternum and middle portion of abdominal segments black; pronotum and elytra without any markings; interspace between second or third rows of punctures narrower; length 3.5-4.0 mm.

*Material examined* : Calcutta : Eden Garden, 29.vii. 1964 (2 exs.), G. Prasad coll., 19.viii. 1968 (1 ex.), R.L. Chowdhury coll., 30.viii. 1963 (6exs.), S. Murshi coll.; Haora : Bot. Garden, 10.xi. 1961 (5 exs.), K.R. Rao coll.; Andul, 29.ix. 1964 (1 ex.), G.S. Arora coll.

*Distribution* : India : West Bengal (Calcutta, Haora and Darjiling), Uttar Pradesh.

360. *Cassida nigriventris* Boheman

1854. *Cassida nigriventris* Boheman, *Mon. Cassid.*, 2 : 410.

1919. *Cassida nigriventris* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 375.

*Diagnostic characters* : General colour pale yellowish; head partly or entirely black or entirely yellow; antennal segments 4-5 or only the last segment blackish dorsally; ventral side, except sides of abdomen and legs, black; pronotum and elytra without markings; elytral punctures finer atleast for first two rows; length 5.5 mm.

*Material examined* : Darjiling : Kurseong, 1500 m., 4.vii. 1908 (1 ex.), N. Annandale coll., 1745 m., 15.v. 1979 (1 ex.), M.S. Shishodia coll.; Mahanadi, 1255 m., 28.iv. 1971 (4 exs.), A.R. Bhaumik coll.; Bot. Garden, 2050 m., 16.v. 1974 (1 ex.), J.K. Jonathan coll.; Rangpo, 8.iv. 1973 (1 ex), M.S. Shishodia coll.

*Distribution* : India : West Bengal (Darjiling), Assam, Himachal Pradesh, Sikkim and Uttar Pradesh. Elsewhere : Nepal and Pakistan.

361. *Cassida obtusata* Boheman

1854. *Cassida obtusata* Boheman, *Mon. Cassid.*, 2 : 405.

1919. *Cassida obtusata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 376.

*Diagnostic characters* : General colour yellowish brown; metasternum and abdominal segments (except sides) black; pronotum and elytra without markings; elytral punctures with blackish centres; tarsal claws simple not appendiculate; length 4.0 mm.

*Material examined* : Darjiling : Tung, 25.iii.1978 (9 exs.), C. R. Basu coll.

*Distribution* : India : West Bengal (Darjiling), Meghalaya. Elsewhere : Burma, China, Indo-China, Phillipines, Sunda Is. and Taiwan.

*Remarks* : First record from West Bengal.

362. *Cassida circumdata* Herbst

1799. *Cassida circumdata* Herbst, *Natursyst. Kaf.*, 8 : 268.

1919. *Cassida circumdata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 404.

*Diagnostic characters* : General colour pale yellow to yellow-brown, sometimes with greenish tinge; elytra with a broad black stripe along the middle forming a U-shaped marking, basal portion of suture, along with scutellum black and sometimes extending to pronotum; ventral side yellow-brown; length 5.0 mm.

*Material examined* : 24 Parganas : Dum Dum, 29.vi.1909 (1 ex.), B. Lord coll.; Barrackpore, 14.xi.1961 (1 ex.), K.V.L. Narayan coll.; Sonarpur 8.ix.1965 (2 exs.), K. S. Pradhan coll.; Barasat, 5.i.1966 (1 ex.), J. R. Singh coll.; Canning, 18.x.1965 (1 ex.), A.N.T. Joseph coll.; Kamalgachi, 10.v.1962 (1 ex.), S. N. Pal coll.; Calcutta : Horti. Garden, 30.ix.1963 (1 ex.), K. D. Chatterjee coll.; Dhapa, 27.viii.1961 (1 ex.), S. Ali coll.; Eden Garden, 30.viii.1963 (1 ex.), S. Munshi coll.; Calcutta (11 exs.); Haora : Bot. Garden, 10.xi.1961 (2 exs.), K. R. Rao coll., 21.vi.1961 (2 exs.), 20.iv.1961 (1 ex.) all S. Ali coll.

*Distribution* : India : West Bengal (Calcutta, Haora and 24 Parganas), Kerala, Orissa, Sikkim, Tamil Nadu and Tripura. Elsewhere : China, Indo-China, Phillipines, Sri Lanka and Taiwan.

### 363. *Cassida stupa* Maulik

1919. *Cassida stupa* Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 377.

*Diagnostic characters* : General colour shining dark brown; dorsal surface with fifteen black spots including two on pronotum, sometimes pronotal spots being absent; metasternum largely and abdominal segments partly black; length 5.0-5.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Calcutta).

*Remarks* : Maulik (1919) described this species from Calcutta.

### 364. *Cassida icterica* Boheman

1854. *Cassida icterica* Boheman, *Mon. Cassid.*, 2 : 400.

1919. *Cassida icterica* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 380.

*Diagnostic characters* : Dorsal side shining yellow to red-brown; elytra with five black spots, one common spot behind scutellum covers the transverse costa, and two on each elytron near suture behind middle; sometimes all the spots absent or only common spot present; generally all the interstices costate, and the punctures at least at the sides black; ventral side dark brown to blackish; two apical segments of antenna blackish; length 5.0 mm.

*Material examined* : Darjiling : Kalimpong, 24.iv.-10.v.1915 (3 exs.), F. H. Gravely coll.; Mungphu (1 ex.); Darjiling, v.-vi.1912 (1 ex.), Lord Carmichael Coll.; Kurseong, 1500 m., 8.ix.1909 (1 ex.), N. Annandale coll.; Singla. 2400 m., v.1912 (1 ex.), Lord Carmichael coll.

*Distribution* : India : West Bengal (Darjiling), Sikkim and Uttar Pradesh.

*Remarks* : First record from West Bengal.

365. *Cassida petulans* Spaeth

1914. *Cassida petulans* Spaeth, *Deut. Ent. Zeits.* : 550.

1919. *Cassida petulans* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 380.

*Diagnostic characters* : General colour reddish yellow; apex of antennae brown; sternum and middle portion of abdominal segments black; elytra with thirteen black spots, including one common spot on suture and four on explanate margins, which sometimes connected by a curve band and form a circle round the explanate margin; length 5.2-6.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling.), Tamil Nadu.

*Remarks* : Maulik (1919) recorded this species from Darjiling dist.

366. *Cassida dorsonotata* Boheman

1854. *Cassida dorsonotata* Boheman, *Mon. Cassid.*, 2 : 409.

1919. *Cassida dorsonotata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 383.

*Diagnostic characters* : General colour dark brown; elytra with obscured black spots; four or five apical segments of antenna blackish; sternum and abdominal segments with the middle portion black; length 6.0 mm.

*Material examined* : Darjiling : Kurseong, 23.vi.1910 (1 ex.), N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling), Karnataka.

*Remarks* : First record from West Bengal.

367. *Cassida syratica* Boheman

1856. *Cassida syratica* Boheman, *Cat. Col. Ins. Brit. Mus.*, 9 : 129.

1919. *Casida syratica* : Maulik, *Fauna Brit. India, Col. Chry. (Hisp. & Cass.)* : 388.

*Diagnostic characters* : General colour yellow-brown; three or four apical segments of antenna blackish; pronotum with three black spots at base, sometimes absent or joined together; elytra generally with its elevated portions yellowish and rest black, the black spots coalescing to form lateral bands; length 5.0-5.5 mm.

*Material examined* : Darjiling : Kurseong, 21.vi.1910 (1 ex.), N. Annandale coll.

*Distribution* : India : West Bengal (Darjiling), Himachal Pradesh, Kerala, Meghalaya, Sikkim, Tamil Nadu and Uttar Pradesh. Elsewhere : Bhutan, Nepal and Pakistan.

368. *Cassida justa* Spaeth

1914. *Cassida justa* Spaeth, *Deut. Ent. Zeits.*, : 554.

1919. *Cassida justa* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 391.

*Diagnostic characters* : General colour yellow; a reddish marginal band completely encircling the elytra, and its basal area with a reddish patch, a few small reddish spots on the disc, and the punctures dark; five apical segments of antennae blackish; length 6.0 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Maharashtra.

*Remarks* : Maulik (1919) recorded this species from Darjiling dist.

369. *Cassida occursans* Spaeth

1914. *Cassida occursans* Spaeth, *Deut. Ent. Zeits.* : 560.

1919. *Cassida occursans* : Maulik, *Fauna Brit. India, Col. Chry. (Hisp. & Cass.)* : 395.

*Diagnostic characters* : General colour shining reddish yellow; last two segments of antennae black; each elytron with a common spot on suture in front of elevation, two spots on second interstice behind middle, all these spots and band black; length 7.5 mm.

*Material examined* : Darjiling : Ghumti, 1200 m., vii.1912 (1 ex.), Lord Carmichael coll.; Mungphu (3 exs.); Kalimpong, 21.iv.-10.v.1915 (1 ex.), F. H. Gravely coll.

*Distribution* : India : West Bengal (Darjiling), Arunachal Pradesh, Assam, Meghalaya and Sikkim. Elsewhere : Burma.

370. *Cassida belliformis* Maulik

1919. *Cassida belliformis* Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 396.

*Diagnostic characters* : General colour dark red-brown; two apical segments of antennae, sternum, abdomen (except sides), base of femora, black; sometimes antennae entirely red-brown; elytra without any depression, and its black markings ill-defined and obsolescent; length 7.0 mm.

*Material examined* : Darjiling : Lebong, 13.vi.1914 (2 exs.), F. H. Gravely coll.; Bhutia busti, 2000 m., 16.v.1974 (1 ex), Darjiling Chowk, 2000 m., 15.v.1974 (1 ex.), Rangiroom, 2000 m, 23.v.1974 (1 ex.), Bot. Garden, 2050 m., 16.v.1974 (1 ex.), all J. K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling).

371. *Cassida desultrix* (Spaeth)

1914. *Metriona desultrix* Spaeth, *Deut. Ent. Zeits.* : 566.

1919. *Cassida desultrix* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 396.

*Diagnostic characters* : General colour yellow; pronotum with a rusty red basal patch; elytra with a common transverse X-shaped yellow costa behind scutellum; disc with rusty red markings and with a dark rusty red oblique band middle to side near the explanate margin; explanate margins transparent and yellow; tarsal claw with an appendix at base; length 5.0-6.0 mm.

*Material examined* : Darjiling, 5.vi.1912 (1 ex.), Lord Carmichael coll.

*Distribution* : India : West Bengal (Darjiling), Tamil Nadu.

372. *Cassida flavoscutata* Spaeth

1914. *Cassida flavoscutata* Spaeth, *Deut. Ent. Zeits.* : 556.

1919. *Cassida flavoscutata* : Maulik, *Fauna Brit. India., Col., Chry. (Hisp. & Cas.)* : 402.

*Diagnostic characters* : General colour brown; sternum and the middle of abdominal segments blackish; elytra (except a small portion at apex) and a large basal patch on pronotum brownish black; middle portion of scutellum yellow; antennae yellow with three or four apical segments blackish; elytral explanate margins transparent; length 4.7-6.5 mm.

*Material examined* : Nil.

*Distribution* : India : West Bengal (Darjiling), Bihar, Maharashtra, Sikkim and Tamil Nadu.

*Remarks* : Maulik (1919) recorded this species from Darjiling dist.

373. *Cassida varians* Herbst

1799. *Cassida varians* Herbst, *Natursyst. Kaf.*, 8 : 269.

1919. *Cassida varians* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 405.

*Diagnostic characters* : General colour brown; elytra with a faint reddish stripe forming a U-shaped marking; anterior half of suture with a faint reddish line; ventral side yellow-brown, apical segments of antennae blackish; length 5.0 mm.

*Material examined* : Calcutta, 11.viii.1954 (5 exs.). A. Sarkar coll.; Calcutta (4 exs.); Murshidabad: Berhampur, 13.iv.1910 (1 ex.), S. W. Kemp coll.

*Distribution* : India : West Bengal (Calcutta and Murshidabad).

374. *Cassida catenata* Boheman

1855. *Coptocyclus catenata* Boheman, *Mon. Cassid.*, 3 : 262.

1919. *Cassida catenata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 406.

*Diagnostic characters* : General colour brown; elytron (except explanate margins) almost entirely covered with black, leaving three brown spots, which sometimes coalescing to form a stripe; pronotum with an anchor-shaped black marking in the middle at base; length 5.0-6.0 mm.

*Material examined* : Darjiling : Mungphu (1 ex.).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri), Arunachal Pradesh and Uttar Pradesh. Elsewhere : Borneo, Burma, Celebes, China, Java and Sri Lanka.

375. *Cassida conchylata* (Spaeth)

1914. *Metriorhynchus conchylata* Spaeth, *Deut. Ent. Zeits.* : 564.

1919. *Cassida conchylata* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 408.

*Diagnostic characters* : Head, antenna and legs reddish brown; pronotum red; elytral explanate margin reddish brown, elytra largely covered with black, leaving a few reddish brown spots (ten to fifteen spots on each elytron) or patches; ventral side, except sides of abdomen, black; length 6.0-6.5 mm.

*Material examined* : Mungphu (1 ex.)

*Distribution* : India : West Bengal (Darjiling), Assam. Elsewhere : Burma.

376. *Cassida australica* Boheman

1855. *Coptocyclus australica* Boheman, *Mon. Cassid.*, 3 : 257.

1919. *Cassida australica* : Maulik, *Fauna Brit. India, Col., Chry. (Hisp. & Cass.)* : 410.

*Diagnostic characters* : General colour yellowish brown to reddish brown; pronotum black at basal area and with a pair of yellow-brown patches on the black area; elytral disc black except a broad margin allround, and variable yellowish brown spots and patches; suture black; ventral side black except sides of abdomen; length 5.5 mm.

*Material examined* : Darjiling : v.vi.1912 (41 exs.), Lord Carmichael coll.; Mahanadi, 1255 m., 28.iv.1971 (2 exs.), Municipal School Camp., 1480 m., 25.i.1971 (1 ex.), all A. R. Bhaumik coll.; Bot. Garden, 2000 m., 11.v.1975 (1 ex.), J. K. Jonathan coll.

*Distribution* : India : West Bengal (Darjiling), Jammu & Kashmir, Sikkim and Tamil Nadu. Elsewhere : Nepal and Pakistan

**THE CHART SHOWING DISTRICT WISE DISTRIBUTION OF THE  
CHRYSOMELID SPECIES KNOWN FOM WEST BENGAL**

Name of the Species	Darjiling	Jalpaiguri	Koch Bihar	West Dinajpur	Maldah	Murshidabad	Birbhum	Nadia	24-Parganas	Calcutta	Haora	Hugli	Bardhaman	Medinipur	Bankura	Puruliya
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Subfamily SAGRINAE</b>																
1. <i>Sagra femorata</i> Drury		+														
2. <i>S. empyrea</i> Lacordaire*																
<b>Subfamily DONACINAE</b>																
3. <i>Donacia delesserti</i> Guerin										+						
4. <i>D. recticollis</i> Jacoby										+						
5. <i>D. javana</i> Wiedemann										+						
<b>Subfamily ZEUGOPHORINAE</b>																
6. <i>Zeugophora longicornis</i> Westwood		+														
7. <i>Z. pallidicincta</i> Gressitt		+														
<b>Subfamily MEGALOPODINAE</b>																
8. <i>Temnaspis bengalensis</i> Westwood*																
9. <i>Colabaspis speciosus</i> Baly		+														
<b>Subfamily CRIOCERINAE</b>																
10. <i>Oulema downesi</i> (Baly)										+			+		+	

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
11. <i>Lema nigrofrontalis</i> Clark	+															
12. <i>L. praeclara</i> Clark	+									+						
13. <i>L. coromandelina</i> (F.)	+	+								+	+	+			+	
14. <i>L. atkinsoni</i> Jacoby	+															
15. <i>L. palpalis</i> Lacordaire	+															
16. <i>L. singularis</i> Jacoby	+															
17. <i>L. fulvula</i> Lacord.*																
18. <i>L. lacertosa</i> Lacord.	+	+								+	+	+				
19. <i>L. rufotestacea</i> Clark	+				+					+	+					
20. <i>L. impotens</i> Lacordaire	+									+						
21. <i>L. castanea</i> Jacoby										+						
22. <i>L. rugifrons</i> Jacoby										+						
23. <i>L. assamensis</i> Jacoby	+															
24. <i>L. suturella</i> Baly*																
25. <i>L. constrictofasciata</i> Jacoby	+								+							+
26. <i>L. maindroni</i> Jacoby										+						
27. <i>L. fulvofrontalis</i> Jacoby	+															
28. <i>L. fulvimana</i> Jacoby										+						
29. <i>L. rufofrontalis</i> Jacoby	+									+						

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
30. <i>L. psyche</i> Baly	+															
31. <i>L. gahani</i> Jacoby	+															
32. <i>L. cyanea</i> Fabricius	+															
33. <i>L. nigricollis</i> Jacoby	+															
34. <i>L. macei</i> Lacordaire*																
35. <i>L. indicola</i> Takizawa & Basu	+															
36. <i>Lilioceris malabarica</i> (Jacoby)		+														
37. <i>L. impressa</i> (Fabricius)	+									+						
38. <i>L. semipunctata</i> (Fabricius)	+															
39. <i>L. semicostata</i> (Jacoby)	+									+						
40. <i>L. nepalensis</i> Takizawa	+															
41. <i>L. quadripustulata</i> (Fabricius)	+	+														
42. <i>L. laosensis</i> (Pic)	+															
Subfamily <b>CLYTRINAE</b>																
43. <i>Aspidolopha decora</i> (Fabricius)*																
44. <i>A. spilota</i> (Hope)	+															
45. <i>A. egregia</i> (Boheman)		+														
46. <i>A. melanophthalma</i> Lacordaire	+	+				+				+			+		+	
47. <i>A. himalayensis</i> Medvedev	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
48. <i>Diapromorpha dejeani</i> Lacordaire	+															
49. <i>D. pallens</i> (Fabricius)	+				+				+	+		+				
50. <i>D. turcica</i> (Fabricius)							+								+	
51. <i>Aetheomorpha malayana</i> (Baly)	+									+						
52. <i>A unifasciata</i> Jacoby *																
53. <i>A. tonkinensis</i> (Jacoby)	+															
54. <i>A. pseudonagaensis</i> Medvedev	+															
55. <i>A. apicata</i> Medvedev	+															
56. <i>Coptocephala nair</i> Lacordaire															+	
57. <i>C. minuta</i> Jacoby *																
58. <i>Clytrasoma palliatum</i> (Fabricius)					+											
59. <i>Physosmaragdina tonkinensis</i> (Lef.)	+															
60. <i>Clytra succincta</i> Lacordaire *																
61. <i>C. indica</i> (Jacoby)	+															
62. <i>C. lefevrei</i> Jacoby*																
63. <i>Smaragdina laticollis</i> (Duvivier)	+															
64. <i>S. minuta</i> Jacoby	+															
65. <i>S. divisa</i> (Duvivier)	+				+					+					+	

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
66. <i>S. sikhima</i> Jacoby	+															
67. <i>Aetheanta fasciata</i> Medvedev	+															
Subfamily <b>CRYPTOCEPHALINAE</b>																
68. <i>Adiscus hauseri</i> (Weise)	+															
69. <i>Coenobius birmanicus</i> Jacoby	+															
70. <i>C. cyaneus</i> Lopatin	+															
71. <i>Cryptocephalus ensifer</i> Hope	+															
72. <i>C. exsulans</i> Suffrian	+															
73. <i>C. crucipennis</i> Suffrian *																
74. <i>C. sikhimensis</i> Jacoby	+															
75. <i>C. dimidiatipennis</i> Jacoby	+															
76. <i>C. insubidus</i> Suffrian *																
77. <i>C. difficiens</i> Suffrian	+															
78. <i>C. sehestedti</i> Fabricius						+	+		+	+		+				
79. <i>C. vittipennis</i> Suffrian					+					+		+				
80. <i>C. sauvis</i> Duvivier	+															
81. <i>C. tricoloratus</i> Redtenbacher	+															
82. <i>C. sexsignatus</i> Fabricius										+		+		+		
83. <i>C. bissexsignatus</i> Suffrian	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
84. <i>C. analis</i> Olivier					+											
85. <i>C. oppositus</i> Jacoby	+															
86. <i>C. sannio</i> Redt.	+															
87. <i>C. triangularis</i> Hope	+															
88. <i>C. vahli</i> F.							+									
89. <i>C. herbsti</i> Suffr. *																
90. <i>C. darjeelingensis</i> Jacoby	+															
91. <i>C. nigronotatus</i> Bryant	+															
92. <i>C. baroniurbanii</i> Lopatin	+															
93. <i>C. senguptai</i> Lopatin	+															
94. <i>C. moytreiae</i> Lopatin	+															
Subfamily <b>CHLAMISINAE</b>																
95. <i>Chlamisus pashokensis</i> (Maulik)	+															
Subfamily <b>LAMPROSOMATINAE</b>																
96. <i>Oomorphoides sakaii</i> Takizawa	+															
97. <i>O. nepalensis</i> Takizawa	+															
Subfamily <b>EUMOLPINAE</b>																
98. <i>Callisina brunnea</i> Jacoby	+															
99. <i>Pagria signata</i> (Mots.)	+									+					+	

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
100. <i>P. kanaraensis</i> (Jacoby)										+						
101. <i>Nodina indica</i> Jacoby	+															
102. <i>N. pusilla</i> Mots.	+															
103. <i>N. nepalensis</i> Takizawa	+															
104. <i>Basilepta pretiosum</i> (Jacoby)	+															
105. <i>B. fabrei</i> (Lefev.)	+															
106. <i>B. quadrifasciatum</i> (Jac.)	+															
107. <i>B. plagiosum</i> (Baly)	+															
108. <i>B. latefasciatum</i> (Jacoby) *																
109. <i>B. puncticollis</i> (Lefevre)	+															
110. <i>B. sikhimense</i> (Jacoby)	+															
111. <i>B. indicum</i> (Jacoby)	+															
112. <i>B. femoratum</i> (Jacoby)	+															
113. <i>B. variabile</i> (Duv.)	+															
114. <i>B. obscurum</i> (Jacoby)	+															
115. <i>B. angulicolle</i> (Duv.)	+															
116. <i>B. kumatai</i> Takizawa	+															
117. <i>Pseudostonopa castanea</i> Jacoby	+															
118. <i>P. picea</i> Jacoby	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
119. <i>Chrysonopa apicalis</i> Takizawa	+															
120. <i>Scelodonta vittata</i> Olivier					+											
121. <i>S. indica</i> Duv.	+									+				+	+	
122. <i>S. dillwyni</i> (Stephens)										+						
123. <i>S. purpurea</i> Papp *																
124. <i>Colasposoma downesi</i> Baly	+															
125. <i>C. rufipes</i> Jacoby	+															
126. <i>C. semicostatum</i> Jacoby	+															
127. <i>C. bicallosum</i> Lefevre *																
128. <i>C. serratulum</i> Lefevre *																
129. <i>C. metallicum</i> Clark	+															
130. <i>C. pretiosum</i> Baly	+				+											
131. <i>C. nigriventris</i> Baly *																
132. <i>C. asperatum</i> Lefevre	+															
133. <i>C. ornatum</i> Jacoby					+											
134. <i>C. auripenne</i> Mots.	+															
135. <i>Trichochrysea antennata</i> Jacoby	+															
136. <i>T. hirta</i> (F.)	+									+						
137. <i>Trichotheca hirta</i> Baly	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
138. <i>T. sikkimensis</i> Takizawa	+															
139. <i>T. basifemorata</i> Duv.	+															
140. <i>Aulexis tibialis</i> Jacoby	+															
141. <i>Aoria nigripes</i> (Baly)	+															
142. <i>A. bowringi</i> (Baly)	+															
143. <i>Xanthonia oblonga</i> Takizawa & Basu	+															
144. <i>Aloria caerulea</i> (Jacoby)	+															
145. <i>Abirus elongatus</i> Jacoby	+															
146. <i>Eurypelta modesta</i> (F.)												+				
147. <i>Bromiodes indicus</i> Jacoby	+															
148. <i>Pachnephorus lewisii</i> Baly	+	+	+							+	+					
149. <i>P. impressus</i> Rosenh																+
150. <i>Cleorina aeneomicans</i> (Baly)	+															
151. <i>C. bevani</i> (Baly)	+															
152. <i>C. jacobyi</i> Duv.	+															
153. <i>C. assamensis</i> Jacoby	+											+				
154. <i>C. nepalensis</i> Takizawa	+															
155. <i>Heminodes unicolor</i> (Duv.)	+															
156. <i>Colaspoides subrugosa</i> Jacoby	+															



Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
174. <i>C. baronii</i> Daccordi	+															
175. <i>C. inconstans</i> (Wied.)		+														
176. <i>Agrosteomela indica</i> (Hope)	+															
177. <i>A. fallaciosa</i> Stal	+															
178. <i>Humba cyanicollis</i> (Hope)	+															
179. <i>Phaedon indicus</i> Chen	+															
180. <i>P. chujoi</i> Daccordi	+															
181. <i>P. cheni</i> Daccordi	+															
182. <i>P. thompsoni</i> Daccordi	+															
183. <i>Plagioderia rufescens</i> (Gyll.)					+	+									+	
184. <i>Agasta formosa</i> Hope	+															
185. <i>Chrysomela populi</i> Linn.	+															
186. <i>Linnaeidea chlorina</i> (Maulik)	+															
187. <i>Paropsides nigropunctata</i> Jacoby	+															
188. <i>Potanina assamensis</i> (Baly)	+															
<b>Subfamily GALERUCINAE</b>																
189. <i>Madurasia obscurella</i> Jacoby						+				+					+	
190. <i>Apophyllia lebongana</i> Maulik	+															
191. <i>A. sericea</i> (F.)	+									+				+		

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
192. <i>A. crotchi</i> (Jacoby)																+
193. <i>A. assamensis</i> Jacoby	+	+									+					
194. <i>A. viridis</i> Jacoby	+															
195. <i>A. pallipes</i> (Jacoby)	+															
196. <i>Pseudadimonia variolosa</i> (Hope)	+															
197. <i>P. debria</i> Maulik	+															
198. <i>Periclitena vigorsi</i> (Hope)	+										+					
199. <i>P. cyanea</i> Clark											+					
200. <i>Lochmaea maculata</i> Kimoto	+															
201. <i>Sastra indicus</i> (Jacoby)	+															
202. <i>Gallerucella placida</i> Baly	+									+	+	+	+	+		+
203. <i>Pyrrhalta darjeelingensis</i> Kimoto	+															
204. <i>Meristata dohrni</i> Baly	+															
205. <i>M. sexmaculata</i> (Kollar & Redt.)	+															
206. <i>M. trifasciata</i> (Hope)	+															
207. <i>M. fallax</i> (Harold)	+	+														
208. <i>M. quadrifasciata</i> (Hope)	+															
209. <i>M. spilota</i> (Hope)	+															
210. <i>Oides andrewesi</i> Jacoby	+					+			+		+	+				

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
211. <i>O. bengalensis</i> Maulik *																
212. <i>O. coccinelloides</i> Gahan	+															
213. <i>O. maculata</i> (Olivier)	+									+						
214. <i>O. livida</i> (F.)	+															
215. <i>O. semipunctata</i> Duvivier	+															
216. <i>O. flava</i> (Olivier)								+	+	+						
217. <i>Hoplasoma sexmaculata</i> (Hope)	+															
218. <i>H. costatipennis</i> Jacoby	+															
219. <i>H. unicolor</i> ( Illiger)	+	+	+		+	+	+	+	+	+	+	+		+	+	+
220. <i>H. carinata</i> Kimoto	+															
221. <i>Aulacophora almora</i> Maulik	+															
222. <i>A. nilgiriensis</i> Jacoby										+						
223. <i>A. foveicollis</i> (Lucas)	+	+	+		+	+	+	+	+	+	+	+		+	+	
224. <i>A. excavata</i> Baly		+								+						
225. <i>A. lewisii</i> Baly	+	+			+	+				+	+	+	+			+
226. <i>A. frontalis</i> Baly						+										
227. <i>A. bicolor</i> (Weber)	+															
228. <i>A. cincta</i> (F.)											+					
229. <i>A. impressa</i> (F.)												+				



Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
249. <i>H. egena</i> Weise	+															
250. <i>H. nirada</i> (Maulik)		+														
251. <i>Cerophysa darjeelingensis</i> Tak. & Basu	+															
252. <i>Arthrotidea nepalensis</i> (Kimoto)	+															
253. <i>A. rubrica</i> Chen & Jiang	+															
254. <i>Liroetis flavipennis</i> Bryant	+															
255. <i>L. nepalensis</i> Chujo	+															
256. <i>Mimastra arcuata</i> Baly	+															
257. <i>M. quadripartita</i> Baly	+															
258. <i>M. cyanura</i> (Hope)										+						
259. <i>M. gracilis</i> Baly	+															
260. <i>M. nitida</i> Maulik	+															
261. <i>Cneorane rubicollis</i> (Hope)	+	+														
262. <i>C. rugulipennis</i> Baly	+															
263. <i>C. varipes</i> Jacoby	+															
264. <i>C. braeti</i> Duv.	+															
265. <i>C. orientalis</i> Jacoby	+															
266. <i>C. tibialis</i> Chujo	+															
267. <i>Miltina dilatata</i> Chupuis	+	+														

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
268. <i>Morphosphaera japonica</i> (Hornst.)	+															
269. <i>M. montivaga</i> Maulik	+															
270. <i>M. prava</i> Maulik	+															
271. <i>Calomicrus flavovittis</i> Mots.										+					+	
272. <i>Stenoluperus bhutanensis</i> Kimoto	+															
273. <i>S. darjeelingensis</i> Takizawa	+															
274. <i>S. punctatus</i> Takizawa	+															
275. <i>S. smetanai</i> Takizawa	+															
276. <i>Atrachya kusamai</i> Takizawa	+															
277. <i>Medythia nigrobilineata</i> (Mots.)		+							+	+	+	+				
278. <i>Monolepta conformis</i> Weise	+															
279. <i>M. madrasensis</i> Wilcox									+		+	+				+
280. <i>M. birmanensis</i> Jacoby	+															
281. <i>M. orientalis</i> Jacoby										+						
282. <i>M. bifasciata</i> (Hornst.)									+	+						
283. <i>M. signata</i> (Oliv.)	+	+	+			+	+		+	+	+	+		+	+	
284. <i>M. nigripes</i> (Oliv.)	+	+									+					
285. <i>M. braeti</i> (Duv.)	+															
286. <i>M. erythrocephala</i> (Baly)	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
287. <i>M. limbata</i> (Oliv.)						+			+		+	+				+
288. <i>M. leechi</i> Jacoby	+															
289. <i>M. himalayensis</i> Kimoto	+															
290. <i>M. lunata</i> Gressitt & Kimoto		+	+													
291. <i>M. bengali</i> n. sp.										+						
292. <i>M. pahari</i> n. sp.	+															
293. <i>M. tumpai</i> n. sp.	+															
294. <i>M. tuai</i> n. sp.	+															
295. <i>Paleosepharia costata</i> Tak. & Basu	+															
296. <i>Macrima armata</i> Baly	+															
297. <i>M. pallida</i> (Lab.)	+															
298. <i>M. aurantiaca</i> (Lab.)	+															
299. <i>Aplosonyx chalybaeus</i> (Hope)	+															
300. <i>A. scutellatus</i> Baly	+	+														
301. <i>A. davivieri</i> Jacoby	+	+														
302. <i>A. rufipennis</i> Duv.	+															
303. <i>Khasia kraatzi</i> Jacoby	+															
304. <i>Spitiella collaris</i> Baly	+															
305. <i>Leptarthra abdominalis</i> Baly	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
306. <i>Sphenoraia (Sphenoraiodes) rutilans</i> (Hope)	+	+														
307. <i>S. (Sphenoraia) bicolor</i> (Hope)	+								+		+					
308. <i>Trichobalya bowringii</i> (Baly)	+															
309. <i>T. apicalis</i> Kimoto	+															
310. <i>T. viridipennis</i> Kimoto	+															
311. <i>Palpoxena</i> sp.																+
312. <i>Arthrotus pallidus</i> Lab.	+															
313. <i>A. persimilis</i> Kimoto	+															
314. <i>Dercetina posticata</i> (Baly)	+															
315. <i>D. flavocincta</i> (Hope)	+	+														
316. <i>D. mandarensis</i> (Jacoby)	+	+														
317. <i>D. histrio</i> (Baly)	+	+	+													
318. <i>D. miniaticollis</i> (Hope)	+															
319. <i>D. viridicyanea</i> Kimoto	+															
320. <i>D. hainana</i> Gressitt & Kimoto	+															
321. <i>D. major</i> Kimoto	+															
322. <i>Doryida mouhoti</i> Baly	+															
323. <i>Hylaspes longicornis</i> Baly	+															
324. <i>Gallerucida singularis</i> Harold	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
325. <i>G. indica</i> Harold	+															
326. <i>G. nigricornis</i> Lab.	+															
327. <i>Dercetisoma concolor</i> (Jacoby)	+															
328. <i>Doryscus testaceus</i> Jacoby	+															
329. <i>Kanarella unicolor</i> Jacoby	+															
330. <i>Stethidea balyi</i> (Davivier)	+															
331. <i>Mandarella nagpurensis</i> Duv.	+															
332. <i>Pseudoides bivittata</i> Jacoby											+					
Subfamily CASSIDINAE																
333. <i>Craspedonta leayana</i> (Labr.)	+										+					
334. <i>Epistictina viridimaculata</i> (Boh.)	+															
335. <i>Notosacantha maculipennis</i> (Boh.)	+															
336. <i>N. tenuicula</i> (Spaeth)	+															
337. <i>Basiprionota punctipennis</i> (Wag.)											+					
338. <i>B. decemmaculata</i> (Boh.)	+										+					
339. <i>B. impustulata</i> (Boh.)											+					
340. <i>Sindia clathrata</i> (F)						+	+			+					+	
341. <i>S. sedecimmaculata</i> Boh.	+															
342. <i>Aspidomorpha fuscopunctata</i> Boh.	+											+				

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
343. <i>A. indica</i> Boh.	+									+	+					+
344. <i>A. sanctaecrucis</i> (F.)	+	+				+										
345. <i>A. dorsata</i> (f.)	+															
346. <i>A. chandrika</i> Maulik	+															
347. <i>A. furcata</i> (Thunberg)	+									+	+					
348. <i>A. miliaris</i> (F.)	+									+	+	+	+			+
349. <i>A. orientalis</i> Boh.	+															
350. <i>Laccoptera quadrimaculata</i> (Thun.)	+					+				+	+	+				
351. <i>Conchyloctenia nigrovittata</i> (Boh.)											+					
352. <i>Oocassida cruenta</i> (F.)											+					
353. <i>O. obscura</i> (F.)						+				+	+					
354. <i>Chiridopsis septemnotata</i> (Boh.)	+										+					
355. <i>C. promiscua</i> (Boh.)																+
356. <i>C. bipunctata</i> (Linn.)	+									+						
357. <i>Glyphocassis trilineata</i> (Hope)	+															
358. <i>Cassida enervis</i> Boh.										+	+	+	+			
359. <i>C. pusillula</i> Boh.	+										+	+				
360. <i>C. nigriventris</i> Boh.	+															
361. <i>C. obtusata</i> Boh.	+															

Name of the Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
362. <i>C. circumdata</i> Herbst										+	+	+				
363. <i>C. stupa</i> Maulik											+					
364. <i>C. icterica</i> Boh.	+															
365. <i>C. petulans</i> Spaeth	+															
366. <i>C. dorsonotata</i> Boh.	+															
367. <i>C. syratica</i> Boh.	+															
368. <i>C. justa</i> Spaeth	+															
369. <i>C. occursans</i> Spaeth	+															
370. <i>C. belliformis</i> Maulik	+															
371. <i>C. desultrix</i> (Spaeth)	+															
372. <i>C. flavoscutata</i> Spaeth	+															
373. <i>C. varians</i> Herbst						+					+					
374. <i>C. catenata</i> Boh.	+	+														
375. <i>C. conchylata</i> (Spaeth)	+															
376. <i>C. australica</i> Boh.	+															

Notes : The distributional chart does not show the actual picture. Darjiling, Calcutta and its surrounding districts have been intensively surveyed. The other districts require more surveys which is evident from the present chart.

\* Material not available. Species included here from literature where locality was mentioned only 'Bengal'

## SUMMARY

Three hundred seventy six species belonging to one hundred fifteen genera distributed in thirteen subfamilies are reported in this paper. Four new species *Monolepta bengali*, *M. pahari*, *M. tumpai* and *M. tuai* are described. Four species with two genera are new records from India and fifty three species including four genera are from West Bengal. Key to the subfamilies and genera, and a district wise distributional chart of all the species have also been provided.

## ACKNOWLEDGEMENTS

The author is grateful to the Director, Zoological Survey of India, Calcutta, for providing laboratory facilities to carry out this work. He is thankful to Mr. H. Takizawa and Prof. (Dr.) S. Kimoto of Japan for their help and co-operation. He is also thankful to Dr. Shyamrup Biswas, Incharge of Coleoptera Section, Zoological Survey of India, for constant encouragement and help.

## REFERENCES

- Basu, C.R., A. R. Bhaumik & T. Sengupta, 1981. The Chrysomelidae (Coleoptera) of Tripura (India). *Rec. zool. Surv. India*, **78** : 41-61.
- Daccordi, M. 1979. Nuove species di Crisomeline della Regione Orientale (Coleoptera : Chrysomelidae : Chrysomelinae). *Ent. Basiliensia*, **4** : 443-461.
- Gressitt, J. L. & S. Kimoto, 1961. The Chrysomelidae (Coleoptera) of China and Korea, Part I. *Pac. Ins. Monogr.* **1A** : 1-299
- Gressitt, J. L. & S. Kimoto, 1963. The Chrysomelidae (Coleoptera) of China and Korea. Part II. *Pac. Ins. Monogr.*, **1B** : 301-1026.
- Jacoby, M. 1908. *The Fauna of British India, including Ceylon and Burma*. Coleoptera, Chrysomelidae, 1 : XX + 534 pp.
- Kimoto, S. 1967. A list of the Chrysomelid specimens from the Himalayas and Kashmir, preserved in the Zoological Museum, Berlin, *Esakia*, No.6 : 65-75.
- Kimoto, S. 1970. A list of the Nepalese Chrysomelid specimens preserved in Zoologische Sammlung des Bayerischen Staates, Munchen, *Khumbu Himal.* Bd. 3, Lfg. **3** : 412-421.
- Kimoto, S. & H. Takizawa, 1972. The Chrysomelid-beetles of Nepal collected by the Hakaido University Scientific Expedition to Nepal Himalaya, 1968. Part 1. *Kontyu*, **40** (4) : 215-223.
- Kimoto, S. & H. Takizawa 1973. The Chrysomelid beetles of Nepal collected by the Hakaido University Scientific Expedition to Nepal Himalaya, 1963. Part II. *Kontyu*, **41**(2) : 170-180.

- Kimoto, S. 1977. Ergebnisse der Bhutan-Expedition 1972 des Naturhistorischen Museums in Basel. Coleoptera : Chrysomelidae : Galerucinae. *Ent. Basiliensia*, **2** : 351-392.
- Kimoto, S. 1979. The Galerucinae (Coleoptera : Chrysomelidae) of Nepal, Bhutan and Northern Territories of India, in the National Museum in Basel, I. *Ent. Basiliensia*, **4** : 463-478.
- Kimoto, S. & J. L. Gressitt. 1979. Chrysomelidae (Coleoptera) of Thailand, Cambodia, Laos and Vietnam, I. Sagrinae, Zeugophorinae, Megalopodinae and Criocerinae. *Pac. Ins.*, **20** (2-3) : 191-256.
- Kimoto, S. 1981. The Cassidinae of Nepal, Bhutan and Northern Territories of India, in the National History Museum in Basel (Coleoptera : Chrysomelidae). *Ent. Rev. Japan*, **36**(1) : 55-62.
- Kimoto, S. 1982. Ibid. Part II. *Ent. Rev. Japan*, **37** (1) : 7-24.
- Kimoto, S. 1983. Revisional study of Megalopodinae, Donacinae and Clytrinae of Japan (Coleoptera : Chrysomelidae). *Ent. Rev. Japan*, **38**(1) : 5-23.
- Kimoto, S. & H. Takizawa, 1983. Chrysomelid beetles of Nepal collected by the Himalayan Expedition 1979 of the National Science Museum, Tokyo (Part I). *Bull. Natn. Sci. Mus., Tokyo*, (A) **9**(2) : 83-96.
- Kimoto, S. 1984-85. Check list of Chrysomelidae of South East Asia, South of Thailand and West of Iran Jaya of Indonesia. I-IV. *Kurume Univ. J.*, **33**(1) : 41-58 (1984), **33**(2) : 167-184 (1984), **34**(1) : 57-87 (1985), **34**(2) : 153-177 (1985).
- Lopatin, I. 1979. Neue and wenig bekannte Chrysomeliden (Coleoptera) Von Nord-Indien aus der Sammlung des Naturhistorischen Museums Basel. *Ent. Basiliensia*, **4** : 431-441.
- Lopatin, I. 1982. Übersicht der Cryptocephalus-Arten der Gruppe exsulans Suffr. aus dem Himalaya (Coleoptera : Chrysomelidae : Cryptocephalinae). *Ent. Basiliensia*, **7** : 413-421.
- Lopatin, I. 1984. Chrysomelidae aus dem Himalaja (Coleoptera). *Ent. Basiliensia*, **9** : 329-339.
- Maulik, S. 1919. *The Fauna of British India, including Ceylon and Burma*. Coleoptera-Chrysomelidae (Hispinae & Cassidinae) : xii + 440 pp.
- Maulik, S. 1926. *The Fauna of British India, including Ceylon and Burma*. Coleoptera-Chrysomelidae (Chrysomelinae & Halticinae) : xiii + 442 pp.
- Maulik 1936. *The Fauna of British India, including Ceylon and Burma*. Coleoptera-Chrysomelidae (Galerucinae) : xiv + 648 pp.



## INSECTA : COLEOPTERA: SCOLYTIDAE

NIVEDITA SAHA AND P. K. MAITI  
*Zoological Survey of India, Calcutta 700 053*

### INTRODUCTION

The occurrence of 107 species of Scolytidae in West Bengal as revealed from the present study certainly proves the richness of fauna as compared to a total of 275 species known so far from the Indian subcontinent. Out of these, 77 species belonging to two subfamilies and 23 genera are already on record from the State mostly contributed by different authors. The authors are Blandford (1893 and '98); Hagedorn (1904, '08 and '110); Stebbing (1914); Sampson (1913, '19, '22 and '23); Eggers (1930 and '36); Beeson (1922, '30, '39, '40 and '41); Schedl (1951, '58, '69 and '75); Maiti and Saha (1986, '87 and '89) and Saha and Maiti (1987). Of all these authors, Sampson's contribution is most noteworthy with regard to the description of new species and those of Beeson are significant for reporting large majority of species and those of Maiti and Saha are of immense importance for providing key for the first time.

In spite of such rich faunal record, its identity remains a problem, since the group has never been thoroughly studied taxonomically in India. In considering the vastness of the country, state-wise scolytid fauna has been taken into account by the authors. All that knowledge we have, mainly based on earlier stray collection generally forwarded to the foreign experts who had remained satisfied with mere listing of the species in numerous scattered papers in different languages, and without making any key or giving any detailed morphology. Only recently, the fauna of the Districts of Darjiling and Jalpaiguri has been taxonomically treated by Saha (1985, unpublished) and that of the Andaman and Nicobar Islands by Maiti and Saha (1986). However, the contribution of Saha (1985) only on the fauna of two districts of West Bengal fails to fulfil the requirement of State fauna which has been attempted in the present paper. It is based on some unidentified collections made by the staff-members of the Zoological Survey of India which was supplemented by numerous undetermined and determined material from F.R.I., Dehra Dun.

Out of 107 species dealt herein in this paper 77 species were already known from the area, to which 30 more species are added to the existing fauna for the first time. However, all the species have been dealt here with reference to their synonyms, material, distribution, remarks, etc., except for six species not represented to their synonyms, material, distribution, remarks. These are *Xylechinus darjeelingensis* Schedl, *Hyorrhynchus blandfordi* Sampson, *Diaperus fici* Blandford, *Scolytogenes punctatus* (Schedl), *Xyleborus geminatus* Hagedorn and *X. speciosus* Schedl, for easy recognition of the fauna, keys have been formulated for the identity of genera and species from the area. Taxonomic treatment of different taxa is based on the most recent classification of Wood (1978). The maps of Darjiling and Jalpaiguri Districts indicating the species distribution have been provided considering maximum concentration of species in these districts (map 1,2,3 and 4).

## MATERIAL AND METHODS

The Scolytid fauna dealt herein is based on some undetermined material recently collected by the staff members of Z.S.I. from the different areas of the State. These collections are made from north Bengal by B. Nandi and S.K. Chakraborty, 1980; from Canning, 24-Parganas by P.K. Maiti, 1981; from Calcutta N. Saha, 1981 to 1989; from Nadia by Khan, 1982. These collections were further augmented by a large collection made by the staff members (B. Singh, 1934; N.C. Chatterjee, 1933-1935; C.F.C. Beeson, 1915, 1933, 1934, 1935; J.C. M. Gardner, 1929, 1930 and others ) of Forest Research Institute, Dehra Dun, from North Bengal. Further some determined species were also utilized to make a complete faunal picture of West Bengal as far as possible. Mention may be made that the unidentified and identified material examined for some species, have clearly been marked into two categories as 'A' and 'B' respectively. The specimens were processed and studied under a Binocular Microscope.

## GENERAL MORPHOLOGY

The general morphology includes the characters, which are used in the taxonomic identity of the species (Fig. 1, a-k).

Body usually varies from stout and broad to long and cylindrical in shape. Size varies from 1.00 – 5.50 mm.

Head generally globose, weakly narrowing anteriorly, sometimes subrostrate. Frontal surface either concave, convex or flat and is sculptured with punctures, granules or carinulae. Eyes varies from oval to elongate, from entire to emarginate and even completely divided. Antennae geniculate, with scape, funicle and club; scape either very short or long; funicular segments vary between three and seven; shape of antennal club varies from nearly spherical to elongate and dorso-ventrally flattened to obliquely truncate, either face devoid of any suture or septum or with either suture or septum and sometimes with both.

Pronotum varies from oval to elongate or cylindrical to subquadrate, sometimes broadest at base whence narrowing anteriorly with narrowly to broadly rounded anterior margin; dorsal surface varies from plano-convex to declivous on anterior portion and with asperities, punctures and hairs, sometimes with mycetangium.

Scutellum either visible or submerged; shape varies from oval to triangular, sometimes not at all visible.

Elytra varies from short and stout to long and cylindrical; basal margin of each elytron either straight or substraight or outcurved and either armed or unarmed; lateral sides either subparallel or outcurved and terminating into broadly to narrowly rounded apex; postero- lateral margins either carinate or rounded; elytra divided into basal portion and posterior declivity; declivital face flat, convex or concave or excavated; elytra with nine striae and ten interstriae; striae marked generally with punctures and hairs; interstriae with punctures, granules or tubercles or both and with the fine hairs and setae. Tibiae either with spine or tooth-like denticles.

## SYSTEMATIC ACCOUNT

## Family SCOLYTIDAE

List of species so far recorded from West Bengal : (Author's name and year against each species in paranthesis indicates its first record from the State).

## Subfamily HYLESININAE Erichson

1. *Xylechinus darjeelingensis* Schedl ... (Schedl, 1971)
2. *Hyorrhynchus blandfordi* Sampson ... (Sampson, 1919)
3. *H. kalimpongensis* Maiti and Saha ... (Maiti and Saha, 1989)
4. *H. sensarmai* Maiti and Saha ... (Maiti and Saha 1989)
5. *H. shiva* Maiti and Saha ... (Maiti and Saha, 1989)
6. *Diamerus curvifer* (Walker) ... (Schedl, 1958)
7. *D. fici* Blandford ... (Blandford, 1898)
8. *D. nigrosetosus* Eggers ... (Schedl, 1958)
9. *Sphaerotyrpes globulus* Blandford ... (Beeson, 1922)
10. *S. siwalikensis* Stebbing .. (Beeson, 1922)
11. *Scolytoplatypus darjeelingi* Stebbing .. (Stebbing, 1914)
12. *S. eutomoides* Blandford ... (Beeson, 1941)
13. *S. minimus* Hagedorn .. (Hagedorn, 1904)
14. *S. pubescens* Hagedron .. (Hagedron, 1904)
15. *S. raja* Blandford ... (Blandford, 1893)
16. *Eulepiops* (= *Dryocoetes*) *coffae* (Eggers) ... (Gardner, 1934)
17. *Coccotrypes advena* Blandford ... (Beeson, 1939)
18. *C. brevipilosus* (Beeson) .. (Beeson, 1939)

19. *C. carpophagus* (Hornung)... (Beeson, 1939)
20. *C. cyperi* (Beeson) ... (Beeson, 1939)
21. *C. himalayansis* (Beeson) .. (Beeson 1939)
22. *C. longior* (Eggers) .. (Schedl, 1971)
23. *C. opaciforms* (Beeson) ... (Beeson, 1939)
24. *C. parvus* (Beeson) ... (Beeson, 1939)
25. *C. papuanus* (Eggers)... (Beeson, 1939)
26. *C. vulgaris* (Beeson) ... (Beeson, 1939)
27. *Cryphalus neglectus* Schedl (Beeson, 1941)
28. *Scotyogenes aspericollis* (Eichhoff) ... (Hagedorn, 1904)
29. *S. punctatus* (Schedl) .. (Schedl, 1951)
30. *Hypothenemus areccae* (Hornung) ... (Beeson, 1940)
31. *H. eruditus* Westwood .. (Beeson, 1940)
32. *Ambrosiodmus asperatus* (Blandford) ... (Beeson, 1930)
33. *A. minor* (Stebbing) ... (Beeson, 1930)
34. *Arixyleborus malayansis* (Schedl) ... (Maiti and Saha, 1987)
35. *A. moestus* (Eggers)... (Beeson, 1930)
36. *Coptoborus shorea* (Stebbing) ... (Stebbing, 1914)
37. *Cryptoxyleborus turbineus* (Sampson) ... (Sampson, 1923)
38. *Eccoptopterus spinosus* (Olivier) ... (Beeson, 1930)
39. *Euwallacea andamanensis* (Blandford) ... (Beeson, 1930)
40. *E. asperipennis* (Eggers) ... (Beeson, 1930)
41. *E. fornicatus* (Eichhoff) .. (Beeson, 1930)

42. *E. gravelyi* (Wichhman) ... (Beeson, 1930)
43. *E. interjectus* (Blandford) .. (Stebbing, 1914)
44. *E. noxius* (Sampson) .. (Beeson, 1930)
45. *E. sibsagaricus* (Eggers) ... (Beeson, 1941)
46. *Hadrodemius metacomans* (Eggers) ... (Gardner, 1934)
47. *Kalantaneus eggersi* (Beeson) ... (Beeson, 1930)
48. *K. fabricii* (Hagedorn) ... (Hagedorn, 1908)
49. *K. hirtus* (Hagedorn) ... (Hagedorn, 1904)
50. *K. improbus* (Sampson) ... (Sampson, 1913)
51. *K. inarmatus* (Eggers) ... (Beeson, 1930)
52. *K. lineatus* (Eggers) .. (Beeson, 1930)
53. *Leptoxyleborus concisus* (Blandford).. (Eggers, 1930)
54. *Microperus alpha* (Sampson) ... (Sampson, 1923)
55. *M. concinnus* (Beeson) ... (Saha and Maiti, 1987)
56. *M. elegans* (Sampson) ... (Sampson, 1923)
57. *M. mus* (Eggers) ... (Saha and Maiti, 1987)
58. *M. perparvus* (Sampson) ... (Sampson, 1922)
59. *M. recidens* Sampson ...(Sampson, 1923)
60. *M. undulatus* Sampson ... (Sampson, 1919)
61. *Notoxyleborus major* (Stebbing) ... (Beeson, 1930)
62. *Xyleborinus andrewesi* (Blandford) .. (Beeson, 1930)
63. *X. artestriatus* (Eichhoff) ... (Beeson, 1930)
64. *X. subspinosus* (Eggers) ... (Saha and Maiti, 1987)

65. *Xyleborus bicolor* Blandford ... (Beeson, 1930)
66. *X. bidentatus* (Motschulsky) ... (Eggers, 1930)
67. *X. cognatus* Blandford ... (Beeson, 1930)
68. *X. glabratus* Eichhoff ... (Beeson, 1930)
69. *X. geminatus* Hagedron ... (Hagedron, 1904)
70. *X. mucronatulus* Eggers ... (Eggers, 1930)
71. *X. perforans* (Wollaston) ... (Beeson, 1930)
72. *X. similis* Ferrari ... (Beeson, 1930)
73. *X. speciosus* Schedl ... (Beeson, 1930)
74. *Xylosandrus crassiusculus* (Motschulsky) ... (Beeson, 1930)
75. *X. discolor* (Blandford) ... (Stebbing, 1914)
76. *X. gravidus* (Blandford) ... (Beeson, 1930)
77. *X. mesuae* (Eggers) ... (Eggers, 1930)

List of species recorded for the first time from the State

Subfamily HYLESININAE Erichson

1. *Hylesinus despectus* Walker
2. *Sueus niisima* (Eggers)
3. *Diamerus striatus* Eggers
4. *Phloeocranus bruchoides* Schedl

Subfamily SCOLYTINAE Latreille

5. *Scolytplatypus nitidicollis* Eggers
6. *Acanthotomicus perexiguus* (Blandford)
7. *Indocryphalus intermedius* (Sampson)

8. *Cryphalus strohmeyeri* Stebbing
9. *Cosmoderes monillicollis* Eichhoff
10. *Hypotheneums uniseriatus* Eggers
11. *Amasa eugeniae* (Eggers)
12. *A. schlichii* (Stebbing)
13. *Ambrosiodmus lewesi* (Blandford)
14. *Apoxyloborus subsimilis* (Eggers)
15. *Cnestus bicornoides* (Schedl)
16. *Coptoborus pumilus* (Eggers)
17. *Euwallacea lantanae* (Eggers)
18. *E. malloti* (Eggers)
19. *E. rufobrunneus* var. *dihingensis* (Eggers)
20. *E. tristris* (Eggers)
21. *Hadrodemius pseudocomans* (Eggers)
2. *Microperus chrysophilly* (Eggers)
23. *Xyleborinus saxeseni* (Ratzebrug)
24. *X. subgranulatus* (Eggers)
25. *Xyleborus corpulans* Eggers
26. *X. haberkorni* Eggers
27. *X. piceus* Motschulsky
28. *Xylosandrus difficilis* (Eggers)
29. *X. morigerus* (Blandford)
30. *X. ursinus* (Hagedorn)

## 4.3 Key to the subfamily

1. Basal margin of each elytron outcurved and armed with a series of either weak or strong marginal crenulations; head wider, usually visible from above; pronotum weakly declivous on anterior half and usually unarmed, if at all armed, armed with some crenulations antero-laterally; body with scales or deeply divided setae ..... *Hylesininae* Erichson

Basal margin of each elytron substraight, transverse across the body and without any crenulations; head somewhat narrower, partl or entirely concealed from dorsal aspect; pronotum weakly to strongly declivous on anterior half and usually armed with many asperities, more distinct on anterio-median area; body devoid of deeply divided setae, but sometimes with scales ..... *Scolytinae* Latreille

## Key to the genera

## Key to the genera under the subfamily Hylesininae

1. Scutellum visible, elytral base distinctly notched accommodating scutellum; meso- and meta-tibiae devoid of any groove for reception of tarsal segments.....2

Scutellum not visible, elytral base only slightly or not at all notched; meso- and meta-tibiae with grooves for reception of tarsal segments .....5

2. Eyes entire; protibiae armed with several denticles of unequal size on outer apical margin; antennal funicle with 7 segments and club not flattened, rather swollen with three distinct segments.....  
..... *Hylesinus* Fabricius

Eyes completely divided into two unequal parts and each widely placed; protibiae with outer apical angle produced into a single conspicuous spine, reaching beyond tarsal insertions; antennal funicle with 5-7 segments and club rather flattened, with sutural line marked by hairs .....3

3. Antennal funicle with 7 segments; basal margin of each elytron strongly outcurved with well developed crenulations ..... *Sphaerotrypes* Blandford

Antenal funicle with 5-7 segments; basal margin of each elytron feebly outcurved with weak crenulations .....4

4. Antennal funicle with 7 segments; club rather elongte and strongly compressed; male frons concave; tarsal segment 3 emarginate; elytral apex weakly or not at all ascending.....  
..... *Hyorrhynchus* Blandford

Antennal funicle with 5 segments; club short, rather weakly compressed; male frons convex; tarsal segment 3 entire; elytral apex strongly ascending ..... *Sueus* Murayama

5. Eyes entire, antennal funicle with 7 segments; antennal club with oblique septum from the base; basal margin of each elytron feebly outcurved with feeble crenulations ..... *Diamerus* Erichson

Eyes deeply emarginate; antennal funicle with 5 segments; antennal club with two transverse incomplete septa; margin of each elytron strongly outcurved with well developed crenulations....  
 ..... *Phloeocranus* Schedl.

#### 4.4.2. Key to the genera under the subfamily Scolytinae

1. Metepisternum largely covered by elytra, its groove for reception of costal flange obsolete, a small transverse callus at anterior end of metepisternum; antennal club strongly flattened, but never obliquely truncate; funicle with 3-5 segments ..... 2  

Metepisternum exposed, not entirely covered by elytra, visible throughout its length, but slightly more than its dorsal half covered by elytra in locked position, with a conspicuous groove for reception of costal flange throughout; antennal club variable in shape, either flat or obliquely truncate; antennal funicle with 3-7 segments .....5
2. Antennal club solid, entirely pubescent and devoid of any suture or septum; antennal funicle with 3 segments; antennal club subcircular, overlapping last funicular segment laterally; lateral margins of pronotum not carinate, rather rounded ..... *Cosmoderes* Eichhoff  

Antennal club either only with septum or sutural line marked by hairs or with both septum and suture; antennal funicle with 4-5 segments; club subcircular, but not overlapping last funicle laterally; lateral margins of pronotum either carinate or rounded ..... 3
3. Antennal club only with sutural line marked by hairs, but devoid of any septum.....*Cryphalus* Erichson  

Antennal club either only with septum or both septum and sutural line.....4
4. Antennal club with oblique septum from the base, devoid of any sutural line, entire surface of club with pubescence; eyes entire ..... *Scolytogenes* Eichhoff  

Antennal club with sutural line 1 partly septate; sutural line 1,2 and 3 weakly procurved, marked by hairs; eyes weakly emarginate ..... *Hypothenemus* Westwood
5. Scutellum submerged, not visible (scutellar tip slightly visible in some species); antennal club unmarked by any suture and funicle with 6 segments; pronotum unarmed and basal half of lateral margins feebly to strongly emarginate to accommodate profemur; meso- and meta-tibial grooves for reception of tarsal segments; protibiae in females on their posterior faces tuberculate; frons of male always excavate .....*Scolytoplatypus* Blandford  

Scutellum visible (except in some genera under Tribe Xyleborini); antennal club either marked or unmarked by suture and funicle with 4 to 5 segments; pronotum either armed or unarmed and lateral margins on basal half devoid of any emargination; meso- and meta- tibial groove absent; protibiae devoid of any tubercle on its posterior face (except *Arixyleborus*); frons in male never excavate .....6

6. Eyes completely divided into two parts; antennal club flattened, not obliquely truncate with pubescence on either side, a narrow strip-like subcorneous basal area with broadly procurved apical margin and smaller than antennal funicle 4; antennal funicle with 4 segments; protibiae in male with distinct spine on inner margin ..... *Indocryphalus* Eggers

Eyes shallowly to deeply emarginate; antennal club either flattened or obliquely truncate, basal corneous portion enlarged and larger than funicle either 4 to 5; antennal funicle with 4-5 segments; protibiae in male devoid of any spine on inner margin ..... 7

7. Meso- and meta-tibiae more slender, gradually narrowing on apical fourth, lateral and apical margins armed with a few coarse teeth; eyes shallowly emarginate; pronotum sometimes with a raised line on basal or lateral margins; preular area not depressed; both sexes of similar body form and size ..... 8

Meso- and meta-tibiae expanded beyond the middle, thence arcuately tapering towards apices, apical two-thirds on outer margin armed with a row of numerous small closely set teeth of equal size being supplemented in same row by submarginal hairs on posterior face; eyes either shallowly or deeply emarginate; pronotum without any raised line on basal margin; preular area depressed; males dwarf, deformed and pronotum highly modified ..... 10

8. Elytral declivity moderately excavate, excavital face devoid of any granules and its margin usually armed with tubercles or spines; antennal club flattened with strongly procurved sutures..... *Acanthotomicus* Blandford

Elytral declivity never excavate, face either plano-convex or convex; declivital interstriae sometimes with granules; antennal club obliquely truncate, apical margin of basal corneous portion either recurved or weakly procurved on anterior face ..... 9

9. Pronotum with distinct summit nearly at the middle; declivity steep, abrupt and confined to posterior fourth of elytra; metatibiae with long hairs on posterior face, specially on basal half.....*Eulepiops* Schedl

Pronotum without definite summit; declivity gradually extending over at least posterior third of elytra; metatibiae without any long hairs on basal half, but with short hairs ...*Coccotrypes* Eichhoff

10. Scutellum submerged below the level of basal margin of elytra, not visible from above, if at all visible, visible on anterior declivous slope of elytral basal margin; scutellar notch not prominent ..... 11

Scutellum not submerged below the level of basal margin of elytra, distinctly visible from above, variable in shape and size; scutellar notch prominent ..... 14

11. Scutellum submerged, not at all visible; entire basal margin of each elytron somewhat margined and outcurved at the level of interstriae 4 and 5 .....*Microperus* Wood

- Scutellum submerged below the level of elytral basal margin, but visible on anterior declivous slope of elytral basal margin; basal margin of each elytron neither margined not outcurved, rather somewhat rounded and substraight ..... 12
12. Antennal club dorso-ventrally flattened, anterior margin of basal corneous portion on both the faces distinctly procurved; elytra terminating into a strong acute apex ..... *Cryptoxyleborus* Schedl
- Antennal club obliquely truncate, basal corneous portion forming a complete ring with recurved costate apical margin on anterior face, posterior face unmarked by any distinct suture; elytra terminating into a broadly rounded apex ..... 13
13. Metatibiae enlarged, without any socketed row of teeth on anterior margin; metatarsi compressed; elytral declivity excavate, excavate margins with pointed spines of equal size.....*Eccopterus* Motschulsky
- Metatibiae normal in size, not enlarged and with socketed row of teeth on anterior margin; metatarsi normal, not compressed; elytral declivity not excavated, rather depressed, but without any pointed teeth ..... *Hadrodemius* Wood
14. Scutellum small and conical, not filling up the entire scutellar space; scutellum surrounded by dense coat of hairs; postero-lateral margins of elytra with series of tubercles, but devoid of any carina; anterior margin of pronotum unarmed .....*Xyleborinus* Reitter
- Scutellum round or triangular, but filling up the entire scutellar space [except *Euwallacea tristis* (Eggers)]; scutellum not surrounded by dense coat of hairs; postero-lateral margins of elytra with or without tubercles; anterior margin of pronotum either armed or unarmed.....15
15. Procoxae narrowly to widely separated ..... 16
- Procoxae contiguous ..... 17
16. Elytral declivity truncated, entire truncate margin with circumdeclivital costa .....*Apoxyleborus* Wood
- Elytral declivity usually not truncated, if truncated, truncate margin with partial circumdeclivital costa extending to interstria 7. ....*Xylosandrus* Reitter
17. Antennal funicle with 4 segments; anterior margin of pronotum distinctly armed ..... *Cnestus* Sampson
- Antennal funicle with 5 segments; anterior margin of pronotum either armed or unarmed.....18
18. Protibiae inflated on posterior surface and inflated surface always with granules.....*Arixyleborus* Hopkins

- Protibiae on posterior face not exactly inflated, but always devoid of granules ..... 19
19. Elytral declivity feebly excavate, entire declivital margin uneven either with granules or tubercles; declivital face with a few incomplete striae; elytral apex sometimes distinctly emarginate..... *Coptoborus* Hopkins
- Elytral declivity not excavate, declivital face either flat or convex or sometimes feebly concave; declivital face with complete striae and elytral apex without any emargination ..... 20
20. Pronotal asperities extending almost upto the basal margin ..... *Ambrosiodmus* Hopkins
- Pronotal asperities not extending upto basal margin ..... 21
21. Antennal club somewhat dorso-ventrally flattened, not obliquely truncate; basal corneous portion weakly chitinized with procured non-costate apical margin marked by hairs ..... 22
- Antennal club obliquely truncate, not dorso-ventrally flattened; basal corneous portion with recurved apical costate margin ..... 23
22. Elytral declivity truncate with entire circumdeclivital costa; eyes smaller, nearly two thirds of its width emarginate, anterior lobe smaller than posterior one ..... *Amasa* Lea
- Elytral declivity not truncate, rather continuous; eyes larger, one third of its width emarginate; anterior lobe larger than posterior one ..... *Notoxyleborus* Schedl
23. Apical margin of basal corneous portion of antennal club sharply elevated, forming a complete ring; segment 2 not distinctly chitinized ..... 24
- Apical margin of basal corneous portion of antennal club round; segment 2 comparatively large and distinctly chitinized ..... 25
24. Postero-lateral margins of elytra either carinate or acutely margined ; pronotum somewhat rectangular ; anterior margin of pronotum either armed or unarmed..... *Xyleborus* Eichhoff
- Postero-lateral margins of elytra rather rounded (sometimes apical half somewhat acute); pronotum ovoid; anterior margin of pronotum usually armed (except in *Kalantaneus inarmatus*) ..... *Kalantaneus* Nunberg
25. Declivital summit placed much before the middle; declivital face with confused dense scales; lower half of declivity broadly impressed and flatly concave ..... *Leptoxyleborus* Wood
- Declivital summit placed on or below the middle; declivital face with erect hairs only; lower half of declivity not impressed (except, in *E. durga* sp. nov.) but flatly convex..... *Euwallacea* Hopkins

## SYSTEMATIC ACCOUNT

Subfamily HYLESININAE Erichson, 1836

Genus *Hylesinus* Fabricius, 1801

The genus contains five species from India, of which only one species is found in West Bengal.

1. *Hylesinus despectus* Walker1859. *Hylesinus despectus* Walker, *Ann. Mag. nat. Hist.* 3(3) : 2511986. *Hylesinus despectus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No. 86* : 31-33.

*Material examined* : 2 Females and 6 Males, Samsingh, on different dates between 17.ii.1934 and 4.iii.1934, ex. "*Ficus religiosa*"

*Distribution* : India : West Bengal (Darjiling Dist.) Andaman and Nicobar Islands, Assam, Karnataka, Maharashtra, Tamil Nadu and Uttar Pradesh. Burma, Enganno Isl., Indonesia, Malaysia, Philippines, Sri Lanka, tonkin, Vietnam and New Guinea.

*Remarks* : It is a common species in India as also in South-east asia. *Ficus religiosa* is the only host known from north Bengal.

Genus *Xylechinus* Chapuis, 1869

This is the only species of the genus known from India, occurring in West Bengal.

2. *Xylechinus darjeelingensis* Schedl1971. *Xylechinus darjeelingensis* Schedl, *Oriental Ins.*, 5(3) : 3711979. *Xylechinus darjeelingensis* : Schedl,

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : The material are not available for study.

Genus *Hyorrhynchus* Blandford, 1894

The genus contains only four species from India being confined to West Bengal. Key is based on both male and female.

1. Male : Frons concave, lateral margins either feebly or distinctly carinate from upper margin of eyes to epistomal margin; antero-lateral processes of rostrum either feebly or distinctly marked; pronotal surface on its either side with comparatively weak asperities; eyes distinctly bulging out .....2

- Female : Frons plano-convex, lateral margins not carinate from upper margin of eyes or epistomal margin; antero-lateral processes of rostrum absent; pronotal surface on its either side with distinct asperities; eyes rather flat .....4
2. Smaller species, body length, 2.96-3.00 mm; frons very shallowly concave, on its each side with feeble longitudinal ridge from upper margin of eyes to the epistomal margin, but not carinate; short median line above epistomal margin and antero-lateral processes of rostrum weakly marked.....  
.....*H. kalimpongensis* Maiti and Saha
- Larger species, body length 3.20- 5.69 mm; frons deeply concave, on its each side with acute carina from upper margin of eyes to the epistomal margin, devoid of any median line above epistomal margin; antero-lateral processes of rostrum strongly marked .....3
3. Antennal club at its apex somewhat pointed; elytral interstriae with dense pubescence and indistinct granules ;pronotum with an indistinct median line; frons with sparse and shallow punctures and with a few weak carinula above epistomal margin; body length 3.20-3.90 mm .....  
.....*H. sensarmai* Maiti and Saha
- Antennal club at its apex subround; elytral interstriae with adpest thick hairs and distinct granules; pronotum devoid of any median line; frons with deep and close punctures above the level of eyes and with carinulae below; body length 3.60-5.00 mm ..... *H. shiva* Maiti and Saha
4. Elytral interstriae with adpest thick hairs; antennal club at its apex rounded .....  
.....*H. shiva* Maiti and Saha
- Elytral interstriae devoid of adpest thick hair, but with dense suberect thin hairs; antennal club at its apex somewhat pointed ..... 5
5. Median line on pronotum fairly marked; vertex with sparse hairs.....  
.....*H. sensarmai* Maiti and Saha
- Median line on pronotum inconspicuous; vertex with dense hairs.....  
.....*H. kalimpongensis* Maiti and Saha

### 3. *Hyorrhynchus blandfordi* Sampson

1913. *Hyorrhynchus blandfordi* Sampson, *Ann. Mag. nat. Hist.*, 12(8) : 446  
1988. *Hyorrhynchus blandfordi* : Maiti and Saha, *Proc. zool. Soc. Calcutta*, 41 (1 and 2) : 44, 46 and 48.

*Distribution* : India : West Bengal (Darjiling Dist.).

*Remarks* : It is not studied properly due to non-availability of material at hand.

4. *Hyorrhynchus kalimpongensis* Maiti and Saha

1989(1988) *Hyorrhynchus kalimpongensis* Maiti and Saha, *Proc. zool. Soc., Calcutta*, **41** : 42-44.

*Material examined* : 4 females (1 Allotype and 3 Paratypes) and 2 Males (1 Holotype and 1 Paratype) Samsingh, coll. *Balwant Singh*, December, 1933, ex. "unknown wood"

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : The species is based on a very old collection present in F.R.I., Dehra Dun.

5. *Hyorrhynchus sensarmai* Maiti and Saha

1941. *Hyorrhynchus debrepani* Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countires*, 288 p. (*nom. nud.*).

1989(1988) *Hyorrhynchus sensarmai* Maiti and Saha, *Proc. zool. Soc., Calcutta*, **41** : 44-46.

*Material examined* : (i) 6 Males ( Holotype and 5 Paratypes), Debrepani, different dates between 23.iv.1929 and 17.v.1930, ex. "*Mallotus roxburghianus*", (ii) 3 Females (1 Allotype and 2 Paratypes) and 1 Male (1 Paratype) Ranigrum, 4.ix.1929, ex. "*Acer campbelli*" and (iii) 3 Females (Paratypes), Rambi, 5.ix.1929, ex. "*Machilus odoratissima*" (*det. P.K. Maiti and N. Saha*)

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : The species is so far known to occur sparsely only in the hilly tracks of north Bengal.

6. *Hyorrhynchus shiva* Maiti and Saha

1941. *Hyorrhynchus samsingensis* Beeson, *Ecology and Control of Forests Insects of India and Neighbouring Countires*, 288 p. (*nom. nud.*)

1989(1988) *Hyorrhynchus shiva* Maiti and Saha, *Proc. zool. Soc., Calcutta*, **41** : 46-49

*Material examined* : (i) 2 Males (1 Holotype and 1 Paratype) 8 Females (1 Alotype and 7 Paratypes), Samsingh, coll. *MohanLal*, December, 1933, ex. "*Macaranga denticulata*"; (ii) 4 Females (Paratypes), Samsingh, coll. *A.M. Posford*, 19.v.1934, ex. "*Michelia champaca*" and (iii) 1 Female (Paratype). Debrepani, coll. *J.C.M. Gardner*, 16.ix.1929, ex. "*Juglans regia*" (*det. P.K. Maiti and N. Saha*)

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam.

*Remarks* : The species is known to infest only three host plants in north Bengal as mentioned above. It remains in the name of *H. samsingensis* in the literature (Beeson, 1941) which has recently been described by Maiti and Saha (1989).

Genus *Sueus* Murayama, 1954

The genus is recorded for the first time from India.

7. *Sueus niisima* (Eggers)

1926. *Hyorrhynchus niisima* Eggers, *Ent. Blatt.*, **22** : 133.

1978. *Hyorrhynchus niisima* : Beaver and Browne, *Oriental Ins.*, **12**(4) : 588

Material examined : 5 exs. from Samsingh, coll. C.F.C. Beeson as follows : (i) 3,4.x.1933, ex. "*Cinnamomum obtusifolium*"; (ii) 1 Female, 2.x.1933, ex. "*Michelia champaca*" and (iii) 1 Female, 6.x.1933, ex. "regnikat"

*Distribution* : India : West Bengal (Darjiling Dist.) ; Indonesia, Malaysia, Sri Lanka, Fiji and Japan.

*Remarks* : The species is native to Japan and extends further to South-east Asia upto Darjiling Hills. It occurs in three hosts in the study areas.

Genus *Diamerus* Erichson, 1836

Out of six species found in India, four species occur in West Bengal. Key to the species of the genus based on male and female.

1. Antennal club small, much smaller than the length of funicle and scape united together and one and a half times as long as wide; discal interstriae nearly as wide as striae, but gradually narrowing towards apex; body length, 3.50-3.70 mm.....*D. striatus* Eggers

Antennal club large, nearly as long as or slightly smaller than funicle and scape united together, and twice as long as wide; discal interstriae nearly twice as wide as striae, but not narrowing towards apex, rather as wide as on disc towards apex .....2

2. Pronotal interpuncture space pronounced, entire surface devoid of setae, except a few laterally; frons in male comparatively shallowly concave, on its either side with a shiny swollen area and devoid of any seta; strial punctures devoid of microhair; interstriae on elytral basal half devoid of any seta, if present, very sparse; posterior margin of forefemur with a weak lamina; body length, 4.50-4.70 mm.....*D. curvifer* (Walker)

Pronotal interpuncture space rather reduced, each puncture bearing seta throughout; frons in male distinctly concave, entire surface with uniform setae; strial punctures with microhairs; interstriae on elytral basal half with distinct close setae; posterior margin of forefemur rather rounded, without having any lamina; body length, 4.50 m .....*D. nigrosetosus* Eggers

8. *Diamerius curvifer* (Walker)

1859. *Hylesinus curvifer* Walker, *Ann. Mag. nat. Hist.*, **3**(3) : 261.

1986. *Diamerius curvifer* Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No. 86* : 34-36.

*Material examined* : (i) 2 Females, Bagdogra, coll. *C.F.C. Beeson*, 19.vii.1935, "unknown wood" and (ii) 1 Male, Khuntimari, coll. *C.F.C. Beeson*, 30.xii.1934 (all *det.* K.E. Schedl).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.), Andaman Isl., Assam and Maharashtra; Burma, Indo-China, Indonesia, Malaysia, Philippines, Sri Lanka and Australia.

*Remarks* : Identity of the species is generally confused with that of *D. nigrosetosus* Eggers, but the characteristic punctures on the pronotum is the only clue.

#### 9. *Diamerus fici* Blandford

1898. *Diamerus fici* Blandford, *Trans ent. Soc. Lond.*, p. 426.

1959. *Diamerus fici* : Schedl, *Indian Forest Rec. (N.S.) Ent.*, 10(2) : 164.

*Distribution* : India : West Bengal (Darjiling Dist.) and Naga Hills.

*Remarks* : It is omitted from the key due to lack of material.

#### 10. *Diamerus nigrosetosus* Eggers

1936. *Diamerus nigrosetosus* Eggers, *Tijdschr. Ent.*, 79 : 79.

1959. *Diamerus nigrosetosus* : Schedl, *Indian Forest Rec. (N.S.) Ent.*, 10(2) : 40-41.

*Material examined* : 1 Female and 1 Male, Tista Valley, coll. *J.C.M. Gardner*, 22.v.1930, ex. "*Terminalia tomentosa*" (*det.* K.E. Schedl.)

*Distribution* : India : West Bengal (Darjiling Dist.); Indonesia.

*Remarks* : Schedl (1959) identified the material from Tista Valley and Samsingh as *D. striatus* Eggers. Re-examination of these material in the present study has proved those from the former locality is *D. striatus* and the later is *D. nigrosetosus*.

#### 11. *Diamerus striatus* Eggers

(Fig. 2, a - e)

1927. *Diamerus striatus* Eggers, *Philips. J. Sci.*, 33 : 67-68.

1966. *Diamerus striatus* : Schedl, *Entom. Abh. Mus. Tierk. Dresden*, 35 : 13.

*Material examined* : 7 females, Samsingh, coll. *Balwant Singh*, November, 1933, ex. "*Macaranga denticulata*: (5 exs., *det.* K.E. Schedl as *Diamerus striatus*).

*Distribution* : India : West Bengal (Darjiling Dist.); Malaysia, Philippine and New Guinea.

*Remarks* : *Diamerus striatus*, a south-east Asian species, is recorded here for the first time from India occuring in lower altitudes of the Himalaya. The material examined lacks the large patch of dark brown

scales at the middle of the declivity as in the typical *D. striatus*.

### Genus *Sphaerotypes* Blandford, 1894

Out of seven species under the genus so far known from India, two species is represented in the study area.

Key is based on both male and female.

1. Elytral interstriae nearly thrice as wide as striae, surface granulate and with 3-4 irregular rows of setae; scutellar emargination V-shaped; body length 3.30-3.40 mm ..... *S. globulus* Blandford

Elytral interstriae nearly twice a wide as striae with uniseriate row of rounded asperities, each provided with a stout setae from its base; scutellar emargination rather broad; body length 2.60-2.70 mm ..... *S. siwalikensis* Stebbing

### 12. *Sphaerotypes globulus* Blandford

1894. *Sphaerotypes globulus* Blandford, *Trans. ent. Soc. Lond.*, p. 63.

1959. *Sphaerotypes globulus* : Schedl, *Indian Forest. Rec. (Ent.)* **10**(3) : 42.

*Material examined* : 4 Females from Maniktala, Calcutta, coll. *P.K. Maiti*, 30.vii.1981, ex. "*Tamarindus indicus*"

*Distribution* : India : West Bengal (Jalpaiguri Dist. and Calcutta), Madhya Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh; Bangladesh, Thailand and Vietnam.

*Remarks* : Its globular form and wider elytral interstriae make the species distinct from its allied one, *S. siwalikensis* Stebbing. It is recorded here from a new host.

### 13. *Sphaerotypes siwalikensis* Stebbing

(Fig. 3, a-f)

1906. *Sphaerotypes siwalikensis* Stebbing, *Dept. Notes*, **1** : 389.

1980. *Sphaerotypes siwalikensis* : Browne, *Kontyu*, **48**(3) : 370.

*Material examined* : (i) 11 exs. from Rajabhatkhawa, Buxa, coll. unknown, 21.x.1914, ex. "*Shorea robusta*"; (ii) 8 exs. from Upper Tondu, Jalpaiguri Dist., coll. *C.F.C. Beeson*, 21.xi.1914, ex. "*Shorea robusta*"; (iii) 44 exs. from Tista Division, D.F.O. coll., 20.vi.1916, ex. "*Shorea robusta*" (all *det.*)

*Distribution* : India : West Bengal (Jalpaiguri Dist.), Assam, Bihar, Madhya Pradesh, Orissa and Uttar Pradesh; Burma, Pakistan, Thailand, imported from Vietnam to Japan.

*Remarks* : The species generally infests different species of *Shorea* and is quite common in the sal growing areas of north India. It's most allied species, *S. assamensis* no more stands valid as synonymised by Beeson (1922).

Genus *Phloeocranus* Schedl, 1942

This is the only species under the genus from India

14. *Phloeocranus bruchoides* Schedl

1942. *Phloeocranus bruchoides* Schedl, *Tijdschr. Ent.*, **85** : 7.

1972. *Phloeocranus bruchoides* : Schedl, *Ent. Abh. Mus. Frey.*, **33** : 152.

*Material examined* : 15 Females, Bagdogra, coll. N.C. Chatterjee, 20.x.1933, ex. "*Cinnamomum cecicodaphne*."

*Distribution* : India : West Bengal (Darjiling Dist.), Assam, Bihar and Orissa; Indonesia and Malaysia.

*Remarks* : It is distinguished by its elongately globose body form and basal margin of each elytron angularly out curved at the level of interstriae 6 and 7. The species infests *Cinnamomum cecicodaphne* in north Bengal.

## Subfamily SCOLYTINAE Latreille, 1807

Genus *Scolytoplatypus* Schaufuss, 1891

The genus is represented by eight species in India, of which six species occur in West Bengal. Key is based on male only.

1. Elytral disc smooth, without any interstitial ridge ..... 2
- Elytral disc not smooth, but with distinct interstitial ridges ..... 5
2. Posterior and lateral elevated margins of frons with uniform long hairs, converging towards centre of frons, but devoid of any tuft of long hairs; body length 2.65-2.80 mm..... *S. darjeelingi* Stebbing
- Posterior and lateral elevated margins of frons without any uniform long hair, but with tuft of long hairs on margins of both anterior and posterior borders of eyes; tuft of hairs touching each other at the middle of their length above the frons .....3
3. Elytral declivity with fairly dense coat of small hairs along with a single row of erect long hairs on each interstria; elytra 1.4 times as long as pronotum; larger species, body length 3.90-4.00 mm .....*S. pubescens* Hagedorn
- Elytral declivity with only a few small hairs towards lower half only; elytral 1.2 times as long as pronotum; smaller species, body length 1.80 mm .....*S. nitidicollis* Eggers

4. Terminal ends of interstitial ridges at the commencement of declivity devoid of any distinct spine, rather with weak spiny structures on interrupted ridges; elytral declivity rather gradually sloping; body length 2.65-2.75 mm ..... *S. eutomoides* Blandford

Terminal ends of all interstitial ridges or alternate ones at the commencement of declivity bearing distinct spines; elytral declivity abrupt .....5

5. Alternate interstitial ridges, 1,3,5 and 7, each with a spine at its terminal end at the commencement of declivity; pronotal surface with large close punctures, lateral sides strongly emarginate on basal half and basal angles rather acutely produced laterally; declivial striae very much impressed and interstriae with distinct granules; larger species, body length 3.00-3.10 mm ...*S. raja* Blandford

All interstitial ridges 1 to 8, each with spine at its terminal end at the commencement of declivity; pronotal surface with inconspicuous punctures, lateral sides weakly emarginate on basal half and basal angles rather obtuse, but not produced laterally; declivital striae feebly impressed and interstriae with indistinct granules; smaller species, body length 1.73 mm ...*S. minimus* Hagedorn

#### 15. *Scolytoplatypus darjeelingi* Stebbing

(Fig. 4, a-f)

1914. *Scolytoplatypus darjeelingi* Stebbing, *Indian Forest Insects (Coleopt.)*, 607-608 pp.  
1975. *Scolytoplatypus darjeelingi* : Schedl, *Entom. Abh. Mus. Tierk. Dresden*, **40** (7) : 217.

*Material examined* : (a) 13 exs. from Darjiling Dist., coll. *J.C.M. Gardner* as follows : (i) 2 Females, Debrepani, 15. ix. 1920, ex. *Alnus nepalensis*; (ii) 2 Females, Lepchajagat, 11.ix. 1929, ex. *Symplocos theaeifolia*; (iii) 2 Females, Ghum, 20. ix. 1929, ex. unknown wood; (iv) 1 Female and 1 Male, Senchal Range, 21.iv. 1923, ex. *Alnus nepalensis* and (v) 6 Females, Rangirum, 4-7. ix. 1929, ex. *Prunus nepalensis*, *Litsaea umbrosa* and *Litsaea elongata* (all det. C.F.C. Beeson); (b) 2 Females, Darjiling, coll. *F. J. A. Hort*, ex. *Eucalyptus globulus* (det. W. Sampson).

*Distribution* : India : West Bengal (Darjiling Dist.); Taiwan.

*Remarks* : The species had lost its validity under *S. kunala* Strohmeier from Kashmir (Schedl, 1975). But its species status has been revived here based on the study of its types present in F.R.I., Dehra Dun.

#### 16. *Scolytoplatypus eutomoides* Blandford

1896. *Scolytoplatypus eutomoides* Blandford, *Trans. ent. Soc. Lond.*, p. 196.  
1975. *Scolytoplatypus eutomoides* : Schedl, *Entom. Abh. Mus. Tierk. Dresden*, **40** (7); 216-217.

*Material examined* : A. 31 Females and 19 Males, Sukna, coll. *M.L. Roonwal*, 22. ii. 1951, ex. *Macaranga denticulata*. B. 1 Female and 1 male, Khuntimari, coll. *C.F.C. Beeson*, 30. xii. 1914, ex. *Ilex dipyrena* (det. C.F.C. Beeson as *Scolytoplatypus brahma* Blandford).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.); Bangladesh, Indonesia,

Malaysia, Philippines and New Guinea.

*Remarks* : It is an extremely variable species needing extra caution for its identify. The specimens studied are slightly smaller than the typical ones and are taken from above hosts.

#### 17. *Scolytoplatypus minimus* Hagedorn

1904. *Scolytoplatypus minimus* Hagedorn, *Bull. Mus. nat. Hist* **10**:125-126.

1975. *Scolytoplatypus minimus* : Beaver and Browne, *Oriental Ins.*, **9** (3) : 295.

*Material examined* : 2 Males, Samsingh, Darjiling Dist., *Mohan Lal* coll., December, 1930, ex. 'madani (*Acrocarpus fraxinifolius*).

*Distribution* : India : West Bengal (Darjiling Dist.) and Uttar Pradesh; Thailand.

*Remark* : The species is the smallest representative of the genus, occurs in the entire Himalayan belt and infests the host of *Acrocarpus fraxinifolius* in Samsingh.

#### 18. *Scolytoplatypus nitidicollis* Eggers

1935. *Scolytoplatypus nitidicollis* Eggers, *Ent, Blatt.*, **31** : 241.

1975. *Scolytoplatypus nitidicollis* : Schedl *Entom. Abh. Mus. Tierk. Dresden*, **40**(7) : 218, 222 and 251.

*Material examined* : 4 Females and 1 Male, Samsingh, coll. *Mohan Lal*, December, 1930, ex. 'madani (*Acrocarpus fraxinifolius*).'

*Distribution* : India : West Bengal (Darjiling Dist.); Indonesia.

*Remarks* : This Indonesian species is recorded here for the first time from India from a single locality in north Bengal. The absence of mycetangium on pronotum in the female serves as the most distinctive feature of the species to keep it apart from almost all other members of the genus.

#### 19. *Scolytoplatypus pubescens* Hagedorn

1904. *Scolytoplatypus pubescens* Hagedorn *Bull. Mus. Hist. Nat. Paris*, **10** : 122-123.

1975. *Scolytoplatypus pubescens* : Beaver and Browne, *Oriental Ins.*, **9**(3) : 295

*Material examined* : A. 8 Females and 4 Males, Samsingh, coll. *Balwant Singh*, different dates between 3 and 22.ii.1934, ex. "*Amoora wallichii*" B. (i) 5 Females and 3 Males, Samsingh, coll. *C.F.C. Beeson*, 8-10.ii.1934, ex. "*Amoora wallichii*", (ii) 27 ex. Lopchu, coll. *J.C.M. Gardner*, 16-24.x.1929, ex. "*Litsaea elongata*" and 5-0.xi.1929, "*Alnus nepalensis*"; (iii) 1 Female and 2 Males, Ranigrum, 4.ix.1929, ex. "*Evodia fraxini*"; (iv) 11 exs., Sivakhola, coll. *C.F.C. Beeson*, 22.viii.1935, ex. "*Engelhardtia spicata*" and (v) 10 exs., Rangirum, coll. *J.C.M. Gardner*, 6.ix.1929, ex. "*Symplocos theaeifolia*" (all det.)

*Distribution* : India : West Bengal (Darjiling Dist.); Burma, Thailand and Taiwan.

*Remarks* : The species is the largest among the known Indian species of the genus and occurs widely from the foot hills to the high elevation of 1846 m. in the Darjiling Himalaya in a number of host plants including a new one, *Symplocos theaefolia*.

## 20. *Scolytoplatypus raja* Blandford

1893. *Scolytoplatypus raja* Blandford, *Trans. ent. Soc. Lond.*, p. 431.

1975. *Scolytoplatypus raja* : Browne, *Oriental Ins.*, 9(3) : 295.

*Material examined* : 47 exs. from Darjiling Dist., coll. *J.C.M. Gardner*, as follows : (i) 10 Females, Debrepani, 14.ix.1929, ex. "*Prunus nepalensis*" (ii) 12 Females and 2 Males, Lepchajagat, 11.ix.1929, ex. "*Quercus lamellosa*" (iii) 10 Females and 2 Males, Rangirum, 7.ix.1929, ex. "*Litsea elongata*"; (iv) 1 Female. Rambh, 5.ix.1929, ex. "unknown wood"; (v) 5 Females, Rangirum, 6.ix.1929, ex. "*Symplocos theaefolia* and (vi) 3 Females, Sivakhola, coll. *C.F.C. Beeson*, ex. "*Engelhardtia spicata*" (all det. *C.F.C. Beeson*).

*Distribution* : India : West Bengal (Darjiling Dist.); Malaysia, North Vietnam, Pakistan, Taiwan and Thailand.

*Remarks* : It is a widely distributed species in the Orient and recorded there for the first time from India. Although it was synonymised under a species, *S. mikado* Blandford from Western Himalaya, but its validity is maintained here.

## Genus *Coccotrypes* Eichhoff, 1878 (1879)

The genus contains more than two dozen of species from India, of which ten species are recorded from West Bengal. The species, namely, *Poecilips brevipilosus* (Beeson), *P. papuanus* (Eggers), *P. parvus* (Beeson) and *Thamnurgides himalayensis* (Beeson) have been transferred to the genus *Coccotrypes* following the synonymy of the genus *Poecilips* and *Thamnurgides* under the former genus.

### Key to the genus based on female only

1. Strial punctures with microhairs, particularly on declivity ..... 2  
     Strial punctures without any microhair ..... 5
2. Species comparatively short and stout, 2.20 times as long as wide and elytra 1.20 times as long as its width; pronotal surface strongly convex; eyes deeply emarginate; body length 2.04-2.16 mm ..... *C. carpophagus* (Hornung)
- Species comparatively long and slender, 2.5-2.8 times as long as wide and elytra 1.6-1.7 times as long as its width; pronotal surface not so convex, rather plano-convex; eyes rather shallowly emarginate.. ..... 3

3. Elytral apex broadly rounded; elytral interstriae with uniform thin but long setae; frons with distinct carinulae, but without any puncture; pronotum profusely hairy with both long and short hairs; body length 1.90-2.20 mm ..... *C. opacifrons* (Beeson)
- Elytral apex subacuminate; elytral interstriae with stout but short setae more prominent on declivity; frons with a few weak carinulae just above epistomal margin and punctures towards vertex; pronotum sparsely hairy, mostly with long hairs ..... 4
4. Elytra proportionately longer; 1.7 times as long as pronotum; frons with somewhat distinct median line; larger species, body length 2.30-2.60 mm ..... *C. brevipilosus* (Beeson)
- Elytra proportionately shorter, 1.6 times as long as pronotum; frons devoid of any median line; smaller species, body length 1.90 mm ..... *C. vulgaris* (Eggers)
5. Pronotal surface devoid of any distinct asperities rather with weak imbricate punctures antero-laterally, rest of the posterior surface with punctures ..... 6
- Pronotal surface with asperities antero-laterally, rather becoming elongate towards the middle, only postero-median portion with punctures ..... 7
6. Smaller and slender species; elytra 1.70 times as long as pronotum; declivital face of elytra strongly convex and all the interstriae with punctures; body length 1.41-1.80 mm... *C. advena* Blandford
- Larger and stouter species; elytra 1.50- 1.60 times as long as pronotum; declivital face of elytra plano-convex upto interstria 3 and all the interstriae with granules; body length 2.10-2.65 mm ..... *C. papuanus* (Eggers)
7. Frontal surface with distinct carinulae towards epistomal margin ..... 8
- Frontal surface without any carinulae rather with punctures and granules ..... 9
8. Elytra 1.48-1.57 times as long as pronotum; elytral striae not impressed; body length 2.00-2.12 mm ..... *C. cyperi* (Beeson)
- Elytra 1.78 times as long as pronotum; elytral striae weakly impressed; body length 1.80-1.95 mm ..... *C. parvus* (Beeson)
9. Larger species; elytral surface with striae moderately impressed; punctures large and coarse, and placed at a distance of their diameter; frontal surface with sparse granules and with a few puncture towards vertex; body length 2.05-2.40 mm ..... *C. himalayansis* (Beeson)
- Smaller species; elytral striae not so impressed; punctures small and placed at a distance of more than their diameter; frontal surface with large shallow punctures; body length. 1.75 – 1.90 mm.... *C. longior* (Eggers)

21. *Coccotrypes advena* Blandford

1894. *Coccotrypes advena* Blandford, *Trans. ent. Soc. Lond.*, p. 100.  
 1982. *Coccotrypes advena* : Wood, *Gt. Basin Nat. Mem.*, No. 6 : 733.

*Material examined* : (i) 7 exs. (Holotype and Paratypes) Samsingh, coll. *N.C. Chatterjee*, 11.xi.1933, ex. "seeds of *Eugenia formosa*" (ii) 2 exs. (Paratypes), Samsingh, coll. *C.F.C. Beeson*, 4.x.1933; (iii) 4 exs. (paratypes), Bagdogra Range, coll. *C.F.C. Beeson*, 20.vii.1935, ex. "unknown fruit" and (iv) 1 ex. (Paratype), Tista Valley, coll. *J.C.M. Gardner*, 19.x.1929, ex. "unknown wood" (all *det.* *C.F.C. Beeson* as *Thamnurgides vicarius* Beeson).

*Distribution* : India : West Bengal (Darjiling Dist.), Assam, Kerala, Orissa and Tamil Nadu; Indonesia, Samoa, Micronesia, Hawaii, Solomon Isl., Surinam, Japan, Cuba and United States.

*Remarks* : This is apparently a native to Indonesia and fairly common in India including north Bengal. The smaller size with sparsely punctate pronotal surface keeps the species distinct from all other related ones.

22. *Coccotrypes brevipilosus* (Beeson)  
(Fig. 5, a-d)

1939. *Thamnurgides brevipilosus* Beeson, *Indian Forest Rec. (N.S.) Ent.*, 5(3) : 298-299  
 1979. *Poecilips brevipilosus* : Schedl, *Nat. Mus. Wien, Entomologie*, 3(2) : 46

*Material examined* : (i) 10 exs. (Holotype and Paratypes), Rangirum, coll. *J.C.M. Gardner*, 4.xi.1929, ex. "*Prunus nepalensis*" and "*Juglans regia*" and (ii) 1 ex., Senchal Range, coll. *J.C.M. Gardner*, October, 1929, ex. "unidentified wood" (*C.F.C. Beeson* as *Thamnurgides brevipilosus* Beeson).

*Distribution* : India : West Bengal (Darjiling Dist.)

23. *Coccotrypes carpophagus* (Hornung)

1842. *Bostrichus carpophagus* Hornung, *Stettin. ent. Ztg.*, 3 : 116.  
 1978. *Coccotrypes carpophagus* : Beaver and Browne, *Oriental Ins.*, 12(4) : 583.

*Material examined* : A. (i) 1 Female from Naktala, Calcutta, coll. *S.K. Chakraborty*, 19.vii.1980, ex. "at light"; (ii) 2 Females, Jadavpur, Calcutta, coll. *N. Saha*, 12.vi.1989, ex. "at light". B. (i) 33 Females, Jaldhaka Range, coll. *D.F.O.*, 1.ix.1936 and 25.ix.1937, ex. "seeds of *Polyalthia simiarum*" (ii) 9 Females, Samsingh, coll. *A.M. Posford*, 26.vi.1934, and (iii) 2 Females, Samsingh, coll. *D.F.O.*, 8.xii.1936, ex. "seeds of *Polyalthia simiarum*" (*C.F.C. Beeson*).

*Distribution* : India : West Bengal (Calcutta and Darjiling Dists.), Assam, Karnataka and Uttar Pradesh; throughout the tropical and subtropical regions of the world.

*Remarks* : The species is only taken from *Polyalthia simiarum* in North Bengal, although it is known

from numerous host plants including palm around the circumtropics.

#### 24. *Coccotrypes cyperi* (Beeson)

1929. *Thamnurgides cyperi* Beeson, *Insects of Samos, Coleopt.*, 4(4) : 230.

1986. *Coccotrypes cyperi* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper*, No. 86 : 37-40.

*Material examined* : (a) 36 exs., Samsingh, Darjiling Dist., as follows : (i) 17 exs., coll. *Balwant Singh*, November, 1933, "unknown wood"; (ii) 12 exs., coll. *C.F.C. Beeson*, 2.x.1933, ex. "under bark of *Macaranga denticulata*"; (iii) 3 exs., coll. *Mohan Lal*, December, 1932, ex. "Bepari" (*Ostodes panikulata*) and (iv) 4 exs., coll. *N.C. Chatterjee*, 11.xi.1933, ex. "seed of *Eugenia formosa*" (b) 5 exs., Bagdogra Range, Darjiling Dist., coll. *C.F.C. Beeson*, 20.vii.1935, ex. "unknown branch" (c) 3 exs., Gazalduba, Jalpaiguri Dist., coll. *N.C. Chatterjee*, 14.x.1933, ex. "dead branch of *Amoora wallichii*" (all det. *C.F.C. Beeson* as *Thamnurgides cyperi* Beeson)

*Distribution* : India : West Bengal (Darjiling Dist. and Jalpaiguri Dist.), Andaman Isl., Assam, Kerala, Sikkim and Tamil Nadu; Indonesia, Samoa, Indochina, Brazil, North America, West Indies, Hawaii and Tahiti Isls.

#### 25. *Coccotrypes himalayansis* (Beeson)

1939. *Thamnurgides himalayansis* Beeson, *Indian Forest Rec. (N.S.) Ent.*, 5(3) : 299-300.

1941. *Thamnurgides himalayansis* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring countries*, 300 p.

*Material examined* : (i) 11 exs. (Holotype and Paratypes), Rangirum, coll. *J.C.M. Gardner*, 4.ix.1929, ex. "*Bucklandia populnea*"; (ii) 3 exs. (Paratypes), Senchal Range, coll. *J.C.M. Gardner*, 8-9.x.1929, ex. "*Juglans regia*"; (iii) 1 ex., Lopchu, coll. *J.C.M. Gardner*, 23.iv.1930, ex. "Ambaki" (*Eugenia formosa*) (all det. *C.F.C. Beeson* as *Thamnurgides himalayansis* Beeson).

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : This is solely known from comparatively higher altitudes of the Darjiling Hill and infests as many as six host plants.

#### 26. *Coccotrypes longior* (Eggers)

1927. *Poecilips longior* Eggers, *Philipp. J. Sci.*, 33 : 83-84.

1971. *Poecilips apicatus* Schedl, *Oriental Ins.*, 5(3) : 372, New synonymy.

1986. *Coccotrypes longior* : Maiti and Saha, *Rec. zool. Surv. India. Occ., Paper*, No.86 : 44-46.

*Material examined* : 10 exs., Samsingh, as follows : (i) 2 exs., coll. *N.C. Chatterjee*, 8.x.1933 and 4.ii.1934, ex. "*Aesculus punduana*" (ii) 3 exs., coll. *C.F.C. Beeson*, 20.vii.1934, ex. "*Acrocarpus fraxinifolius*" and (iii) 1 ex., coll. *Blawant Singh*, 31.xii.1933, ex. "*Acrocarpus fraxinifolius*"

*Distribution* : India : West Bengal (Darjiling Dist.) Little Andaman and Nicobar Islands; Indonesia, Malaysia, Philippines, Thailand, Sri Lanka and Vietnam.

*Remarks* : This widely distributed Oriental species was unknown from India, until Maiti and Saha (1986) recorded it from the Nicobars. It is recorded here for the first time from the Indian mainland infesting the above hosts.

### 27. *Coccotrypes opaciforms* (Beeson)

1939. *Thamnurgides opaciforms* Beeson, *Indian, Forest Rec. (N.S.) (Ent.)* 5(3) : 2940-295.

1986. *Coccotrypes opaciforms*, Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper*, No.86 : 47-49.

*Material examined* : A. 2 exs., Samsingh, coll. C.F.C. Beeson, 30.xii.1933, ex. "*Sapium eugineafolium*" B. (a) 4 exs. (Holotype) Buxa, coll. D.F.O., 6.iii.1930, ex. "*Amoora wallichii*"; (b) 15 exs., Samsingh, as follows : (i) 1 ex. (Paratype) coll. N.C. Chatterjee, 8.x.1933, ex. "tantare"; (ii) 3 exs. (2 Paratypes), coll. Balwant Singh, October, 1933, ex. "*Acrocarpus fraxinifolius*" and "lasari"; (iii) 10 exs., coll. C.F.C. Beeson, May and June 1936, ex. "*Terminalia myriocarpa*"; (c) 1 ex., Tista Valley, coll. J.C.M. Gardner, 28.ix.1929 (all det. C.F.C. Beeson as *Thamnurgides opaciforms* (Beeson)).

*Distribution* : India : West Bengal (Darjiling, Jalpaiguri and Sunderbans), Andaman Isl. and Assam.

*Remarks* : The species is quite common in West Bengal infesting quite a number of host plants to which a new host, *Sapium eugineafolium* is added here. Intra-specific variation exists only in the striae hairs either confining on the disc or extending upto the elytral disc.

### 28. *Coccotrypes papuanus* (Eggers)

1923. *Dendurgus papuanus* Eggers, *Zool. Meded.*, 7 : 148.

1978. *Poecilips papuanus* : Beaver and Browne, *Oriental Ins.*, 12 (4) : 596.

1939. *Thamnurgides rubidus* Beeson, *Indian Forest Rec. (N.S.) Ent.*, 5(3) : 290.

*Material examined* : (a) 68 exs., from Samsingh as follows : (i) 30 exs. (Holotype and Paratypes) coll. Balwant Singh, October, 1933, ex. "fruit of *Quercus spicata*"; (ii) 6 exs. (including 3 paratypes), coll. Balwant Singh, December, 1933, ex. "unknown creeper"; (iii) 27 exs., coll. Balwant Singh, December, 1933, ex. "unidentified climber"; (iv) 4 exs. (Paratype), coll. N.C. Chatterjee, November, 1933, ex. "fruits of *Eugenia formosa*" and (v) 1 ex., coll. C.F.C. Beeson, 4.x.1933, ex. "*Eugenia formosa*"; (b) 12 exs. from Bagdogra range, coll. C.F.C. Beeson as *Thamnurgides glandes* Beeson); (c) 8 exs. (Holotype and Paratypes) from Samsingh, coll. N.C. Chatterjee, November, 1933, ex. "fruits of *Eugenia formosa*", (det. C.F.C. Beeson as *Thamnurgides rubidus* Beeson)

*Distribution* : India : West Bengal (Darjiling Dist.) Assam, and Kerala; Malaysia, Indonesia, Philippines, Vietnam and New Guinea.

*Remarks* : It is quite a wide spread species in India showing intra-specific variations needing caution for its identity.

29. *Coccotrypes parvus* (Beeson)

1939. *Thamnurgides parvus* Beeson, *Indian Forest Rec. (N.S.) Ent.*, 5(3) : 297 and 306.

1971. *Poecilips parvus* : Schedl, *J. Aust. ent. Soc.*, 11 : 144.

*Material examined* : (i) 3 exs., Samsing, coll. A.M. Posford, 2.vii.1934, ex. "*Macaranga denticulata*" and (ii) 9 exs., Samsing, October, 1933 (det. C.F.C. Beeson as *Thamnurgides parvus* Beeson).

*Distribution* : India : West Bengal (Darjiling Dist.) Madhya Pradesh, Tamil Nadu and Uttar Pradesh; Burma and Asutralia.

30. *Coccotrypes vulgaris* (Eggers)

1923. *Dendurgus vulgaris* Eggers, *Zool. Meded.*, 7 : 151.

1986. *Coccotrypes vulgaris* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No.86* : 51-53.

*Material examined* : (i) 5 exs., Samsing, coll. C.F.C. Beeson, 7.xii.1933, ex. *Acrocarpus fraxinifolius*; (ii) 1 exs., Samsing, coll. N.C. Chatterjee, 24.x.1933, ex. "*Phoeba hainesiana*" (all det. as *Thamnurgides vulgaris*).

*Distribution* : India : West Bengal (Darjiling Dist.), Assam and Andaman Isls., Burma, Indonesia, Sri Lanka and New Guinea.

Genus *Eulepiops* Schedl, 1939

The genus is represented by single species from West Bengal.

31. *Eulepiops coffeae* (Eggers)

1923. *Dryocoetes coffeae* Eggers, *Zool. Meded.*, 7 : 161.

1980. *Eulepiops coffeae* : Wood, *Gt. Basin Nat.*, 40(1) : 94.

*Material examined* : 6 exs., Tista Valley, coll. J.C.M. Gardner, 28.ix.1929, ex. "creeper"

*Distribution* : India : West Bengal (Darjiling dist.) ; Indonesia and Malaysia.

*Remarks* : In India, the species is quite familiar in the name of *Dryocoetes coffeae* and subsequently transferred to different genera to derive in its current name. It is known from a single host, *Albizia procera* and its morphological variations and remarkable.

Genus *Acanthotomicus* Blandford, 1894

This is the only species from India under the genus.

32. *Acanthotomicus perexiguus* (Blandford)

1896. *Tomicus perexiguus* Blandford, *Trans. ent. Soc. Lond.*, pp. 201-202.

1980. *Acanthotomicus perexiguus* : Browne, *Kontyu*, 48 (4) : 491.

*Material examined* : 1 Female from Lopchu, coll. *J.C.M. Gardner*, 3.iv.1930, ex. "unknown wood"

*Distribution* : India : West Bengal (Darjiling Dist.); Damma Island, Indonesia, North Vietnam, Thailand and imported to Japan from Borneo.

*Remarks* : It is a well established and distinctive species due to its long cylindrical body with large declivital tubercles on interstriae 2 and 4. This bark inhabiting species is recorded for the second time from India indicating its almost rare occurrence.

### Genus *Indocryphalus* Eggers, 1939

The genus is recorded here for the first time from India represented by a single species.

#### 33. *Indocryphalus intermedius* (Sampson) (Fig. 6, a-g)

1913. *Xyloterus intermedius* Sampson, *Ann. Mag. nat. Hist.*, 12(3) : 445-446.

1970. *Indocryphalus intermedius* : Browne, *J. nat. Hist.*, 4 : 562.

*Material examined* : A. 7 Females and 1 Male, Rochela, 10 km. from Lava, coll. *B.N. Nandi* and *S.K. Chakraborty*, 9.iv.1980. ex. "Sapwood of a felled log" B. Following specimens collected from different parts of Darjiling Dist., coll. *J.C.M. Gardner*, as follows : (i) 8 Females (1 Cotype Female) and 12 Males, Rangirum, 2 and 7.ix.1929, ex. "unknown wood"; (ii) 1 Female and 1 Male, Ranigrum, 3.ix.1929, ex. "*Quercus lamellosa*"; (iii) 1 Male, Darjiling, 1.ix.1929, ex. "unknown wood"; (iv) 2 Females and 1 Male, Rambhi, 5.ix.1929, ex. "*Castanopsis hystrix*" and (v) 1 Female and 2 Males, Debrepani, 17.ix.1929, ex. "unknown wood" (all *det.*)

*Distribution* : India : West Bengal (Darjiling Dist.), north-west Himalaya (Bashahr); Bhutan and Burma.

*Remarks* : The species occurs mostly at higher elevation of Darjiling hill ranges infesting few host plants to which a new one, *Castanopsis hystrix* is added here.

### Genus *Cryphalus* Erichson, 1836

The genus contains five species from India, of which two occur in West Bengal. Key is based on female only.

Large species, body length, 2.38 mm; pronotum distinctly and uniformly convex in profile.....  
..... *C. strohmeyeri* Stebbing

Small species, body length 1.35-1.49 mm; pronotum plano-convex in profile.....  
..... *C. neglectus* Schedl

34. *Cryphalus neglectus* Schedl

1941. *Ericryphalus neglectus* Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 287 p. (nom. nud.).  
 1962. *Cryphalus neglectus* Schedl, *Mittlg. Munch. Ent. Ges.*, **52** : 106.

*Material examined* : 4 Females, Sundarbans, coll. C.F.C. Beeson, 1915

*Distribution* : India : West Bengal (Sundarbans)

35. *Cryphalus strohmeyeri* Stebbing

1906. *Cryphalus indicus* Stebbing, *Dept. Notes*, **1** : 403.  
 1941. *Cryphalus strohmeyeri* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 286 p.

*Material examined* : 12 exs., Sandhakphu, coll. H.G. Champion, 6.v.1934, ex. *Abies donsa*.

*Distribution* : India : West Bengal (Darjiling Dist.) and north-west Himalaya (Jaunsur)

*Remarks* : This large black species is a Himalayan element and occurs in *Abies webbiana* and *A. donsa*, of which the latter one is a new host record.

36. *Cosmoderes monillicollis* Eichhoff

(Fig. 7, a-c)

- 1878(1879) *Cosmoderes monillicollis* Eichhoff, *Mem. Soc. Roy. Sci. Liege*, **8**(2) : 496 and 497.  
 1982. *Cosmoderes monillicollis* : Wood, *Gt. Basin Nat.*, **40**(1) : 91.

*Material examined* : (i) 25 exs., Samsingh, coll. Mohan Lal, December, 1933, ex. "unkown creeper" (det. C.F.C. Beeson as *Cosmoderes monillicollis* Eichhoff) and (ii) 11 exs., Gazalduba, coll. N.C. Chatterjee, 15.x.1933, "gurya lahara" (*Tinospora cordifolia*) (assigned to a new species as *Cosmoderes granunicollis* by C.F.C. Beeson)

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.); Sri Lanka

*Remarks* : The two more species, *Cosmoderes granunicollis* and *C. luffae* both undescribed species of Beeson seem to be ultimately merged with this as per present study as well as indicated by Wood (1980). *Tinospora cordifolia* is the only host known from India.

Genus *Hypothenemus* Westwood, 1834

About a dozen of species is known so far from India, of which only three species are recorded here. Key to the species based on both male and female.

1. Frons rather impressed on lower half, with a rather weak transverse elevation at upper level of eyes; body length, 1.50-1.55 mm ..... ***H. areccae*** (Hornung)
- Frons convex without an transverse elevation at upper level of eyes ..... 2
2. Elytral striae marked by comparatively small punctures; declivital interstriae with erect, short but blunt setae as well as microhairs; smaller species, 1.10-1.20 mm..... ***H. eruditus*** Westwood
- Elytral striae marked by comparatively large distinct punctures; declivital interstriae only with erect, long but blunt setae, devoid of any microhair; larger species, 1.42-1.46 mm..... ***H. uniseriatus*** (Eggers)

### 37. *Hypothenemus areccae* (Hornung)

1842. *Bostrichus areccae* Hornung, *Stettin ent. Ztg.* **3** : 117

1986. *Hypothenemus areccae* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No. 86* : 159-161.

*Material examined* : 2 Females from Harinbari, 24-Parganas Dist., coll. *T.N. Khan*, 10.viii.1982, ex. "*Excaecaria agallocha*"

*Distribution* : India : West Bengal (Calcutta and Jalpaiguri Dists.) Throughout Tropical and subtropical territories of the world.

### 38. *Hypothenemus eruditus* Westwood (Fig. 8, a-d)

1834. *Hypothenemus eruditus* Westwood, *Trans. ent. Soc. Lond.*, **1** : 34.

1978. *Hypothenemus eruditus* : Beaver and Browne, *Oriental Ins.*, **12**(4) : 500

*Material examined* : (i) 6 Females, Bagdogra Range, coll. *N.C. Chatterjee*, Tista Valley, coll. *J.C.M. Gardner* 28.ix.1929, ex. "timber and creepers" and (iii) 3 exs. Samsingh, coll. *C.F.C. Beeson* 1.x.1935, ex. "*Acrocarpus fraxinifolius*"

*Distribution* : India : West Bengal (Darjiling Dist.), Karnataka, Kerala, Orissa and Tamil Nadu. Tropical and Subtropical areas of the world.

*Remarks* : This is one of the smallest species in size, cosmopolitan in distribution and known by more than a dozen names around the world infesting numerous host plants. It needs caution for its identity due to extremely variable morphological characters. However, it occurs widely in India including West Bengal.

### 39. *Hypothenemus uniseriatus* (Eggers) (Fig. 9, a-c)

1924. *Stephanoderes uniseriatus* Eggers, *Ent. Blatt.* **20** : 103.

1959. *Stephanoderes uniseriatus* : Schedl, *Trans. ent. Soc. Lond.*, 111 : 485.

*Material examined* : A. 5 Females, Tista Valley, coll. *J.C.M. Gardner*, 28.ix.1929, ex. "creeper" (det. *C.F.C. Beeson*).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.) and South India; Malaysia, South Vietnam and Africa.

*Remarks* : It is distinguished by the absence of declivital microhairs from its closest ally, *H. eruditus*. It occurs in some unknown creeper in south India. The species is well known to attack coffee berries in Africa including seeds of many forest trees.

#### Genus *Scolytogenes* Eichhoff, 1878

Out of four known Indian species, two species are found in West Bengal.

#### 40. *Scolytogenes aspericollis* (Eichhoff)

1878(1879) *Lepicerus aspericollis* Eichhoff, *Mem. Soc. Roy. Sci. Liege*, 8(2) : 501, 502 and 476.

1980. *Cryphalomorphus aspericollis* : Browne, *Kontyu*, 48(4) : 493.

*Material examined* : 3 exs., Samsing, coll. *C.F.C. Beeson*, 5.x.1933, ex. "Ranguni lahara"

*Distribution* : India : West Bengal (Darjiling Dist.) Kerala and Tamil Nadu; Burma, Malaysia and imported to Japan from Sri Lanka.

*Remarks* : This little known species is only recorded from "ranguni lahara" in Darjiling Hills in addition to its infestation in the creeper of *Rhododendron* in South India.

#### 41. *Scolytogenes punctatus* (Schedl)

1951. *Cryphalomorphus punctatus* Schedl, *Tijdschr. Ent.*, 93 : 55.

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : The material are not available for study. The species is transferred to the genus *Scolytogenes*, since the genus *Cryphalomorphus* is synonymised under it.

#### Genus *Amasa* Lea

Both the species included under the genus have been transferred here from *Xyleborus*.

Key to the species of the genus *Amasa* based on female

1. Frons finely reticulate, devoid of distinct carinula, rather with a few punctures; pronotum 1.2 time as long as wide, summit much above the middle anterior third with asperities; stria punctures of elytral disc minute; long and cylindrical species, 2.7-2.8 times as long as wide; body length 2.70-2.90 mm.....*A. eugeniae* (Eggers)

Frons finely reticulate, but with interrupted carinulae becoming granulate towards epistomal margin; pronotum nearly as long as wide, summit almost at the middle, anterior half with asperities; stria punctures of elytral disc large and distinct; short and stout species, 2.3 times as long as wide; body length 2.70-3.20 mm.....*A. schlichii* (Stebbing)

42. *Amasa eugeniae* (Eggers)  
(Fig. 10, a-d)

1930. *Xyleborus eugeniae* Eggers, *Indian Forest Rec. (Ent.)*, **14**(9) : 7.

1959. *Xyleborus eugeniae* : Schedl, *Trans. R. ent. Soc. Lond.*, **111** : 511.

*Material examined* : A. (i) 2 Females, Samsingh, coll. C.F.C. Beeson, 4.x.1933, ex. "amboki" (*Eugenia formosa*) and (ii) 1 Female, Samsingh, coll. N.C. Chatterjee, 24.x.1933, ex. "*Elaeocarpa* sp." B. 1 Female and 1 Male, Sukna, coll. M.L. Roonwal, 12.i.1951, ex. "*Eugenia jambolana*" (det. G.D. Bhasin as *Xyleborus eugeniae* Eggers.).

*Distribution* : India : West Bengal (Darjiling Dist.) and Uttar Pradesh; Sri Lanka.

*Remarks* : The species shows considerable colour variation in different population. *Eugenia formosa* and *Elaeocarpa* sp. are two new host records from the study area.

43. *Amasa schlichii* (Stebbing)

1907. *Acanthotomicus truncatus* Stebbing, *Indian Forest Bull.*, **11**:40.

1914. *Xyleborus schlichii* : Stebbing, *Indian Forest Insects (Coleopt.)* 592 p. (new name for *A. truncatus*).

1978. *Xyleborus schlichii* : Beaver and Browne, 1978. *Oriental Ins.*, **12**(4) : 613.

1930. *Xyleborus glaber* Eggers, *Indian Forest Rec. (Ent.)*, **14**(9) : 1, New synonymy.

*Material examined* : A. (i) 14 Females, Bagdogra, 22-29.iv.1935, ex. "*Anthocephalus indica*" and (ii) 1 Female, Apalchand Range, coll. Unknown, 9.iv.1935, ex. "*Mallotus philippinensis*" (iii) 2 Females, Sundarbans, coll. *Forest Entomologist*, 12.ii.1915, ex. "Sundri" (*Heritiera fomes*) B. 6 Females, Samsingh, coll. N.C. Chatterjee, 10.x.1933, ex. "Raini malata" (det. as *Xyleborus glaber* Eggers).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists. and Sundarbans), Assam; Indonesia and Malaysia.

*Remarks* : The species is recorded here for the first time from north Bengal infesting the logs of *Acanthocephalus indica* and *Mallotus philippinensis*, both of which are new records. The material studied from Bagdogra and Samsingh show distinct morphometric variations including some minor morphology also.

Genus *Ambrosidmus* Hopkins, 1915

Five species from India belonging to the genus *Xyleborus* may be assigned here to this genus, of which three species are dealt herewith. Key is based on female only.

1. Postero-lateral margins of declivity carinate; declivital interstria 1 devoid of any granule or tubercle, interstria 2 fairly elevated with distinct broad based but pointed tubercles; species smaller and sparsely hairy; body length 2.40- 2.50 mm.....*A. asperatus* (Blandford)

Postero-lateral margins of declivity not carinate, but with some large granules; declivital interstria 1 with blunt tubercles, interstria 2 feebly or not at all elevated and with blunt tubercles; species larger and densely hairy; body length 3.60-4.80 mm..... 2

2. Frons transversely and distinctly depressed at the upper level of eyes, area above epistomal margin fairly swollen and comparatively smooth with sparse punctures; declivital interstriae with irregular granules and tubercles; body length 4.60- 4.80 mm..... *A. lewesi* (Blandford)

Frons transversely and weakly depressed at the upper level of eyes, area above epistomal margin not so swollen but roughened with dense punctures; declivital interstriae generally with uniseriate granules and tubercles; body length 3.60- 3.70 mm.....*A. minor* (Stebbing)

44. *Ambrosiodmus asperatus* (Blandford)

(Fig. 11, a-e)

1895. *Xyleborus asperatus* Blandford, *Ann. Mag. nat. Hist.*, **15**(6) : 321.

1972. *Xyleborus asperatus* : Browne, *Oriental Ins.*, **6**(1) : 20.

1930. *Xyleborus citri* Beeson, *Indian Forest Rec. (Ent.)* **14**(1) : 39 and 53, New Synonymy.

'Material examined' : 3 Females and 17 Males, Tista Valley. coll. *J.C.M. Gardner*, 27.x.1929. ex. "*Citrus aurantium*" (det. *C.F.C. Beeson* as *Xyleborus citri* Beeson)

*Distribution* : India : West Bengal (Darjiling Dist.) : Indonesia, Malaysia and Sri Lanka.

45. *Ambrosiodmus lewisi* (Blandford)

1894. *Xyleborus lewisi* Blandford, *Trans. ent. Soc. Lond.*, p. 104.

1961. *Xyleborus lewisi* : Browne, *Malay. Forest Rec.* no. **22** : 100.

*Material examined* : A. 13 exs. from Samsingh as follows : (i) 3 Females, coll. *N.C. Chatterjee*, 24.x.1933, ex. "*Elaeocarpus sp.*"; (ii) 8 Females, coll. *N.C. Chatterjee*, different dates between 18.i.1934 and 25.iii.1934, ex. "*Lasiococca sp.*"; (iii) 1 Female, coll. Borer Project, 1933, ex. "*Acrocarpus fraxinifolius*" and (iv) 1 Female, coll. Borer Project, 1933, "*Amoora wallichii*" B. 22 exs. from Samsingh. as follows : (i) 1 Female, coll. *C.F.C. Beeson*, 4.x.1933, ex. : "*Cinnamomum obtusifolium*"; (ii) 3 Females. coll. *C.F.C. Beeson*, 27.x.1933, ex. "Sinkauli"; (iii) 1 Female. coll. *C.F.C. Beeson*. 4.x.1933. ex. "*Machilus sp.*"; (iv) 1 Female, coll. *C.F.C. Beeson*, 4.x.1933. "*Phoebe lanceolata*"; (v) 5 Females, coll. *Balwant*

Singh, December, 1933, ex. "unknown wood"; (vi) 4 Females, coll. For. Ent., 10.i.1934, ex. "*Amoora wallichii*"; (vii) 11 Females, coll. Mohan Lal, January, 1934, ex. "*Terminalia myriocarpa*" and (viii) 1 Female, coll. Mohan Lal, January, 1934, ex. "unknown wood" (det. C.F.C. Beeson as *Xyleborus tegalensis* Eggers).

*Distribution* : India : West Bengal (Darjiling Dist.); Indonesia, Korea, Malaysia, Taiwan and Japan.

*Remarks* : On the basis of detailed study, it appears the species, *Xyleborus tegalensis* Eggers, known from north Bengal may be synonymed under this species by Wood (per-comm.). More than half a dozen of host plants are known from the area.

#### 46. *Ambrosiodmus minor* (Stebbing)

1907. *Phloeosinus minor* Stebbing, *Indian Forest Bull.*, **11** : 37.

1975. *Xyleborus minor* : Beaver and Browne, *Oriental Ins.*, **9**(3) : 298-299.

*Material examined* : (i) 2 Females, Raidak, Buxa, coll. C.F.C. Beeson, 16.i.1915; (ii) 1 Female, Rajabhatkhawa, coll. For. Zool, 13.ii.1913, ex. "*Shorea robusta*" and (iii) 3 Females, Khuntimari, coll. For. Zool., 30.xii.1914 [all det. as *Xyleborus minor* (Stebbing)].

*Distribution* : India : West Bengal (Jalpaiguri Dist.), Assam, Madhya Pradesh, Maharashtra and Uttar Pradesh; Bangladesh, Burma, Thailand and Vietnam.

*Remarks* : The species suffers many nomenclatural changes from the time of its description in 1907. It differs from *A. lewesi* in having smaller size and with roughened frons. *Shorea robusta* is the most preferred host of the species in India.

#### Genus *Apoxyleborus* Wood, 1980

Two species from India under the genus *Xyleborus* may be assigned to this genus. However a single species is dealt herewith.

#### 47. *Apoxyleborus subsimilis* (Eggers)

1930. *Xyleborus subsimilis* Eggers, *Indian Forest Rec. (Ent.)*, **14**(9) : 186.

1977. *Xyleborus subsimilis* : Kumar and Chandra, *Oriental Ins.*, **11**(1) : 36.

*Material examined* : (a) 17 exs., Samsingh, as follows : (i) 9 Females, coll. C.F.C. Beeson, 7.iv.1935, in different dates between 7.iv.1934 and 12.v.1934, ex. "*Cinnamomum obtusifolium*"; (ii) 1 Female, coll. C.F.C. Beeson 6.x.1933, ex. "*Acrocarpus fraxinifolius*"; (iii) 5 Females, coll. Mohan Lal, March, 1934, ex. "unknown creeper"; (iv) 1 Female, coll. N.C. Chatterjee, 8.x.1933, ex. "*Aphanamixis polystachya*"; (v) 1 Female, coll. Balwant Singh, October, 1933, ex. "sinkole" (*Cinnamomum tamala*) (b) 1 Female, Gazalduba, coll. N.C. Chatterjee, 14.x.1933, ex. "*Amoora wallichii*" (all det. as *Xyleborus subsimilis* Eggers)

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.), Assam and Meghalaya; Burma.

*Remarks* : It is transferred here to the genus *Apoxyleborus* Wood. *Amoora wallachii* and *Aphanamixis polystachya* are two new host records from north Bengal, although three more hosts are known from other areas.

#### Genus *Arixyleborus* Hopkins, 1915

The genus is represented by four species in India, of which two species occur in the sub-Himalayan West Bengal.

Key is based on female only.

1. Discal interstriae flat and shiny on elytral basal third, whence gradually becoming ridged upto upper half of declivity and each with a single row of granules; postero-lateral margins of declivity with distinct carinae; striae distinctly impressed and marked by large close punctures; elytra devoid of any distinct hairs except interstria 1; body length 2.10-2.15 mm..... *A. malayansis* (Eggers)

Discal interstriae flat and shiny only on basal narrow strip, whence gradually becoming convex towards declivity and each with confused blunt granules; postero-lateral margins of declivity without any carina; striae very narrow and becoming obsolete on lower half of declivity; elytra with fairly dense small and thin hairs; body length 2.70 mm..... *A. moestus* (Eggers)

#### 48. *Arixyleborus malayansis* (Schedl)

1936. *Xyleboricus malayansis* Schedl, *Philipp. J. Sci.*, **60**(1) : 64 (nom.nud).

1954. *Xyleboricus malayansis*, Schedl *Philipp. J. Sci.*, **83**:150.

1987. *Arixyleborus malayansis* :Maiti and Saha, *Bull. zool. Surv. India*, **8** (1-3) : 6-8.

*Material examined* : 10 Females, Dahura, Bagdogra, coll. N.C. chatterjee 25.iii. 1934. ex. *Machilus* sp.

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam. Also Indonesia, Malaysia, Sri Lanka and Vietnam.

*Remarks* : The presence of very prominent pronotal asperities and strongly ridged interstriae makes it very distinct from all other Indian representatives of the genus. It is taken from *Machilus* sp. from north Bengal.

#### 49. *Arixyleborus moestus* (Eggers)

1930. *Xyleborus moestus* Eggers, *Indian Forest Rec. (Ent.)*, **14**(9) : 189.

1987. *Arixyleborus moestus* : Maiti and Saha, *Bull. zool. Surv. India*, **8**(1-3) : 4-6.

*Material examined* : 1 Female, Debrepani, coll. J.C.M. Gardner, 14.ix. 1929. ex. "*Quercus*

*lamellosa*" (det. C.F.C. Beeson as *Xyleborus moestus* Eggers).

*Distribution* : India : West Bengal (Darjiling Dist.) and Meghalaya.

*Remarks* : Multituberculate interstriae brings the species to the granifer-group of the genus *Arixyleborus*. It is predominantly found the in hilly terrain of eastern India infesting *Quercus lamellosa*.

#### Genus *Cnestus* Sampson, 1911

The genus is represented by four species from India, of which a single species is dealt herewith.

#### 50. *Cnestus biocronoides* (Schedl)

1951. *Xyleborus bicornoides* Schedl, *Philipp. J. Sci.*, **80** : 383.

1986. *Cnestus bicornoides* : Maiti and Saha, *Rec. Zool. Surv. India, Occ. Paper No.* **86** : 70-73.

*Material Examined* : 1 Female, Samsingh, coll. N.C. Chatterjee, 9.x. 1933, ex. "Chobipati" (det. as *Xyleborus cruralis* by C.F.C. Beeson).

*Distribution* : India : West Bengal (Darjiling Dist.), Andaman Island; Philippines and Malaysia.

*Remarks* : It is recorded for the first time from India taken from a single locality in north Bengal. *Xyleborus cruralis* Eggers in F.R.I., collection, has been redetermined as *Cnestus bicornoides*.

#### Genus *Coptoborus* Hopkins, 1915

Four species of *Xyleborus* from India may be assigned to the genus, of which two species are dealt herewith. Key is based on female only.

1. Larger species, body length 3.00-3.15 mm; each elytral apex at sutural angle broadly emarginate; both intertriae 2 and 4 with a very large and pointed tubercle on upper half of declivity, those on 4th largest ..... *C. shorea* (Stebbing)

Smaller species, body length 1.90-2.00 mm; each elytral apex at sutural angle individually rounded; only interstria 2 with a distinct tubercle on upper half of declivity..... *C. pumilus* (Eggers)

#### 51. *Coptoborus pumilus* (Eggers)

1923. *Xyleboruys pumilus* Eggers, *Zool. Meded.*, **7** : 209.

1986. *Coptoborus pumilus* : Maiti and Saha *Rec. Zool. Surv. India, Occ. Paper No.* **86** : 79-81.

*Material examined* : 1 Female, Sukna, coll. Range Officer., 9.iii. 1935, ex. "Crown branch portion of *Hymenodictyon excelsum*"

*Distribution* : India : West Bengal (Darjiling Dist.), Assam and Andaman Isl; Burma, Indonesia, Laos, Philippines, Solomon Isl., Sri Lanka and New Guinea.

*Remarks* : It is a common species in the Andamans and is less known in the mainland of India. It infests the branch of *Hymenodictyon excelsum* in north Bengal.

52. *Coptoborus shorea* (Stebbing)  
(Fig. 12, a-d)

1907. *Tomicus shorea* Stebbing, *Indian Forest Bull.*, **11** : 39.

1977. *Xyleborus shorea* : Kumar and Chandra, *Oriental Ins.*, **11**(1) : 36.

*Material examined* : A. (a) 2 exs., Apalchand Range, Jalpaiguri Dist., coll. Borer Project, as follows : (i) 1 Female, 18.iv. 1935, ex. "*Mallotus philippinensis*" and (ii) 1 Female, 5.iv. 1935, ex. "*Zanthozylum burdrunga*" (b) 18 exs. from different places from Darjiling Dist. as follows : (i) 1 Female, Kurseong, coll. Range Officer, 19-20.iii. 1936, ex "*Anthocephalus cadamba*"; (ii) 1 Female and 1 male, Tista Valley, coll. J.C.M. Gardner, 27.ix.1929; (iii) 2 Males, Lopchu, coll. J.C.M. Gardner, 23.ix. 1929; (iv) 2 Females, Samsing, coll. Mohan Lal, January, 1934, ex. "*Schima wallichii*", (v) 2 Females, Samsing, coll. N.C. Chatterjee, 13. vii. 1934, ex. "*Castanopsis* sp.;" (vi) 2 Females, Samsing, coll. N.C. chatterjee, 9.xi. 1933, ex. "*Elaeocarpus* sp.;" (vii) 6 Females, Samsing, coll. C.F.C. Beeson, 3.x. 1933, ex. "*Castanopsis* sp." and (viii) 1 female, Samsing, coll, C.F.C. Beeson, 12.vi. 1931, ex. "*Sapium eugeniaefolium*" b. (i) 5 Females, Jalpaiguri, coll. Range Officer, ex. "*Shorea robusta*" and (ii) 1 Female, Buxa, coll. C.F.C. Beeson, 27.i. 1915, ex. "on wing" [det. C.F.C. Beeson as *Xyleborus shorea* (Stebbing)].

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.) Assam and Uttar Pradesh.

Genus *Cryptoxyleborus* Schedl

The genus is represented in India by a lone species.

53. *Cryptoxyleborus turbineus* (Sampson)  
(Fig. 13, a-e)

1923. *Xyleborus turbineus* Sampson, *Ann. mag. nat. Hist.*, **11**(9) : 288.

1975. *Cryptoxyleborus turbineus* : Beaver and Browne, *Oriental. Ins.*, **9**(3) : 287.

*Material examined* : 3 Females and 1 Male (Holotype and cotype), Rajabhatkhawa, coll. For. zool., 12-27.ii. 1913 and 7.xi. 1914 ex. "boring in wood of *Shorea robusta*" (det. W. Sampson as *Xyleborus turbineus*).

*Distribution* : India : West Bengal : (Jalpaiguri Dist.), Bihar and Orissa; Burma, Vietnam, Philippines, Thailand and Tonkin.

*Remarks* : The pointed elytral apices of this widely distributed oriental species serve as its distinctive feature. It is known to infest two hosts, namely, *Shorea robusta* and *Pentacme suavis* in India including

Burma.

Genus *Eccopterus* Motschulsky, 1863

The genus contains a single species from India

54. *Eccopterus spinosus* (Oliver).

1774. *Scolytus spinosus* Oliver, *Entomologie*, 3 : 9.

1986. *Eccopterus spinosus* : Maiti and Saha, *Rec. Zool. Surv. India, Occ. Paper*, No. 86 : 82-85.

*Material examined* : 1 Female from Lepchajagat, coll. J.C.M. Gardner, 12.i. 1930, ex. "*Symplocos theaeifolia*"

*Distribution* : India : West Bengal : (Jalpaiguri Dist.), Andaman Isls., Assam, Maharashtra, Sikkim and Tamil Nadu; Indonesia, Malaysia, Taiwan, Australia, Seychelles and East Africa.

*Remarks* : It is a quite common species in India including north Bengal and remains as distinct species for its three prominent tubercles on excavated margins of elytral declivity. The species infests *Shorea robusta* in the study area.

Genus *Euwallacea* Hopkins, 1915

About a dozen species from India, previously included under *Xyleborus* can be assigned to this genus, of which 10 species including a variety have been transferred to this genus in the present context. Key is based on female only.

1. Declivital interstriae with distinct punctures, but devoid of any granules ..... 2  
     Declivital interstriae with uniseriate granules..... 3
2. Elytral disc substraight; striae and interstriae on declivital face marked upto apex; smaller species, body length 4.00-4.15mm..... *E. lantanae* (Eggers)  
     Elytral disc incurved; striae and interstriae somewhat marked upto upper half of declivity, rather obsolete on lower half, but with large irregular punctures; larger species, body length, 5.40 mm ...-  
     ..... *E. rufobruneus* var. *dihingensis* (Eggers)
3. Scutellum small and rounded..... 4  
     Scutellum either elongately oval or triangular..... 5
4. Scutellar space margined by somewhat 'U'-shaped ridge; elytral surface shiny throughout; smaller

- species, body length 3.80-3.90 mm..... *E. tristris* (Eggers)  
 Scutellar space neither present nor margined by 'U'-shaped ridge; elytral surface opaque particularly on declivital face; larger species, body length 4.00-5.00 mm.....*E. gravelyi* (Wichhman)
5. Frons with distinct median line above epistomal margin; pro- and meso-tibiae with 4-6 and 6-8 teeth respectively (except *E. interjectus*).....6
- Frons devoid of any median line, but sometimes medially elevated; pro- and meso-tibiae with 9-10 and 10-13 teeth respectively..... 9
6. Declivity commencing on posterior fourth; declivital face abrupt and plano-concave; body length 3.50-3.85 mm.....*E. sibsagaricus* (Eggers)
- Declivity commencing on slightly below the middle; declivital face gradually sloping and plano-convex.....7
7. Postero-lateral margins of declivity distinctly carinate, devoid of any granules; pro- and meso-tibiae with 9 and 11 teeth respectively; declivity with large and sparse granules; body length 3.65-4.00 mm .....*E. interjectus* (Blandford)
- Postero-lateral margins of declivity forming somewhat interrupted raised acute lines set with weak granules; pro- and meso-tibiae with 4-6 and 6-8 teeth respectively; declivity with small and comparatively close granules; body length 2.60-3.20 mm.....8
8. Smaller species, body length 2.60-2.65 mm; pro- and meso-tibiae with 4 and 6 teeth respectively ..... *E. noxius* (Sampson)
- Larger species, body length 3.20 mm; pro- and meso-tibiae with 6 and 8 teeth respectively.....*E. andamanensis* (Blandford)
9. Larger species; & postero-lateral margins of declivity feebly ridged, but with distinct granules; body length 3.25-3.40 mm.....*E. asperipennis* (Eggers)
- Smaller species; postero-lateral margins weakly but distinctly carinate, with minute granules ... 10
10. Scutellum transverse, distinctly wider than long; elytral basal margin with feeble transverse ridge; elytral declivity with small hairs; body length 2.30 mm..... *E. malloti* (Eggers)
- Scutellum triangular, nearly as long as wide; elytral basal margin without any transverse ridge; elytral declivity with long hairs; body length 2.50 mm.....*E. fornicatus*

(Eichhoff)

55. *Euwallacea andamanensis* (Blandford)1896. *Xyleborus andamanensis* Blandford, *Trans. ent. Soc. Lond.*, p. 22.1986. *Euwallacea andamanensis* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No. 86* : 86-88.

*Material examined* : 5 Females (1 Holotype and 4 Paratypes) Rangirum, coll. *J.C.M. Gardner*, 6.ix. 1929, ex. "*Symplocos theaefolia*" (det. C.F.C. Beeson as *Xylebors senchalensis*).

*Distribution* : India : West Bengal (Darjiling Dist.), Andaman Isl., and Assam; Burma, Indonesia, Malaysia, Micronesia and New Guinea.

*Remarks* : It is a very rare species in West Bengal, although it is found in some five hosts in many areas in India including the Andamans.

56. *Euwallacea asperipennis* (Eggers)1930. *Xylebours assamensis* Eggers, *Indian Forest Rec. (Ent.)*, 14(9) : 19.1934. *Xyleborus asperipennis* : Eggers : *Ent. Nach.*, 8 : 2. (nom. nov.)1977. *Xyleborus asperipennis* : Kumar and Chandra, *Oriental Ins.*, 11(1) : 32.

*Material examined* : (a) 7 exs., from Samsingh, as follows : (i) 1 Female, coll. *N.C. Chatterjee*, 21.x. 1933, ex. "*Phoebe haineseana*"; (ii) 2 Females, coll. *C.F.C. Beeson*, 3 and 10.viii. 1934, ex. "*Acrocarpus fraxinifolius*"; and (iii) 4 Females, coll. *N.C. Chatterjee*, 25.xi. 1934, ex. "*Lasiococca* sp." (b) 1 Female, Ranigirum, coll. *J.C.M. Gardner*, 6.ix. 1929, ex. "*Juglans regia*" (c) 53 exs. from Lpchu, coll. *J.C.M. Gardner*, as follows : (i) 2 females, 18.xii. 1929 and 26.iii. 1930, ex. "*Elaeocarpus lanceaefolius*" (ii) 19 Females, different dates between 6.x. 1929 and 15.vi. 1930, ex. "Chinde" (iii) 20 Females, different 6.x. 1929 and 15.vi. 1930, ex. "Chinde" (iii) 20 Females, different dates between 30.x. 1929 and 15.vi. 1930, ex. "*Casearia glomerata*"; (iv) 8 Females, different dates between 7.x. 1929 and 12.v. 1930, "*Evodia fraxinifolia*" and (v) 4 Females, 18.x. 1929, ex. "Bepari" (d) 1 Female from Senchal Range, coll. *J.C.M. Gardner*, 1.x. 1929, ex. " 5 Females, Debrepani, coll. *J.C.M. Gardner*, different dates between, 4.x. 1929 and 9.iii. 1939, ex. "Chinde" B. (a) 3 exs. from Samsingha as follows : (i) 2 Females, coll. *N.C. Chatterjee*, 9.x. 1933, ex. "Swasnikat" and (ii) 1 Female, coll. *Mohan Lal*, march, 1934, ex. "unknown wood" (b) 67 exs., Ranigirum, coll. *J.C.M. Gardner*, as follows : (i) 26 Females, 5.ix., 1929, ex. "unknown wood"; (ii) 16 Females, 5.ix. 1929, ex. "Misc. timber" (iii) 5 Females, 6.ix. 1929, ex. "*Eurya japonica*"; (iv) 9 Females, 6.ix. 1929, ex. "Acer campbelli" (ii) 2 Females, 24.ix. 1929, ex. "*Casearia glomerata*"; (iii) 6 Females, 23.ix. 1929, ex. "Misc. timber", (iv) 9 Females, ix. 1929, ex. "Chinda" and (v) 2 Females, 24.ix. 1929, ex. "Blackinda" (e) 16 exs. from Debrepani, coll. *J.C.M. Gardner*, as follows : (i) 1 Female, 16.ix. 1929, ex. "*Macaranga denticulata*"; (ii) 1 Female, 18.ix. 1929, "unknown wood" and (iii) 24 Females, 15.ix. 1929, ex. "Chinde" (all det. as *Xyleborus asperipennis* Eggers).

*Distribution* : India : West Bengal (Darjiling Dist.), Assam, Meghalaya, Naga Hills and Sikkim.

*Remarks* : This is purely an Indian species being confined so far only in the hilly tracts of eastern India. Its taxonomic status has been changed many times. However, in the north Bengal, it attacks *Acrocarpus fraxinifolius*, *Elaeocarpus lanceaefolia*, *Juglans regia*, *Lasiococca* sp. and *Phoebe haineseana*, all of which are new records.

57. *Euwallacea fornicatus* (Eichhoff)

1863. *Xyleborus fornicatus* Eichhoff, *Berl. ent. Z.*, **12** : 151-152.

1978. *Xyleborus fornicatus*, Beaver and Browne, *Oriental Ins.*, **12**(4) : 608.

*Material examined* : (i) 2 Females, Tista Valley, coll. *J.C.M. Gardner*, 28.ix. 1929, ex. "unknown wood" (ii) 1 Female, Samsingh, coll. *C.F.C. Beeson*, 2.x. 1933, ex. dead "*Michelia champaca*" and (iii) 2 Females, Nagrakata, coll. *S.C. Das*, 1978, ex. "dead stump of a tea plant - "*Thea sinensis*"; (iv) 1 Female, Sankarpur Forest, 7 km. E. of Ranaghat Station, Nadia Dist., coll. *B.N. Nandi*, 28.i. 1982, ex. "*Dalbergia sisoo*", (v) 1 Female and 1 male, Hijali, Ranaghat, coll. *T.N. Khan*, 13.ix. 1982, ex. "Dying *Dalbergia sisoo*".

*Distribution* : India : West Bengal ( Darjiling, Jalpaiguri and Nadia Dists); Oriental and Papuan Regions, Fiji, New Hebrides, Sandwich Island and Madagascar.

*Remarks* : The species differs from its allied one *E. malloti* by its triangular scutelum and larger body size. It is a well known shot-hole borer of twigs and branches of numerous trees including tea plantation in the Oriental and Oceania Regions. In spite of vast tea plantation in north Bengal, only a single collection is made that to from a dead tea plant in Nagrakata.

58. *Euwallacea graveleyi* (Wichhman)

1914. *Xyleborus graveleyi* Wichhman, *Rec. Indian Mus.*, **8** : 411.

1941. *Xyleborus graveleyi* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 305 p.

1930. *Xyleborus ovalicollis* Eggers, *Indian Forest Rec. (Ent.)*, **14**(9) : 17, News synonymy.

*Material examined* : (a) 12 exs. from Samsingh, as follows : (1) 3 Females, coll. *C.F.C. Beeson*, 5.x. 1933, ex. "*Ostodes paniculata*" (ii) 1 Female, coll. *C.F.C. Beeson*, 22.x. 1933, ex "*Cinnamomum ceicocodaphne*"; (iii) 1 Female coll *Mohan Lal*, ii. 1934, ex. "barkawali"; (iv) 3 Females, coll. *Balwant Singh*, February, 1934, ex. "*Turpinia* sp." (v) 3 Females, coll. *Balwant Singh*, February, 1934, ex. "unknown wood" and (vi) 1 Female, coll. *C.F.C. Beeson*, 31.x. 1933. ex. "*Sterculia colorata*" (b) 6 exs. from Ranigirum, as follows : (1) Female coll. *J.C.M. Gardner*, ex. "*Evodia fraxinifolia*" and (ii) 5 Females, 6.ix. 1929, ex. "*Symplocos theaefolia*" (c) 1 Female, Lepchajagat, coll. *J.C.M. Gardner*, 12.x. 1929. ex. "*Machilus odoratissima*". (d) 4 exs. Lopchu, coll. *J.C.M. Grdner*, as follows : (i) 2 Female, 18.xi. 1929, ex. "Chinde" and (iii) 1 Female, 11.xi. 1919 ex. "*Beilschmiedia sikkimensis*" (e) 1 Female, Debrepani, coll. *J.C.M. Gardner*, different dates between 13.v. 1930 and 30.v. 1930. ex. "*Mallotus roxburghianus*"

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam; Burma.

*Remarks* : *Xyleborus ovalicollis* Eggers is now considered as its synonym. The species is quite common in north Bengal and is recorded from a number of new host plants as mentioned under material.

59. *Euwallacea interjectus* (Blandford)

(Fig. 1, a-k)

1894. *Xyleborus interjectus* Blandford, *Trans. ent. Soc. Lond.*, : 576-566.1986. *Euwallacea interjectus* : Maiti and Saha, *Rec. zool. surv. India, Occ. paper No. 86*:91.

*Material examined* : a. 33 exs. from different parts of Darjiling District as follows : (1) 1 Female, Samsingh, coll. C.F.C. Beeson, 28.x.1933, ex. "*Sterculia colarata*" or "*Sapium eugenisefolium*"; (ii) 2 Females, Samsingh, coll. Balwant Singh, "unknown wood"; (iii) 2 Females, Samsingh, coll. C.F.C. Beeson, ex. "*Castanopsis* sp."; (iv) 11 Females, Samsingh, coll. C.F.C. Beeson, different dates between 16.x.1933 and 18.xi.1933, ex. "lesari"; (v) 1 Female, coll. N.C. Chatterjee, 22.iii.1934, ex. "*Anthocephalus cadamba*"; (vi) 1 Female, Samsingh, coll. N.C. Chatterjee, 6.x.1934, ex. "*Wrightia tomentosa*"; (vii) 1 Female, Lopchu, coll. J.C.M. Gardner, 9.x.1929, ex. "*Elaeocarpus lanceafolius*" (viii) 7 Females, Bagdogra, coll. C.F.C. Beeson and N.C. Chatterjee, different dates between 26.iv.1935, and 13.viii.1936, ex. "*Anthocephalus indicus*" and "*Anthocephalus chinensis*" and (ix) 7 Females, Dabura, Bagdogra, coll. N.C. Chatterjee, 12-22.vii.1935, ex. "unknown wood". B. (a) 22 exs. from different parts of Darjiling Dist., coll. J.C.M. Gardner, as follows : (i) 8 Females, Lopchu 24.ix.1929, ex. "*Erythrina arborescens*" (ii) 3 Females, Lopchu, 23.ix.1929, ex. "*Erythrina arborescens*" (iii) 3 Females, Lopchu, 23.ix.1929, ex. "Misc. timber" (iv) 4 Females, Lopchu, 24.ix.1929, ex. "*Casearia glomarata*"; (v) 5 Females, Tista Valley, 25.ix.1929, ex. "*Euphorbia* sp." and (vi) 1 Female, Tista Valley, 27.ix.1929, ex. "*Cedrela toona*" (b) 1 Female, Apalchand Range, Jalpaiguri Dist., coll. N.C. Chatterjee, 16.viii.1935, ex. "*Anthocephalus cadamba*" (all det. C.F.C. Beeson as *Xyleborus interjectus* Blandford).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.), Assam, Andaman Isl., Kerala, Madhya Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh; Oriental region and Japan.

*Remarks* : The species occurs in abundance in the Oldworld tropics, as in north Bengal and India as a whole. Inter-colonial variations are very much pronounced in the species with regard to colouration, body size, elytral punctures and granules, hairs, etc.

60. *Euwallacea lantanae* (Eggers)1930. *Xyleborus lantanae* Eggers, *Indian Forest Rec. (Ent.) 14* (1) : 4-5.1986. *Xyleborus lantanae*, Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper, 86* : 127-128.

*Material examined* : A. a) 1 Female, Gazalduba, Jalpaiguri Dist., 15.x.1933, ex. "malata" (*Macaranga denticulata*). (b) 15 exs. from different parts of Darjiling Dist. as follows : (i) 2 Females, Lopchu, coll. J.C.M. Gardner, 12.ii. and 2.iv.1930, ex. "*Litsea elongata*"; (ii) 8 Females, Samsingh, coll. Balwant Singh, January, 1934, ex. "bhulia sinkole" (*Cinnamomum obtusifolium*); (iii) 2 females, Samsingh, coll. Balwant Singh, 27.iii.1934, ex. "unknown wood"; (iv) 2 Females, Samsingh, coll. C.F.C. Beeson, 4.x.1933, ex. "*Phoebe lanceolata*" and (v) 1 Female, Samsingh, coll. Mohan Lal, January, 1934, ex. "*Anthocephalus chinensis*" B. 11 exs. from different parts of Darjiling Dist. : (i) 1 Female, Dahura, Bagdogra, coll. N.C. Chatterjee, 22.x.1933, ex. "gleni" (*Lee* sp.); (ii) 2 Females and 1 Male, Samsingh, coll. A.M. Posford, 12.v.1934, ex. "*Michelia champaca*"; (iii) 1 Female and 1 Male, Samsingh, coll.

Balwant Singh, October 1933, ex. "unknown branch" and (iv) 5 Females, Samsingh, coll. C.F.C. Beeson, 2.x.1933, ex. "*Michelia champaca*" (det. C.F.C. Beeson as *Xyleborus lantane* (Eggers)).

*Distribution* : India : West Bengal (Darjiling Dist.), Karnataka and Little Nicobar. Also Burma.

*Remarks* : It is a well represented species in the hilly tracts of north Bengal and infests a number of host-plants, including a new host, *Anthocephalus cadamba*.

#### 61. *Euwallacea malloti* (Eggers)

1930. *Xyleborus malloti* Eggers, *Indian Forest Rec. (Ent.)*, 14(9) : 192.

1979. *Xyleborus malloti* : Schedl, *Nat. Mus. Wien. Entomologie*, 3 (2) : 147.

*Material examined* : A. 9 Females, Gazalduba, Jalpaiguri Dist., 14-30.iii.1934, coll. N.C. Chatterjee, ex. "unknown wood" B. (a) 142 exs. from Samsingh, Darjiling Dist., as follows : (i) 1 Female coll. C.F.C. Beeson, : 24 Females, 7.x.1933, ex. "*Phoebe hainesiana*, 3 Females, 6.x.1933, ex. "Gothale lahara" - (*Tinospora cordifolia*), 9 Females, 7.x.1933, ex. "binkanda" 3 Females, 3.x.1933, ex. "pipalpati" and 1 Female, 4.x.1933, ex. "amboka"; (ii) coll. N.C. Chatterjee, : 60 Females, 9.x.1933, ex. "*Terminalia myriocarpua*", 3 Females, 25.x.1933, ex. "phendua"; 5 Females, 8.x.1933, ex. "unknown wood" 2 Females, 10.x.1933, ex. "piepire"; (iii) 32 Females, coll. Balwant Singh, Oct. 1933, ex. "branch of unknown wood" (all det. C.F.C. Beeson as *Xyleborus malloti* Eggers). (b) 6 Females and 1 Male from Tista Valley, coll. J.C.M. Gardner, 13-27.ix.1929, ex. "*Citrus aurantium*" and "unknown wood" [det. S.L. Wood as *Euwallacea malloti* (Eggers)]

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.) and Uttar Pradesh.

*Remarks* : The species is recorded here for the first time from north Bengal, since its first description from Dehra Dun. It is a very small species measuring only 2.30 mm and comes close to *E. fornicatus* (Eichhoff) from which it can be hardly separated. New host records are from *Phoebe hainesiana*, *Tinospora cordifolia* and *Eugenia formosa*.

#### 62. *Euwallacea noxius* (Sampson)

1925. *Xyleborus noxius* Sampson, *Ann. Mag. nat. Hist.*, 12(9) : 445.

1975. *Xyleborus noxius* : Beaver and Browne, *Oriental Ins.*, 9(3) : 299.

*Material examined* : A. 15 exs. from different parts of Darjeeling Dist., as follows : (i) 11 Females, Kurseong, coll. C.F.C. Beeson, 8-25.viii.1935, ex. "*Bombax malabaricum*"; (ii) 1 Female, Dahura, Bagdogra, coll. N.C. Chatterjee, 28.vii.1935, ex. "unknown wood"; (iii) 1 Female, Sivakhola, Kurseong, coll. C.F.C. Beeson, 29.vi.1936, ex. "unknown wood"; (iv) 1 Female, Samsingh, coll. C.F.C. Beeson, 31.vii.1934, ex. "*Sapium eugeniaefolium*" and (v) 1 Female, Samsingh, coll. N.C. Chatterjee, ex. "*Anthocephalus chinensis*". B. 2 Females, Govt. Cinchona Plantation, Mungphu, coll. Manager, 25.xi.1920, ex. "*Albizia sp.*" (det. C.F.C. Beeson as *Xyleborus intextus* Beeson).

*Distribution* : India : West Bengal (Darjiling Dist.), Assam, Bihar, Kerala, Madhya Pradesh, Maharashtra, Orissa and Tamil Nadu; Burma, Bangladesh, North Vietnam, Tonkin, Thailand and imported to Japan.

*Remarks* : This oriental species is sparsely represented in the study area.

63. *Euwallacea rufobruneus* var. *dihingensis* (Eggers)

1930. *Xyleborus rufobruneus* var. *dihingensis* Eggers, *Indian Forest Rec. (Ent.)*, 14(9) : 189

*Material examined* : One Female, Samsingh, coll. *Balwant Singh*, Decémbér, 1933, ex. "unkown wood"

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam.

*Remarks* : It occurs sparsely in the study area. It's identify confuses with *E. lantanae* Eggers which needs causion.

64. *Euwallacea sibsagaricus* (Eggers)

1930. *Xyleborus sibsagaricus* Eggers, *Indian Forest Rec. (Ent.)* 14(9) : 196

1941. *Xyleborus sibsagaricus* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 309 p.

*Material examined* : (i) 10 Females, Samsingh, coll. *Mohan Lal*, February, 1934, ex. "*Sterculia colorator*" or "*Sapium eugeniaefolium*"; (ii) 22 Females, Samsingh, coll. *Mohan Lal*, March, 1934, ex. "barkawli" (*Casearia glomarata*) (all det. C.F.C. Beeson as *Xyleborus sibsagaricus* Eggers).

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam.

*Remarks* : Absence of scutellar space makes the species very distinct from all other species, even from its closest one, *E. tristris* (Eggers).

65. *Euwallacea tristris* (Eggers)

1930. *Xyleborus tristris* Eggers, *Indian Forest Rec. (Ent.)*, 14(9) : 194

1941. *Xyleborus tristris* Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 310 p.

*Material examined* : 48 exs. from Samsingh, as follows : (i) 45 Females, coll. *Balwant Singh*, October, 1933, ex. "unknown wood"; (ii) 1 Female, coll. *C.F.C. Beeson*, 3.x.1933 and (iii) 2 Females, coll. *C.F.C. Beeson*, 3.x.1933, ex. "*Macaranga denticulata*"

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam.

*Remarks* : The species can easily be isolated from all other members of the genus from India by its pronounced scutellar space margined by 'U'-shaped ridge. It infests the logs of *Macaranga denticulata* in the study area.

Genus *Hadrodemius* Wood, 1980

Three species previously assigned to *Xyleborus* can be assigned to this genus from India, of which two species *H. metacomans* and *H. pseudocomans* have been dealt herewith. Key is based on female only.

1. Declivital face plano-concave in the area of striae and interstriae 1, 2 and 3; striae distinctly marked, interstriae with smaller granules and dense coat of long recumbent hairs; body length 5.40-5.50 mm  
.....*H. metacomans* (Eggers)

Declivital face strongly concave in the area of striae and interstriae 1, 2 and 3; striae indistinctly marked, interstriae with larger granules particularly on the margin of concavity and with sparse erect and stout hairs; body length 5.50 mm.....*H. pseudocomans* (Eggers)

66. *Hadrodemius metacomans* (Eggers)  
(Fig. 14, a-c)

1930. *Xyleborus metacomans* Eggers, *Indian Forest Rec. (Ent.)* 14(9) : 12.

1977. *Xyleborus metacomans*: Kumar and Chandra, *Oriental Ins.*, 11(1) : 36.

*Material examined* : A. 1 Female, Forest, 2 km. N. of Buxa, coll. Nandi and Chakraborty, 28.iii.1980, ex. "Sap wood of a dead Gokul branch" (*Alianthus grandis*). B. (i) 6 Females and 5 Males, Samsingh, coll. C.F.C. Beeson, different dates between 7-19.x.1933 and 8.iv.28.v. 1934, ex. "dumeri Kanda"; (ii) 1 Female, Samsingh, coll. C.F.C. Beeson, 5.x.1983, ex. "chhata paile" and (iii) 1 Females, Gazalduba, coll. N.C. Chatterjee, 14.x.1933, ex. "exchaya" (all det. as *Xyleborus metacomans* Eggers).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.) and Assam; Burma.

*Remarks* : This large species differs from its allied one *H. pseudocomans* in having flatly concave declivital face and recorded here from a new host, *Alianthus grandis*.

67. *Hadrodemius pseudocomans* (Eggers)

1930. *Xyleborus pseudocomans* Eggers, *Indian Forest Rec. (Ent.)* 14(9) : 11.

1975. *Xyleborus pseudocomans*: Beaver and Browne, *Oriental Ins.*, 9(3) : 300.

*Material examined* : (i) 2 Females, Kadma, Bagdogra, coll. N.C. Chatterjee, 20.x.1933, ex. "*Cinnamomum cecicodaphne*" and (ii) 1 Female, Dahura, Bagdogra, coll. N.C. Chatterjee, 22.x.1933 on "palpatia"

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam; Burma and Thailand.

*Remarks* : This is by far the largest species among all the scolytid beetles so far known from the West Bengal. it occurs in *Cinnamomum cecidophne* in north Bengal which constitute new host record.

Genus *Kalantaneus* Nunberg, 1960

This genus has emerged as a distinct genus from *Xyleborus* and contains six species from India.

Key is based on females only

1. Pronotum subrectangular, distinctly longer than broad, with small asperities and anterior most asperities inconspicuous; declivital interstriae with dense minute hairs; length 2.20-2.25 mm ...  
.....*K. inarmatus* (Eggers)
- Pronotum suboval, broader than long, with large pointed asperities and anterior most asperities conspicuous; declivital interstriae with dense or sparse long hairs.....2
2. All the declivital interstriae only with granules..... 3
- Declivital interstriae 2 (at the commencement of declivity), 3 and 4 with a few small tubercles along with granules..... 4
3. Larger species, body length 4.00- 4.20 mm; pro-and meso-tibiae with 5 and 7 teeth respectively; elytral hairs rather long and erect..... *E. hirtus* (Hagedorn)
- Smaller species, body length 2.65- 2.75 mm; pro-and meso-tibiae with 8 and 10 teeth respectively; elytral hairs comparatively small.....*K. lineatus* (Eggers)
4. Declivital interstriae 3 and 4 not so much raised, rather in the same level with other interstriae and with a number of uniseriate granules; body length 3.00 mm.....*K. improbus* (Sampson)
- Declivital interstriae 3 and 4 very much raised and with a few uniseriate small tubercles..... 5
5. Smaller species, body length 3.00-2.10 mm; posterior portion of pronotum with granules; declivity commencing below the middle, face somewhat abruptly sloping.....*K. eggersi* (Beeson)
- Larger species, body length 3.20-3.40 mm; posterior portion of pronotum with minute punctures; declivity commencing from the middle, face rather gradually sloping.....*K. fabricii* (Hagedorn)

68. *Kalantaneus eggersi* (Beeson)

1930. *Xyleborus eggersi* Beeson, 1930. *Indian Forest Rec. (Ent.)*, 14(10) : 215

1941. *Xyleborus eggersi* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 304p.

*Material examined* : Several exs. from different parts of Darjiling Dists., coll. *J.C.M. Gardner*, as follows : (a) 4 Females (paratypes) Rangirum, 5.ix.1929, ex. "*Litsaea umbrosa*" (b). 11 Females (5 paratypes), Debrepani, as follows : (i) 2 Females (Paratypes), 17.x.1929, ex. "*Turpinia nepalensis*"; (ii) 4 Females (2 Paratypes), 18.ix.1929, ex. "Misc. timber"; (iii) 4 Females (1 Paratype), 17.ix.1929, ex. "unknown wood" and (iv) 1 Female, 18.ix.1929, ex. "Mya" - (*Eriobotyre petiolata*). (c) 9 exs., Lopchu as follows : (i) 8 Females, 23.ix.1929, ex. "Bepari" (*Ostodes panikulata*) and (ii) 1 Female, 22.ix.1929, ex. "unknown wood", (d) 1 Female, Lepchajagat, 11.ix.1929, ex. "*Symplocos theaefolia*" (all det. C.F.C. Beeson)

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : The species solely confines itself in the higher altitudes of the Darjiling hill range infesting *Eriobotyra petiolata* and *Ostodes panikulatus* as recorded here including few more hosts recorded earlier. The validity of this species is beyond doubt in having irregular interstitial tubercles with respect to paired tubercles in its closely allied species, *K. geminatus* Heged. inhabiting in the same area.

#### 69. *Kalantaneus fabricii* (Hagedorn)

1908. *Xyleborus cristatus* Hagedorn, *Dt. ent. Z.*, p. 377.  
 1963. *Xyleborus fabricii* nom. nov., *Schedl, Reichenbachia*, 2 : 217  
 1984. *Xyleborus fabricii* : Saha and Maiti, *Rec. zool. Surv. India*, 81(3 & 4) : 4.

*Material examined* : A. 12 females, 4 km N. of Lava near Forest Rest House, coll. *Nandi* and *Chakraborti*, "sap wood of as unknown log". B. 6 exs. from different parts of Darjiling Dist., coll. *J.C.M. Gardner*, as follows : (i) 1 Female, Rangirum, 6.ix.1929 ex. "*Symplocos theaefolia*"; (ii) 3 Females, Lepchajagat, 11.ix.1929, "*Symplocos theaefolia*" and (iii) 2 Females, Lepchajagat, 10-11.ix.1929, ex. "climber" and "unknown wood" (det. C.F.C. Beeson as *Xyleborus cristatus*).

*Distribution* : India : West Bengal (Darjiling Dist.), Meghalaya, Naga hills and Sikkim.

*Remarks* : Since the name of species is preoccupied by the name of another species of Fabricius (1801) from South America, Schedl (1963) proposed the name *Xyleborus fabricii* for the Indian species.

#### 70. *Kalantaneus hirtus* (Hagedorn) (Fig. 15, a-e)

1904. *Xyleborus hirtus* Hagedorn, *Bull. Mus. Hist. Nat. Paris* : 126.  
 1914. *Xyleborus hagedorni* Stebbing, *Indian Forest Insects (Coleopt.)*, 596 p, New synonymy.  
 1930. *Xyleborus hirtuosus* Beeson, *Indian Forest Rec. (Ent.)* 14(1) : 217 and 238, New Synonymy.

*Material examined* : 52 exs. from different parts of Darjiling Dist., coll. *J.C.M. Gardner*, as follows : (i) 5 Females, Lopchu, different dates between 20.x.1929 and 7.iii.1930, ex. "*Beilschmiedia sikkimensis*" and "unknown wood"; (ii) 1 Female, Lopchu, 12.x.1929, ex. "*Elaeocarpus lanceaefolia*"; (iii) 38 Females, Ghum 20.ix.1929, ex. "unknown climber"; (iv) 4 Females, Rangirum, 6-7.ix.1929, ex. "*Symplocos*

*theaeifolia*"; (v) 1 Female, Rangirum, 4.ix.1929, ex. "*Evodia fraxinifolia*" and (vi) 3 Females, Debrepani, 14.x.-5.xi.1925, ex. "unknown wood" (det. as either of the following species, namely *Xyleborus hirtus* Hagedorn, *Xyleborus hirtuosus* Beeson and *Xyleborus hagedorni* Stebbing).

*Distribution* : India : West Bengal (Darjiling Dist.) and Meghalaya; Burma and Tiwan.

*Remarks* : It seems to be a very variable species following the synonymy of quite a number of species under it. The species is known so far from three hosts in north Bengal, namely, *Evodia fraxinifolia*, *Symplocos theaeifolia* and *Beilschmiedia sikkimensis*.

#### 71. *Kalantaneus improbus* (Sampson)

1913. *Xyleborus improbus* Sampson, *Ann. Mag. nat. Hist.*, 7(9) : 444.

1941. *Xyleborus improbus* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 305 p.

*Material examined* : (i) 1 Female (Holotype), Senchal Range, coll. *J.C.M. Gardner*, August, 1923 and (ii) 1 Female, Lepchajagat, coll. *J.C.M. Gardner*, 19.ix.1929, ex. "*Eucalyptus globulus*" (det. C.F.C. Beeson).

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : It is a very uncommon species and is only known so far from its type-locality in Darjiling Hills. It is a pin-holder borer of *Eucalyptus globulus* and saplings of *Machilus odoratissima* and *Quercus lamellosa*.

#### 72. *Kalantaneus inarmatus* (Eggers)

1923. *Xyleborus inarmatus* Eggers, *Zool. Meded.*, 7 : 209.

1941. *Xyleborus inarmatus* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 305 p.

*Material examined* : 5 Females, Lopchu, coll. *J.C.M. Gardner*, 22.ix.1929, ex. "*Quercus lamellosa*" [(det. as *Xyleborus inarmatus* (Eggers)]

*Distribution* : India : West Bengal (Darjiling Dist.) and Himachal Pradesh; Burma and Indonesia.

*Remarks* : The generic status of the species is somewhat confusing and it is treated under *Kalantaneus* at the moment. *Quercus lamellosa* is the only host known from Lopchu.

#### 73. *Kalantaneus lineatus* (Eggers)

1930. *Xyleborus lineatus* Eggers, *Indian Forest Rec. (Ent.)*, 14(9) : 1 & 2.

1930. *Xyleborus lineatus* : Beeson, *Indian Forest Rec. (Ent.)*, 14(10) : 69.

1930. *Xyleborus melanocranis* Beeson, *Indian Forest Rec. (Ent.)* 14(10) : 42, 43 and 69, New synonymy.

*Material examined* : 1 Female (Holotype of *Xyleborus lineatus* Eggers), Senchal Range, coll. J.C.M. Gardner, July, 1923, rest of the material either identified as *Xyleborus lineatus* Eggers or *Xyleborus malancranis* Beeson from different parts of Darjiling District as follows : (i) 1 Female, Darjiling, coll. D.F.O. 23.vi.1920, ex. "*Machilus edulis*"; 11.ix.1929, ex. "*Symplocos theaefolia*" (iii) 4 Females, Rangirum, coll. J.C.M. Gardner, 8.ix.1929, ex. "unknown wood"; (iv) 2 Females, Lopchu, coll. J.C.M. Gardner, 21.ix.1923, ex. "rotten wood" and (v) 1 Female, Senchal Range, coll. J.C.M. Gardner, 21.iv.1923, ex. "*Alnus nepalensis*"

*Distribution* : India : West Bengal (Darjiling Dist.) and Uttar Pradesh.

*Remarks* : *Xyleborus malancranis* Beeson is considered as a new synonymy of this species as revealed in the present study.

#### Genus *Leptoxyleborus* Wood, 1980

This is the only species under the genus from India.

#### 74. *Leptoxyleborus concisus* (Blandford)

1894. *Xyleborus concisus* Blandford, *Trans. ent. Soc. Lond.*, pp. 107-108.

1986. *Leptoxyleborus concisus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No.86* : 94-96.

*Material examined* : A. 14 Females, Samsingh, coll. C.F.C. Beeson, different dates between 14.i.1933 and 28.ii.1934, ex. "*Acrocarpus fraxinifolius*". B. (i) 15 Females, (det. as *Xyleborus sordicaudulus* var. *pagueneis* Eggers) from Samsingh, coll. C.F.C. Beeson, (ii) 5 Females (Holotype and 4 cotypes of *Xyleborus incurvus*), Govt. Cinchona pantation, Mungphu, coll. Manager, 25.xi.1920, ex. "*Cinchona* sp."

*Distribution* : India : West Bengal : (Darjiling Dist.), Andaman Isl.; Burma, Indonesia, Malaysia, Philippine and Japan.

*Remarks* : *Leptoxyleborus concisus*, primarily a Japanese species, is a very variable one, since many oriental elements are synonymised under it including *Xyleborus incurvus* Eggers from north Bengal and the Andamans. Only two hosts are known for the species.

#### Genus *Microperus* Wood, 1980

Some eight species of the genus *Xyleborus*, occuring in the study area, have been transferred here for the first time to this genus. Key to the species is based on female only

1. Postero-lateral margins of declivity distinctly carinate, carinae confluent with interstriae.....2
- Postero-lateral margins of declivity not carinate, rather granulate..... 6

2. Interstriae 3-5 elevated at declivital upper half and sometimes ridged with small granules, interstriae 4 strongly elevated; posterior portion of pronotum below the summit with obsolete asperities..... 3
- Interstriae not elevated at declivital upper half, but marked with granules or tubercles; posterior portion of pronotum below the summit without asperities, rather with punctures.....4
3. Ridge on interstria 4 abrupt, hardly extending beyond the upper half of declivity; body length 2.30 mm.....*M. concinnus* (Beeson)
- Ridge on interstria 4 abrupt, rather gradually sloping, narrowing posteriorly and extending beyond the upper half of declivity; body length 2.20 mm..... *M. elegans* (Sampson)
4. Elytral disc incurved slightly below the basal margin (like saddle back); elytral interstriae with distinct tubercles and striae punctures subgranulate ;body length 1.80 mm.....*M. undulatus* (Sampson).
- Elytral disc flat; all the declivital interstriae with sparse granules except on interstria 2, if at all present, only at the commencement of declivity; body length 1.75-1.80 mm..... 5
5. Declivital face convex and gradually sloping; interstria 1 with 3 distinct tubercles.....*M. alpha* (Beeson)
- Declivital face flat and abruptly sloping; interstria 1 with only one distinct tubercle.....*M. recidens* (Sampson)
6. Smaller species; declivital face of elytra abrupt, surface opaque and striae punctures indistinctly marked; postero-lateral margins of declivity with larger granules; body length 1.70-1.72 mm ...*M. perparvus* (Sampson)
- Larger species; declivital face of elytra gradually sloping, surface shiny and striae punctures distinctly marked; postero-lateral margins of declivity with smaller granules; body length 2.25-2.60 mm..... 7
7. Elytral apex broadly rounded; striae punctures on disc large, generally reticulately sculptured inside, and becoming still larger and confused towards declivital face; declivital interstriae with distinct granules; posterior half of pronotum with distinct punctures; body length 2.50-2.60 mm .....*M. chrysophylli* (Eggers)
- Elytral apex narrowly rounded; striae punctures small throughout, devoid of any sculpture inside and not confused, rather in uniform rows; declivital interstriae with indistinct granules; posterior half of pronotum with distinct granules ; body length 2.25— 2.30mm.....*M. mus* (Eggers)

75. *Microperus alpha* (Sampson)  
(Fig. 16, a-c)

1923. *Xyleborus bicolor* Blandford var  $\alpha$  Sampson, *Ann. Mag. nat. Hist.*, **11**(9) : 289.  
1929. *Xyleborus alpha* : Beeson, *Brit. Mus. nat. Hist.*, **4**(4) : 239.  
1971. *Xyleborus alpha* : Schedl, *Oriental Ins.*, **5**(3) 364.

*Material examined* : (i) 1 Female, Jalpaiguri, coll. C.F.C. Beeson, December, 1914, ex. "*Shorea robusta*" (det. as *Xyleborus alpha* Sampson); (ii) 2 Females, Sundarbans, coll. C.F.C. Beeson, 1914, ex. "*Heritiera fomes*" (Cotype, det. C.F.C. Beeson)

*Distribution* : India : West Bengal (Jalpaiguri Dist. and Sundarbans) and Assam; Bangladesh, Malaysia and Sri Lanka.

*Remarks* : The species was described under the genus *Xyleborus* which has been transferred here to *Microperus* on the basis of submerged scutellum and absence of scutellar emargination. It is recorded from *Shorea robusta* in North Bengal and from a mangrove plant, *Heritiera fomes* in the Sundarbans, although half a dozen of host plants is known from India.

76. *Microperus chrysophylli* (Eggers)  
(Fig. 16, a-e)

1930. *Xyleborus chrysophylli* Eggers, *Indian Forest Rec. (Ent.)*, **14**(9) : 29.  
1941. *Xyleborus chrysophylli* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 303 p.

*Material examined* : 3 Females, Samsingh, coll. Balwant Singh, 1933, ex. "bhalai sikole" (*Cinamomum obtusifolium* [det. C.F.C. Beeson as *Xyleborus chrysophylli* (Eggers)])

*Distribution* : India : West Bengal (Darjiling Dist.); Bangladesh.

*Remarks* : It is a rare species so far only known from Bangladesh and is recorded here for the first time from India, from a single host, *Cinamomum obtusifolium* at Samsingh.

77. *Microperus concinnus* ( Beeson )

1030. *Xyleborus concinnus* Beeson, *Indian Forest Rec. (Ent.)* **14**(10) : 214.  
1941. *Xyleborus concinnus* Beeson : *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 303 p.

*Material examined* : 2 Females and 1 Male, Nagrakalta, Jalpaiguri Dist. coll. S.C. Das, 1978 ex. "dead stump of a tea plant (*Thea sinensis*)"

*Distribution* : India : West Bengal (Jalpaiguri Dist.) ; Burma and Indonesia.

*Remarks* : It's occurrence in India is reported here for the first time from a tea plant, *Thea sinensis* in Nagrakata.

#### 78. *Microperus elegans* (Sampson)

1923. *Xyleborus elegans* Sampson, *Ann. Mag. nat. Hist.*, **11** (9): 288-289.

1962. *Xyleborus elegans* : Schedl, *Verhandl. Naturf. Ges. Basel.*, **73**(1) : 186.

*Material examined* : 1 Female, Buxa, coll. C.F.C. Beeson, 20.ix.1913, ex. "*Shorea robusta*" (Cotype, Sampson)

*Distribution* : India : West Bengal (Jalpaiguri Dist.) and Madhya Pradesh; Tonkin.

*Remarks* : It is a rare species, only once collected from *Shorea robusta* in north Bengal.

#### 79. *Microperus mus* (Eggers)

1930. *Xyleborus mus* Eggers, *Indian Forest Rec. (Ent.)* **14**(9) : 27-28.

1984. *Microperus mus*: Saha and Maiti; *Rec. zool. Surv. India*, **81**(3-4) : 3.

*Material examined* : 1 Female and 1 Male, Samsingh, coll. C.F.C. Beeson, 2.x.1933, ex. "dead *Michelia champaca*" (det. C.F.C. Beeson as *Xyleborus mus* Eggers).

*Distribution* : India : West Bengal : (Darjiling Dist.) and Sikkim; Bangladesh.

*Remarks* : It is an uncommon species in the study area and only once collected from *Michelia champaca* from Samsingh, although it is fairly well represented in Sikkim and Bangladesh.

#### 80. *Microperus perparvus* (Sampson)

1922. *Xyleborus perparvus* Sampson, *Ann. Mag. nat. Hist.*, **9**(9) : 151.

1986. *Microperus perparvus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No.* **86** : 97-98.

*Material examined* : (a) 15 exs. from Darjiling Dist., as follows : (i) 12 Females, (Cotypes, det. by W. Sampson), Sukna, coll. *Range Officer*, 21.ix.1917, ex. "*Shorea robusta*" and (ii) 3 Females, Bagdogra, coll. N.C. Chatterjee, 22.vi.1935, ex. : "unknown wood" (det. C.F.C. Beeson). (b) 3 exs. from Jalpaiguri Dist. as follows : (i) 1 Female, Rajabhatkhawa, Buxa, Range Officer coll., 25.ix.1914, ex. "*Shorea robusta*" (det. W. Sampson); (ii) 1 Female, Lower Tondeu, C.F.C. Beeson coll. 2.xii.1914, ex. "under bark of "*Shorea robusta*" (det. C.F.C. Beeson) and (iii) 1 Female, Buxa, coll. C.F.C. Beeson, 12.xi.1913 (all det. as *Xyleborus perparvus* Sampson).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.), Andaman Is. and Assam; Bangladesh, Burma, Indonesia and Malaysia.

*Remarks* : It differs from all its allied Indian species in having distinct tubercles on postero-lateral margins of elytral declivity. *Shorea robusta* is a favoured host in north Bengal.

### 81. *Microperus recidens* (Sampson)

1923. *Xyleborus recidens* Sampson, *Ann. Mag. nat. Hist.*, 11(9) : 287.

1986. *Microperus recidens* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No.86* : 98-100.

*Material examined* : 4 exs. from different parts of Jalpaiguri Dist., as follows : (i) 2 Females, Khariarbanda, coll. C.F.C. Beeson, 29.ii.1913; (ii) 1 Female, Raidak Range, Buxa, 26.ii.1916 and (iii) 1 Female, Apalchand Range, coll. Forest Zoologist, ex. "*Shorea robusta*" (det. W. Sampson as *Xyleborus undulatus*).

*Distribution* : India : West Bengal (Jalpaiguri Dist.) and Andaman Isl., Burma, Indonesia, Malaysia, Philippines and New Guinea.

*Remarks* : The species may be synonymised under *M. alpha* due to its variable characters as has been suspected, but not done due to lack of type material.

### 82. *Microperus undulatus* (Sampson)

1919. *Xyleborus undulatus* Sampson, *Ann. Mag. nat. Hist.*, 4(9) : 113.

1941. *Xyleborus undulatus* : Beeson, *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 310 p.

*Material examined* : (i) 1 Female (Cotype) from Rajabhatkhawa, 12.ii.1913 and (ii) 2 Females from Garumara, coll. C.F.C. Beeson, 29.xi.1913 and 22.xii.1919 (det. W. Sampson as *Xyleborus undulatus*).

*Distribution* : India : West Bengal (Jalpaiguri Dist.)

*Remarks* : It is a very good species being characterized by shaddle back elytral disc and discal punctures bearing granules.

### Genus *Notoxyleborus* Schedl, 1934

The genus is represented by single species from India.

### 83. *Notoxyleborus major* (Stebbing) (Fig. 17, a-c)

1909. *Phloeosinus major* Stebbing, *Indian Forest Mem. Zool.*, 1(2) : 19.

1986. *Notoxyleborus major* : Maiti and Saha *Rec. zool. Surv. India, Occ. Paper No. 86* : 100-102.

*Material examined* : 23 exs. from different parts of Jalpaiguri Dist., ex. "*Shorea robusta*" as follows: (i) 1 Male (Cotype), coll. unknown, Upper Tondu Range; (ii) 2 Females, Upper Tondu Range, coll. C.F.C.

*Beeson*, 2.xii.1914, (det. W. Sampson); (iii) 1 Male and 2 Females, Mahabari Range, coll. *C.F.C. Beeson*, 4.xii.1914; (iv) 3 Females, Buxa, coll. *C.F.C. Beeson*, 9.i.1915, (ex. "under bark of *S. robusta*"); (v) 5 Females, Rajabhatkhawa, coll. *C.F.C. Beeson*, different dates between 12.xi.1913 and 26.x.1914, and (vi) 6 Females, Januguri, Buxa, coll. *C.F.C. Beeson*, 23.i.1915 [collection from (iii) to (vi) *det. C.F.C. Beeson* as *Xyleborus major* (Stebbing)]

*Distribution* : India : West Bengal (Jalpaiguri Dist.), Andaman Isl. and Assam; Burma and Malaysia.

*Remarks* : The species has undergone a number of nomenclatural changes from time to time. It is taken from *Shorea robusta* in north Bengal.

### Genus *Xyleborinus* Reitter, 1913

The genus as it is conceived to-day may include seven species of *Xyleborus* from India, of which five species are dealt herewith. Key is based on female only.

1. All declivital interstriae 1-7 armed with either granules or tubercles throughout; elytra strongly converging posteriorly from middle to narrowly rounded apex; body length 1.80-1.85 mm.....  
.....*X. andrewesi* (Blandford)

All declivital interstriae 1-7 armed either with granules or tubercles, except on 2 or on both 1 and 2, if at all present, a few granules only at the summit of declivity; elytra not strongly but gradually converging posteriorly to broadly rounded apex.....2

2. Declivital face depressed along striae and interstriae 1 and 2; interstria 3 bearing 5-6 distinct tubercles in row and forming margins of depressed area; interstriae 1 and 2 devoid of any granule or tubercle, except a few at the summit of declivity; body length 2.70-2.75 mm.....  
.....*X. subspinosus* (Eggers)

Declivital face along striae and interstriae 1 and 2 not depressed, rather interstriae 1 and 3 feebly elevated with distinct granules or tubercles..... 3

3. Elytra 1.7 times as long as pronotum; striae 1 and 2 very close at the declivital face; body length 2.40-2.60 mm.....*X. saxeseni* (Ratzeburg)

Elytra 1.4-1.5 times as long as pronotum; striae 1 and 2 not so close at the declivital face..... 4

4. Declivital face abruptly sloping; larger species, body length 2.30-2.35 mm, body 2.6 times as long as wide; striae punctures with distinct microhairs throughout.....*X. artestriatus* (Eichhoff)

Declivital face gradually sloping; smaller species, body length 1.60- 1.70 mm, body nearly 2.0 times as long as wide; striae punctures with conspicuous microhairs only on declivital face.....  
.....*X. subgranulatus* (Eggers)

84. *Xyleborinus andrewesi* (Blandford)

1896. *Xyleborus andrewesi* Blandford, *Trans. ent. Soc. Lond.*, p. 227.

1986. *Xyleborinus andrewesi* : Maiti and Saha *Rec. zool. Surv. India, Occ. Paper No. 86* : 107-109.

*Material examined* : A. 2 Females, Sukna, coll. C.F.C. Beeson, 14.ix.1935, ex. "*Cryptocarya wightiana*" and (ii) 1 Female, Gazalduba, coll. N.C. Chatterjee, 16.x.1935. B. (a) 4 Females, Sukna, coll. M.L. Roonwal, 12.i.1957, ex. "*Lannea coromandalica*" (b) 8 exs. from Jalpaiguri Dist. as follows : (i) 6 Females, Garumara, Lower Tondu, coll. C.F.C. Beeson, ex. "*Shorea robusta*"; (ii) 1 Female, Apalchand Range, coll. Zoologist, 15.xii.1918, ex. "*Shorea robusta*"; (iii) 1 Female, Khuntimari, coll. C.F.C. Beeson, 26.xii.1914, ex. "on wing"; (iv) 1 Female, Buxa, coll. C.F.C. Beeson, 19.i.1915, ex. "*Shorea robusta*" (v) 1 Female, Barjaha Range, Buxa, coll. Range Officer, 21.ix.1916, ex. "*Shorea robusta*" (all det. either C.F.C. Beeson or W. Sampson as *Xyleborus andrewesi* Blandford).

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.), Kerala, Orissa and Tamil Nadu; Bangladesh, Indonesia (Borneo, Java and Timor), Malaysia, Nepal, Sri Lanka, Seychelles and East Africa.

*Remarks* : The characteristic strongly acuminate elytral apex is enough to isolate the species from its all other Indian representatives. It is known only from two hosts in north Bengal as mentioned under material.

85. *Xyleborinus artestriatus* (Eichhoff)

1878(1879). *Xyleborus artestriatus* Eichhoff, *Mem. Soc. Roy. Sci. Liege*, 8(2) : 507.

1984. *Xyleborinus artestriatus* : Saha and Maiti, *Rec. zool. Surv. India*, 81 (3 & 4) : 4.

*Material examined* : (i) 4 Females, Khariarbanda, Jalpaiguri Dist., coll. C.F.C. Beeson, 29.xi.1913. (ii) 2 exs. (Females) Sundarbans, coll. C.F.C. Beeson, 12.ii.1915, "*Heritiera fomes*" (det. W. Sampson as *Xyleborus laticollis*).

*Distribution* : India : West Bengal (Jalpaiguri Dist. and Sundarbans), Assam, Madhya Pradesh, Maharashtra, Sikkim and Uttar Pradesh; China, Indonesia, Laos, Malaysia, Nias, Sri Lanka, Vietnam and Australia.

*Remarks* : *Xyleborus laticollis* Blandford, a species known also from West Bengal is now considered as its synonym. The species infests *Heritiera fomes* in the mangrove vegetation of the Sundarbans.

86. *Xyleborinus saxeseni* (Ratzeburg)

(Fig. 18, a-d)

1837. *Bostrichus saxeseni* Ratzeburg, *Forstinseket*, 1 : 167.

1867. *Xyleborus saxeseni* Ferrari, *Die Forst-und baumzuchtschadlichen Borkenkafer* : 21.

1975. *Xyleborinus saxeseni* : Schedl, *Revue suisse Zool.*, 82(3) : 451.

*Material examined* : (i) 2 Females, Lepchajagat, coll. *J.C.M. Gardner*, 13.ix.1929, ex. "*Symplocos theaeifolia*" and (ii) 1 Female, Rangirum, coll. *J.C.M. Gardner*, 7.ix.1929, ex. "*Symplocos theaeifolia*"

*Distribution* : India : West Bengal (Darjiling Dist.), Kashmir and Uttar Pradesh; Europe, North and South America, Australia, Africa and Japan.

*Remarks* : It is a native to Europe, but subsequently has been transported to many Temperate countries including the Himalayan belt. The extensive synonymy list indicates its variable characters. *Symplocos theaeifolia* is the only known host in north Bengal.

#### 87. *Xyleborinus subgranulatus* (Eggers)

1930. *Xyleborus subgranulatus* Eggers, *Indian Forest Rec. (Ent.)*, 14(9) : 202.

*Material examined* : (i) 1 Female, Lepchajagat, coll. *J.C.M. Gardner*, 10.xi.1929, ex. "*Juglans regia*"; (ii) 1 Female, Lopchu, coll. *J.C.M. Gardner*, 24.xi.1929, ex. "Bhakinda" (iii) 1 Female, Samsingh coll. *C.F.C. Beeson*, 5.iii.1934, ex. "*Sapium eugeniaefolium*" and (iv) 1 Female, Samsingh, coll. *Mohan Lal*, January, 1934, ex. "*Anthocephalus chinensis*"

*Distribution* : India : West Bengal : (Darjiling Dist.) and Assam.

*Remarks* : It comes close to *X. saxeseni*, but differs in size and granulate upper half of declivital interstria 1. All the three hosts mentioned under material are new records from the State.

#### 88. *Xyleborinus subspinosus* (Eggers)

1930. *Xyleborus subspinosus* Eggers, *Indian Forest Rec. (Ent.)*, 14(9) : 203.

*Material examined* : 19 exs. from different parts of Darjiling Dist. as follows : (i) 3 Females, Lepchajagat, coll. *J.C.M. Gardner*, 29.xii.1929 and 17.ii.1930, ex. "*Juglans regia* fruit"; (ii) 1 Female, Lepchajagat, coll. *J.C.M. Gardner*, 13.ix.1929, ex. "*Symplocos theaeifolia*" (iii) 1 Female, Debrepani, coll. *J.C.M. Gardner*, 17.ix.1929, ex. "*Symplocos theaeifolia*"; (iv) 1 Female, Debrepani, coll. *J.C.M. Gardner*, 15.ix.1929, ex. "unknown wood" (v) 1 Female, Lopchu, coll. *J.C.M. Gardner*, 22.ix.1929, ex. "rotten wood"; (vi) 1 Female, Samsingh, coll. *C.F.C. Beeson*, 29.i.1934; (vii) 5 Females, Rambhi, coll. *J.C.M. Gardner*, 5.ix.1929, ex. "*Litsea elongata*" (viii) 5 Females, Rangirum, coll. *J.C.M. Gardner*, 4.ix.1929, ex. "*Prunus nepalensis*"

*Distribution* : India : West Bengal (Darjiling Dist.) and Meghalaya.

*Remarks* : It is a very distinct species and recorded here for the first time from north Bengal infesting three hosts mentioned under material constituting new host records.

Genus *Xyleborus* Eichhoff, 1864

In view of heterogenous group of species contained in *Xyleborus*, it has now been either splitted

into numerous genera or many genera have been synonymised under it (Schedl, 1951, '52 & '62 and Wood, 1978 & '80). Out of many Xyleborine species recognised from the study area, only 12 species can be assigned to *Xyleborus*.

1. Posterior face of antennal club with two distinct sutures; declivital face with one distinct tubercle at the middle of interstria 2 and also with uniseriate setaeferous granules; elytra converging posteriorly into a narrowly rounded apex; body length 3.50-3.70 mm.....*X. bidentatus* (Motschulsky)  
.....2
- Posterior face of antennal club without any suture.....2
2. Anterior margin of pronotum armed; elytral declivity commencing either from the middle or before  
.....3
- Anterior margin of pronotum unarmed; elytral declivity commencing from the apical third.....4
3. Interstriae 2 and 3 with granules at the commencement of declivity; strial punctures small; entire declivital face with fine pubescence; body length 2.0-2.15 mm.....*X. corpulentus* Eggers  
.....4
- Interstriae 2 and 3 with only one distinct pointed tubercle at the commencement of declivity; strial punctures large and distinct; declivital face devoid of distinct hair; body length 1.70 mm.....*X. mucronatulus* Eggers  
.....5
4. All declivital interstriae either with granules or tubercles.....5
- All declivital interstriae, except 2, with distinct granules or tubercles, if at all present on interstria 2, present at the commencement of declivity.....6
5. Declivital face abruptly sloping and with scanty hairs, interstria 1 with a few large tubercles and the rest with close granules; elytral apex narrowly rounded; body length 2.20-2.25 mm.....*X. glabratus* Eichhoff  
.....6
- Declivital face gradually sloping and with fairly dense hairs; all interstriae with granules of almost equal size; elytral apex broadly rounded; body length 2.10-2.25 mm.....*X. piceus* (Motschulsky)
6. Declivital interstria with granules only; smaller species, body 3.1 times as long as broad, body length 1.75- 1.85 mm.....*X. bicolor* Blandford  
.....7
- Declivital interstria with both tubercles and granules; larger species, body 2.7-2.8 times as long as broad, body length 2.10- 2.50 mm.....7

7. Declivital interstria 1 wider than others accommodating only one large tubercle; body length 2.30-2.50 mm.....*X. similis* Ferrari

Declivital interstriae 1 and 3 each with two to three pointed tubercles; body length 2.10-3.45 mm  
..... 8

8. Frons with coarse deep punctures; surface of elytral declivity coarse, opaque, comparatively darker than on disc; declivital tubercles distinctly slender and pointed, elytral disc densely hairy; body length 3.00-3.45 mm.....*X. cognatus* Blandford

Frons with fine shallow punctures; surface of elytral declivity smooth and shiny, almost same colour as on disc; declivital tubercles distinctly and bluntly large, elytral disc less hairy; body length 2.10-2.35 mm.....*X. perforans* Wollaston

#### 89. *Xyleborus bicolor* Blandford

1894. *Xyleborus bicolor* Blandford, 1894. *Trans. ent. Soc. Lond.* : 112-114.

1986. *Xyleborus bicolor*: Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No.86* : 113-115.

*Material examined* : A. 2 Females, Samsingh, coll. C.F.C. Beeson, 10.i.1934, ex. "*Acrocarpus fraxinifolius*" B. (i) 3 Females, Lataguri, coll. C.F.C. Beeson, 19.xii.1914, ex. Jungle wood (det. W. Sampson); (ii) 1 Female, Govt. Cinchona Plantation, Munphu, coll. Manager, 25.xi.1920, ex. "*Albizzia* sp."; (iii) 2 Females, Upper Tondou Range, Jalpaiguri Dist., coll. C.F.C. Beeson, 1.xii.1914, ex. "under bark of *Shorea robusta*" (all det. as *Xyleborus bicolor* Blandford); (iv) 4 Females, Sundarbans, coll. C.F.C. Beeson, 1.v.1921, ex. "*Heritiera fomes*"

*Distribution* : India : West Bengal : (Darjiling and Jalpaiguri Dists. and Sundarbans), Assam, Middle Andaman and Uttar Pradesh. Also Burma, Indonesia, Malaysia, Fiji Isl., Japan and Samoa.

*Remarks* : This variable small pinehole borer is widely distributed from India to Japan. It is very close to *X. piceus* Mots., but can easily be separated by the absence of granules or tubercles on declivital interstria 2. *Acrocarpus fraxinifolius* is a new addition to the known host plants from India.

#### 90. *Xyleborus bidentatus* (Motschulsky)

1863. *Phloeotrogus bidentatus* Motschulsky, *Bull. Soc. Imp. Nat. Moscou*, 36(2) : 514.

1986. *Xyleborus bidentatus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper, 86* : 115-118.

*Material examined* : 7 Females and 5 Males from Sundarbans, coll. C.F.c. Beeson, different dates between 4.ii.1921 and 9.iii.1921, ex. *Excaecaria agallocha* (det. as *Xyleborus riehlII* by Eggers).

*Distribution* : India : West Bengal : (Sundarbans), Andaman and Nicobar Islands; Burma, Malaya, Indonesia, Philippine, East Africa. Madagascar and Australia.

91. *Xyleborus cognatus* Blandford

1896. *Xyleborus cognatus* Blandford, *Ann. Soc. Ent. Fr.* **65** : 19-20.  
 1986. *Xyleborus cognatus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper*, No.86 : 118-121.

*Material examined* : 13 exs. from Sundarbans, coll. C.F.C. Beeson, as follows : (i) 1 Female, 16.ii.1915, ex. "On wing in Sundri jungle: (det. C.F.C. Beeson); (ii) 2 Females, 27.xii.1920, ex. "*Heritiera fomes*" (det. C.F.C. Beeson); (iii) 9 Females different dates between 22.ii. and 31.iii.1921, ex. "*Heritiera fomes*" (det. K.E. Schedl); (iv) 1 Female, 23.ii.1922, ex. "*Excaecaria agallocha*"

*Distribution* : India : West Bengal : (Sundarbans), Andaman Islands, Bihar, Orissa and Uttar Pradesh; Sri Lanka, Burma, Malaysia, Indonesia, Philippine Islands, Indochina, New Guinea, Bougainville Island and Australia.

92. *Xyleborus corpulentus* Eggers

1930. *Xyleborus corpulentus* Eggers, *Indian Forest Rec. (Ent.)* **14**(9) : 22-23.  
 1986. *Xyleborus corpulentus*: Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper*, No.86 : 121-123.

*Material examined* : (i) 2 Females, Samsingh, coll. C.F.C. Beeson, 21.xi.1933, ex. "*Acrocarpus fraxinifolius*" and (ii) 1 Female, Sukna, coll. C.F.C. Beeson, 12.vii.1935, ex. "*Cryptocarya wightiana*"

*Distribution* : India : West Bengal (Darjiling Dist.), Assam and Andaman Islands; Nepal.

*Remarks* : It occurs sparsely in the sub-Himalayan belt infesting *Cryptocarya wightiana* which is an additional host record for the species.

93. *Xyleborus geminatus* Hagedorn

1904. *Xyleborus geminatus* Hagedorn, *Bull. Mus. nat. Hist. Paris*, 10 :

*Distribution* : India : West Bengal (Darjiling Dist.)

*Remarks* : The material is not available for study, as such it is omitted from the key.

94. *Xyleborus glabratus* Eichhoff  
(Fig. 19, a-d)

1877. *Xyleborus glabratus* Eichhoff, *Dt. Ent. Z.*, **21** : 127.  
 1941. *Xyleborus glabaratus* : *Ecology and Control of Forest Insects of India and Neighbouring Countries*, 305 p.

*Material examined* : (a) 2 Females, Lopchu, coll. J.C.M. Gardner 12.ii. and 2.iv.1930, ex. "*Litsaea elongata*". (b) 21 exs., Samsingh, coll. Balwant Singh, as follows : (i) 10 Females and 1 male, coll. Balwant Singh, January, 1934, ex. "bhulia sinkole" (*Cinnamomum obtusifolium*) (ii) 8 Females, coll. Balwant Singh, 27.iii.1934 and December, 1934 ex. "unknown wood" and (iii) 2 Females, coll. C.F.C. Beeson, October, 1933, ex. "*Phoebe lanceolata*"

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.) and Assam; Bangladesh and Japan.

*Remarks* : It is fairly well represented in north Bengal being associated with five host-plants, of which *Phoebe lanceolata* is a new addition.

#### 95. *Xyleborus haberkorni* Eggers

1920. *Xyleborus haberkorni* Eggers, *Ent. Blatt.*, 16 : 43.

1986. *Xyleborus haberkorni* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No. 86* : 125-127.

*Material examined* : 1 Female, Samsingh, coll. N.C. Chatterjee, 9.x.1933. ex. "phobipati"

*Distribution* : India : West Bengal (Darjiling Dist.), Assam, Tamil Nadu and Uttar Pradesh; Bangladesh, Burma, Indonesia, Malaysia, Sri Lanka, Taiwan, Tonkin and Vietnam. Originally, it was found in Tangania, but not recorded elsewhere from Africa since then.

*Remarks* : It is less common in the north Bengal, but a distinct species in having very prominent asperities on the pronotal anterior margin. Only on a single occasion, it has been collected from "phoobipati" in north Bengal.

#### 96. *Xyleborus mucronatulus* Eggers

1930. *Xyleborus mucronatulus* Eggers, *Indian Forest Rec. (Ent.)* 14(9) : 199.

1975. *Xyleborus mucronatulus* : Beaver and Browne, *Oriental Ins.*, 9(3) : 299.

*Material examined* : 3 Females (Holotype and Paratypes) from Kalimpong, August, 1910, ex. "*Mesua ferrea*"

*Distribution* : India : West Bengal (Darjiling Dist.) and Uttar Pradesh; Indonesia, Malaysia and Thailand.

*Remarks* : It is small species and is only known from Kalimpong occurring in *Mesua ferrea*, inspite of its wide occurrence in south-east Asia.

#### 97. *Xyleborus perforans* (Wollaston)

1857. *Tonucus perforans* Wollaston, *Cat. col. Madeira*, p. 96.

1910. *Xyleborus perforans*, Hagedorn *Coleopt. Cat.*, 26(4) : 108.

1986. *Xyleborus perforans* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No.86* : 129-132.

*Material examined* : (a) 1 Female, Dahura, coll. N.C. Chatterjee, 13.xii.1933, ex. "*Machilus* sp." (b) 9 exs. from Jalpaiguri Dist., coll. N.C. Chatterjee, as follows : (i) 5 Females, Apalchand Range, different dates between 2.i.1935 and 30.xii.1934, ex. "*Mallotus philippinensis*" and (iii) 1 Female, Lataguri, coll. N.C. Chatterjee, 20.ix.1934, ex. "unknown wood"; (c) 1 Female, Manikatala, coll. B. Mitra, 6.viii.1981, ex. "unknown log"; (d) 1 Female, Jadavpur, Calcutta, coll. N. Saha, 6.vi.1989, ex. 'at light'.

*Distribution* : Species is circum-tropical in distribution and very much variable in characters. It is quite common in north Bengal from the plains to the higher elevations being associated with number of hosts. The species hardly attacks the live trees unless those are almost dying.

#### 98. *Xyleborus piceus* (Motschulsky)

1863. *Anodius piceus* Motschulsky, *Bull. Soc. Imp. Nat. Moscou*, **36** : 512.

1986. *Xyleborus piceus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper No.86* : 132-135.

*Material examined* : A. 4 Females, Kurseong, coll. Range Officer, 16.iii.1936, ex. "*Anthocephalus chinensis*" B. 8 Females, Samsingh, coll. C.F.C. Beeson, different dates between 31.x.1933 and 19.ii.1934, ex. "lesari" (all det.)

*Distribution* : India : West Bengal (Darjiling Dist.), Andaman and Nicobar Islands. Oriental Region, Pacific islands and Tropical Africa.

*Remarks* : This widely distributed species is recorded for the first time from the mainland of India. *X. indicus* has been synonymised under it (Wood, 1969). *Anthocephalus cadamba* is the lone host known from north Bengal.

#### 99. *Xyleborus similis* Ferrari

1858-59 *Bostrichus ferrugineus* Bohemann, *Zool.*, **1** : 8

1867. *Xyleborus similis* Ferrari, *Die Forst-und Baumzuchtschadlichen Borkenkafer*, pp. 23-24 (nom. nov.).

1984. *Xyleborus similis* Saha and Maiti, *Rec. zool. Surv. India, Occ. Paper 81* (3 & 4) : 5.

*Material examined* : (a) 8 exs. from different parts of Darjiling Dist. as follows : (i) 3 Females, Sukna, coll. C.F.C. Beeson, 21.ix.1935, ex. "unknown wood"; (ii) 2 Females, Samsingh, coll. C.F.C. Beeson, 25.ii.1934, ex. "*Terminalia myriocarpa*" (iii) 1 Female, Samsingh, coll. Balwant Singh, 29.i.1934, ex. "unknown wood" and (iv) 2 Females, Samsingh, coll. C.F.C. Beeson, 26.x. and 13.xi.1933, ex. "*Sterculia colorata*" or "*Sapium eugeniaefolium*" (b) 53 exs. from Jalpaiguri Dist. as follows : (i) 50 Females, Apalchand Range, coll. Borer Project, different dates between 3.i.1935 and 26.xii.1935, ex. "*Heteropanax fragrans*" (ii) 2 Females, Lataguri, coll. N.C. Chatterjee, 21.x.1934, ex. "unknown wood" and (iii) 1 Female, Gazalduba, coll. N.C. Chatterjee, 15.vi.1934, ex. "*Macaranga denticulata*"; (c) 1 Female, Maniktala, Calcutta, coll. N. Saha, 24.vii.1981, ex. "*Samanea saman*"

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists. and Calcutta). Oriental Region, Australia, Polynesia and Africa.

*Remarks* : This is by far the most common species in India including West Bengal. It is a well known pin-hole borer of dead, dying and felled logs of numerous host-plants around the tropics. In the past, its population in different territories has been named under different species name due its wide variable characters which are now synonymised by different authors. 42 host-plants are known for the species from India, of which 11 species of hosts from the Andamans and Nicobars (Maiti and Saha, 1986).

100. *Xyleborus speciosus* Schedl1975. *Xyleborus speciosus* Schedl, *Rev. suiss. zool.* **82**(3) : 457*Distribution* : India : West Bengal (Darjiling Dist.).*Remarks* : The material are not available for study, as such it is omitted from the key.Genus *Xylosandrus* Reitter, 1913

Some 14 species may be assigned to this genus from India, of which 6 species are recognised from the study area.

Key is based on female only.

1. Procoxae subcontiguous; larger species; more than 4.00 mm.....2  
     Procoxae widely separated; smaller species, below 4.00 mm..... 3
2. Postero-lateral margins of declivity distinctly carinate; posterior portion of pronotum with minute punctures; declivity abruptly sloping; body length 4.80 mm.....*X. gravidus* (Blandford)  
     Postero-lateral margins of declivity not carinate, rather rounded with distinct tubercles; posterior portion of pronotum with large punctures; declivity rather gradually sloping; body length 4.25-4.60 mm.....*X. ursinus* (Hagedorn)
3. Declivital surface with obsolete strial punctures, both striae and interstriae with granules and dense fine hairs..... 4  
     Declivital surface with distinct strial and interstitial punctures; declivital interstriae with uniseriate row of hairs..... 5
4. Declivital face uniformly convex and gradually sloping, entire surface with confused granules; posterior one-third of pronotum shiny, punctate and with dense hairs, but devoid of any tuft of hairs; body length 2.20 mm.....*X. crassiusculus* (Motschulsky)  
     Declivital face steep and abruptly sloping; only interstitial granules confused, but strial granules in row, rather close and large; posterior one-third of pronotum not shiny rather granulate, and with sparse hairs along with a median tuft of yellowish hairs; body length 2.30-2.40 mm.....  
     .....*X. discolor* (Blandford)
5. In profile, elytra strongly arching from base, declivital face abrupt; body length 1.60-1.70 mm ...  
     .....*A. morigerus* (Blandford)

- In profile, elytra feebly arching from base to apex..... 6
6. Strial puncture very large, distinct, each with a microhair; body length 1.45 mm.....  
.....*X. mesuae* (Eggers)
- Elytral strial puncture very small, rather shallow, devoid of microhair; body length 1.88 mm .....  
..... *X. difficilis* (Eggers)

#### 101. *Xylosandrus crassiusculus* (Motschulsky)

1866. *Phloeotrogus crassiusculus* Motschulsky, *Bull. Soc. Nat. Moscou*, **39** : 403.

1986. *Xylosandrus crassiusculus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper*, No. **86** : 145-148.

*Material examined* : (a) 125 exs. from Samsingh, as follows : (i) 63 Females, coll. *N.C. Chatterjee*, in different dates between 16.ii.1934 and 5.xii.1934, ex. "*Lasiococcoa* sp".; (ii) 2 Females, coll. Borer Project, ex. "*Amoora wallachii*"; (iii) 2 Females, coll. *N.C. Chatterjee*, 7 and 14.x.1933, ex. "*Amoora wallachii*"; (iv) 4 Females, coll. Borers Project, 1933, ex. "*Acrocarpus fraxinifolius* (v) 2 Females, coll. *C.F.C. Beeson*, 17.ii. and 6.iii.1934, ex. "*Sapium euginiaefolium*"; (vi) 1 Female, coll. *Balwant Singh*, ex. "*Ostodes paniculata*"; (vii) 3 Females, coll. Mohan Lal, January, 1934, ex. "unknown wood"; (viii) 30 Females, coll. *N.C. Chatterjee*, 10.x.1933, ex. "*Litsaea elongata*" (Painle) and (ix) 18 Females, coll. *N.C. Chatterjee*, 10.x.1933, ex. "Swasanikat" (b) 1 Female, Dahura, Bagdogra, coll. *N.C. Chatterjee*, 22.x.1933, ex. "*Schima wallichii*". c) 21 Females, Tista Valley, coll. *J.C.M. Gardner*, 28.ix.1929, ex. "Misc-timber" and "*Cedrela toona*". (d) 4 exs., Sukna, coll. *C.F.C. Beeson* as follows : (i) 2 Females, 12-13. viii. 1935, ex. "*Cryptocarya wightiana*" and (ii) 1 Female, 5.ix.1935, ex. "unkown wood" (e) 13 exs., Gazalduba, Jalpaiguri Dist., coll. *N.C. Chatterjee*, as follows : (i) 5 Females, 16.x.1933, ex. "malta" (*Macaranga denticulata*), (ii) 2 Females, 14.x.1933, ex. "archaya" and (iii) 6 Females, October, 1933, ex. "unkown wood"

*Distribution* : India : West Bengal (Darjiling and Jalpaiguri Dists.) Oriental Region to Japan, Pacific islands to Hawaii, Tropical Africa and North America.

*Remarks* : This is a widely distributed and variable species. It is known as common pin-hole borer infesting numerous host-plants. It has got number of hosts in West Bengal as mentioned under material. The long synonymy list itself indicates its variable characters.

#### 102. *Xylosandrus difficilis* (Eggers)

1923. *Xyleborus difficilis* Eggers, *Zool., Meded.*, **7** : 174 and 175.

1963. *Xylosandrus difficilis* : Browne, *Ent. Ber.*, **23** : 55.

*Material examined* : A. 8 exs. from different parts of Darjiling Dist. (i) 2 Females, Lopchu, coll. *J.C.M. Gardner*, 5.xi.1929 and 28.i.1930, ex. "*Litsaea elongata*"; (ii) 2 Females, Samsingh, coll. *N.C. Chatterjee*, 24.x.1933 and 4.iv.1934, ex. "jhankarikat" (iii) 1 Female, Senchal Range, coll. *J.C.M. Gardner*, 14.ix.1929, ex. "unknown wood"; (iv) 2 Females, Tista Valley, coll. *J.C.M. Gardner*, 17.x.1929, ex. "unknown wood" and (v) 1 Female, Rangirum, coll. *J.C.M. Gardener*, 6.ix.1929, ex. "*Juglans regia*" B. (i) 7 Females, Lopchu, coll. *J.C.M. Gardner*, in different dates between 12.iii.1929 and 8.iv.1930, ex. "*Beilschmiedia sikkimensis*" and (ii) 5 Females, Samsingh, coll. *N.C. Chatterjee*, January, March and April, 1934, ex. "*Aphanamixis polystachya*" (det. S.L. Wood).

*Distribution* : India : West Bengal (Darjiling Dist.) and Assam; Indonesia, Malaysia and extends across the Pacific as far as to Fiji.

*Remarks* : Species is quite common in eastern India including north Bengal infesting some four hosts as indicated under material. *X. mesuae* is its closest relative. The colour varies from reddish brown to complete black making some confusion at times. Its damage to wood is never so economically important, since it remains mostly in the superficial layers of wood.

### 103. *Xylosandrus discolor* (Blandford)

1898. *Xyleborus discolor* Blandford, *Trans. ent. Soc. Lond.*, P.429

1986. *Xylosandrus discolor* : Maiti and Saha: *Rec. zool. Surv. India, Occ. Paper No. 86* : 148-151.

*Material examined* : 1 Female from Samsingh, coll. C.F.C. Beeson, 7.x.1933, ex. "aerikanda"

*Distribution* : India : West Bengal (Darjiling Dist.), Andaman Isl., Assam, Sikkim, Tamil Nadu and Uttar Pradesh; Burma, Indonesia, Malaysia. Sri Lank, Sumba Isl. and Taiwan.

*Remarks* : This is quite an uncommon species in the West Bengal and is collected once only from "arerikanda" in Samsingh.

### 104. *Xylosandrus gravidus* (Blandford) (Fig. 20, a-c)

1898. *Xyleborus gravidus* Blandford, *Trans. ent. Soc. Lond.*, P. 429.

1984. *Xylosandrus gravidus* : Saha and Maiti, *Rec. zool. Surv. India*, **81**(3 & 4) : 6.

*Material examined* : (i) 1 Female, Pashok, coll. Ind. Mus., May, 1915; (ii) 6 Females, Samsingh, coll. N.C. Chatterjee, in different dates between 19.iii. and 14.v.1934, ex. "Swasnikat" and (iii) 6 Females, Samsingh, coll. Balwant Singh, Nov. 1933, ex. "unknown wood" (*det.* C.F.C. Beeson as *Xyleborus gravidus* Blandford).

*Distribution* : India : West Bengal (Darjiling Dist.), Assam and Sikkim; Bangladesh, Burma, Laos, Malaysia, North Vietnam, Thailand and Sri Lanka.

*Remarks* : The species shows some inter-colonial variations with regard to colour from yellowish brown to reddish brown. It is only known from some unidentified hosts in north Bengal.

### 105. *Xylosandrus mesuae* (Eggers)

1930. *Xyleborus mesuae* Eggers, *Indian Forest Rec. (Ent.)*, **14**(9) : 6.

1963. *Xylosandrus mesuae* : Browne, *Ent. Ber.*, **23** : 55.

*Material examined* : 4 Females (Holotype and 3 Paratypes) from Kalimpong, 1910, ex. "*Mesuaee ferrea*"

*Distribution* : India : West Bengal (Darjiling Dist.) and Uttar Pradesh (? Siwalik).

*Remarks* : This is so far known as a twig borer of *Mesuaee ferrea* in Kalimpong. Its record from Siwaliks is doubtful.

106. *Xylosandrus morigerus* (Blandford)

1894. *Xyleborus morigerus* Blandford. *Insect Life*, 6 : 264-265.  
 1978. *Xylosandrus morigerus* : Beaver and Browne, *Oriental Ins.*, 12(4) : 614.

*Material examined* : (a) 5 Females, Tista Valley, coll. J.C.M. Gardner, 29.ix., 7.x. and 27.xi.1929, ex. "unkown wood"; (b) 13 Females, Samsingh, as follows : (i) 2 Females from coll. C.F.C. Beeson, 4.x.1933, ex. "amboke" (*Eugenia formosa*) (ii) 8 Females, coll. C.F.C. Beeson, 7.x.1933, ex. "arerikanda"; (iii) 2 Females coll. N.C. Chatterjee, 26.x.1933, ex. "Bamni pal" and (iv) 1 Female, coll. Mohan Lal, January, 1934, ex. "unknown wood"

*Distribution* : India : West Bengal (Darjiling Dist.); Indomalayan Region, imported to East Africa, Colombia and some of the polynesian islands, Europe and America.

*Remarks* : It is a distinct species in smaller body size and elytra arching from the base towards declivital summit. In north Bengal, it has been collected from only a few locality infesting *Eugenia formosa* in addition to some unknown wood.

107. *Xylosandrus ursinus* (Hagedorn)

1908. *Xyleborus ursinus* Hagedorn, *Dt. ent. Z.* : 381.  
 1986. *Xylosandrus ursinus* : Maiti and Saha, *Rec. zool. Surv. India, Occ. Paper*, No.86 : 151-153.

*Material examined* : A. (i) 35 Females, Samsingh, different dates in between 17.x.1933 and 31.i.1934, ex. "*Sterculia colorata*" or "*Sapium eugeniaefolium*" and (ii) 3 Females, Samsingh, coll. N.C. Chatterjee, 4.iii.1934, ex. "*Castanopsis* sp." B.62 exs. from Samsingh as follows : (i) 15 Females, coll. Mohan Lal, January 1934, ex. "unknown wood"; (ii) 27 Females, coll. Bahvant Singh, February, 1934, ex. "unknown wood"; (iii) 1 Female, coll. Mohan Lal, December, 1934 ; (iv) 19 Females, coll. C.F.C. Beeson, 2.x.1933, ex. "barkula" (*Casearia glomerata*) (det. S.L. Wood).

*Distribution* : India : West Bengal (Darjiling Dist.) and Nicobar Isl; Indonesia and Philippines.

*Remarks* : The stout and strong body from with profused pilosity is a positive aid to the identity of this species. It is so far known mostly from the insular territories including the Gt. Nicobar Island. It is recorded here for the first time from the interior of mainland in north Bengal. The hosts recorded under the material are new to the species from north Bengal.

## SUMMARY

The paper deals with the scolytid fauna of West Bengal (area 87,072 sq.km), a politically defined State of the eastern India, containing the taxonomic treatment of 107 species belonging to 32 genera under two subfamilies. Each species has been dealt with regard to its current taxonomic status, important synonymies, distribution, host-plants, taxonomic and biological remarks, etc.

The entire study is based on the material collected by the staff-members of the Zoological Survey of India and Forest Research Institute, Dehra Dun. The Types and main identified collection present in FRI have also been extensively studied.

The scolytid fauna of the state was studied so far in a desultory manner, although some 78 species were already on record based on sporadic works initiated in the year 1893. However, as a result of present study as many as 30 species and 20 genera have been recorded for the first time. Further, 46 Xyleborine species has been reassigned to 12 genera, eight species synonymised and specific status of two species revived. The most important aspect of the paper is the formulation of extensive keys to serve as an ideal aid to the identity of genera and species occurring in the area. Such keys are not so far made for any State fauna, excepting that for the fauna of the Andaman and Nicobar Islands recently formulated by the same authors. Further, some illustrations, distribution maps, relevant literature are also incorporated in the paper.

#### ACKNOWLEDGEMENT

The authors are grateful to Prof. M. Shamim Jairajpuri, Director, Zoological Survey of India for providing all facilities for the completion of the work. Thanks are also due to Dr. S.K. Bhattacharya, Scientist-SF and to Dr. T. Sen Gupta, Scientist-SE, for their many fold help and to Dr. A.K. Ghosh, Scientist-SF, Zoological Survey of India, Calcutta, for taking pains in going through the manuscript and offering valuable suggestions for its improvements. Grateful acknowledgement is made to Dr. S.L. Wood, former Professor of Entomology, Brigham Young University, Provo, U.S.A., for his valuable suggestion for solving some of the taxonomic problems and to Dr. P.K. Sen Sarma, Former Director, Biological Research, F.R.I., Dehra Dun, for extending free access to study the scolytid collection present in that Institute. Sincere thanks are also extended to Sri S. Biswas, Artist, Z.S.I. for inking some of the illustrations.

Fig. 1, a-k

*Euwallacea interjectus* (Blandford) : Female :

a, pronotum and elytra in dorsal view : asp = asperities; el. s = elytral suture; i. str = interstriae; sc = scutellum; sc. g = scutellar groove; sc. s = scuto-scutellar suture; scu = scutum; str = striae; ter = tergites.

b, head, pronotum and elytra in ventral view : co. cav = coxal cavity; e = eyes; gs = gular suture; int. co. pro = inter coxal process; lb = labium; md = mandible; mx = maxilla; met. epistm = metepisternum; mes. co = mesocoxa; met. co = metacoxa; mes. stm = mesosternum; met. stm = metasternum; pre. gu = pregula; pro. co = procoxa; str = sternite.

c, head, pronotum and elytra in lateral view : cos. fl = costal flange; e = eye ; el. dec = elytral declivity; epi. m = epistomal margin; fr = frons; ver = vertex

d, maxilla in ventral view; max. l = maxillary lobe; max. p = maxillary palp; pal = palpifer; sti = stipe.

e, mandible in ventral view; ap. t = apical palp; men = mentum; su. men = submentum.

f, labium in ventral view : ib. p = labial palp; men = mentum; submen = submentum.

g, antennae in dorsal view : cl = club; fu = funicle; sca = scape.

h, antenna in ventral view.

i, wing : a = anal; cu = cubitus; m<sub>1</sub> and m<sub>2</sub> = median.

r, r<sub>1</sub> and r<sub>2</sub> = radius; scl = sclerites;

j, protibia and profemur : fem = femur and tib = tibia.

k, mesotibia and tarsal segments : tar = tarsus and tib = tibia.

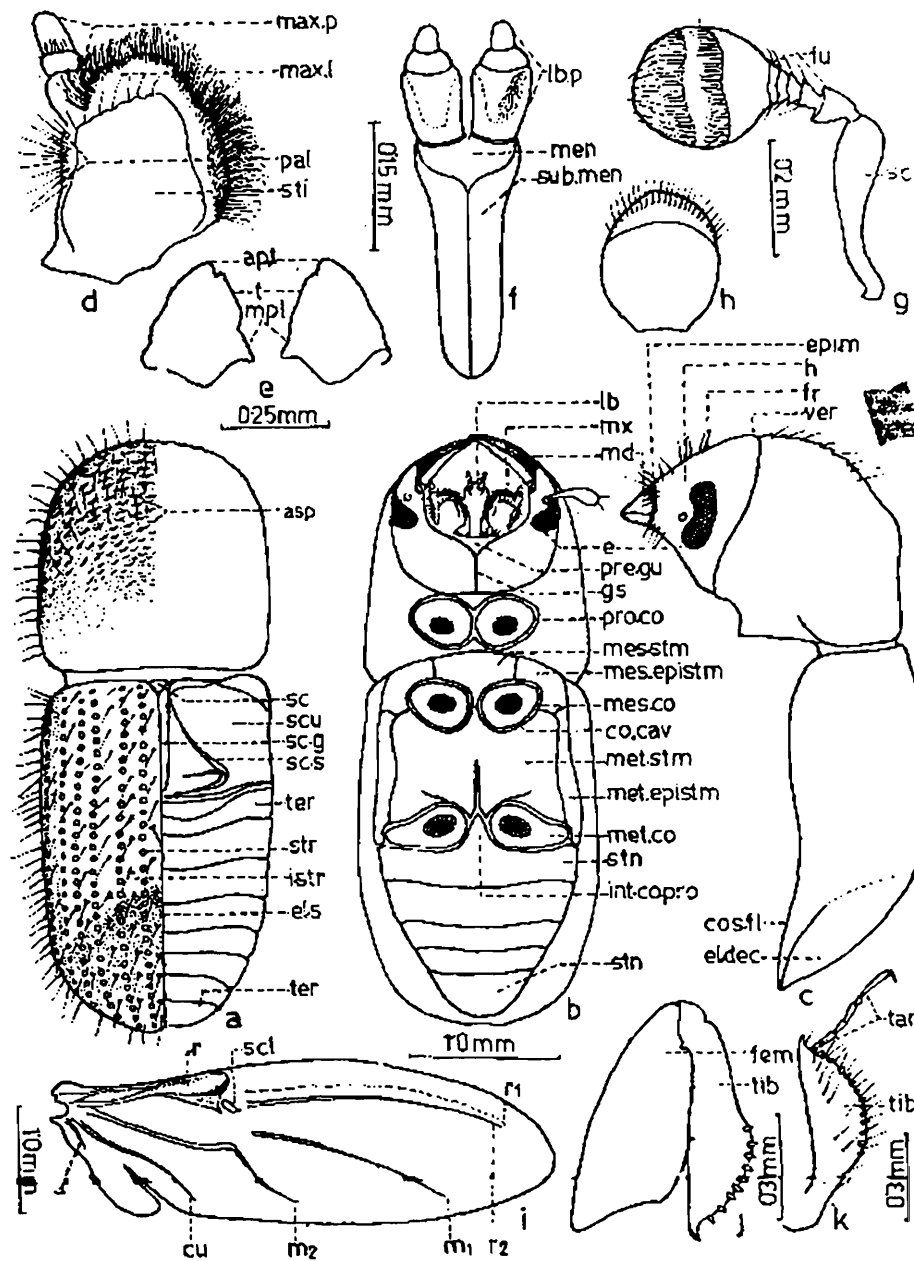


Fig. 1 (a-k) *Euwallacea interjectus* (Blandford) : Female :

- a. pronotum and elytra in dorsal view : asp = asperities; el.s = elytral suture; i. str = interstriae; sc = scutellum; sc. g = scutellar groove; sc. s = scuto-scutellar suture; scu = scutum; str = striae; ter = tergites.
- b. head, pronotum and elytra in ventral view : co.cav=coxal cavity; e=eyes; gs=gular suture; int.co.pro=intercoxal process; lb=labium; md=mandible; mx=maxilla; met. epistm=metepisternum; mes.co=mesocoxa; met. co=metacoxa; mes. stm=mesosternum; met. stm=metasternum; pre. gu=pregula; pro. co=procoxa; stn=sternite.
- c. head, pronotum and elytra in lateral view : cos.fl=costal flange; e=eye; el.dec=elytral declivity; epi. m=epistomal margin; fr=frons; ver=vertex
- d. maxilla in ventral view; max. l = maxillary lobe; max.p=maxillary palp; pal=palpifer; sti-stipe.
- e. mandible in ventral view; ap.t = apical teeth; t=teeth, m pl. = molar plate
- f. labium in ventral view : lb.p = labial palp; men = mentum; sub men = submentum.
- g. antennae in dorsal view : cl = club; fu=funicle; sca=scape.
- h. antenna in ventral view.
- i. wing : a=anal; cu=cubitus; m<sub>1</sub> and m<sub>2</sub> = median. r, r<sub>1</sub> and r<sub>2</sub> = radius; scl=sclerites.
- j. protibia and profemur : fem=femur and tib=tibia.
- k. mesotibia and tarsal segments : tar=tarsus and tib=tibia.

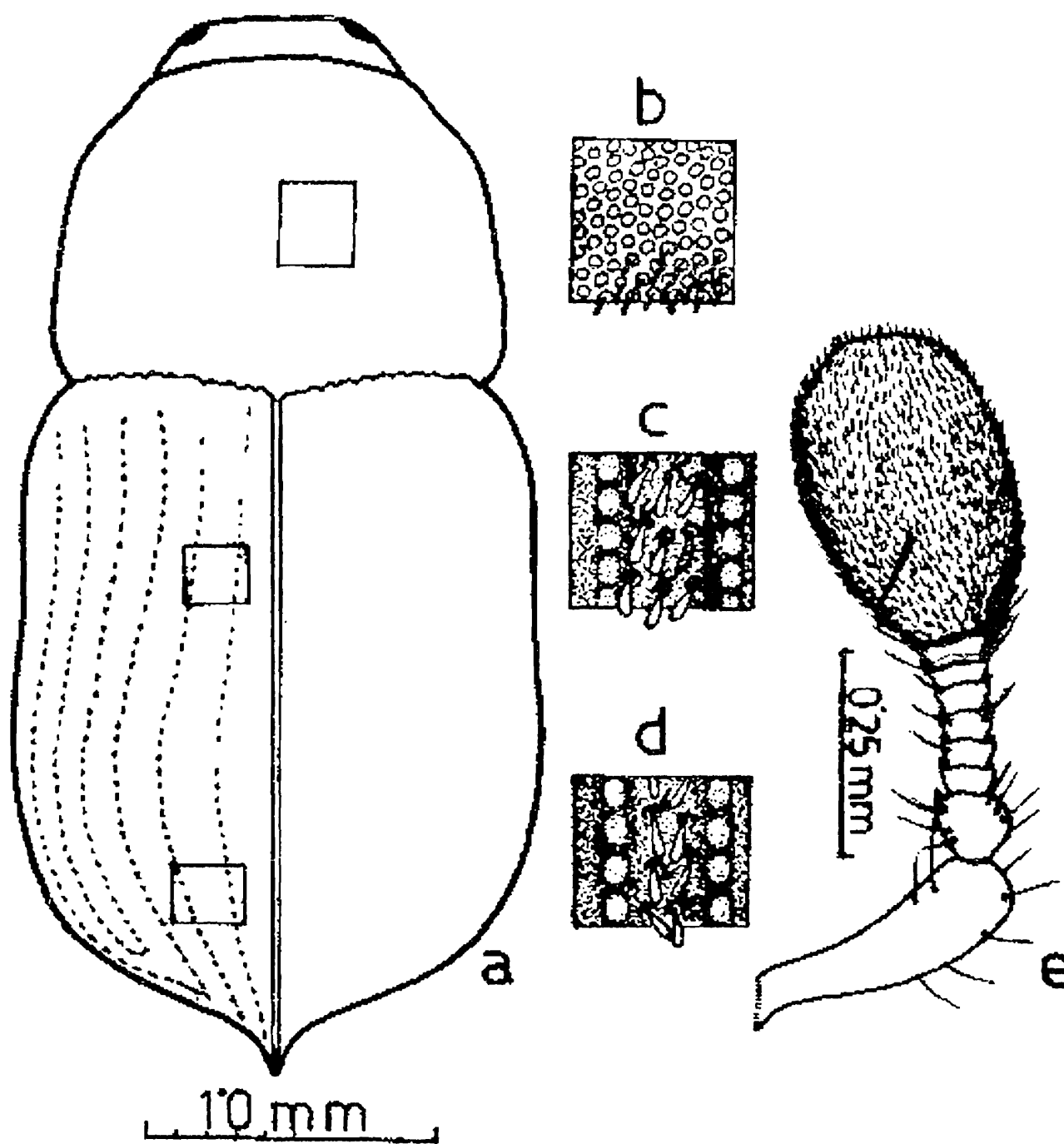


Fig. 2. a-c. *Diemeris striatus* Eggers, Male a. Pronotum and elytra in dorsal view : b. enlarged portion of pronotum; c. enlarged portion of elytral disc; d. enlarged portion of elytral declivity; e. antenna.

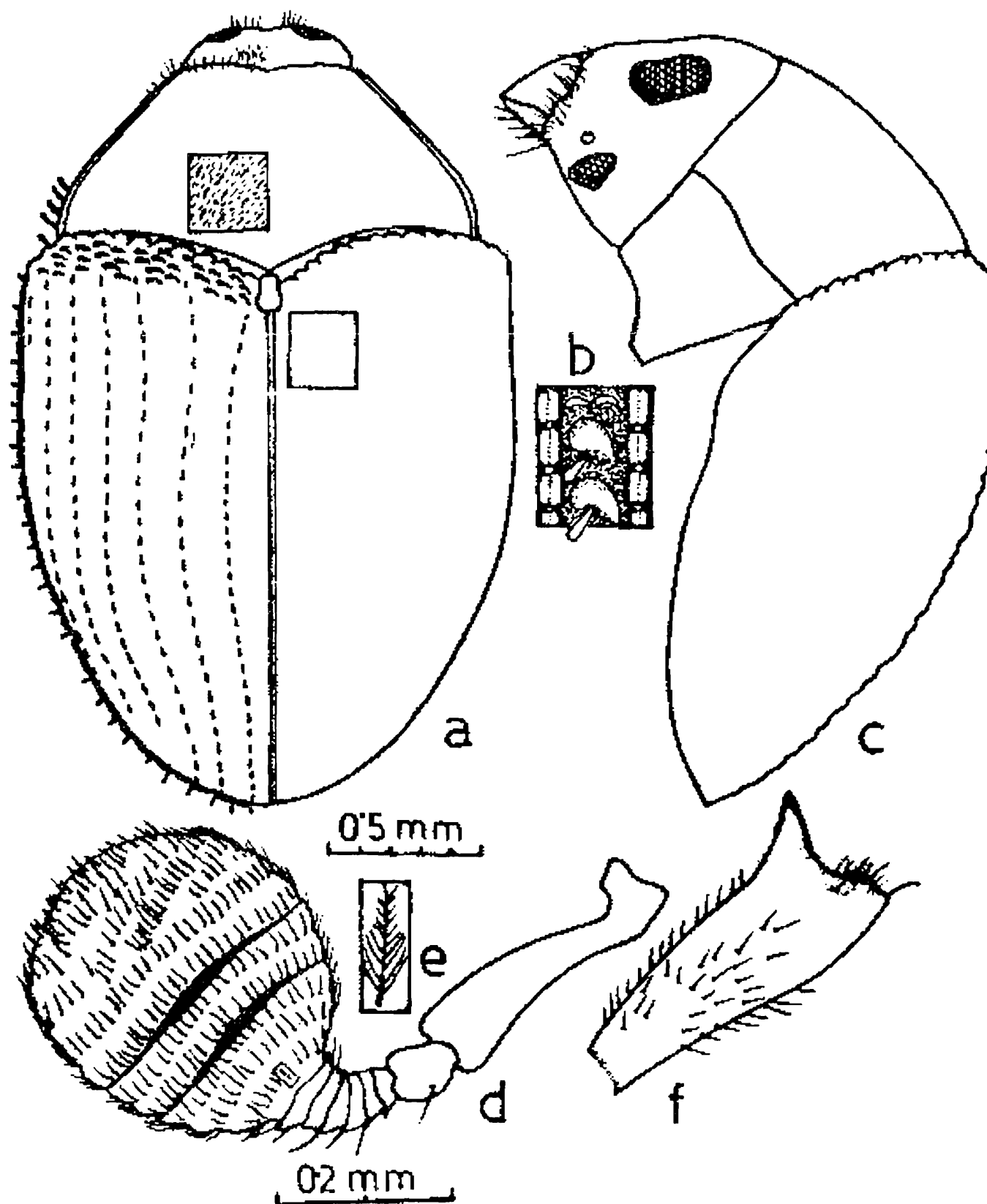


Fig. 3, a-f. *Sphaerotrypes siwalikensis* Stebbing. Male : a. Pronotum and elytra in dorsal view; b. enlarged portion of elytral disc; c. head pronotum and elytra in lateral view; d. antenna; e, enlarged antennal hair; f. protibia.

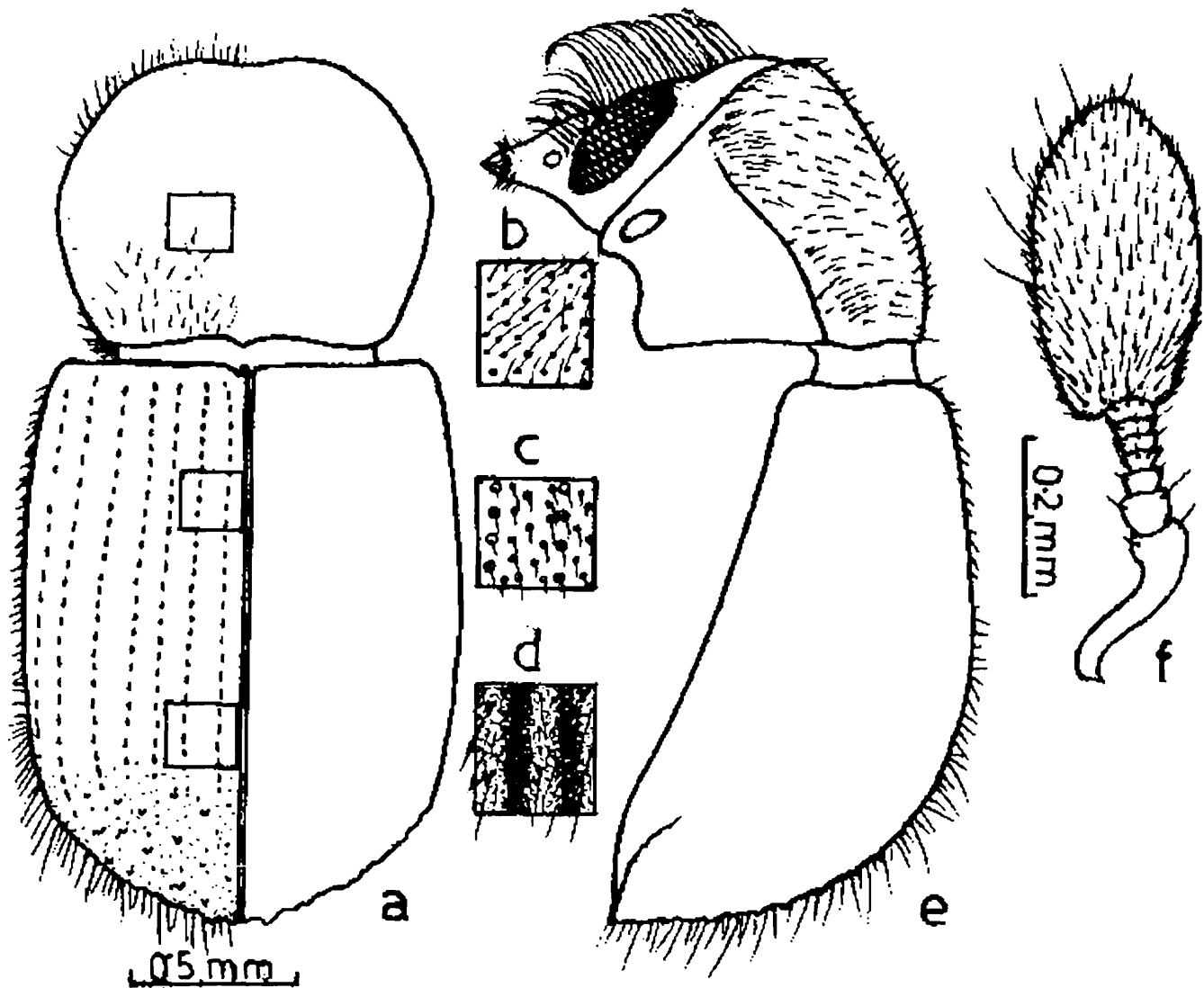


Fig. 4, a-f.

*Scolytoplatypus darjeelingi* Stebbing, Male : a, Pronotum and elytra in dorsal view; b, enlarged portion of pronotum; c, enlarged portion of elytral disc; d, enlarged portion of elytral declivity; e, head, pronotum and elytra in lateral view; f, antenna.

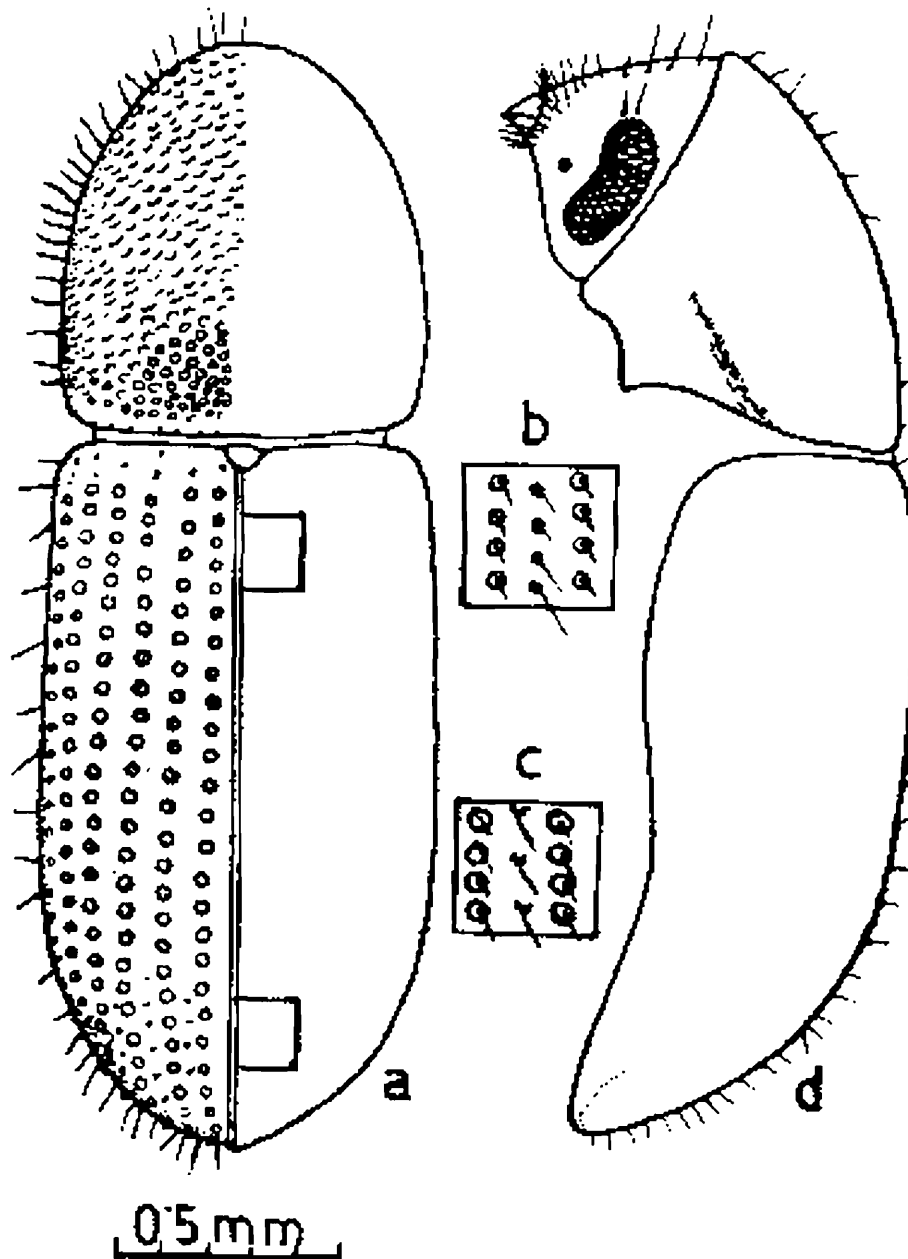


Fig. 5, a-d. *Coccotrypes brevipilosis* (Beeson), Female : a, Pronotum and elytra in dorsal view; b, enlarged portion of elytral disc; c, enlarged portion of elytral declivity; d, head pronotum and elytra in lateral view.

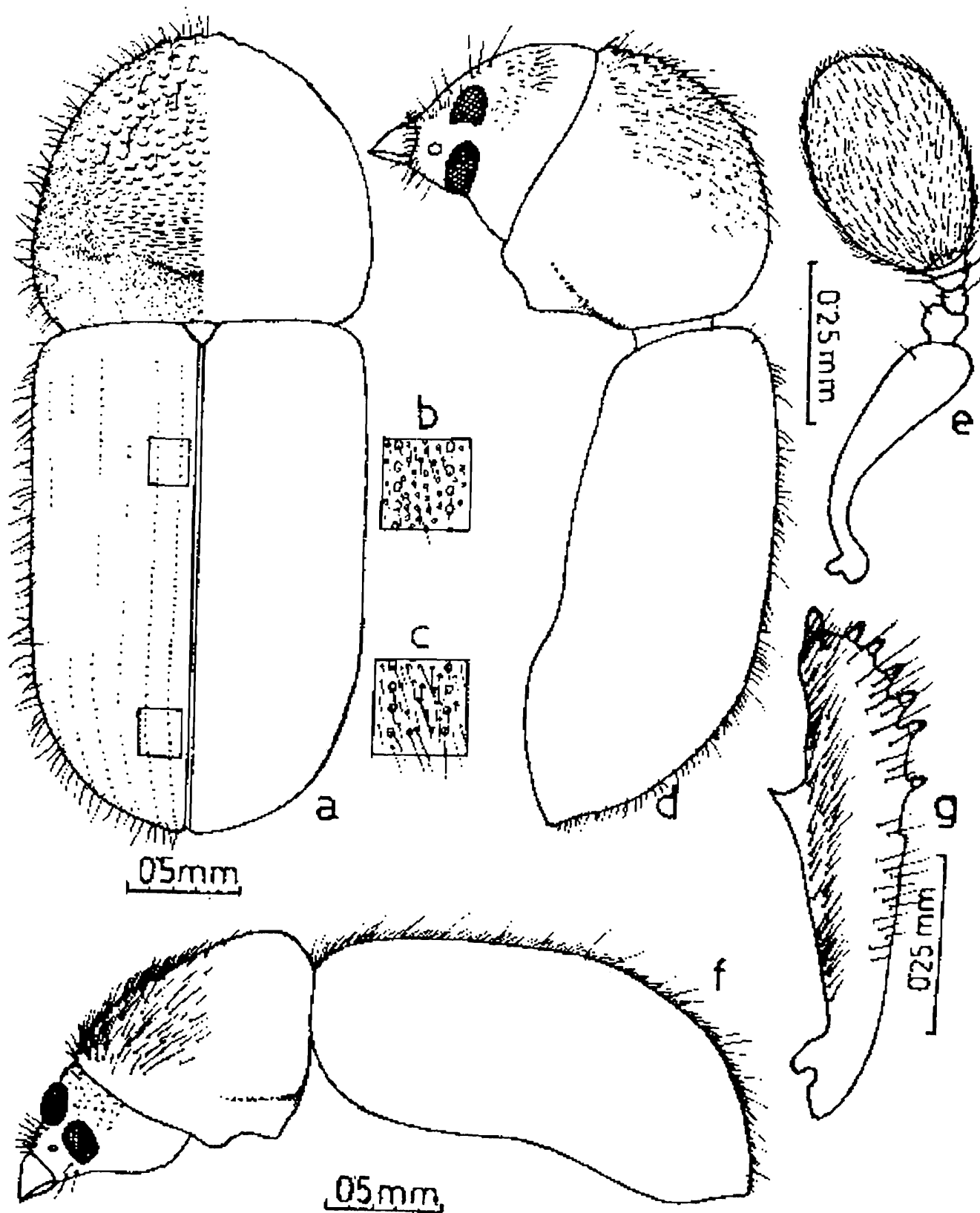


Fig. 6, a-g. *Indocryphalus intermedius* (Sampson), Female : a, Pronotum and elytra in dorsal view; b, enlarged portion of elytral disc; c, enlarged portion of elytral declivity; d, head, pronotum and elytra in lateral view; e, antenna. Male : f, head, pronotum and elytra in lateral view; g, protibia.

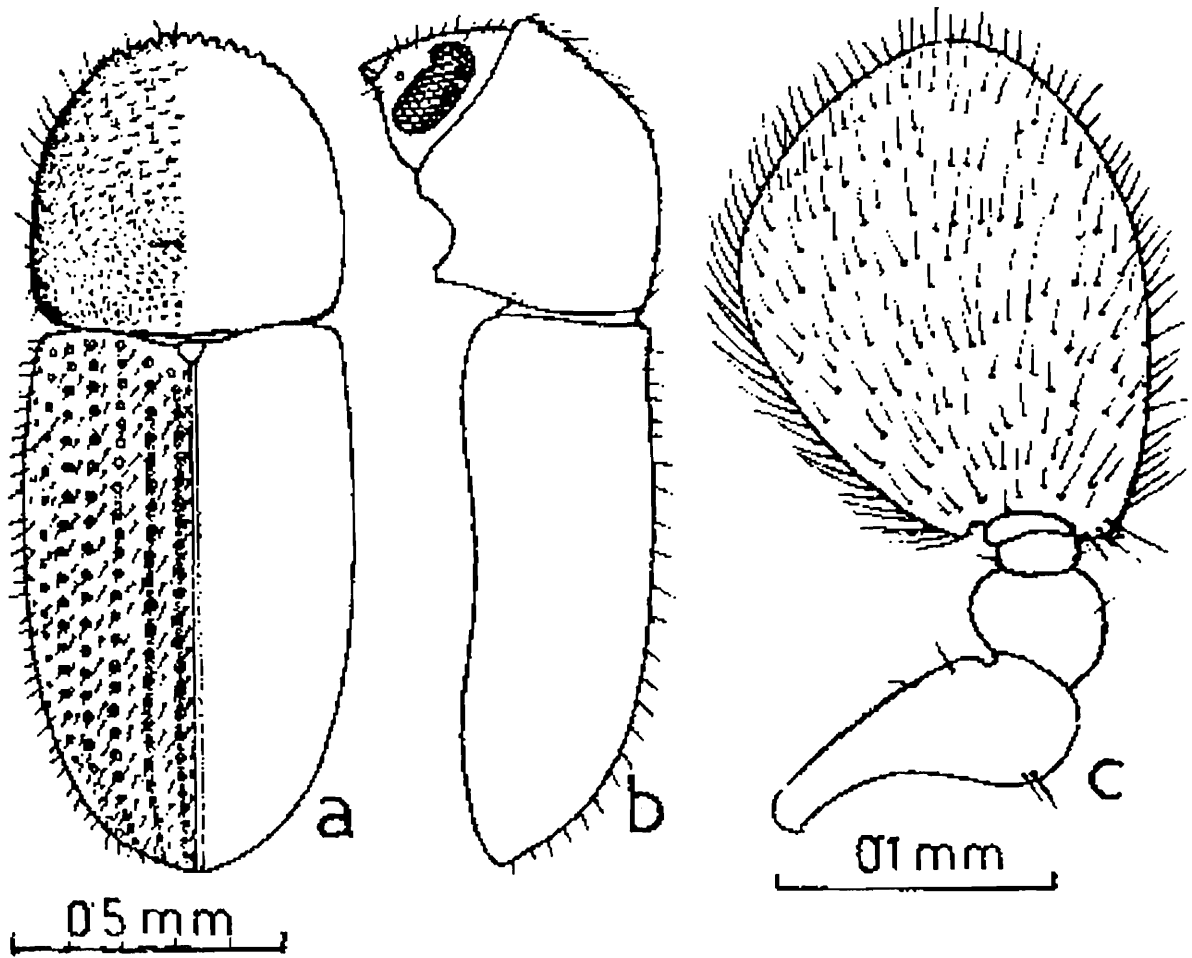


Fig. 7, a-c. *Cosmoderes monillicollis* Eichhoff, Female : a, Pronotum and elytra in dorsal view; b, head, pronotum and elytra in lateral view; c, antenna.

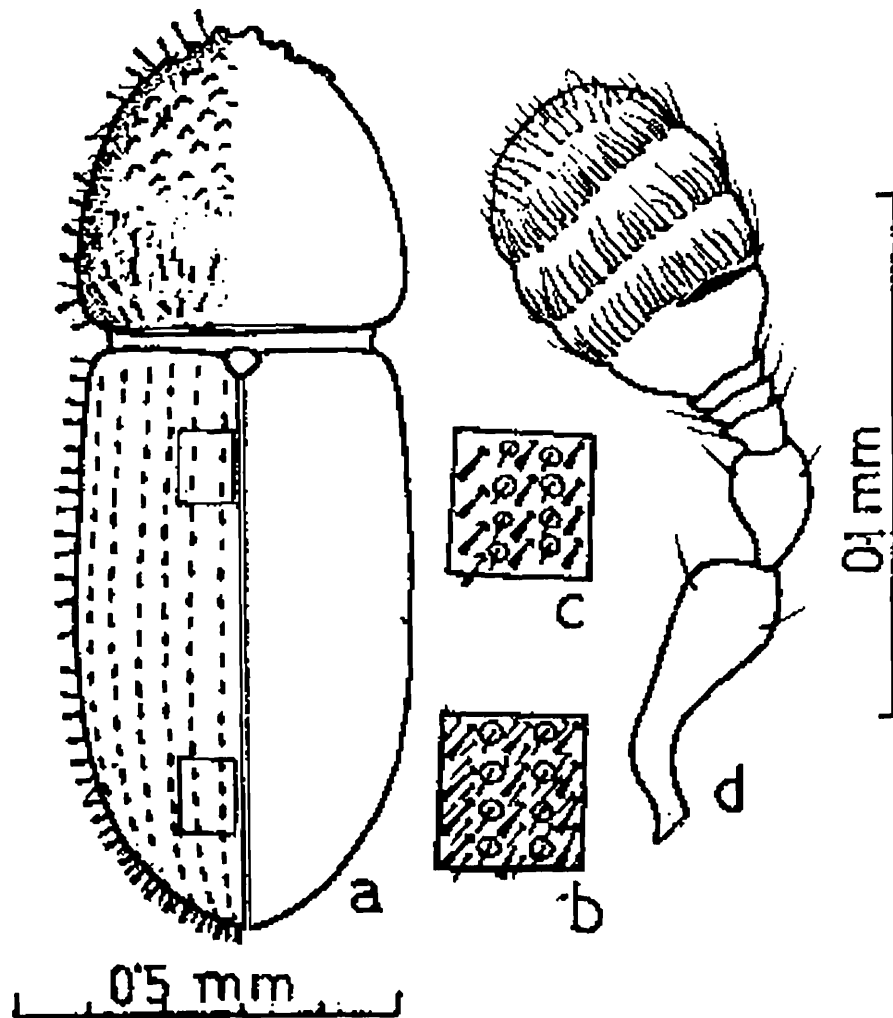


Fig. 8, a-d. *Hypothenemus eruditus* Westwood, Female : a, Pronotum and elytra in dorsal view; b, enlarged portion of elytral disc; c, enlarged portion of elytral declivity; d, antenna.

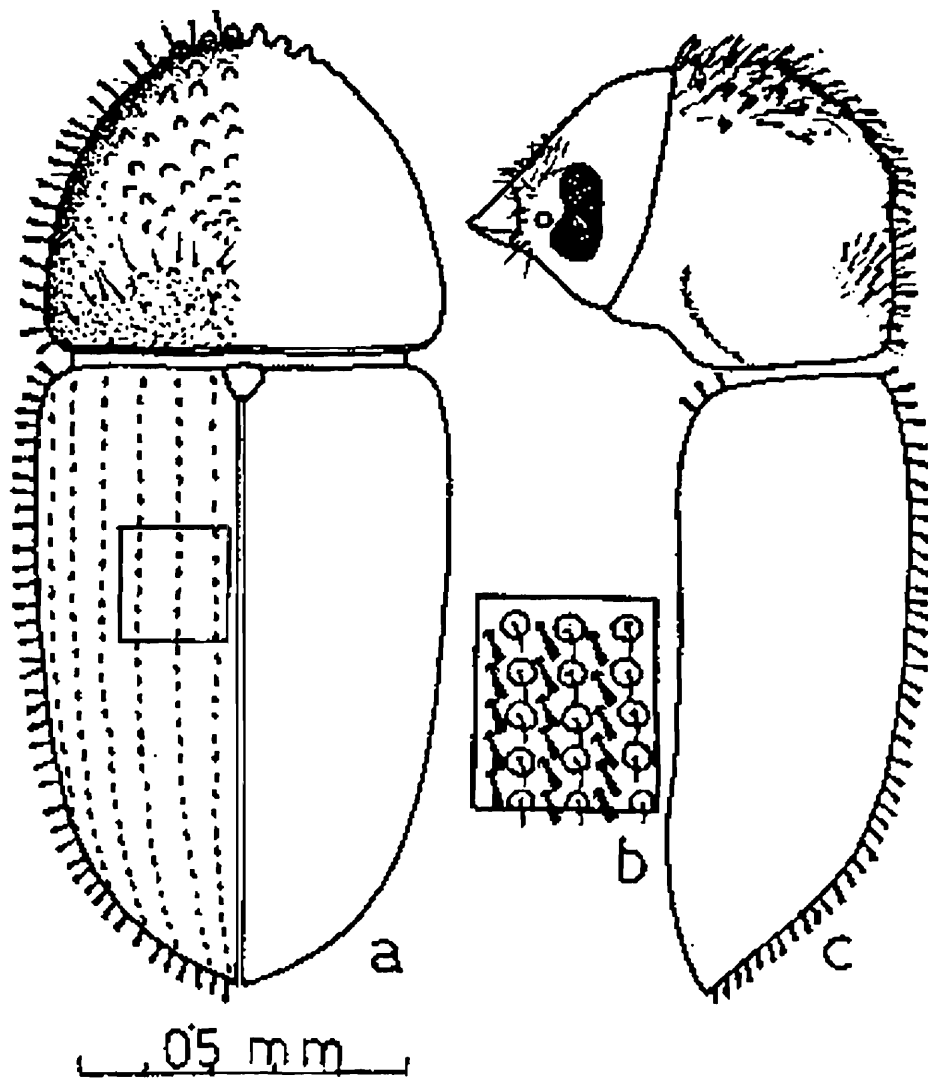


Fig. 9, a-c. *Hypothenemus uniseriatus* Eggers, Female : a, Pronotum elytra in dorsal view; b, enlarged portion of elytra; c, head, pronotum and elytra in lateral view.

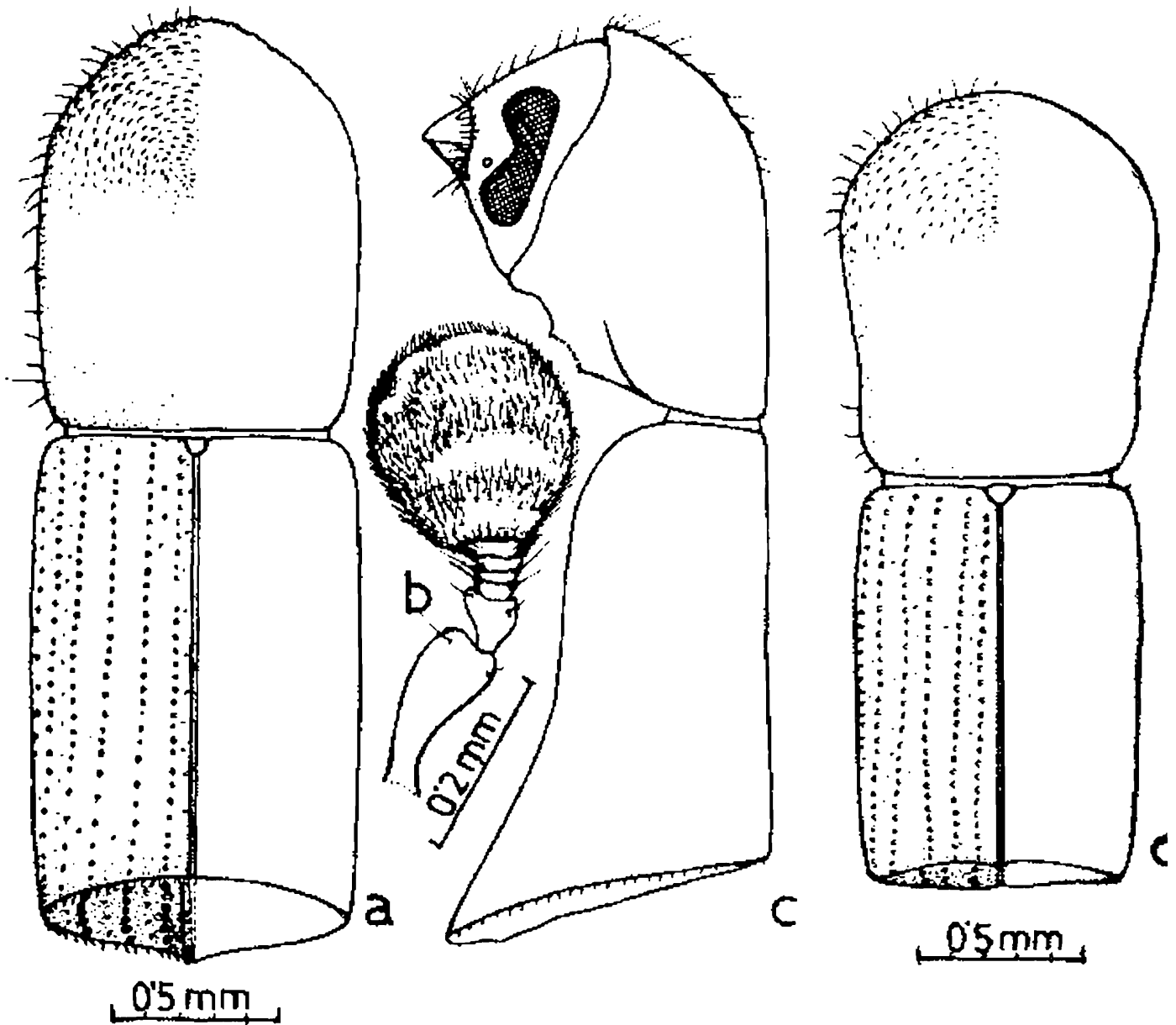


Fig. 10, a-d. *Amasa eugeniae* (Eggers), Female : a, Pronotum and elytra in dorsal view; b, antenna; c, head, pronotum and elytra in lateral view. Male : d, pronotum and elytra in dorsal view.

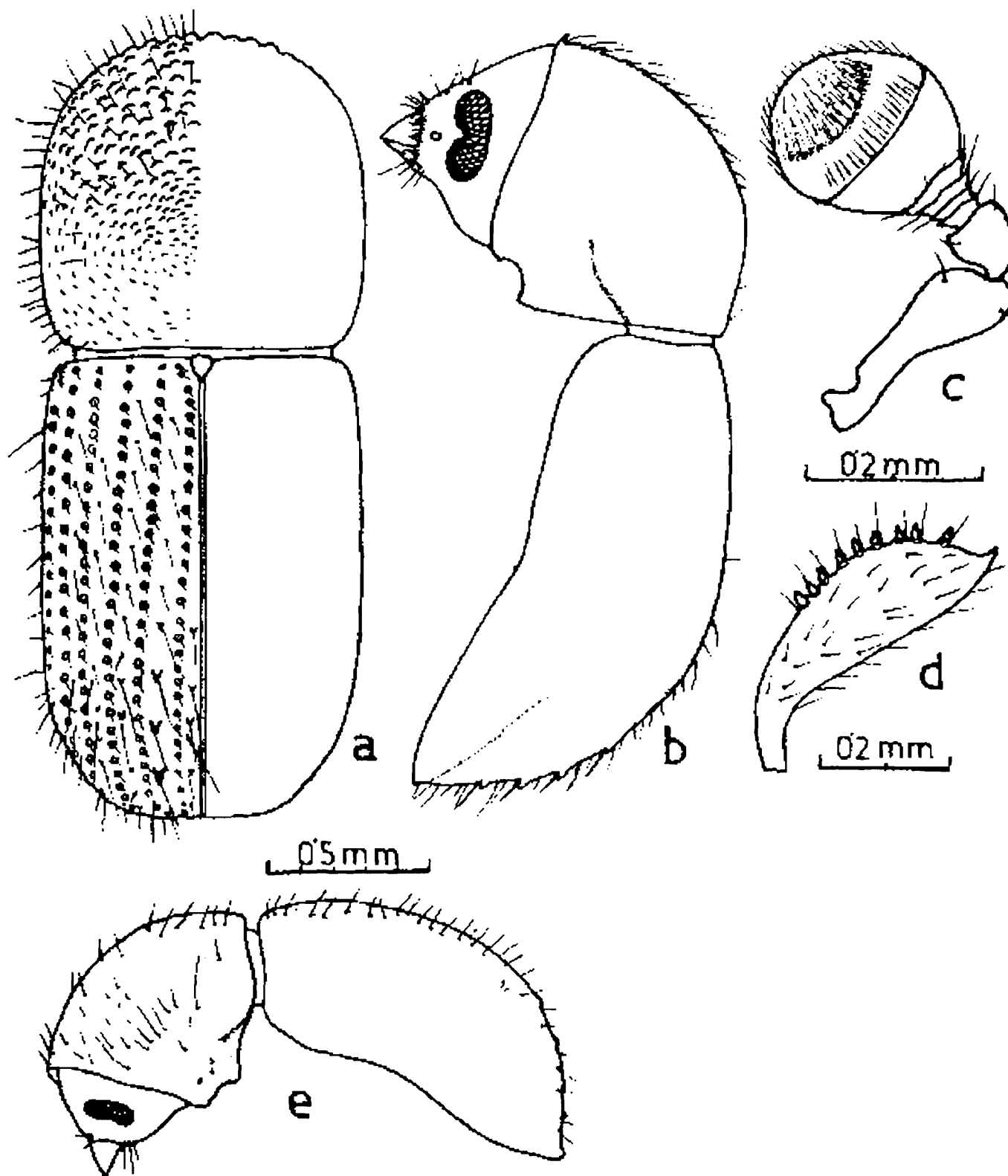


Fig. 11, a-e. *Ambrosiodmus asperatus* (Blandford), Female : a, Pronotum and elytra in dorsal view; b, head pronotum and elytra in lateral view; c, antenna; d, mesotibia. Male : e, head, pronotum and elytra in lateral view.

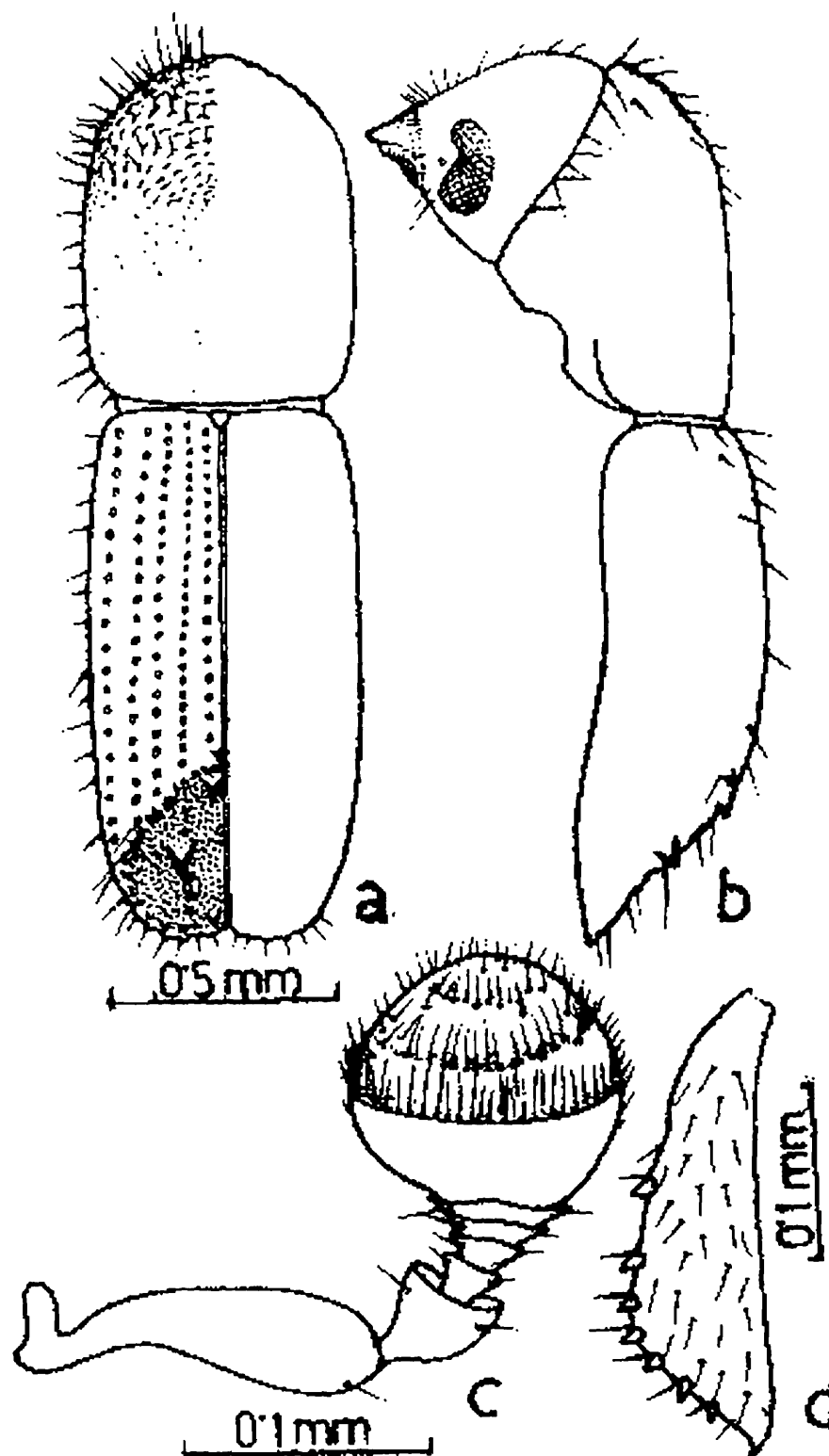


Fig. 12, a-d.

*Coptoborus shorea* (Stebbing), Female : a, Pronotum and elytra in dorsal view; b, elytral declivity in dorsal view; c, antenna; d, protibia.

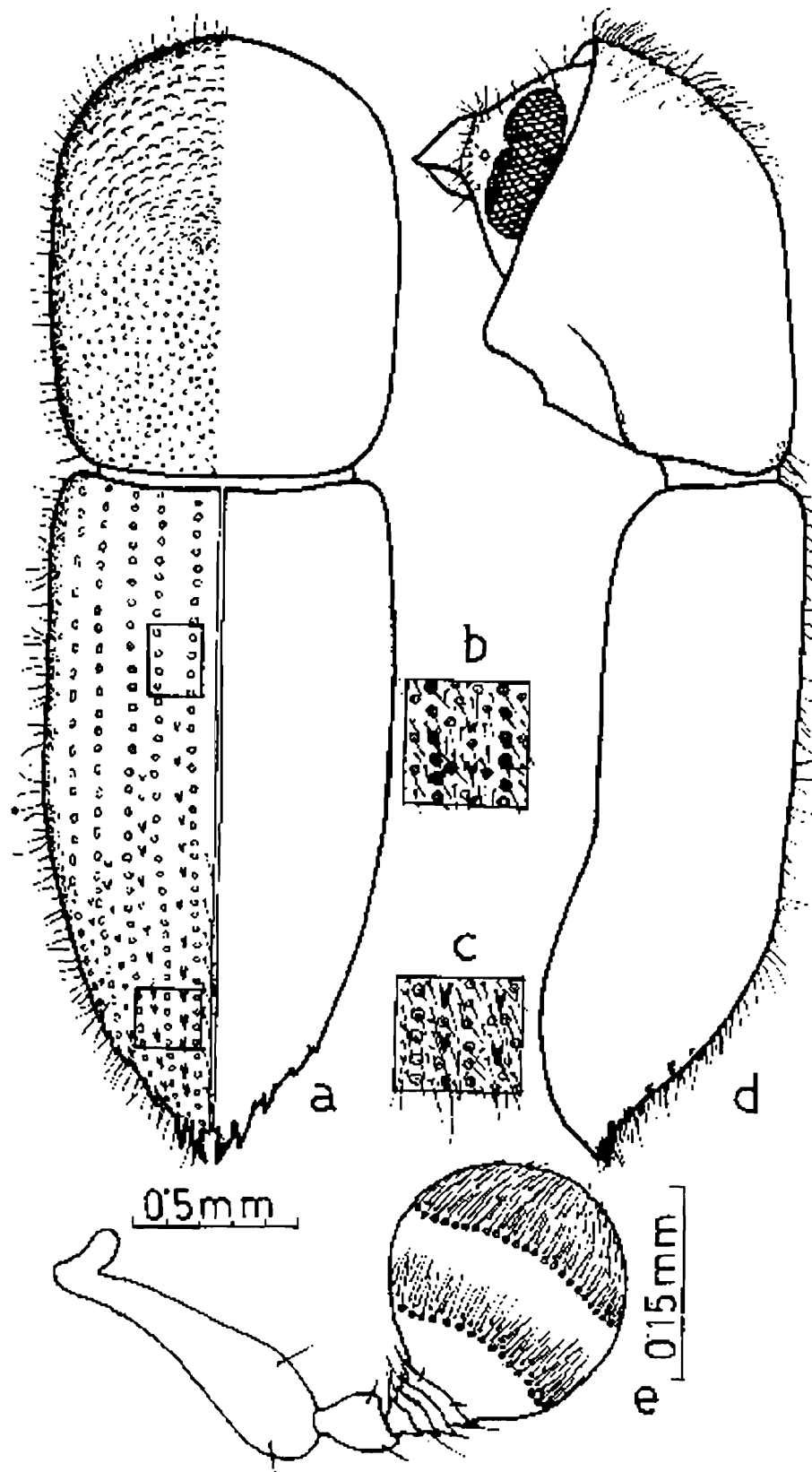


Fig. 13, a-e. *Cryptoxyleborus turbineus* (Sampson), Female : a, Pronotum and elytra in dorsal view; b, enlarged portion of elytral disc; c, enlarged portion of elytral declivity; d, head, pronotum and elytra in lateral view; e, antenna.

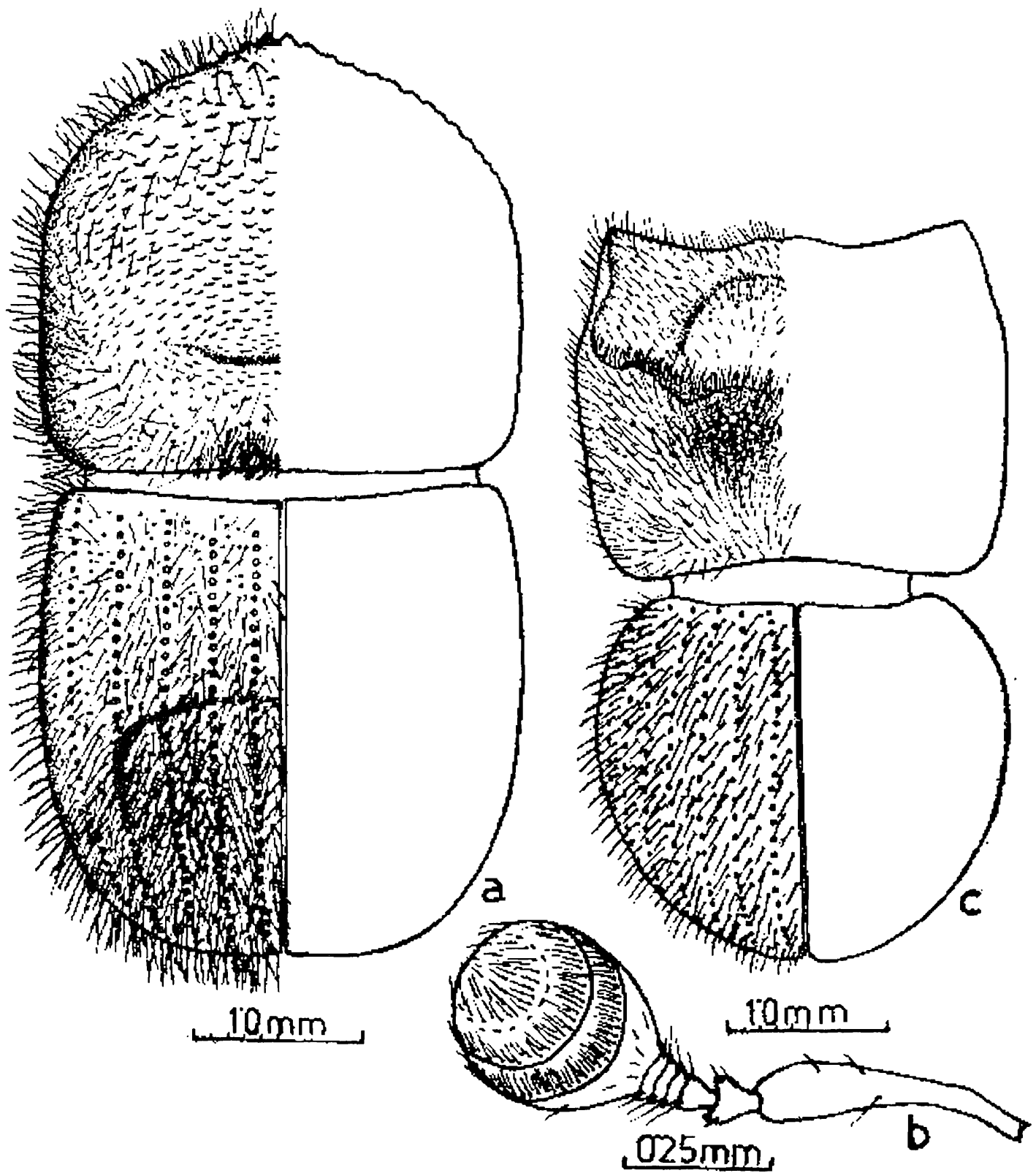


Fig. 14, a-c. *Hadrodemius metacomans* (Eggers). Female : a. Pronotum and elytra in dorsal view; b, antenna. Male : c, pronotum and elytra in dorsal view.

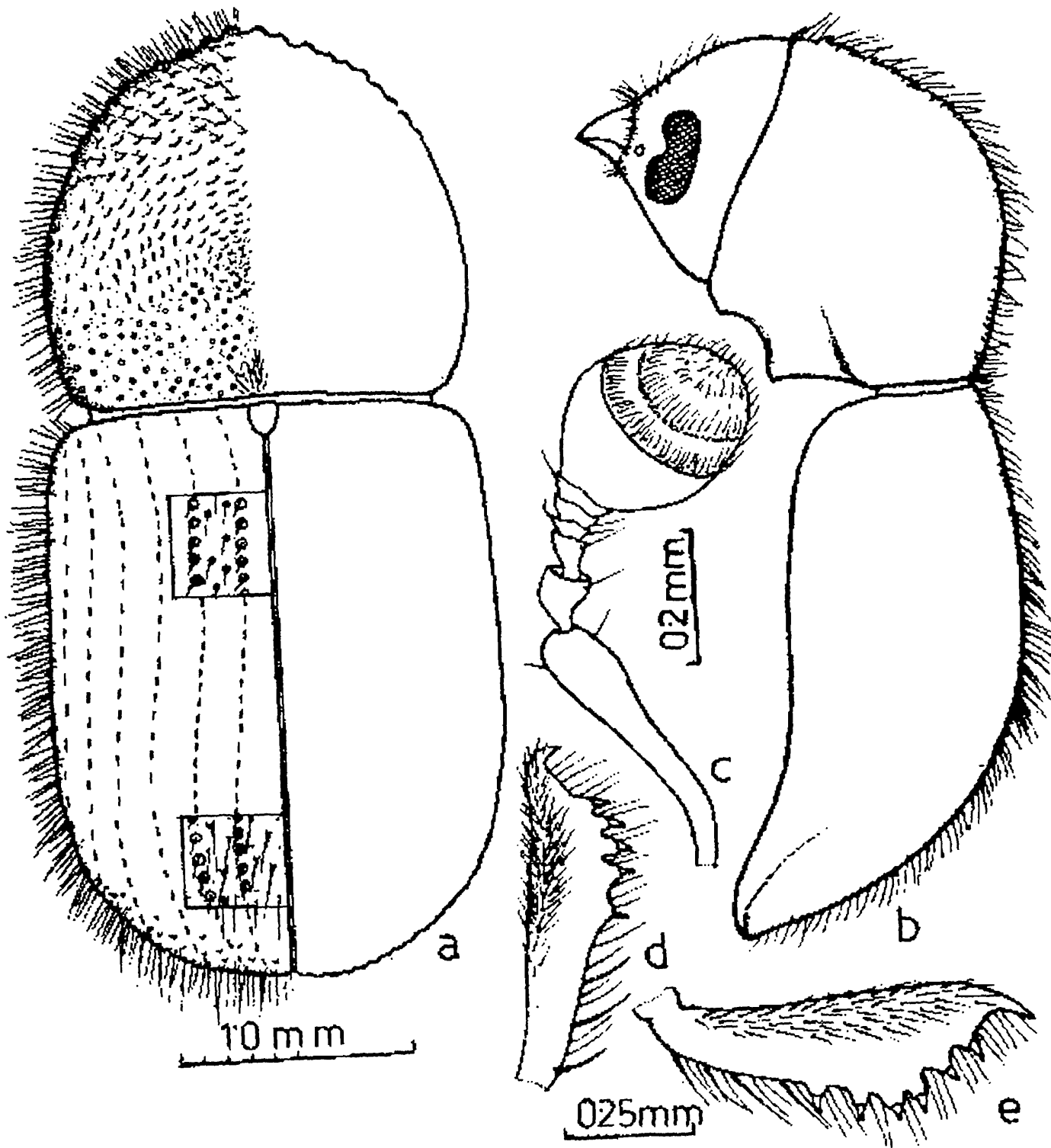


Fig. 15, a-e. *Kalantaneus hirtus* (Hagedorn), Female : a, Pronotum and elytra in dorsal view; b, head, pronotum and elytra in lateral view; c, antenna; d, protibia; e, mesotibia.

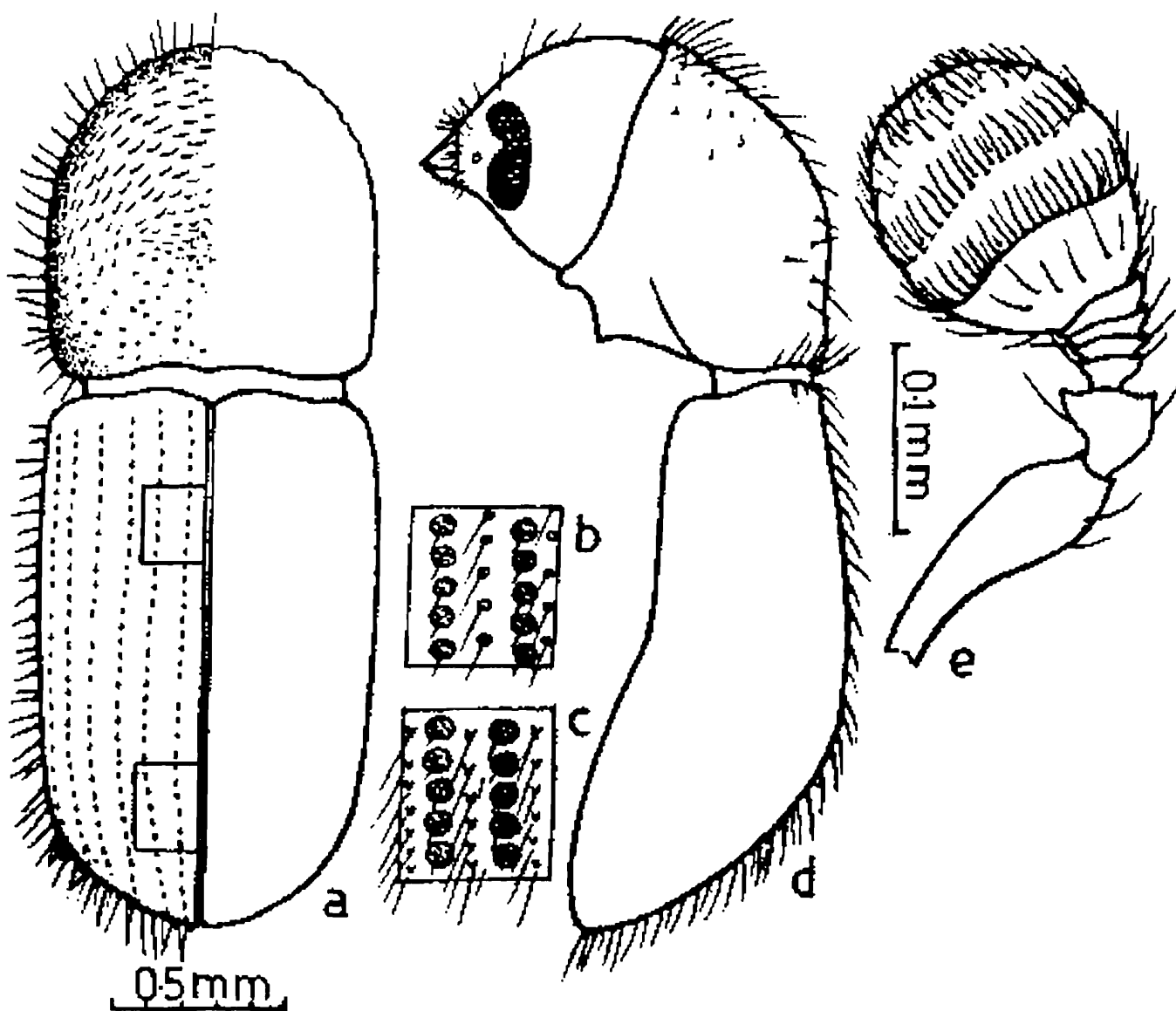


Fig. 16. a-e. *Microperus chrysophylli* (Eggers) Female : a, pronotum and elytra in dorsal view; b, enlarged portion of elytral disc; c, enlarged portion of elytral declivity; d, head, pronotum and elytra in lateral view; e, antenna.

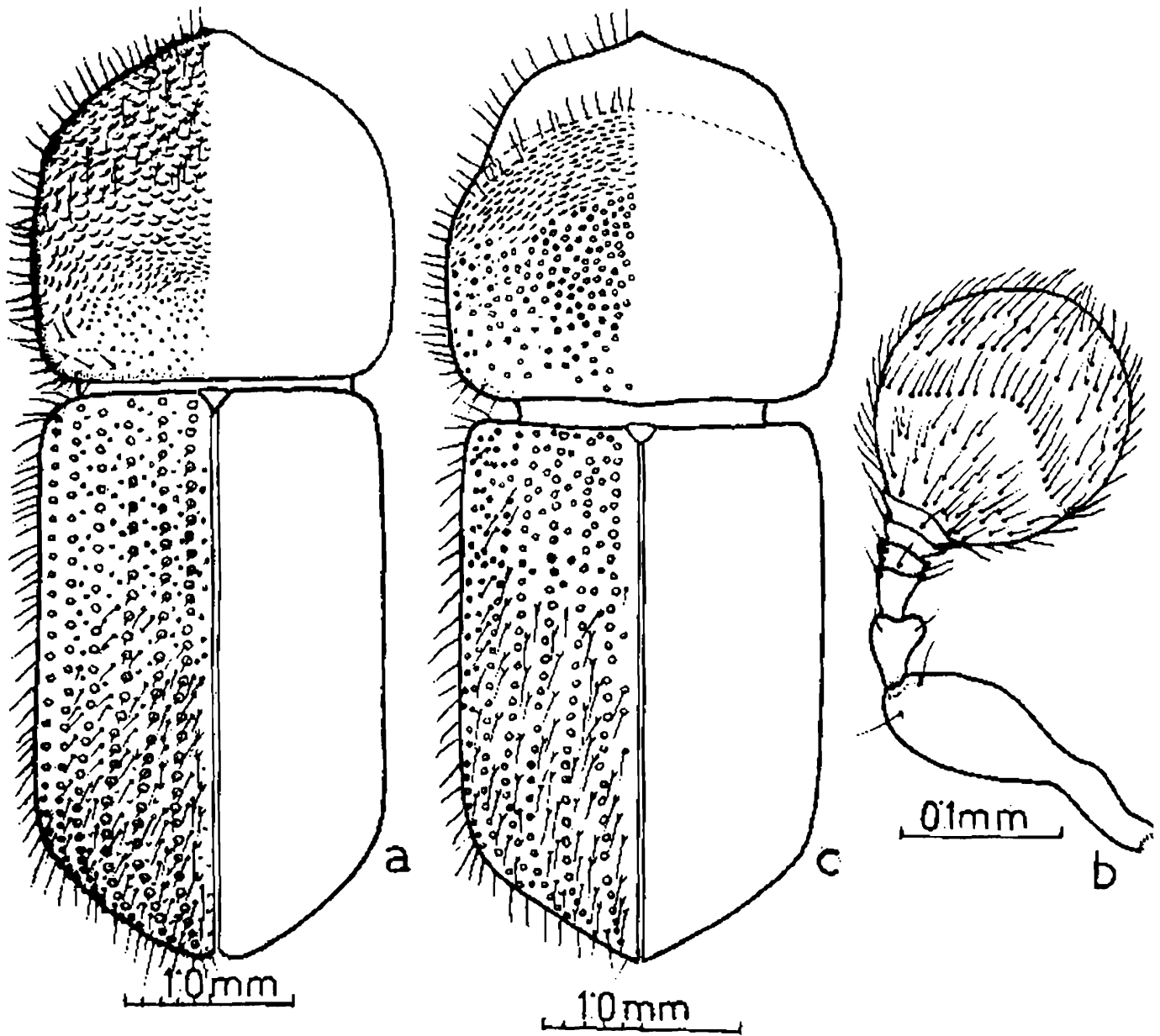


Fig. 17, a-c. *Notoxyleborus major* (Stebbing), Female : a, Pronotum and elytra in dorsal view; b, antenna. Male : c, pronotum and elytra in dorsal view.

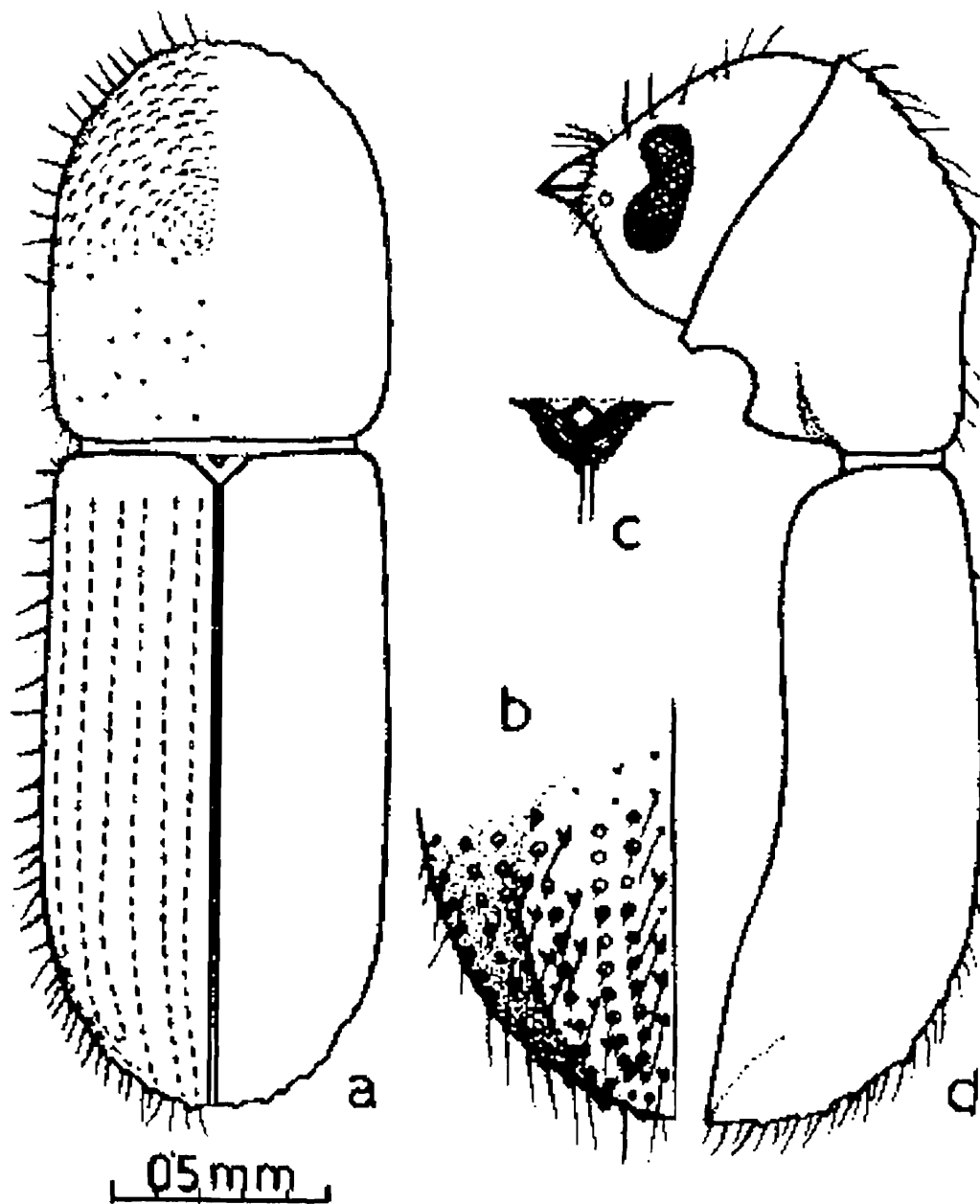


Fig. 18, a-d. *Xyleborinus saxeseni* (Ratzeburg), Female : a Pronotum and elytra in dorsal view; b, enlarged view of declivity of single elytron; c, enlarged portion of scutellar area; d, head, pronotum and elytra in lateral view.

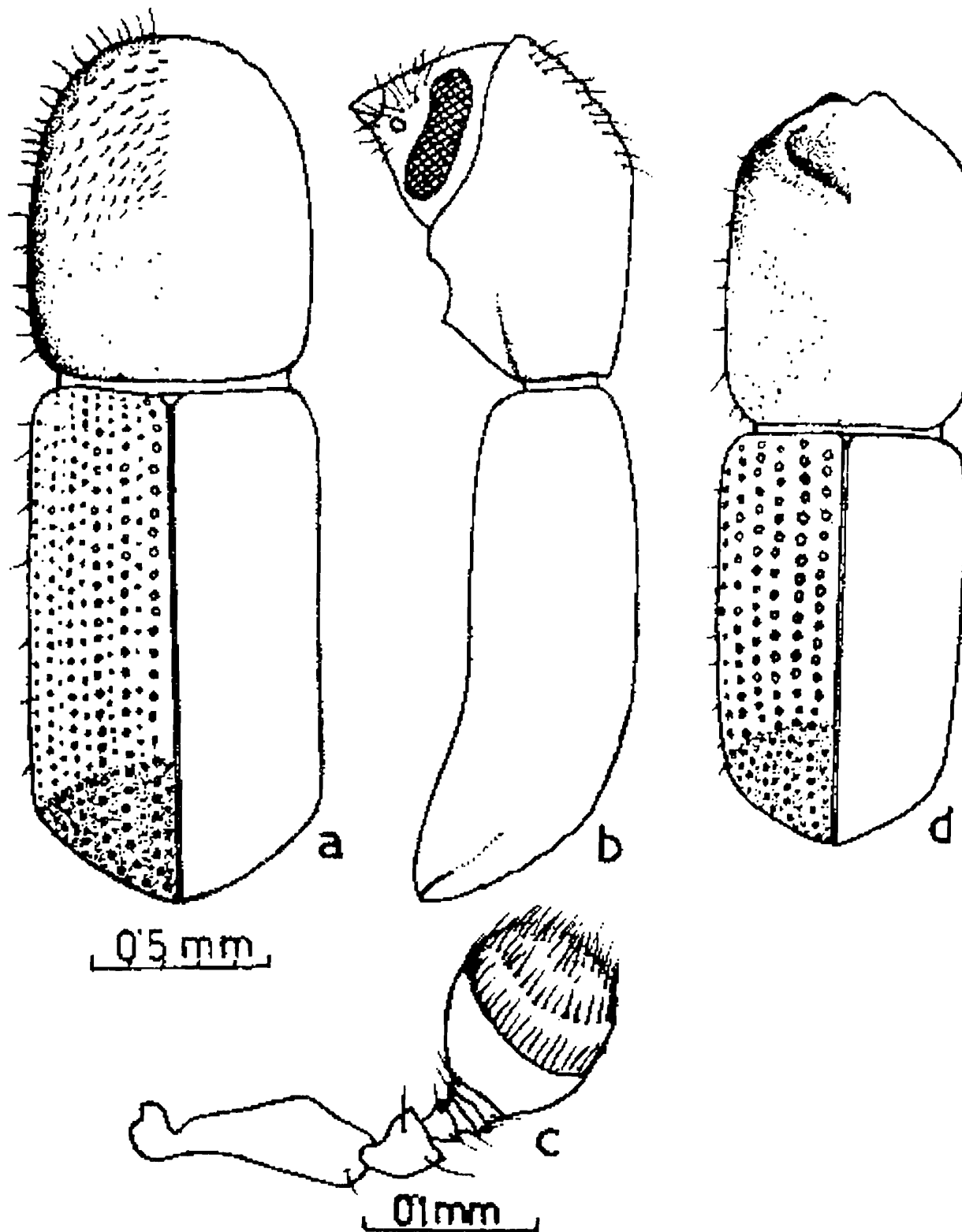


Fig. 19, a-d. *Xyleborus glaberratus* Eichhoff, Female : a. pronotum and elytra in dorsal view; b. head, pronotum and elytra in lateral view; c. antenna. Male : d. pronotum and elytra in dorsal view.

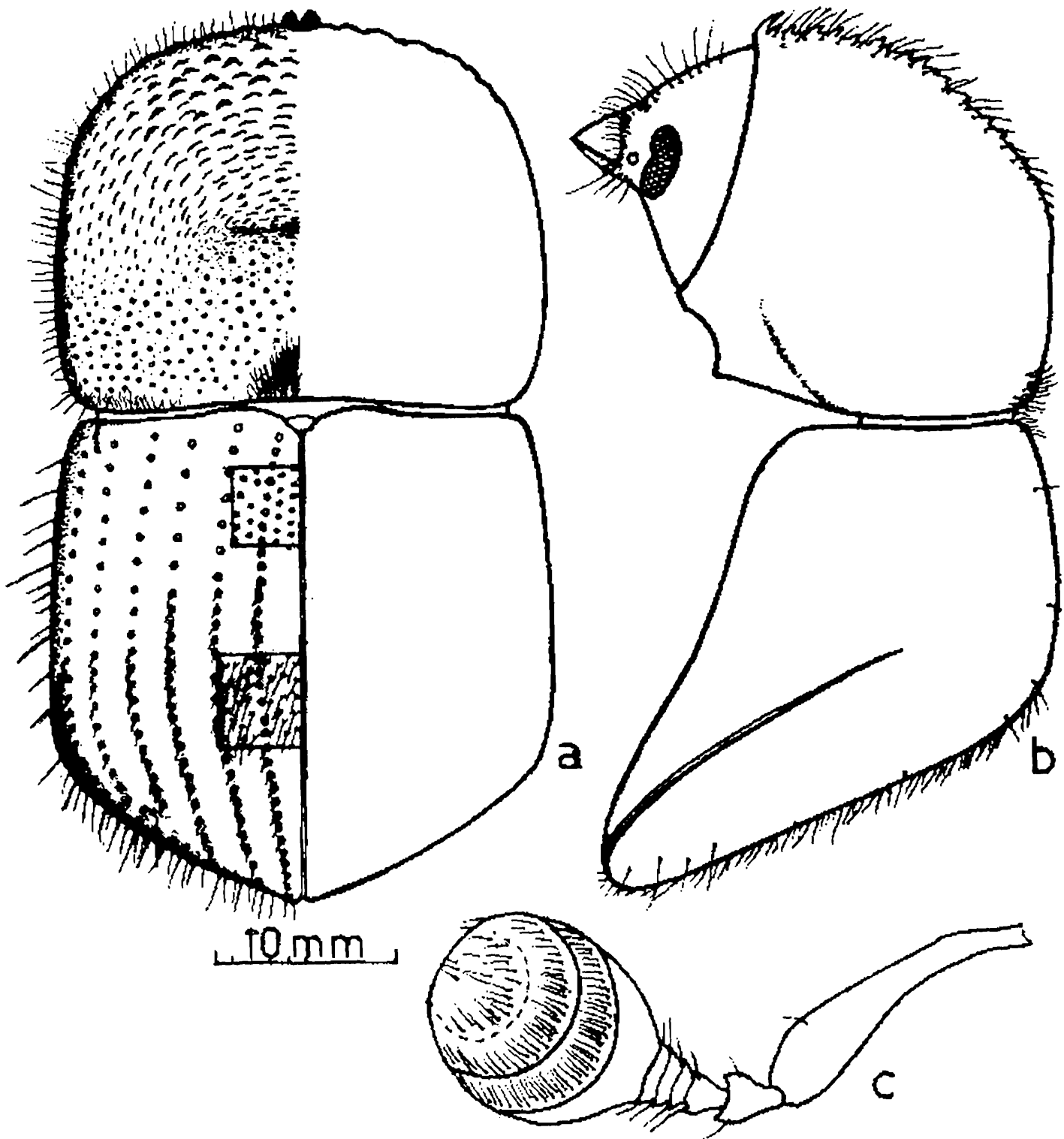
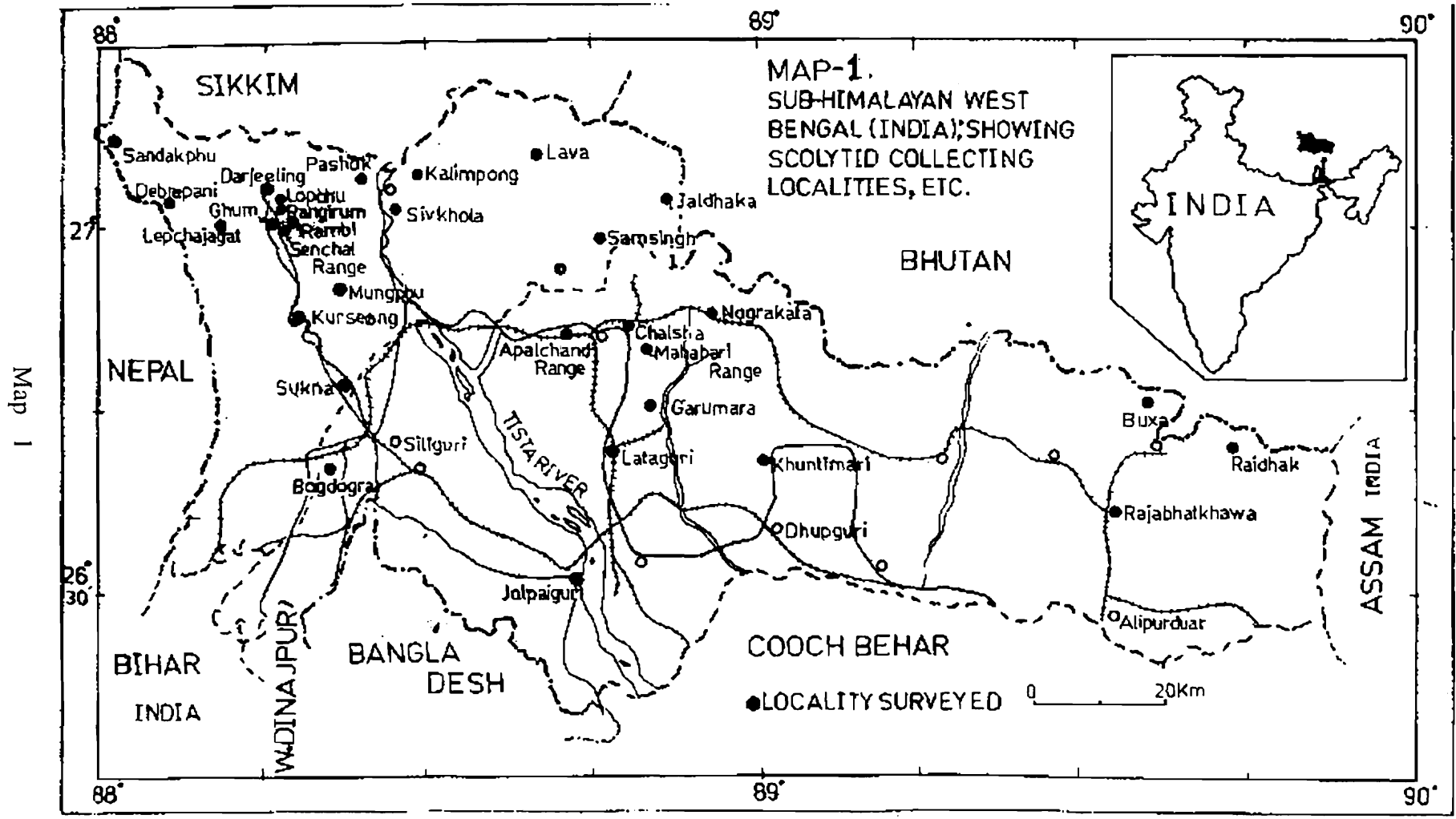
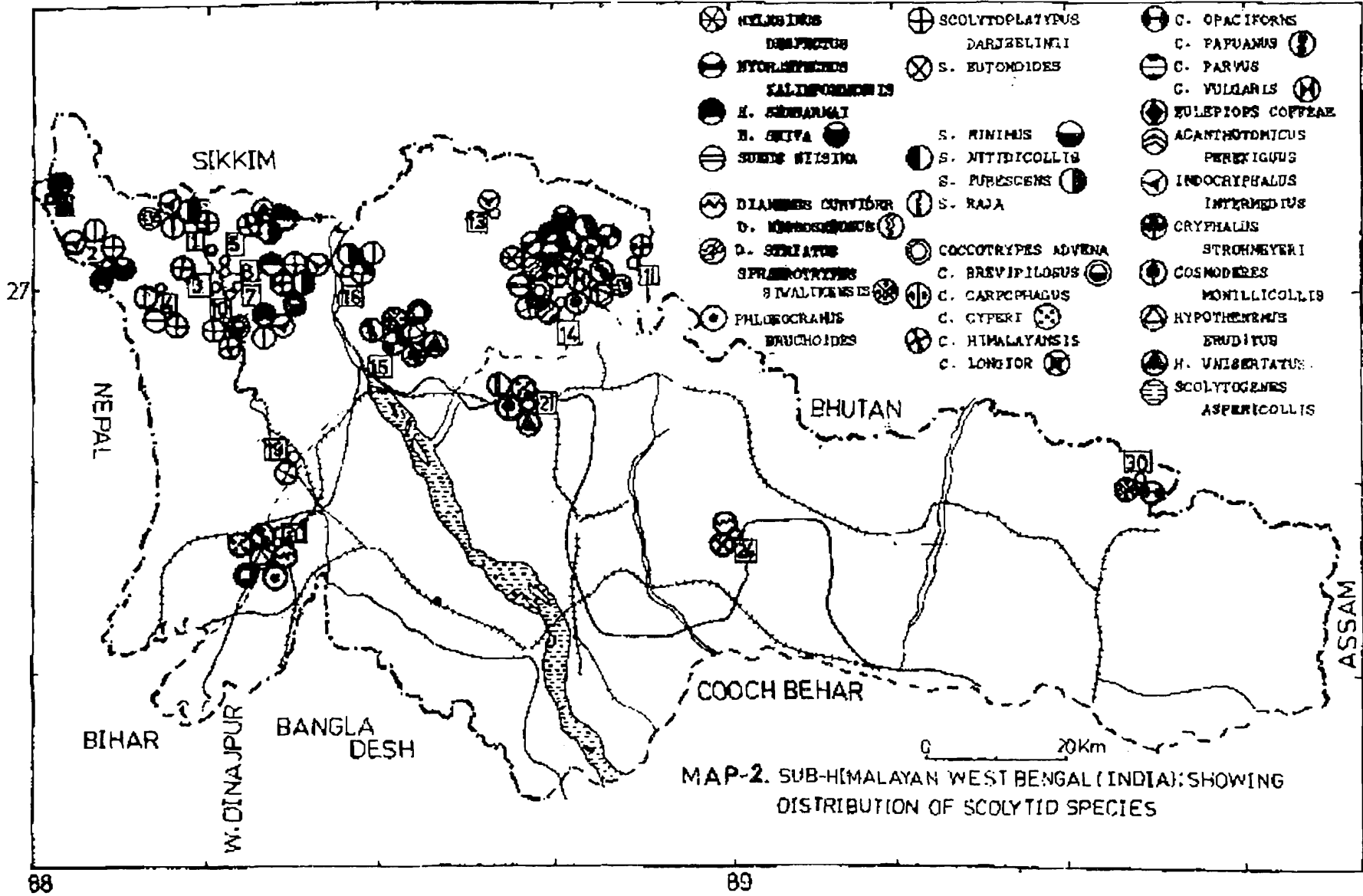


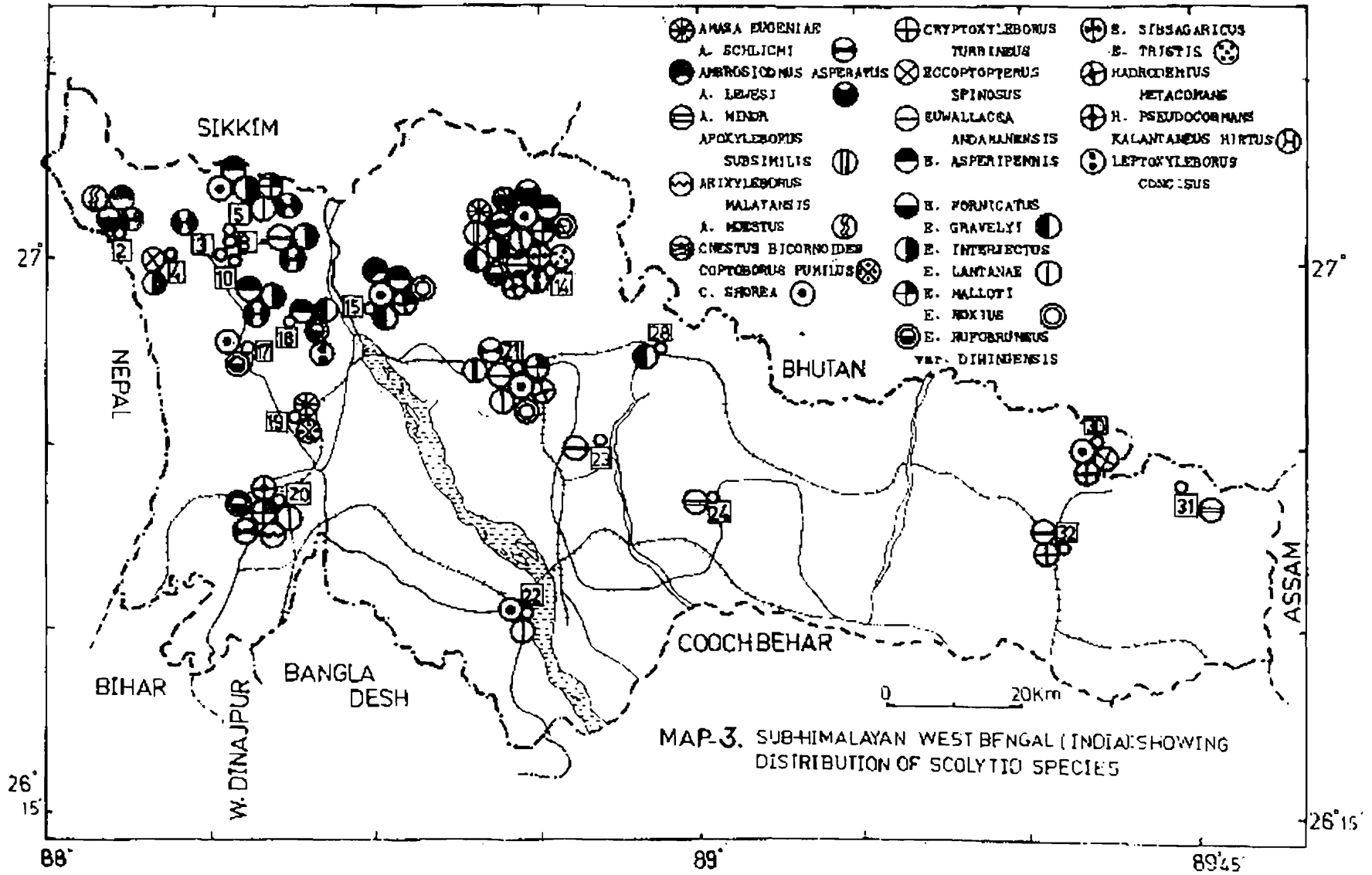
Fig. 20, a-c. *Xylosandrus gravidus* (Blandford), Female : a, Pronotum and elytra in dorsal view; b, head, pronotum and elytra in lateral view; c, antenna.



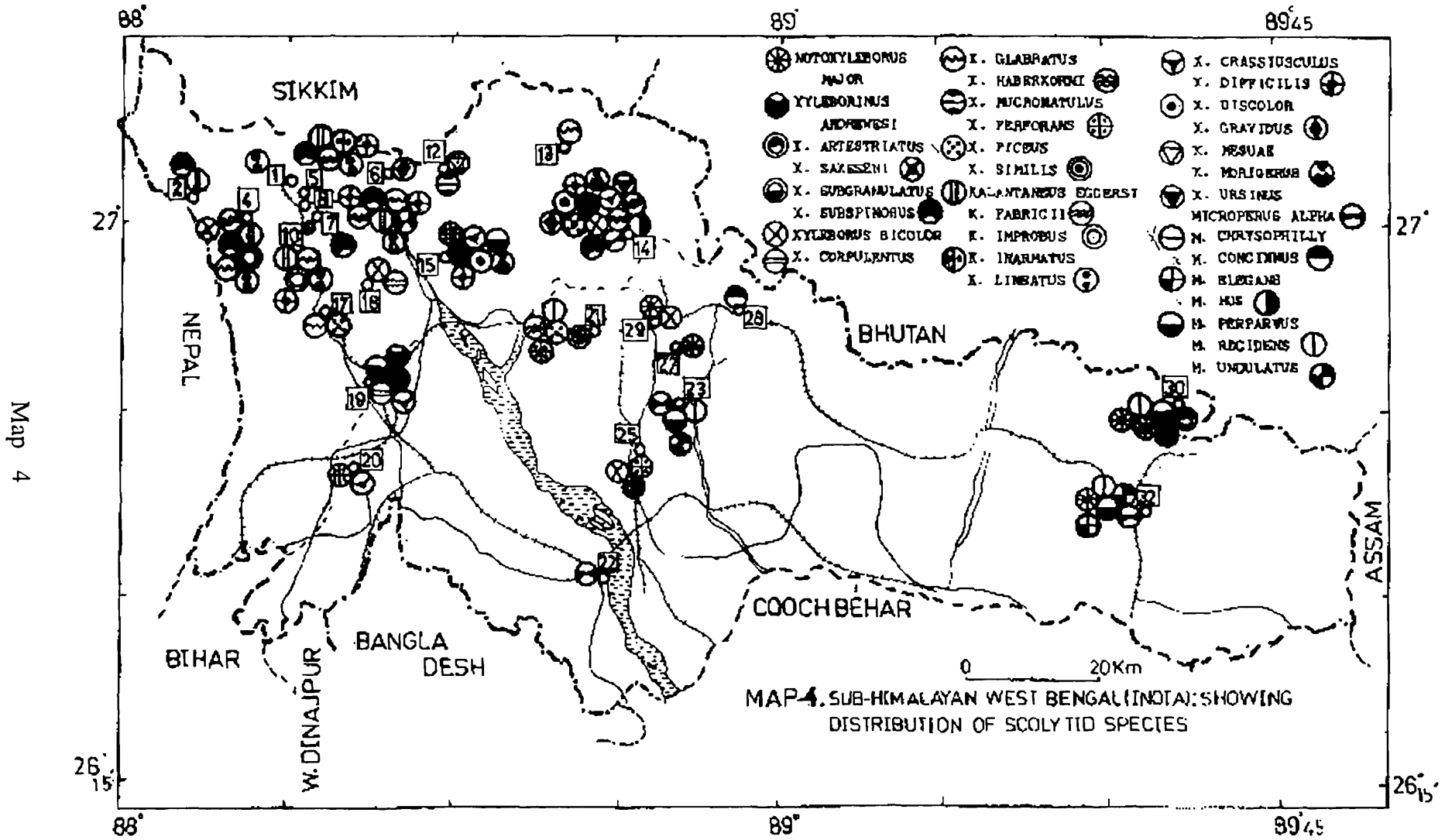
Map 2



Map 3



MAP-3. SUB-HIMALAYAN WEST BENGAL (INDIA) SHOWING DISTRIBUTION OF SCOLYTID SPECIES



## REFERENCES

- Benson, C.F.C. 1922. The food-plants of Indian Insects, Part7 *Indian Forester*, **48** : 494-500.
- Beeson, C.F.C. 1930. The biology of the genus *Xyleborus* Eichhoff, with more new species. - *Indian Forest Rec. (Ent.)*, **14** (10) : 209-272.
- Beeson, C.F.C. 1939. New species and biology of *Coccotrypes* and *Thamnurgides* (Scolytidae: Coleoptera). *Indian Forest Rec. (N.S.) Ent.*, **5** (3) : 279-307.
- Beeson, C.F.C. 1940. Scolytidae and Platypodidae of Mangarevan Expedition. *Occ. Papers, Bishop Mus.*, **15** (18) : 191-230.
- Beeson, C.F.C. 1941. *The Ecology and the Control of the Forest Insects of India and the Neighbouring Countries*, Vasant Press, Dehra Dun, 1077 pp. (Scolytidae, pp. 279-310).
- Blandford, W.F.H. 1893. The Scolytoplatypini, a new subfamily of Scolytidae. *Trans. ent. Soc. Lond.*, pp. 425-432.
- Blandford, W.F.H. 1898. On some Oriental Scolytidae of economic importance with description of five new species. *Trans. ent. Soc. Lond.*, pp. 423-430.
- Eggers, H. 1930. Neue *Xyleborus* Arten aus Indian. *Indian Forest Rec.(Ent.)* **14** (9) : 177-208.
- Eggers, H. 1936. Borkenkafer aus Indian. - *Ann. Mag. nat. Hist.*, 17 910) : 626-636.
- Gardner, J.C.M. 1934. Immature stages of Indian Coleoptera (Scolytidae). - *Indian Forest Rec. (Ent.)*, **20** (8) : 1-17.
- Hagedorn, M. 1904. Enumeratic Scolytidarum e Sikkem et. Japan naturm Musei historico-naturalis Paristorum, quas Domnius J. Harmand annis 1890 et. 1901 collegit descriptionibus specierum novarum adjectis. *Bull. Mus. nat. Hist. Paris*, pp. 123-126.
- Hagedorn, M. 1908. Diagnosen bisher unbeschriebener Borkenkafer. *Dt. ent. Z.*, **5** : 369-382.
- Hagedorn, M. 1910. *Coleopt. Cat.*, 26 (4) : 1-134, Junk's Publication.
- Maiti, P.K. and Saha, N. 1986. A contribution to the knowledge of the Bark and Timber Beetles (Scolytidae : Coleoptera) of the islands of Andaman and Nicobar, Indian Ocean. - *Rec. zool. Surv. India., Occ. Paper*, No. 86 : 1-182
- Maiti, P.K. and Saha, N. 1987. Indian species of the genus *Arixyleborus* Hopkins (Scolytidae : Coleoptera). *Bull. zool. Surv. India*, **8** (1-3) : 1-12.

- Maiti, P.K. and Saha, N. (1988) 1989. Description of three new species of the genus *Hyorrhynchus* Blandford (Scolytidae : Coleoptera). – *Proc. zool. Soc., Calcutta*, **41** : 41-49.
- Saha, N. 1985. A contribution to the study of the scolytid fauna (Scolytidae : Coleoptera) of the sub-Himalayan West Bengal, India. Unpublished thesis.
- Saha, N. and Maiti, P.K. 1987. Description of hitherto unknown males of three species of scolytid-beetles (Scolytidae : Coleoptera). *Bull. zool. Surv. India*, **8** (1-3) : 71-75.
- Sampson, W. 1919. Notes on Platypodidae and Scolytidae collected by Mr. G.E. Bryant and others. - *Ann. Mag. nat. Hist.*, **4** (9) : 105-114.
- Sampson, W. 1922. Previously undescribed Scolytidae and Platypodidae from Indian area. - *Ann. Mag. nat. Hist.*, **9** (9) : 145-152.
- Sampson, W. 1923. Previously undescribed Scolytidae and Platypodidae from the Indian area. - *Ann. Mag. nat. Hist.*, **11** (9) : 285-289.
- Schedl, K.E. 1951. Fauna Indomalayensis, I. *Tijdschr. Ent.*, **93** : 41-98.
- Schedl, K.E. 1951/52. Zur Synonymie der Borkkankafer, I. *Ent. Bl. Bio. Syst. Kafer*, **47/48** : 158-164.
- Schedl, K.E. 1958. Indian Bark - and Timber - beetles, II. - *Indian Forest Rec. (N.S.) Ent.*, **9** (8) : 171-173.
- Schedl, K.E. 1962. Scolytidae and Platypodidae Afrikas. *Rev. Ent. Moc.*, **5** (1) : 1-593.
- Schedl, K.E. 1969. Indian Bark and Timber beetles, V. *Oriental Ins.*, **3** (1) : 47-70
- Schedl, K.E. 1971. Indomalayan Bark and Tinber beetles. - *Oriental Ins.*, **5** (3) : 361-399.
- Schedl, K.E. 1979. Kataloge, Die Typen dar Sammlung Schedl, Family Scolytidae (Coleoptera). *Nat. Mus. Wien. Entomologie*, **3**(2) : 1-286.
- Stebbing, E.P. 1914. *Indian Forest Insects of Economic Importance (Coleoptera)*, 648 pp., London (Govt. of India Publication) Scolytidae, 457-610 pp.
- Wood, S.L. 1969. New synonymy and records of Platypodidae and Scolytidae (Coleoptera).- *Gt. Basin nat.*, **29** : 113-128.
- Wood, S.L. 1978. A reclassification of the subfamilies and tribes of Scolytidae (Coleoptera). - *Annl. Soc. ent. Fr. (N.S.)*, **14**(1) : 95-122.
- Wood, S.L. 1980. New genera and new generic synonymy in Scolytidae (Coleoptera). *Gt. Basin Nat.*, **40** (1) : 89-97.