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Notes on Chrysomelid-beetles (Coleoptera,
Chrysomelidae) of India and its
Neighboring Areas. Part 4

Haruo TAKIZAWA

Biological Research Center, Japan Tobacco Inc.,
Hatano, 257 Japan

and

C. R. BASU

Zoological Survey of India, 34 Chittaranjan Avenue,
Calcutta, 700012, India

Abstract Chrysomelid-beetles from northern India and Sikkim collected mostly by the junior author are studied. A list of 77 species including seven new species: *Oulema nigrofrontalis*, *Lema (Petauristes) indicola*, *Xanthonia oblonga*, *Cleorina robusta*, *Paleosepharia costata*, *Paraplotes indica* and *Cerophysa darjeelingensis*, and 19 species newly recorded from the areas, is presented. *Gynandrophthalma tonkinensis* LEFÉVRE, 1891 is transferred to *Physosmaragdina* MEDVEDEV, 1971.

Since the publications of JACOBY's and MAULIK's treatise on the Indian Chrysomelidae in the Fauna of British India series, rather fragmentary works have appeared on the Indian chrysomelid fauna, except for SCHERER's monograph on the Indian Alticinae. Recently we have independently published several works on the subject, and this report deals with the specimens from northern India and Sikkim which were mostly collected by the junior author and his colleagues. As the result, a list of 77 species is presented, including seven new species: *Oulema nigrofrontalis*, *Lema (Petauristes) indicola*, *Xanthonia oblonga*, *Cleorina robusta*, *Paleosepharia costata*, *Paraplotes indica* and *Cerophysa darjeelingensis* n. spp., and 19 species newly recorded from the areas. *Gynandrophthalma tonkinensis* LEFÉVRE, 1891 is transferred to *Physosmaragdina* MEDVEDEV, 1971.

All the specimens examined, except for a series of duplicates kept in the senior author's collection, will be deposited in the collection of the Zoological Survey of India (ZSI), Calcutta. The holotype of *Cerophysa darjeelingensis* n. sp. is derived from Dr. Y. KOMIYA's private collection and will be kept in the collection of the Entomological Institute, Hokkaido University (EHU), Sapporo.

We are grateful to the Director, Zoological Survey of India, for providing this interesting material to our disposal.

Enumeration

Subfamily Criocerinae

1. *Lilioceris impressa* (FABRICIUS, 1787)
1 ex., Tarkhola, 450 m, Darjeeling Dist., West Bengal (W. B.), 20. IV. 1976, C. R. BASU (CB) leg.
2. *Lilioceris laosensis* (PIC, 1916)
5 exs., Gorabari, Sonada, 1,952 m, Darjeeling Dist., 13. V. 1971, A. B. BHAUMIK (AB) leg.
3. *Lilioceris semipunctata* (FABRICIUS, 1801)
1 ex., Manibhanjang, 1,920 m, Darjeeling Dist., 17. V. 1975, J. L. JONATHAN (JJ) leg.; 1 ex., Reyang, 370 m, Darjeeling Dist., 30. III. 1973, H. S. SHARMA & party (HS) leg.
4. *Oulema downesi* (BALY, 1865)
1 ex., B. Garden, Alipore, Calcutta, W. B., 14. IX. 1965, J. C. D. & B. K. M. leg.
5. *Oulema nigrofrontalis* n. sp.
Distribution. N. India.
6. *Lema (Lema) constrictofasciata* JACOBY, 1908
=*Lema (Lema) epipleuralis*: TAKIZAWA, 1974, 11
1 ex., Mirik, 1,650 m, Darjeeling Dist., 21. IX. 1974, AB; 1 ex., Lachiwala Range, Dehra Dun, Uttar Pradesh (U.P.), 11. VI. 1975, T. SENGUPTA (TS) leg. Sikkim-1 ex., Gangtok, 1,704 m, 24. IV. 1976, CB; 1 ex., Phensung, 25. IV. 1974, CB.
7. *Lema (Lema) coromandeliana* FABRICIUS, 1798
2 exs., Naxal Bari, Jalpainguri Dist., W. B., 12. IX. 1974, AB; 1 ex., Tarkhola, 450 m, Darjeeling Dist., 20. IV. 1976, AB; 4 exs., Mankundu, Hooghly Dist., W. B., 14, 19. IX. 1965, K. K. ROY & party; 1 ex., Mussoorie, Dehra Dun, 2. VII. 1975, TS; 1 ex., Solan, Himachal Pradesh (H.P.), 27. VI. 1975, TS.
8. *Lema (Lema) cyanea* FABRICIUS, 1798 (Fig. 1 c)
2 exs., Mahanadi, Darjeeling Dist., 1,250 m, 28. IV. 1971, AB; 1 ex., Lebong, 2,000 m, Darjeeling Dist., 16. V. 1974, JJ; 1 ex., Bijanbari, 900 m, Darjeeling Dist., 20-21. V. 1974, JJ; 1 ex., Simla, H. P., 23. VI. 1975, TS.
9. *Lema (Lema) gahani* JACOBY, 1899
1 ex., 4 km SE of Goke, 400 m, Singla, Darjeeling Dist., 1973, P. K. MAITI & party (PM) leg.; 1 ex., 2 km SW of Rangpo, 400 m, Andheri Khola, Darjeeling Dist., 1973, PM.
Distribution. N. India*, Assam.
10. *Lema (Lema) maheensis* JACOBY, 1908
1 ex., Solan, H. P., 29. VI. 1975, TS.
11. *Lema (Lema) nigricollis* JACOBY, 1891

* An asterisk indicates new record from the area.

2 exs., Kalimpong, 1,400 m, Darjeeling Dist., 3. VI. 1974, JJ; 1 ex., Darjeeling Chowk, 2,000 m, 13-15. V. 1974, JJ; 1 ex., Bijanbari, 900 m, 20-21. V. 1974, JJ; 2 exs., Tarkhola, 450 m, Darjeeling Dist., 20. IV. 1976, CB. Sikkim-1 ex., Rangpo, 450 m, 19. IV. 1976, CB.

Distribution. N. India*, Sikkim*, Assam.

Coloration of the dorsum is variable. In the typical form, the head and pronotum are black with elytra and 2 spots on the vertex reddish brown. The specimens collected at Tarkhola are wholly reddish brown on the dorsum with slightly darkened pronotum.

12. *Lema (Lema) nigrofrontalis* CLARK, 1866

1 ex., Manibhanjang, 1,920 m, Darjeeling Dist., 19. V. 1975, JJ; 1 ex., Tibetan Naya Busti, 1,965 m, 7. V. 1971, AB; 1 ex., Gorabari, Sonada, 1,952 m, Darjeeling Dist., 13. V. 1971, AB; 1 ex., Mirik, 1,650 m, Darjeeling Dist., 21. IX. 1974, AB; 1 ex., Rangpo, 450 m, Darjeeling Dist., 8. IV. 1973, HS.

One specimen from Manibhanjang is peculiar in having the head except for apical half of clypeus, labrum and prothorax wholly reddish brown.

13. *Lema (Lema) psyche* BALY, 1865

1 ex., Laepchajagat, 2,130 m, Darjeeling Dist., 4. VI. 1975, JJ; 2 exs., Gorabari, Sonada, 1,952 m, 13. V. 1971, AB; 1 ex., Mahanadi, 1,250 m, Darjeeling Dist., 28. IV. 1971, AB.

14. *Lema (Lema) rufotestacea* CLARK, 1866

2 exs., Bijanbari, 900 m, Darjeeling Dist., 20-21. V. 1974, JJ. Sikkim-2 exs., Rangpo, 450 m, 19. IV. 1976, CB.

15. *Lema (Lema) praeclara* CLARK, 1866

1 ex., Singla, Darjeeling Dist., 20. III. 1973, HS.

16. *Lema (Petauristes) indicola* n. sp.

Distribution. N. India

17. *Lema (Petauristes) jansoni* BALY, 1861

1 ex., Happy Valley, H. P., 17. VI. 1975, TS.

Subfamily Clytrinae

18. *Diapromorpha dejeani* LACORDAIRE, 1848

1 ex., Kalimpong, 1,400 m, Darjeeling Dist., 3. VI. 1974, JJ.

19. *Diapromorpha pallens* (FABRICIUS, 1787)

1 ex., Bijanbari, 900 m, Darjeeling Dist., 20-21. V. 1974, JJ; 1 ex., Kalimpong, 1,400 m, Darjeeling Dist., 3. VI. 1974, JJ; 1 ex., Tamen, 457 m, Subansiri Dist., NEFA, 20. V. 1966, A. N. T. JOSEPH (AJ) leg.; 1 ex., Calcutta, Bandel, Debandapur, 26. IX. 1964, AJ.

20. *Diapromorpha turcica* (FABRICIUS, 1801)

1 ex., Nara Forest, Nashiarpur Dist., U. P., 7. VIII. 1962, R. K. R. leg.; 1 ex., Assori Range, Dehra Dun, 16. VII. 1965, T. D. SOOTA (DS) leg.

Distribution. N. India*, Nepal, Sikkim.

21. *Aspidolopha melanophthalma* (LACORDAIRE, 1848)
1 ex., 5 km W of Goke, Darjeeling Dist., 17. IV. 1973, HS; 1 ex., 31 km W of Rangpo, 360 m, Darjeeling Dist., 17. IV. 1973, HS.
22. *Aetheomorpha tonkinensis* (JACOBY, 1893) (Fig. 1 i)
= *Aetheomorpha* sp.: TAKIZAWA, 1985, 103
1 ex., Singla, Darjeeling Dist., 20. IV. 1973, HS; 1 ex., 3 km NE of Reyang, Darjeeling Dist., 1. IV. 1973, HS.
23. *Epimela viridicollis* JACOBY, 1899
1 ex., Solan, H. P., 29. VI. 1975, DS.
24. *Coptocephala nair* (LACORDAIRE, 1848)
= *Ceratobasis nair*: TAKIZAWA, 1984, 16
1 ex., Assori Range, Dehra Dun, 16. VII. 1965, DS.
25. *Pseudoclytra plasiata* (DUVIVIER, 1891)
1 ex., Kansruo Range, Dehra Dun, 11. VI. 1975, DS; 1 ex., Darlowgany, Dehra Dun, 15. VIII. 1965, R. K. B. leg. Punjab-1 ex., Hoshinapur, 11. VIII. 1962, R. K. BHATNAGAR leg.
The present specimens largely agree with the description given by JACOBY, but the elytra are finely punctate and the black area is enlarged to occupy almost apical 2/3. The head is covered with long pubescence on the vertex and frons.
26. *Physosmaragdina tonkinensis* (LEFÉVRE, 1891), n. comb. (Fig. 1 d-f) (C. r. Soc. Ent. Berg., 35: 256, *Damia*.)
Smaragdina sp. 1: TAKIZAWA, 1983, 67.
3 exs., Solan, H. P., 29. VI. 1975, DS; 5 exs., Ashawari Range, Dehra Dun, 9. VI. 1975, DS.
Distribution. N. India*, Sikkim, Nepal.
On account of the pronotum which is distinctly angulate at the posterior angle, this species undoubtedly belongs to the present genus. This species is easily distinguished from *P. nigrifrons* (HOPE), the other member of the genus, by the features shown in Fig. 1. The coloration of the dorsum is variable (Fig. 1).
27. *Smaragdina divisa* (JACOBY, 1889)
1 ex., NE of Reyang, Darjeeling Dist., 10. IV. 1973, HS.
28. *Smaragdina minuta* (JACOBY, 1908)
1 ex., Reyang, 450 m, Darjeeling Dist., 18. IV. 1973, HS.
29. *Clytra gracilis* (LACORDAIRE, 1848)
1 ex., Solan, H. P., 29. VI. 1975, DS.

Subfamily Eumolpinae

30. *Basilepta obscurum* (JACOBY, 1908)

1 ex., Rangiroom, 2,000 m, Darjeeling Dist., 7. VI. 1975, JJ; 3 exs., Darjeeling, 2,000 m, Darjeeling Dist., 27. I. 1973, AB.

Distribution. India*, Assam.

31. *Basilepta plagiosum* (BALY, 1800) (Fig. 5 a)

2 exs., Darjeeling, 2,000 m, Darjeeling Dist., 29. I. 1973, AB; 1 ex., Darjeeling Chowk, 2,000 m, Darjeeling Dist., 13–15. V. 1974, JJ; 1 ex., Reyang, Darjeeling Dist., 31. III. 1974, JJ; 1 ex., Reyang, Darjeeling Dist., 31. III. 1973, AB; 2 exs., Chail, H. P., 27. VI. 1975, TS.

32. *Basilepta pretiosum* (JACOBY, 1908) (Fig. 5 b)

1 ex., Gorabari, Sonada, 1,952 m, Darjeeling Dist., 13. V. 1971, AB; 1 ex., Rangiroom, 2,000 m, Darjeeling Dist., 25. V. 1974, JJ.

Distribution. N. India*, Assam.

33. *Basilepta puncticolle* (LEFÉVRE, 1889)

1 ex., Reyang, Darjeeling Dist., 29. III. 1973, HS; 1 ex., NE of Reyang, Darjeeling Dist., 1. IV. 1973, HS.

34. *Basilepta quadrifasciatum* (JACOBY, 1889) (Figs. 5 c, 6)

6 exs., Bijanbari, 900 m, Darjeeling Dist., 20–21. V. 1974, JJ; 1 ex., Ankaling, Kemang, NEFA, 17. IV. 1961, K. C. J. leg.

Distribution. N. India*, Sikkim, Nepal.

This species is variable in the coloration. The form described by JACOBY is rather peculiar in the elytra which have a broad longitudinal blackish stripe on the disc and a narrow blackish stripe near the lateral margins.

The specimens before me range from entirely reddish brown to 'almost wholly blackish on the dorsum, leaving apical areas dark brownish. The coloration of the venter and legs also varies from reddish brown to blackish in various degrees.

This species is distinguished by the following features; body subquadrate-ovate, 4–5 mm in length; pronotum strongly transverse, rather acutely angulate subbasally on lateral margins; disc densely covered with distinct punctures, the diameter of which is narrower than their interspaces; elytra regularly punctate-striate on basal half, with a short but deep subbasal depression; punctuation strong on lateral area and within the depression, becoming finer toward apex; aedeagus as in Fig. 5 c.

35. *Pseudostonopa picea* JACOBY, 1908

5 exs., Rangpo, 450 m, Darjeeling Dist., 1. VI. 1974, 17. IV. 1976, CB.

36. *Pagria signata* (MOTSCHULSKY, 1858)

1 ex., Andheri Khola, 500 m, Darjeeling Dist., 4. IV. 1973, HS; 1 ex., Chail, H. P., 27. VI. 1975, TS; 1 ex., Borwat, Rajasthan, 20. XII. 1965, H. C. JOSHI leg.

37. *Scelodonta indica* (MOTSCHULSKY, 1858)

1 ex., 1 km SW of Goke, F. R. H., 6. IV. 1973, HS.

38. *Colasposoma asperatum* LEFÉVRE, 1875

1 ex., Singla, 450 m, Darjeeling Dist., 16. IV. 1973, HS; 1 ex., Reyang,

- Darjeeling Dist., 1. IV. 1973, HS.
39. *Colasposoma downesi* BALY, 1862
1 ex., Bijanbari, 700 m, Darjeeling Dist., 20-21. V. 1974, JJ; 1 ex., Singla, 1 km SW of Goke, 450 m, Darjeeling Dist., 16. IV. 1973, HS; 1 ex., 1 km E of Goke, 400 m, Darjeeling Dist., 17. IV. 1973, HS; 1 ex., 3 km NE of Reyang, 360 m, F. R. H., 1. IV. 1973, HS; 1 ex., Goke, 450 m, Darjeeling, 16. IV. 1973, HS.
40. *Colasposoma metallicum* CLARK, 1855
1 ex., Bijanbari, 700 m, Darjeeling Dist., 20-21. V. 1974, JJ; 1 ex., Jorpokri, 2,200 m, Darjeeling Dist., 22.V. 1971, AB.
41. *Colasposoma semicostatum* JACOBY, 1908
2 exs., Mussoorie, Dehra Dun, 2. VII. 1975, TS.
Distribution. N. India*, Sikkim, Nepal.
42. *Trichochrysea hirta* (FABRICIUS, 1801)
1 ex., 3 km W of Rangpo, 360 m, Darjeeling Dist., 7. IV. 1973, HS; 1 ex., Singla, Goke, F. R. H., Darjeeling Dist., 17. IV. 1973, HS.
43. *Pseudaoria coerulea* JACOBY, 1908
1 ex., Bijanbari, 700 m, 20-21. V. 1974, JJ; 2 exs., Lava, 2,150 m, Darjeeling Dist., 5. VI. 1974, JJ; 1 ex., Ghoombhanjang, 2,100 m, Darjeeling Dist., 27. V. 1975, JJ; 1 ex., Jorpokri, 2,200 m, 22. V. 1971, AB.
44. *Xanthonia oblonga* n. sp.
Distribution. N. India.
45. *Cleorina bevani* (BALY, 1877)
Sikkim-2 exs., Phensung, 25. IV. 1974, CB.
46. *Cleorina nepalensis* TAKIZAWA, 1985
1 ex., Munsong, 1,516 m, Darjeeling Dist., 25. V. 1974, JJ. Sikkim-3 exs., Phensung, 25. IV. 1974, CB.
47. *Cleorina robusta* n. sp.
Distribution. N. India

Subfamily Chrysomelinae

48. *Plagioderia versicolora* (LAICHARTING, 1800)
7 exs., Srinagar, Kashmir, VIII-IX. 1932, H. S. PRUTHI leg.

Subfamily Galerucinae

49. *Periclitena vigorsi* (HOPE, 1831)
1 ex., Jorpokri, 2,200 m, Darjeeling Dist., 22. V. 1971, AB; 5 exs., Tamen, 457 m, Subansiri Dist., NEFA, 18. V. 1966, AJ.
50. *Galerucella placida* BALY, 1878
1 ex., Lachiwala Range, Dehra Dun, 11. VI. 1975, TS; 1 ex., Kansruo Range, 11. VI. 1975, TS.

51. *Galeruca indica* BALY, 1878
3 exs., Kufri, H. P., 24. VI. 1975, TS; 1 ex., Happy Valley, H. P., 17. VI. 1975, TS.
52. *Apophyllia assamensis* (JACOBY, 1871)
1 ex., Khari Bari, Jalpainguri Dist., W. B. 27. VIII. 1945, AB; 1 ex., Bot. Garden, Calcutta, 31. VIII. 1965, K. S. P. & K. U. L.; 2 exs., Tamen, 457 m, Subansiri Dist., NEFA, 18. V. 1966, AJ.
53. *Dercetina flavocincta* (HOPE, 1831)
1 ex., Mussoorie, Dehra Dun, 2. VI. 1975, TS.
54. *Dercetina hainanensis* GRESSITT et Kimoto, 1963
1 ex., Lava, 2,150 m, Darjeeling Dist., 5. VI. 1974, JJ.
Distribution. N. India*, Nepal, Hainan Is.
55. *Dercetina major* KIMOTO, 1970
2 exs., Rangpo, 450 m, Darjeeling Dist., 1. VI. 1974, JJ; 2 exs., Darjeeling, 1, 8. IV. 1974, HS; 1 ex., Tarkhola, 450 m, Darjeeling Dist., 20. IV. 1976, CB.
56. *Dercetina mandarensis* (JACOBY, 1900)
1 ex., Manibhanjang, 1,920 m, Darjeeling Dist., 19. V. 1975, JJ; 1 ex., Darjeeling, 2,050 m, Darjeeling Dist., 15. V. 1974, JJ; 1 ex., Darjeeling Chowk, 2,000 m, Darjeeling Dist., 13-15. V. 1974, JJ; 1 ex., Gorabari Sonada, 1,952 m, Darjeeling Dist., 13. V. 1971, JJ; 1 ex., Lava, 2,150 m, Darjeeling Dist., 5. VI. 1974, JJ. Sikkim-1 ex., Toong, 1,446 m, 10. V. 1963, M. SHANKAR (MS); 10 exs., Phensung, 25. IV. 1974, CB; 1 ex., Gangtok, 1,704 m, 24. IV. 1976, CB.
Distribution. N. India, Sikkim*.
57. *Arthrotidea rubrica* CHEN et JIANG, 1981 (Fig. 9 a)
1 ex., Manibhanjang, 1,920 m, Darjeeling Dist., 19. V. 1975, JJ; 1 ex., Ghoombhanjang, 2,100 m, 29. V. 1975, JJ; 1 ex., Lepchajayat, 2,190 m, 4. VI. 1975, JJ. Sikkim-1 ex., Naching, 227 m, 5. VII. 1959, A. G. K. MENOM (AM) leg.
Distribution. N. India*, Sikkim*, China (Xiang).
This species is distinguished from *A. nepalensis* (KIMOTO) (Fig. 9 b) from Nepal, by the wholly bright reddish brown coloration and by the elytra obsoletely punctate.
58. *Gallerucida nigricornis* LABOISSIÈRE, 1940
3 exs., Rangiroom, 2,000 m, Darjeeling, 7. VI. 1975, JJ; 1 ex., Jorpokri, 2,220 m, 22. V. 1971, AB.
Distribution. N. India*, Sikkim.
59. *Agetocera mirabilis* (HOPE, 1831)
1 ex., Rangiroom, 2,000 m, Darjeeling Dist., 7. VI. 1975, JJ.
60. *Paridea unifasciata* JACOBY, 1892
2 exs., Manibhanjang, 1,920 m, Darjeeling, 19. V. 1975, JJ; 2 exs., Gorabari, Sonada, 1,952 m, Darjeeling, 13. V. 1971, AB.
61. *Liroetis flavipennis* BRYANT, 1954 (Fig. 9 d)

- 1 ex., Gorabari, Sonada, 1,952 m, Darjeeling Dist., 13. V. 1971, AB. Sikkim-1 ex., Nanga, 151 m, 4. VIII. 1959, AM; 2 exs., Chungthang, 1,551 m, 28. VII. 1959, AM.
- Distribution.* N. India*, Sikkim*, Burma, China.
62. *Japonitata eberti* (KIMOTO, 1970) (Fig. 13 a-d)
1 ex., Kufri, H. P., 24. VI. 1975, TS.
Distribution. N. India*, Nepal, China (Xiang).
63. *Japonitata tricostata* CHEN et JIANG, 1981
Distribution. N. India*, Tibet.
64. *Haplosomoides krishna* MAULIK, 1936
2 exs., Singla, Darjeeling Dist., 15, 20. IV. 1973, HS.
Distribution. N. India*, Burma.
65. *Cneorane tibialis* CHÔJÔ, 1965
1 ex., Jhepi, Darjeeling Dist., 3. V. 1976, CB.
66. *Paleosepharia costata* n. sp.
Distribution. N. India.
67. *Paraplotes indica* n. sp.
Distribution. N. India.
68. *Trichobalya apicalis* KIMOTO, 1982
1 ex., nr. Barbari, Busti, 1,900 m, Darjeeling Dist., 18. III. 1973, P. K. MAITI & party.
Distribution. N. India*, Bhutan.
69. *Trichobalya bowringii* (BALY, 1890) (Fig. 12)
1 ex., Singla, Darjeeling Dist., 18. IV. 1973, HS; 1 ex., Ramste Bazar, Darjeeling Dist., 2. IV. 1973, HS; 1 ex., Reyang, Darjeeling Dist., 28. III. 1973, HS.
Distribution. N. India*, Vietnam, China.
70. *Cerophysa darjeelingensis* n. sp.
Distribution. N. India
71. *Palpoxena rufofulva* (JACOBY, 1896)
3 exs., Sahastradhara, Dehra Dun, 26. VI. 1975, TS; 3 exs., Renuka, H. P., 15. VI. 1975, TS.

Notes and Description of New species

Lema indicola n. sp.

(Figs. 1 b, 2)

Body small and subparallel-sided; metallic dark blue on dorsum with antenna, legs and thorax ventrally black; abdomen light reddish brown.

Head shining and impunctate; vertex moderately raised and acutely delimited anteriorly by deep supraocular sulci, with a deep median furrow; antenna slender, about 3/4 as long as body; 1st segment globular; 2nd shortest, about 1/3 as long as 5th; relative lengths of antennal segments as: 5th ÷ 7th > 6th ÷ 8th ÷ 9th > 10th ÷

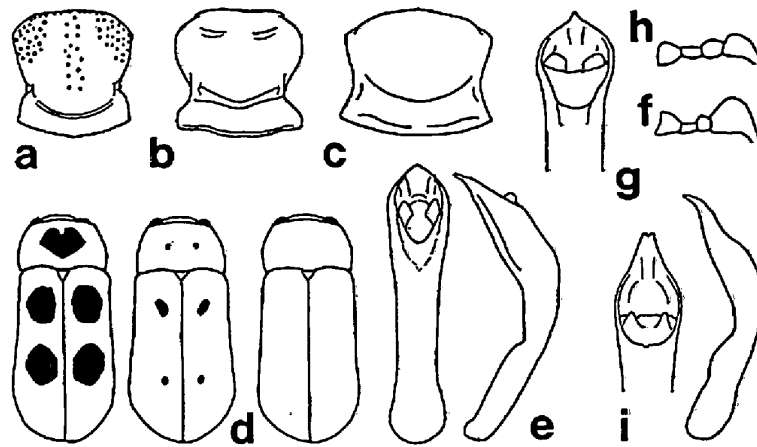


Fig. 1. a-c, Pronotum: a, *Oulema nigrofrontalis* n. sp. (holotype); b, *Lema indicola* n. sp. (holotype); c, *L. cyanea* FABRICIUS (from Darjeeling). d-h, *Physosmaragdina tonkinensis* (LEFÉVRE) and *P. nigrifrons* (HOPE) (from Taegu, Korea) (g, h): d, dorsal pattern of *tonkinensis*; e, g, aedeagus; f, h, basal segments of antenna. i, Aedeagus of *Aetheomorpha tonkinensis* (Pic) (from Darjeeling).

11th > 4th > 3rd > 1st > 2nd. Pronotum almost as long as wide, strongly constricted before middle, and distinctly rounded anteriorly to middle, obtusely rounded antero-laterally (Fig. 1 b); disc with a broad transverse sulcus before middle, and with a trace of shallow depression antero-laterally on disc; disc impunctate posteriorly to the sulcus, with two irregular longitudinal rows of deep punctures, and scattered with deep punctures around the antero-lateral depression. Scutellum truncate and depressed at apex. Elytron more than 3 times as long as wide, subparallel-sided for basal 2/3, thence gently and roundly narrowed to apex; humerus well developed; disc with a weak subbasal depression, with 10 regular rows of deep punctures, which become weaker posteriorly; scutellar row of punctures obsolete; punctures distinctly larger than the width of interstices on basal half. Ventral surface finely pubescent.

Size. 4.8 mm in length and 2.1 mm in width.

Specimens examined. 1 ex. (holotype, in ZSI), Gorabari, Sonada, 1,952 m, Darjeeling Dist., 13. V. 1971, A. B. BHOUMIK leg.; 1 ex., Kalimpong, 1,400 m, Darjeeling Dist., 3. VI. 1974, J. K. JONATHAN leg.

Although this species belongs to the subgenus *Petauristes*, it somewhat resembles *L. (Lema) concinnipennis* BALY, 1865 from Japan and China in the coloration, but is distinguished from the latter by the smaller size and the pronotum which is strongly constricted and not evenly punctate. On account of the smaller body with the dark blue dorsum, this may be compared with *L. (Lema) cyanea* FABRICIUS, 1798 but the latter has the pronotum impunctate and differently shaped (Fig. 1 c).

Oulema nigrofrontalis n. sp.

(Figs. 1 a, 3)

Body small and subparallel-sided; black with head above supraocular sulci,

and prothorax shining brown, and with elytra metallic blackish blue.

Vertex evenly convex, impunctate with distinct, large punctures medially; antenna robust, about 1/2 as long as body, thickly pubescent beyond 2nd segment: 1st segment globular and stout, as long as 3rd; 5th longest, twice as long as 4th; relative lengths of antennal segments as: $5th > 7th \doteq 8th \doteq 11th > 6th > 4th \doteq 9th \doteq 10th > 1st \doteq 3rd > 2nd$. Pronotum only slightly longer than wide, slightly tuberculate at anterolateral angle, deeply constricted before middle (Fig. 1 a); the constriction delimited above by an obscure ridge; disc evenly convex anteriorly to subbasal sulcus, densely punctate antero-laterally and with two longitudinal rows of punctures medially; interspaces shining. Scutellum truncate at apex and shining. Elytron $3 \frac{2}{5}$ as long as wide, subparallel-sided for basal $\frac{2}{3}$, thence gently narrowed to apex; evenly convex, slightly depressed longitudinally below scutellum, with 11 regular rows of deep punctures, including short scutellar one; interstices somewhat costate near apex; 2nd and 8th interstices ending in a common weak tuberculation; punctures larger than longitudinal interspaces and as wide as interstices. Venter finely pubescent.

Size. 3.9–4.1 mm in length, 1.6–1.8 mm in width.

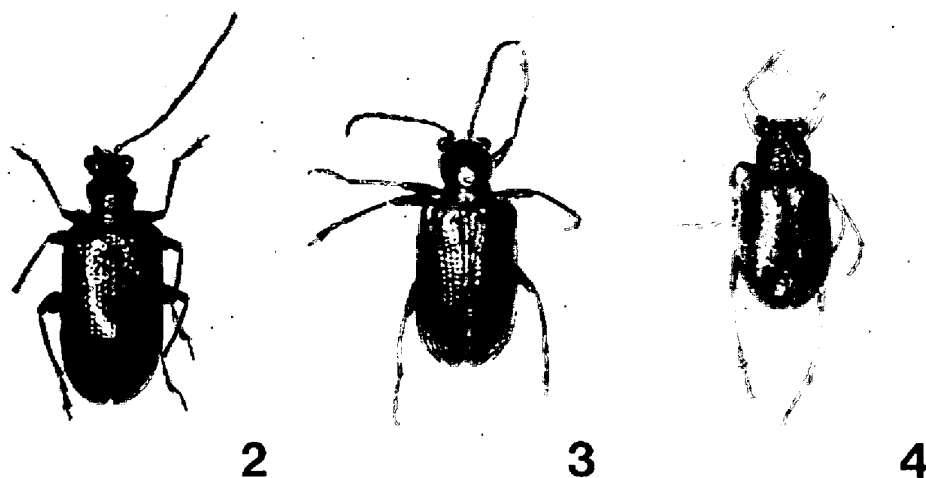
Specimens examined. 1 ex. (holotype, in ZSI), Solan, Himachal Pradesh, 29. VI. 1975, T. SENGUPTA leg.: 1 ex., Chail, Himachal Pradesh, 27. VI. 1975, T. SENGUPTA leg.

This species is similar to *O. subelongata* (PIC, 1924) from S. China, but is distinguished from the latter by the head which is black below the supraocular sulci, and by the black abdomen.

Xanthonia oblonga n. sp.

Body oblong and subquadrate; yellowish brown with head and pronotum slightly darker; ventral surface of prothorax, legs and lateral area of elytra sometimes infuscate in various degrees: dorsum covered with fine yellowish pubescence.

Head rather flat; vertex very finely shagreened, with sparse shallow punctures and with a short median line anteriorly; frontoclypeus well delimited by supra-antennal sulci, impunctate and shining, slightly elevated longitudinally on each side, deeply emarginate at anterior margin; eyes small with interocular space $1 \frac{1}{2}$ as long as its transverse diameter; antenna filiform, almost $\frac{3}{4}$ as long as body; 1st segment stout; 4th almost 3 times as long as 2nd; relative lengths of antennal segments as: $4th \doteq 5th \doteq 6th > 7th > 8th \doteq 9th \doteq 10th \doteq 11th > 1st \doteq 3rd > 2nd$. Pronotum hexagonal in outline, $1 \frac{2}{5}$ as wide as long, widest at basal $\frac{2}{5}$, thence roundly narrowed to both ends, nearly straight at anterior margin, broadly produced at posterior margin; disc rugosely covered with deep punctures. Scutellum trapezoidal, finely punctate and shagreened. Elytra distinctly wider than pronotum basally, subparallel-sided for basal $\frac{2}{3}$, thence roundly narrowed to apex; disc convex with lateral areas declivous, so that the lateral margin is invisible from above; disc with about 17



Figs. 2-4. — 2, *Lema indicola* n. sp. (holotype); 3, *Oulema nigrofrontalis* n. sp. (holotype); 4, *Xanthonia oblonga* n. sp. (from Darjeeling).

irregular rows of punctures, of which the interstices are weakly costate on lateral area, below scutellum depressed and irregularly punctate; humerus well developed, delimited interiorly by a longitudinal depression; epipleuron narrow and vertical, visible in lateral view. Legs slender; femora thickened with a denticule beneath; hind tarsus with 1st segment distinctly longer than the following 2 combined together.

Size. 3.0–4.3 mm in length, 1.5–2.3 mm in width.

Specimens examined. 2 exs., Rangiroom, 2,000 m, Darjeeling Dist., West Bengal, 25. V. 1974, 7. VI. 1975, J. K. JONATHAN leg.: 1 ex. (holotype, in ZSI), Darjeeling, 2,000 m, Darjeeling Dist., 29. I. 1973, H. K. BHOWMIK leg.; 1 ex., Botanical Garden, Darjeeling, 16. V. 1974, J. K. JONATHAN & party.

On account of the costate interstices of elytra on the lateral area, this new species is somewhat similar to *X. signata* CHEN, 1935 from China, but is distinguished from the latter by the elytra whose suture is not piceous, and by the head only finely punctate. This species is characterized by the less convex and more elongate shape of elytra as compared with the other members of the genus.

Cleorina robusta n. sp.

(Fig. 7)

Female. Body subquadrate and large; dark violaceous or metallic reddish cupreous on the dorsum; venter and legs blackish or greenish blue; antenna black with 3 or 4 basal segments fulvous; labrum and palpi except for dark apical segments fulvous.

Vertex densely covered with deep punctures, the diameter of which is distinctly larger than their interspaces laterally; frontoclypeus obscurely delimited behind,

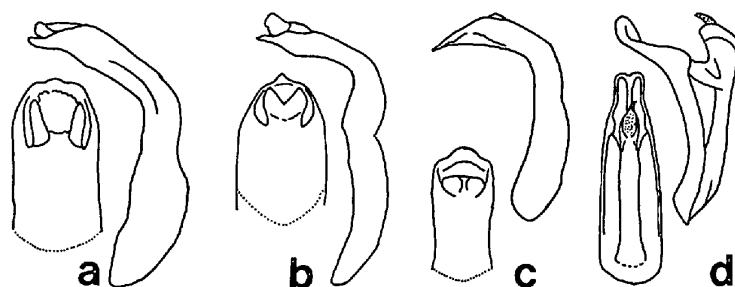
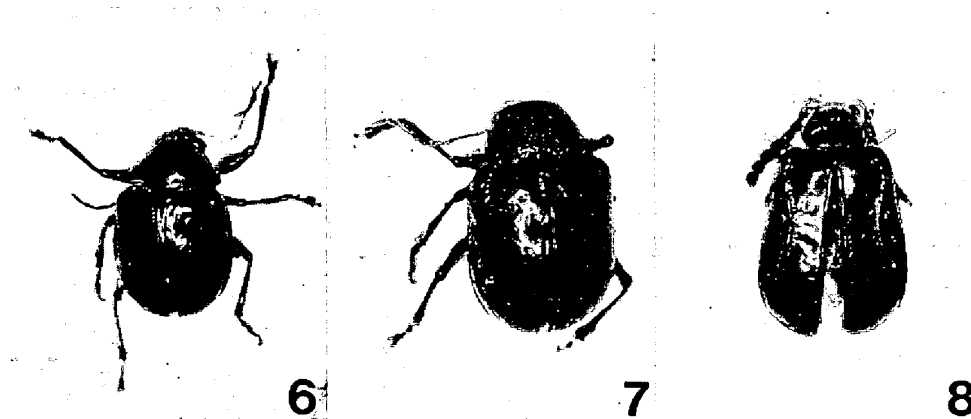


Fig. 5. Aedeagi: a, *Basilepta plagiosum* (BALY) (from Darjeeling); b, *B. pretiosum* (JACOBY) (from Darjeeling); c, *B. quadrifasciatum* (JACOBY) (from Darjeeling); d, *Liroetis flavipennis* BRYANT (from Darjeeling).



Figs. 6-8. — 6, *Basilepta quadrifasciatum* (JACOBY) (from Darjeeling); 7, *Cleorina robusta* n. sp. (from Phensung); 8, *Paraplotes indica* n. sp. (holotype).

confluently covered with large punctures and longitudinally elevated on each side, archedly emarginate at apex; antenna slender and short, less than $3/4$ of body length, slightly widened and pubescent beyond 4th segment; 1st segment stout, shorter than 3rd; 11th acutely pointed at apex, almost twice as long as 2nd; relative lengths of antennal segments as: $4\text{th} \doteq 5\text{th} \doteq 11\text{th} > 6\text{th} > 3\text{rd} \doteq 7\text{th} \doteq 8\text{th} \doteq 9\text{th} \doteq 10\text{th} > 1\text{st} > 2\text{nd}$. Pronotum transverse, $1\frac{1}{2}$ as wide as long, strongly convergent anteriorly, posterior margin $1\frac{1}{2}$ as wide as anterior margin which is slightly and gently emarginate, broadly and gently produced at posterior margin, weakly rounded at lateral margins; disc evenly and strongly convex; densely covered with deep punctures which are partially confluent on lateral areas; diameter of punctures distinctly larger than their interspaces. Scutellum subpentagonal, shining and impunctate. Elytron distinctly wider than pronotum basally; elytron fully twice as long as wide, subparallel-sided for basal $2/3$, thence roundly narrowed to apex; disc with a broad subbasal depression and a longitudinal depression interiorly to humerus; humerus well developed; punctuation confused with a tendency to arrange in regular rows at base and near apex; punctures deep and large in subbasal depression and at lateral area, which is somewhat rugose on basal $2/3$, but rather small basally and near apex. Proepimeron

covered with large punctures.

Size. 4.1–4.8 mm in length, 2.5–3.0 mm in width.

Specimens examined. 2 ♀♀ (one the holotype, in ZSI), Phensung, Sikkim, 25. IV. 1974, C. R. BASU leg.

This new species is characterized by the irregularly punctured elytra and is easily distinguished from the known congeners.

Paleosepharia costata n. sp.

(Fig. 10)

Male. Body oblong, slightly widened posteriorly, and convex dorso-ventrally; dirty yellowish brown; tibiae and tarsi dark brownish; pygidium and last visible abdominal sternite with reddish tinge.

Head as wide as prothorax at anterior margin; vertex convex and impunctate; frontal tubercles obsolete and transverse; clypeus broadly triangular, and straight at anterior margin; eye large, with its depth as large as interocular distance; interantennal space as wide as the diameter of antennal insertion; antenna slender, about 4/5 as long as body, thickly pubescent beyond 2nd segment; 1st segment distinctly curved and longest, 4 times as long as 2nd; 3rd twice as long as 2nd; 3rd to 8th each slightly thickened to apex; 11th slender and pointed at apex, 3/4 as long as 1st; relative lengths of antennal segments as: 1st > 11th > 4th ÷ 5th ÷ 6th ÷ 7th ÷ 8th ÷ 9th > 10th > 3rd > 2nd. Pronotum transverse, 1 3/5 as wide as long, widest before middle, thence roundly narrowed to apex, and rather sinuately so to base, weakly produced at anterior margin, broadly produced on posterior margin, but obliquely cut near angles and weakly emarginate medially on posterior margin; anterior angle weakly thickened, the posterior obtuse; disc with a pair of shallow depressions laterally, and rather densely covered with small punctures. Scutellum broadly triangular and impunctate. Elytra distinctly wider than prothorax at base; elytron 3 times as long as wide before apical 1/3, thence weakly and straightly narrowed to base and roundly so to apex, roundly truncate at apex; disc broadly and longitudinally raised posteriorly to scutellum, with a long and deep curved impression along suture; the impression on both elytra forming a reversed Y-shape; humerus well developed; a blunt short costa developed from below humerus to middle of elytron; disc somewhat depressed between the costa and median raised area; surface densely covered with distinct punctures, the diameter of which is wider than their interspaces; epipleuron declivous, broad for basal 2/7, thence rather suddenly narrowed to 3/5 of basal width, and continued to postero-lateral angle, sharply margined on both margins; surface smooth and shining. Anterior coxal cavities slightly open; metasternite broadly convex; last visible abdominal sternite broadly tri-lobed; median lobe broadly depressed, longitudinally raised on each side near base; posterior tarsus 4/5 as long as tibia.

Size. 5.4 mm in length, 2.7 mm in width.

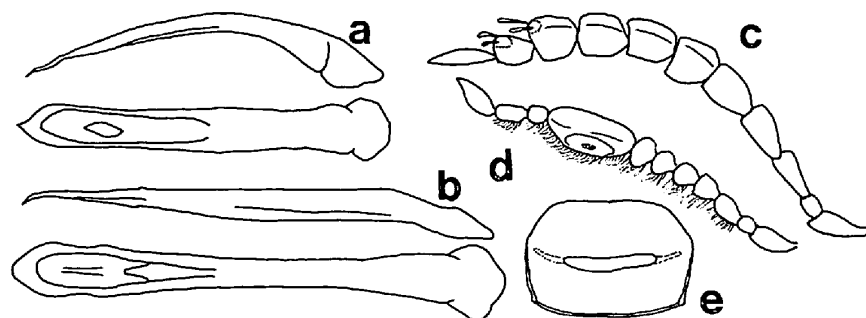
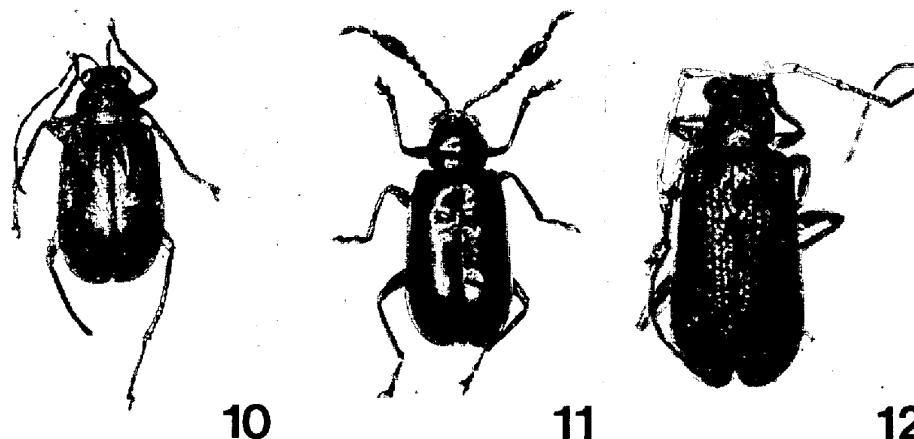


Fig. 9. a, b, Aedeagus: a, *Arthrotidea rubrica* CHEN et JIANG (from Darjeeling); b, *A. nepalensis* (KIMOTO) (from Khurumsang, Nepal). c, d, Antenna: c, *Paraplotes indica* n. sp. (from Rangpo); d, *Cerophysa darjeelingensis* n. sp. (holotype). e, Pronotum of *C. darjeelingensis* n. sp. (holotype).



Figs. 10–12. — 10, *Paleosepharia costata* n. sp. (holotype); 11, *Cerophysa darjeelingensis* n. sp. (holotype); 12, *Trichobalya bowringii* (BALY) (from Darjeeling).

Specimens examined. 1 ♂, 3 km S.E. of Rangpo, 350 m, F. R. H., Darjeeling, West Bengal, 10. IV. 1973, H. S. SHARMA & party. 1 ♂ (holotype in ZSI), Rangpo, 450 m, Sikkim, 19. IV. 1976, C. R. BASU leg.

This new species is characterized by the coloration which is largely dirty yellowish brown, and by the distinctly costate elytra in the male. These characteristics are sufficient to distinguish this from all the known congeners of the genus.

Paraplotes indica n. sp.

(Figs. 8, 9 c)

Body flat and subquadrate, slightly widened posteriorly; shining reddish brown, with scutellum and elytra blackish chocolate brown; 3rd to 10th segments of antennae, epiplueron, meso- and metathorax and abdomen dark chocolate brown; fore and middle legs largely, hind legs with tibia yellowish brown.

Head slightly narrower than pronotum at anterior margin; vertex evenly convex, broad, smooth and shining; frontal tubercles subpentagonal, contiguous to each other, well delimited behind by a transverse furrow, which does not extend to eye margin and ends in a fovea-like depression; interocular space wide, distinctly larger than the depth of eye; clypeus somewhat depressed medially, straight at anterior margin; labial palpus with penultimate segment strongly swollen and the last conical and small; antenna reaching middle of elytron, thickly pubescent beyond 3rd segment (Fig. 9 c); 1st segment club-shaped, as long as 2nd and 3rd combined; 3rd weakly widened to apex, twice as long as 2nd; 4th twice as long as wide; 6th and 7th each as wide as long; 9th and 10th each with antero-lateral angle somewhat depressed with 2 peculiarly shaped setae; 11th slender, acutely pointed at apex; relative lengths of antennal segments as: $1st \doteq 11th > 4th \doteq 5th \doteq 6th \doteq 7th \doteq 8th \doteq 9th > 3rd > 10th > 2nd$. Pronotum short and transverse, $2 \frac{1}{2}$ as wide as long, almost as long as 1st and 2nd antennal segments combined, deeply and archedly emarginate at anterior margin, gently divergent anteriorly on lateral margins, and broadly produced at posterior margin; anterior angle distinct and the posterior indistinct; disc smooth, impunctate and shining, broadly and deeply depressed transversely on basal half. Scutellum triangular, longer than wide; surface dull, with a shallow fovea basally. Elytra at base $1 \frac{1}{2}$ as wide as pronotum; elytron $3 \frac{1}{3}$ as long as wide, widest at apical $\frac{1}{3}$, thence rather straightly narrowed to humerus and roundly so to apex; disc transversely depressed subbasally, densely covered with shallow punctures on basal half, punctures especially larger along median costa; disc with 3 sharp longitudinal costae, 1st costa at suture, the 2nd extending from humerus to apical $\frac{1}{3}$, curved inwardly and almost parallel to suture for basal $\frac{1}{3}$ to apical $\frac{1}{3}$, the 3rd extending from humerus to postero-lateral angle of elytron along top of lateral declivity which is largely overhanging and in part concave; surface somewhat opaque; epipleuron very narrow, parallel-sided and tapered out at apical $\frac{1}{5}$. Tibiae slender.

Size. 3.3–3.7 mm in length, 2.1–2.2 mm in width.

Specimens examined. 2 ♂♂ (one the holotype, in ZSI), Rangpo, 450 m, Sikkim, 20. IV. 1976, C. R. BASU leg.

This new species is characterized by the coloration of body which is composed of reddish brown head and pronotum, and dark chocolate brown elytra, and by the elytra, each of which have 3 distinct costae. *Paraplotes antennalis* CHEN, 1942 from China is similar to this species in the coloration and in having costate elytra, but the latter has the 11th antennal segment strongly enlarged and longer than the 3 preceding ones combined together.

Cerophysa darjeelingensis n. sp.

(Figs. 9 d, e, 11)

Male. Body oblong, subparallel-sided; metallic bluish violaceous; antennae,

mouth-parts, trochanters, apices of femora, tibiae on apical half and tarsi light brown to brown.

Head slightly wider than pronotum at apex; shining and impunctate; vertex convex with distinct median longitudinal sulcus, which extends from supra-antennal line to the base, and a pair of depression on each side; frontal tubercles absent; clypeus short and broadly triangular, strongly raised in a reversed Y-shape, and triangularly emarginate at apex; antenna robust, $2/3$ as long as body, pubescent beyond 2nd segment, and furnished with long stiff hairs on inner side of 3rd to 10th segments (Fig. 9 d); 1st segment twice as long as 2nd; 2nd globular; 3rd moderately widened to apex; 4th to 7th each somewhat transverse, strongly constricted at base and widened to apex; 8th strongly enlarged, shorter than 4 preceding ones combined, twice as long as wide, ovoid in shape, almost as wide at base as at apex, with a long ellipsoidal raised area at inner side, which is smooth with a long oval hole; 9th globular; 11th 3 times as long as 2nd, and pointed at apex; relative lengths of antennal segments as: $8th > 11th > 1st \doteq 3rd \doteq 4th \doteq 10th > 5th \doteq 6th \doteq 7th \doteq 9th > 2nd$. Pronotum $1\frac{1}{2}$ as wide as long, widest anteriorly to middle, thence roundly narrowed to both ends, distinctly wider at base than at apex, weakly emarginate at anterior margin, broadly produced at posterior margin (Fig. 9 e); disc strongly convex, so that the lateral margins are almost invisible in dorsal view in apical half, with a narrow transverse sulcus which is situated before middle and is deep for about $4/7$ of pronotal width, thence weakly extending to near lateral margins; surface granulate and scattered with fine punctures. Elytra distinctly wider than pronotum at base; elytron 3 times as long as wide, very weakly widened to apical $1/3$, thence roundly narrowed to apex; disc shallowly depressed behind scutellum, and transversely depressed at basal $1/3$, finely granulate and densely covered with small punctures, which are distinctly larger than those on pronotum; lateral margin with fine hairs on apical $1/3$; suture not margined. Venter shining and finely pubescent; last visible abdominal sternite gently emarginate at apex with a small projection medially; fore and middle legs with 1st tarsal segment distinctly widened.

Size. 4.5–4.7 mm in length, 2.1 mm in width in male.

Specimens examined. 1 ♂ (holotype in EHU), Singla, Darjeeling, 2. V. 1981. M. ITO leg.; 1 ♂, 4 km SE of Goke, Singla, 400 m, Darjeeling Dist., 18. IV. 1973, H. S. SHARMA & party.

This new species is characterized by the metallic coloration of abdomen, the finely granulate pronotum and elytra, and by the antenna $2/3$ as long as the body. *Cerophysa coomani* LABOISSIÈRE, 1930 from Vietnam is similar in the coloration, but is distinguished by the shorter antenna and distinctly punctate pronotum.

Japonitata tricostata CHEN et JIANG, 1981

(Figs. 13 e-h)

As CHEN and JIANG described this species on female specimens, a description

of the male is given below:

Body shining reddish brown, with metathorax, mesepimeron black, abdominal segments laterally blackish except for the last one; apices of mandibles dark brown.

Head impunctate and shining; vertex delimited from frons by a shallow transverse depression; frontal tubercles contiguous to each other, long triangular with sharply pointed apex extending into interantennal space; clypeus shortly carinate between antennal insertions, and broadly triangular; antenna as long as body, pubescent beyond 2nd segment; 4th longest, slightly longer than 2nd and 3rd combined; relative lengths of antennal segments as: $4th > 1st \doteq 5th \doteq 6th \doteq 7th > 8th > 9th \doteq 11th > 3rd \doteq 10th > 2nd$. Pronotum transverse and divergent anteriorly, $1 \frac{1}{2}$ as wide as long, deeply and archedly emarginate at anterior margin, broadly produced and angularly excised behind posterior angle on basal margin, narrowly and sharply margined on lateral margins which bear a row of fine hairs; anterior angle distinctly thickened and produced anteriorly, the posterior rectangularly thickened; disc impunctate and shining, with a pair of large round depressions laterally which are obscurely connected to each other. Elytra distinctly wider than pronotum at base; elytron 3 times as long as wide, widest at apical $\frac{1}{3}$, thence straightly narrowed to humerus, and broadly rounded posteriorly; disc broadly depressed subbasally, with 2 pairs of sharp costae starting from humerus to apical $\frac{1}{7}$, and another short one between them posteriorly; disc perpendicular below outer costa, so that sharply trimmed lateral margin is invisible in dorsal view; surface, though densely covered with small brownish spots, impunctate and sparsely covered with fine suberect hairs posteriorly; epipleuron narrow and concave. Last visible abdominal sternite medially longer than 4 preceding ones combined, broadly trilobed with a median longitudinal dark line; pygidium perpendicular with a triangular notch on apical margin; aedeagus as shown in Fig. 13 e; tarsi with 1st segment long and widened (Fig. 13 g).

Female. Abdominal sternites except for the last one black, each narrowly

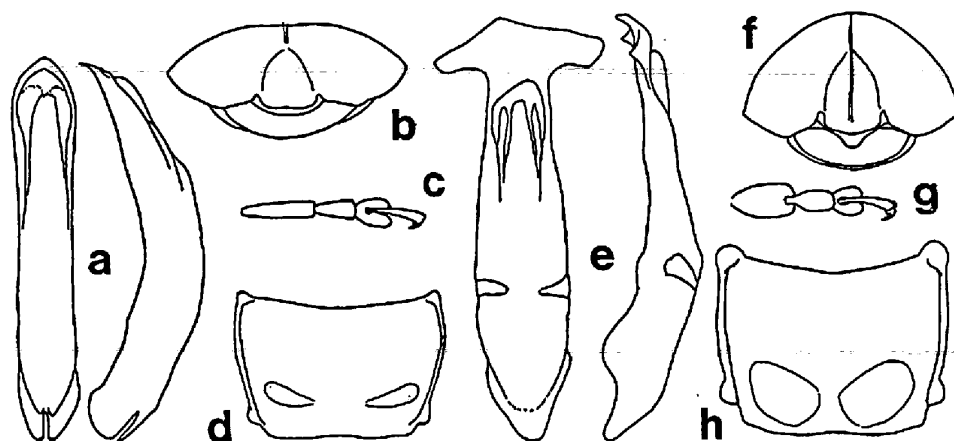


Fig. 13. a-d, *Japonitata eberti* (KIMOTO) (from Kufri), e-h, *J. tricostata* CHEN & JIANG (from Kufri & Mussoorie): a & e, aedeagus; b & f, last visible abdominal sternite of male; c & g, hind tarsus of male; d & h, pronotum of female.

marginated with yellowish brown on apical margin; elytron $2 \frac{3}{5}$ as long as wide; lateral margin visible in dorsal view; surface somewhat opaque; last visible abdominal sternite notched at apex.

Size. Male: 5 mm in length, 2.4 mm in width, female: 5.5 mm in length, 3.5 mm in width.

Specimens examined. 1 ♂, Kufri, H. P., 24. VI. 1975, T. SENGUPTA leg.; 1 ♀, Mussoorie, U. P., 2. VII. 1975, T. SENGUPTA leg.

As stated by CHEN and JIANG, this species is similar to *J. eberti* (KIMOTO, 1970) from Nepal. The latter species is distinguished from *tricostata* by: abdomen wholly yellowish brown; elytron with 3rd short costa weak, sometimes the costa absent; in male, hind tarsus with 1st segment not widened (Fig. 13 c); last visible abdominal sternite short; pygidium not notched at apex; aedeagus differently shaped (Fig. 13 a); in female, last visible abdominal sternite almost straight at apical margin, without notch (after CHEN & JIANG).

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