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Notes on Chrysomelid Beetles (Coleoptera, Chrysomelidae) of India and its Neighboring Areas

Part 9*

Haruo TAKIZAWA

Araisono 4-7-5-502, Sagamihara, Kanagawa, 228 Japan

Abstract Forty-three species of the subfamily Clytrinae are enumerated from India and its neighboring areas. *Aetheomorpha mysorensis*, *A. rugipennis*, *Clytrasoma brivioi*, *Coptocephala maharensis*, *Physosmaragdina dinajpurensis*, and *Smaragdina mapellii* n. spp. are described. *Clytra subopacipennis* PIC, 1943, is synonymized with *C. succincta* (LACORDAIRE, 1848). *Aetheomorpha maduraensis* JACOBY, 1908, is transferred to *Physosmaragdina* MEDVEDEV. Notes on color variations and figures of male aedeagus are given for several species.

Subfamily Clytrinae Enumeration

1. *Labidostomis funerea* FAIRMAIRE, 1891
1 ex., Srinagar, India, 9.VIII.1983, A. ABE leg. (TC**)
2. *Merilia lunulata* (FABRICIUS, 1781)
8 exs., Manapad, Tiruniveli Dist., Tamil Nadu, X.1986, TRS. NATHAN (TN) leg. (AC); 33 exs., Pudukkottai, S. India, X, XI.1984 (AC, TC); 1 ex., Madras State, S. India, XI.1974 (PM); 5 exs., Coimbatore, 1,400 ft, Madras State, X.1963, IX, X.1977 (LM, PM); 2 exs., Pondicherry, S. India, X.1980 (PM); 2 exs., Karaikal, Pondicherry State, S. India, XI.1980 (PM).
3. *Aetheodactyla andrewesi* (JACOBY, 1895) (Figs. 1 a, c, e)
1 ex., Top Slip, 2,500 ft, Anaimalai Hills, V.1977, TN (AC, PM); 1 ex., Peechi, Trichur, Kerala, V.1979, TN (PM); 9 exs., Chikmagalur, 4,000 ft, Karnataka, V.1982, TN (AC, PM).

Aetheodactyla andrewesi is easily distinguished from *A. plagiata* (DUVIVIER) or *A. lateralis* (LACORDAIRE) by the wholly fulvous body. In addition to the body color, *andrewesi* may be characterized by the slightly stouter fore tarsus and by the pronotum without weak oblique depression laterally before base. The shape of male aedeagus is different as in Fig. 1.

4. *Aetheodactyla lateralis* (LACORDAIRE, 1848) (Figs. 1 b, d).

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** Locations of materials: Mr. ASKEVOLD's private collection in Manitoba Univ. (AC); Canadian National Collection in Ottawa (CNC); Lyman Entomological Museum in Canada Univ. (LM); Peabody Museum in Yale Univ. (PM); TAKIZAWA's private collection in Kanagawa (TC); Zoological Survey of India, Calcutta (ZSI).

Pseudoclytra externesignata PIC, 1943, Opusc. mart. 9, p. 16 (S. India); MEDVEDEV, 1984, Ent. Basil., 12, p. 470 (synonymized).

8 exs., Coimbatore, Madras State, IX,XII.1976 (PM).

Both *lateralis* and *plagiata* are characterized by the elytra which have blackish patches before apex, but the former is distinguished from the latter by the legs, antenna, metathorax and abdomen more or less dark brown to black, and the elytra which have a subtriangular patch before apex.

5. *Aetheomorpha cribellata* JACOBY, 1908 (Figs. 2 a-c)

3 exs., Top Slip, 2,500 ft, Anaimalai Hills, S. India, V.1977, TN (PM); 1 ex., Sowrikado, 1,000 m, Palani Hills, S. India, V.1978, TN (PM); 1 ex., Agumbe Ghat, Shimoga, Mysore, V.1987, TN (TC).

This species is well characterized by the finely wrinkled and opaque elytra. Elytra are wholly fulvous, or each with 4 black spots, or largely black leaving basal portion fulvous.

6. *Aetheomorpha fallax* LACORDAIRE, 1848

2 exs., Neffapakkam, Pondicherry State, X.1963, PRS. NATHAN (PN) leg.

7. *Aetheomorpha malayana* (BALY, 1865) (Fig. 7 h)

11 exs., Kumili, 2,500 ft, Tamil Nadu, V, VI.1986, TN (AC, TC); 2 exs., Devala, 3,200 Ft, Nilgiri Hills, V.1984, TN (AC); 3 exs., Shimoga Dist., Mysore, V.1974 (AC, CNC); 1 ex., Agumbe Ghat, Shimoga, Mysore, V.1987, TN (TC); 1 ex., Thenmala, Quilon, V.1985, TN (AC); 2 exs., Peechi, Trichur, Kerala, V.1979, TN (PM); 1 ex., Karaikal, Pondicherry, V.1986, TN (TC); 1 ex., Kandaghat, Himachal Pradesh, 18.VI.1975, T. SENGUPTA leg (ZSI); 1 ex., Dhanjuri Vill., Bengala, V.1959, PUSSETTO leg. (PM).

8. *Aetheomorpha mysorensis* n. sp.

Distribution. S. India.

9. *Aetheomorpha rugipennis* n. sp.

Distribution. S. India.

10. *Aetheomorpha* sp.

9 exs., Thenmala, Quilon, Kerala, VI.1988, TN (TC); 2 exs., Devala, 3,200 ft,

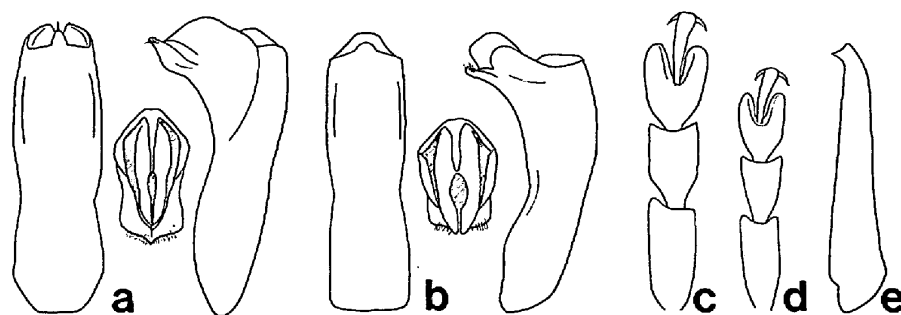


Fig. 1. Aedeagus (a & b, left: dorsal view, middle: apex, right: lateral view): a, *Aetheodactyla andrewesi* (JACOBY) (from Chikmagalur); b, *A. lateralis* (LACORDAIRE) (from Coimbatore). Fore tarsus (c & d): c, *A. andrewesi*; d, *A. lateralis*. e, fore tibia of *A. andrewesi*.

Nilgiri Hills, Tamil Nadu, V.1984, TN (TC); 1 ex., Kumili, 2,500 ft, Tamil Nadu, V.1986, TN (TC).

11. *Aspidolopha decora* (FABRICIUS, 1801) (Fig. 3 a)
6 exs., Kumili, 2,500 ft, Tamil Nadu, V, VI.1986, TN (AC, TC); 5 exs., Point Cazing RE, Madras State, X.1971 (LM); 1 ex., Karaikal, Pondicherry, XI.1981, TN (TC); 1 ex., Pudukkotai, S. India, XI.1984, TN (TC).
12. *Aspidolopha duodecimpunctata* JACOBY, 1895 (Fig. 2 d)
1 ex., Agumbe Ghat, 2,000 ft, Shimoga Dist., Mysore, V.1987, TN (AC); 1 ex., Kumili, 2,500 ft, Tamil Nadu, V.1986, TN (TC).

On account of elytra distinctly lobed at base and short, robust body, it is better to place this species in the present genus rather than in *Aetheomorpha*.

13. *Aspidolopha egregia* BOHEMAN, 1858 (Fig. 3 b)
34 exs., Kumili, 2,500 ft, Tamil Nadu, V, VI.1986, TN (AC, TC); 12 exs., Thenmala, Quilon, S. India, V.1985, V.1988, TN (AC, TC); 6 exs., Top Slip, 2,500 ft, Anaimalai Hills, V.1977, TN (PM); 3 exs., Coimbatore, Madras State, V, X.1976, TN (PM); 1 ex., Kadamprai, 4,200 ft, Anaimalai Hills, TN (PM); 5 exs., Sowrikadu, 1,000 m, Palani Hills, S. India, V.1978, TN (PM); 1 ex., Peechi, Trichur. Kerala, V.1979, TN (PM).
14. *Aspidolopha melanophthalma* LACORDAIRE, 1848 (Fig. 3 c)
11 exs., Andharkola, Rajshahi Dist., E. Pakistan, VIII, IX.1963, MAPELLI leg. (PM). (newly recorded from Bangladesh)
15. *Epimela dilutipes* JACOBY, 1908 (Fig. 2 e, f)
2 exs., Karikal, Pondicherry, V.1962, X.1963, PN (LM); 1 ex., Karaikal, Pondicherry, S. India, V.1982, (LM); 6 exs., Pondicherry, S. India, X, XI.1980 (LM).
- In one specimen, the elytron has the dark blue spots largely reduced into brownish spots and the posterior lateral one lacking.
16. *Pantocometis subfasciata* JACOBY, 1908
1 ex., Top Slip, 2,500 ft, Anaimalai Hills, S. India, V.1982, (PM); 1 ex., Pudukkotai, S. India, XI.1984, TN (TC).
17. *Clytrasoma brivioi* n. sp.

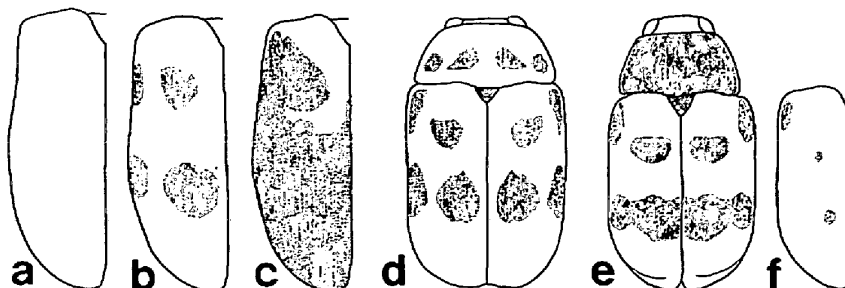


Fig. 2. a-c, *Aetheomorpha cribellata* JACOBY (from Top Slip); d, *Aspidolopha duodecimpunctata* JACOBY (from Agumbe Ghat); e & f, *Epimela dilutipes* JACOBY (from Pondicherry).

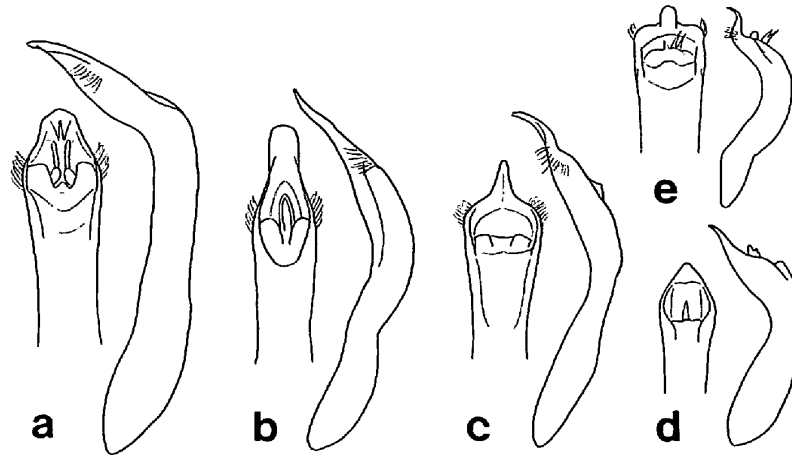


Fig. 3. Aedeagus (left: dorsal view, right: lateral view): a, *Aspidolopha decora* (FABRICIUS) (from Kumili); b, *A. egregia* BOHEMAN (from Kumili); c, *A. melanophthalma* LACORDAIRE (from Andharkola); d, *Ceroclytra cornuta* (JACOBY) (from Chikmagakur); e, *Smaragdina delesserti* (LACORDAIRE) (from Kadampurai).

Distribution. S. India.

18. *Clytrasoma palliatum* (FABRICIUS, 1801) (Fig. 7 g)

1 ex., Coimbatore, Madras State, VI.1977 (PM); 1 ex., Pudukkotai, S. India, X.1984, TN (AC); 1 ex., Peermade, 4,200 ft, Kottayam Dist., Kerala, V.1975, TN (PM); 2 exs., Thenmala, Quilon, Kerala, V.1988, TN (TC); 4 exs., Poonmudi Range, Trivandrum, Kerala, V.1989, TN (TC); 1 ex., Bezwada, Kistna Dist., 1962, FUMAGALLI leg. (PM).

One female specimen from Bezwada has the vertex much strongly punctate and densely pubescent than others.

19. *Clytra flavotibialis* JACOBY, 1903 (Fig. 4 f)

8 exs., Sowrikadu, 1,000 m, Palani Hills, S. India, V.1978, TN (PM).

20. *Clytra indica* (JACOBY, 1889) (Fig. 4 e)

10 exs., Dhanjuri, Dinajpur Dist., E. Pakistan, VI.1963, MAPELLI leg. (PM). (newly recorded from Bangladesh)

21. *Clytra lefevrei* JACOBY, 1895

1 ex., Kumili, 2,500 ft, Tamil Nadu, V.1986, TN (AC); 3 exs., Cinchona, 3,500 ft, Anaimalai Hills, V.1964, PN (LM); 2 exs., Peechi, Trichur, Kerala, V.1979, TN (PM); 13 exs., Agumbe Ghat, 2,000 ft, Shimoga Dist., Mysore, V.1983, V.1987, TN (AC, TC).

22. *Clytra succincta* (LACORDAIRE, 1848)

= *Clytra subopacipennis* PIC, 1943, Opusc. mart., 9, p. 15, (S. India). N. syn.

2 exs., Manapad, Tiruvannamalai, Tamil Nadu, X.1986, TN (TC); 3 exs., Coimbatore, 1,400 ft, Madras, X.1963, III.1964, PN (LM); 2 exs., Pudukkotai, S. India, XI.1984, TN (AC, TC); 1 ex., Karikal, Pondicherry, X.1963, PN (LM); 7 exs., Neffapakkam, Pondicherry, S. India, X.1962, PN (LM); 4 exs., Pondicherry, S. India,

XI.1980 (PM); 1 ex., Kadayal, Kaniyakumali, X.1987, TN (TC).

PIC described *subopacipennis* as being distinguished by the opaque dorsum from *succincta*. So far examined opaque specimens are all males and shining ones females. Since there are no other structural difference between these forms, it is reasonable to treat these 2 forms as conspecific. LACORDAIRE, however, didn't mention such dimorphism in the original description.

23. *Clytra suturata* JACOBY, 1898 (Figs. 4 a-d)

3 exs., Top Slip, 2,500 ft, Anaimalai Hills, V.1977, TN (PM); 1 ex., Cinchona, 3,500 ft, Anaimalai Hills, V.1964, PN (LM); 8 exs., Devala, 3,200 ft, Nilgiri Hills, V, X.1984, V.1986, TN (AC, TC); 7 exs., Agumbe Ghat, 2,000 ft, Shimoga, Mysore, V.1987, TN (AC); 1 ex., 6 km SW. Mahabaleshwar, Mahar, 19.X.1985, CW. & LB. O'BRIEN (OB) leg. (AC); 1 ex., Bannerghatta Nat. Park, Karnataka, 6.X.1985, OB (AC); 1 ex., Happy Valley, Himachal Pradesh, 17.VI.1975, T. SENGUPTA leg. (ZSI). 3 exs., Punjab, India, 11.V.1982, J. S. MANN leg. (LM); 1 ex., Rawalpindi, Ayubu Nat. Park, Punjab, 1.IX.1985, OB (AC); 7 exs., Dhanjuri, Dinajpur Dist., E. Pakistan, V, VI.1963, MAPELLI leg. (PM).

This species is well characterized by the small body of 4-5 mm in length with distinctly punctate-striated elytra and by the pronotum which is strongly convergent anteriorly. As stated by JACOBY, the coloration is variable as in Fig. 4. This species is recorded for the first time from Punjab and Bangladesh.

24. *Diapromorpha balteata* LACORDAIRE, 1848

3 exs., Coimbatore, Madras State, X.1976, X.1977 (PM); 1 ex., Madras State, X.1980 (PM); 1 ex., Peechi, Trichur Dist., Kerala, V.1979, TN (PM); 1 ex., Bannerghatta Nat. Park, Karnataka, 6.X.1985, OB (AC).

One specimen from Peechi has the elytra wholly fulvous without a black band behind the middle.

25. *Diapromorpha indica* JACOBY, 1903

1 ex., Coimbatore, Madras State, X.1976 (PM).

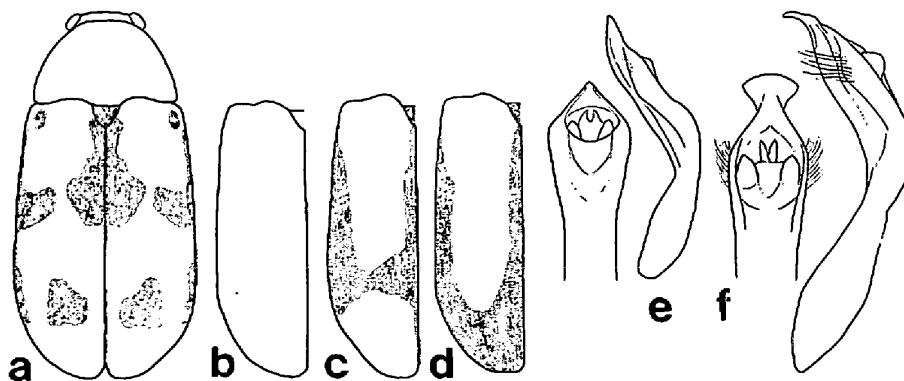


Fig. 4. *Clytra suturata* JACOBY: a, from Anaimalai Hills; b, from Punjab; c, from Dhanjuri; d, from Rawalpindi. Aedeagus: e, *Clytra indica* (JACOBY) (from Dhanjuri); f, *C. flavotibialis* JACOBY (from Palani Hills).

26. *Diapromorpha pallens* (FABRICIUS, 1787)
10 exs., Dhanjuri, Dinajpur Dist., E. Pakistan, VI.1963, MAPELLI leg. (PM). (newly recorded from Bangladesh)
27. *Diapromorpha turcica* (FABRICIUS, 1801)
2 exs., Tiruvannamalai, North Arcot Dist., Tamil Nadu, XI.1985, TN (AC); 16 exs., Coimbatore, Madras State, IX.1977, X.1976, TN (LM, PM); 4 exs., Madras State, VIII.1975, X.1977, X.1980, XI.1974, TN (PM); 2 exs., 7 km N. Trichur, Kerala, IX.1985, OB (AC); 1 ex., Peechi, Trichur, Kerala, V.1979, TN (PM); 5 exs., Pondicherry, S. India, X, XI.1980 (PM); 2 exs., Neffapakkam, Pondicherry, XI.1963, PN (LM); 21 exs., Pudukkottai, S. India, IX, X, XI.1984, TN (AC, TC); 3 exs., Bannerghatta Nat. Park, Karnataka, 6.X.1985, OB (AC); 1 ex., below Raval Dan, Punjab, 1.IX.1985, OB (AC). (newly recorded from Punjab)
28. *Coptocephala nair* (LACORDAIRE, 1848)
1 ex., Coimbatore, Madras, VIII.1974, TN (PM); 2 exs., Thenmala, Quilon, S. India, V.1985, TN (AC); 3 exs., 7 km N. Trichur, Kerala, 11.X.1985, OB (AC); 6 exs., Chalakuby, 32 km S. Trichur, Kerala, 10.X.1985, OB (AC); 6 exs., Karikal, Pondicherry, IX, X.1963, III.1964, PN (LM). 1 ex., below Raval Dan, Punjab, 1.IX.1985, OB (AC). 1 ex., Bengala (PM); 8 exs., Dhanjuri, Dinajpur Dist., E. Pakistan, VI.1963, MAPELLI leg. (PM); 1 ex., Andharkola, Rajshahi Dist., E. Pakistan, IX.1963, MAPELLI leg. (PM). (newly recorded from Punjab and Bangladesh)
- Variations in the coloration are pronounced in this species as already noted by JACOBY and by myself. Two specimens from Pondicherry are wholly flavous and another has 2 pale brownish spots on the pronotum and an obscure elongate one apically on the elytron. Considering the wide range of color variation in *nair*, it is doubtful whether *Ceratobasis koenigii* (FABRICIUS), *C. ceylonensis* JACOBY, *C. opacipennis* (JACOBY), *C. innotatithorax* PIC, *C. discoidalis* PIC and *C. binotaticeps* PIC are distinct species or not.
29. *Coptocephala maharensis* n. sp.
Distribution. India.
30. *Physosmaragdina dinajpurensis* n. sp.
Distribution. Bangladesh.
31. *Physosmaragdina maduraensis* (JACOBY, 1908) n. comb. (Figs. 5 a-e)
Aetheomorpha maduraensis JACOBY, 1908, Faun. Brit. Ind. Col., 2, p. 133 (S. Bombay).
7 exs., Manapad, Tiruvannamalai, Tamil Nadu, X.1986, TN (AC); 4 exs., Pudukkottai, S. India, X.1984, TN (AC).

On account of posteriorly angulated pronotum and stout tarsi in the male, this species undoubtedly belongs to the genus *Physosmaragdina* MEDVEDEV. Coloration is variable: fulvous with elytra blue black posteriorly; the size of this blue black area variable as in Figs. 5 a-d; in most specimens, antenna beyond 3rd segment, meso- and metathorax, abdomen and femora black; tibiae apically and tarsi dark brown. Head has 2 deep depressions and a distinct transverse sulcus between

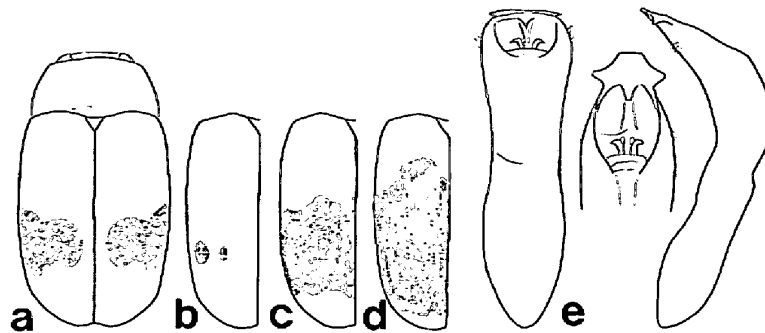


Fig. 5. *Physosmaragdina maduraensis* (JACOBY) (from Manapad): a–d, dorsal pattern (d, from Pudukkotai); e, aedeagus.

eyes; pronotum shining but densely covered with fine punctures; elytra covered with fine punctures; male with all legs unusually stout, with tibiae curved; last visible abdominal sternite rather flat, weakly lobed medially at posterior margin; aedeagus as in Fig. 5 e; female with legs slender; last visible abdominal sternite deeply and widely concave, with a deep fovea anteriorly.

32. *Ceroclytra cornuta* (JACOBY, 1895) (Fig. 3 d)

2 exs., Kumili, 2,500 ft, Tamil Nadu, V, VI.1986, TN (TC); 5 exs., Thenmala, Quilon, Kerala, V, VI.1988, TN (TC); 1 ex., Shimoga Dist., Mysore, V.1974 (LM); 7 exs., Chikmagalur, 4,000 ft, Karnataka, V.1982, TN (PM)

33. *Smaragdina delesserti* (LACORDAIRE, 1848) (Fig. 3 e)

=*Smaragdina* sp.: TAKIZAWA, 1986, Ent. Rev. Japan, 41, p. 40

1 ex., Kallar, Tamil Nadu, 1.XI.1980, M. Ito leg. (TC); 1 ex., Kadampurai, 4,200 ft, Anaimalai Hills, V.1980, TN (PM); 1 ex., Sowrikadu, 1,000 m, Palani Hills, S. India, V.1978, TN (PM).

This small species of about 3–3.5 mm in length is distinguished by the elytra which is black with fulvous apical area, and regularly but weakly punctate-striate on the basal area. Legs and underside are fulvous, sometimes with metathorax, last visible abdominal sternite and pygidium black.

34. *Smaragdina divisa* (JACOBY, 1889) (Fig. 6 g)

Gynandrophthalma divisa JACOBY, 1889, Anns. Mus. Civ. Genova, 27, p. 156.

Smaragdina divisa: MEDVEDEV, 1988, Faun. Ecol. Vietnam, p. 21.

1 ex., Boldipukur, Bengala, VI.1957, PUSSETTO leg. (PM).

35. *Smaragdina flavobasalis* (JACOBY, 1908) (Figs. 6 a–d)

2 exs., Coimbatore, Madras, VI.1977, IX.1977, TN (PM); 1 ex., 28 km E. Kodaikanal, 1,160 m, Tamil Nadu, 23.IX.1985, OB (AC); 5 exs., Pondicherry, S. India, X.1980 (PM); 2 exs., Pudukkotai, S. India, X, XI.1984 (PM).

Body is flavous with posterior half of elytra shining black. Sometimes this black area is enlarged to leave basal portions flavous. Besides somewhat cylindrical body shape and the coloration, this species is characterized by the head distinctly punctate between eyes and distinctly pubescent on the vertex. In male,

the hind tibia is broadly incised near apex (Fig. 6 e). The shape of male aedeagus (Fig. 6 d) is somewhat similar to those in the genus *Aetheodactyla*.

36. *Smaragdina laevipennis* (JACOBY, 1908)

1 ex., Madras State, S. India, X.1980 (PM); 1 ex., Neffapakkam, Karikal, Pondicherry, XI.1963, PN (LM); 1 ex., Pudukkottai, S. India, X.1984, TN (TC).

37. *Smaragdina mapellii* n. sp.

Distribution. Bangladesh.

38. *Smaragdina nilgiriensis* (JACOBY, 1903)

1 ex., Neffapakkam, Pondicherry, X.1963, PN (LM). 3 exs., Dhanjuri, Dinajpur Dist., E. Pakistan, VI.1963, MAPELLI leg. (PM). (newly recorded from Bangladesh)

Distribution. S. India, Bangladesh*.

39. *Smaragdina quadripunctata* (JACOBY, 1887)

2 exs., Manapad, Tirunelveli, Tamil Nadu, X.1984, TN (TC); 33 exs., Poonmudi Range, Trivandrum, Kerala, V, VI.1989, TN (TC); 68 exs., Thenmala, Quilon, Kerala, V.1985, V, VI.1988, TN (TC); 3 exs., Peechi, Trichur, Kerala, V.1979 (PM); 2 exs., Chalakuby, 32 km S. Trichur, Kerala, 10.X.1985, OB (AC).

40. *Smaragdina wallardiensis* (JACOBY, 1908) (Figs. 6 e, f)

9 exs., Top Slip, 2,500 ft, Anaimalai Hills, V.1977, TN (PM); 1 ex., Devala, 3,200 ft, Nilgiri Hills, V.1984, TN (AC); 3 exs., Agumbe Ghat, 2,000 ft, Shimoga Dist., Mysore, V.1987, TN (AC); 3 exs., Chikmagalur, 4,000 ft, Karnataka, V.1982, TN (AC, PM).

By the elongate, subcylindrical body with distinctly pubescent vertex, this species is easily distinguished from congeners. These characters together with the slightly longer fore tibia suggest its similarity to *Aetheodactyla* which is characterized by the pubescent epipleuron.

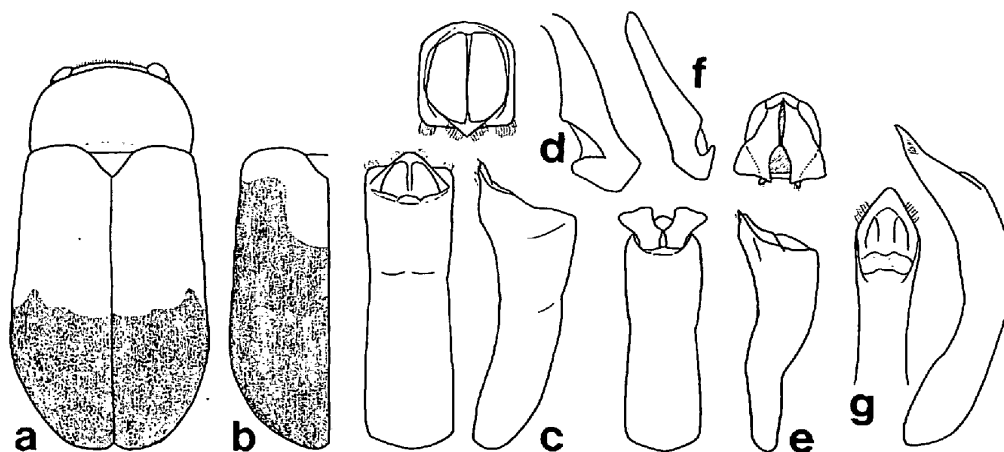


Fig. 6. *Smaragdina flavobasalis* (JACOBY): a, from Kodaikanal; b-d, from Pondicherry; c, aedeagus (left: dorsal view, above: apex, right: lateral view); d, hind tibia. *Smaragdina wallardiensis* (JACOBY) (from Chikmagalur): e, aedeagus; f, hind tibia. *S. divisa* BALY (from Dhanjuri): g, aedeagus.

Male. Wholly flavous, with antenna and legs largely, sometimes with metathorax and abdomen black; elongate and subcylindrical; legs stout; vertex covered with long pubescence; eye large, with longitudinal diameter 1 1/2 as long as interocular distance. Pronotum transverse, round on lateral margins; disc rather densely covered with fine punctures; median lobe with large confluent punctures; elytron almost 3 times as long as wide; disc covered with weak punctures; venter with long pubescence; fore tibia longer than middle or hind tibia; tarsi with 1st segment enlarged; hind tibia with a distinct incision near apex (Fig. 6 f).

Female. Eyes smaller, with longitudinal diameter as long as interocular distance; hind tibia normal; pygidium much produced onto last visible sternite which is broadly and rectangularly incised on the posterior margin and with a weak depression medially.

41. *Smaragdina* sp. 1

1 ex., 32 km E. Kodaikanal, 1,050 m, Tamil Nadu, 29.IX.1985, OB (AC).

42. *Smaragdina* sp. 2

1 ex., Tiruvannamalai, North Arcot Dist., Tamil Nadu, VII.1984, TN (AC).

43. *Smaragdina* sp. 3

1 ex., Goke, F. R. H., 450 m, Darjeeling, W. Bengal, 16.IV.1973, H. S. SHARMA & party (ZSI).

Description of New Species

Aetheomorpha mysorensis n. sp.

(Fig. 8)

Male. Body small and subparallel-sided; bright brown with eyes and mandibles at apices blackish; antenna infuscate beyond 5th segment; venter covered with silvery pubescence. Head shining and impunctate, finely pubescent interiorly to eyes, with 3 depressions between eyes, of which the 2 lower ones are rather oblique and deep; antenna transverse beyond 4th segment. Pronotum transverse, 1.5 times as wide as long, widest at posterior 1/3, thence roundly narrowed to both ends, nearly straight at anterior margin, weakly arched at posterior margin with weak median lobe; disc convex, covered with very fine punctures. Scutellum impunctate and shining, triangular and truncate at apex. Elytron 3 times as long as wide, slightly widened from base to before apical 1/3, thence roundly narrowed to apex, strongly convex with lateral margin invisible from above; disc densely covered with large punctures which have a tendency to arrange themselves into longitudinal rows; punctuation finer toward apex and almost absent apically; interspaces covered with fine punctures, and distinctly narrower than diameter of punctures on basal half; humerus developed, shining and impunctate; epipleural lobe weakly developed; pygidium convex, finely punctate and pubescent with interspace weakly granulate; aedeagus as shown in Fig. 7 e.

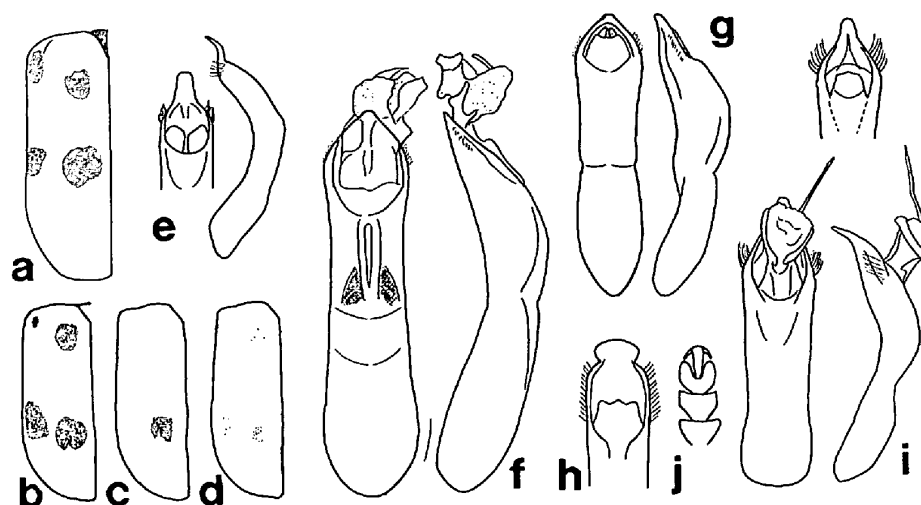


Fig. 7. Dorsal pattern: a, *Aetheomorpha rugipennis* n. sp. (from Karikal); b-d, *Physosmaragdina dinajpurensis* n. sp. (from Dhanjuri). Aedeagus: e, *Aetheomorpha mysorensis* n. sp. (from Agumbe Ghat); f, *Clytrasoma brivioi* n. sp. (holotype); g, *C. palliata* (FABRICIUS) (from Thenmala); h, *Aetheomorpha malayana* (BALY) (rewritten from MEDVEDEV, 1988); i, *Physosmaragdina dinajpurensis* n. sp. (from Dinajpur); j, fore tarsus of *P. dinajpurensis* n. sp.

Size. 3.6–3.9 mm in length, 2.0–2.1 mm in width.

Specimens examined. 5 ♂ (one the holotype in Canadian National Collection, Ottawa), Agumbe Ghat, 2,000 ft, Shimoga Dist., Mysore, S. India, V.1987, TRS. NATHAN leg. (AC).

Notes. This new species is very close to *A. malayana* BALY, but is distinguished from the latter by the slightly smaller body size, wholly light brownish coloration, and elytra less regularly punctate-striate. Further, the aedeagus is quite different as in Figs. 7 e and 7 h.

Aetheomorpha rugipennis n. sp.

(Fig. 9)

Female. Body subparallel-sided, rather weakly convex; pale reddish brown; scutellum basally and venter black; head largely black with lower and upper portions pale reddish brown; antenna beyond 4th segment and femora basally darkened; pronotum with a large black and quadrate patch laterally; elytra each with 2 spots, viz. humeral and sub-basal, and a broad band occupying just behind middle to apical 1/3 black; the band widened anteriorly and posteriorly on lateral portion.

Head densely covered with fine hairs on vertex and between eyes; interocular space densely punctate and with a large triangular depression; shining and almost impunctate below eyes; antenna reaching middle of pronotum, transversely serrate

beyond 4th segment. Pronotum transverse, slightly longer than half the width, almost straightly narrowed from base to apex, almost straight at anterior margin; posterior angle broadly rounded, the anterior round; median lobe weakly developed; disc obliquely depressed latero-basally, rather densely covered with deep punctures; interspace covered with fine punctures, on black spots sparsely punctate or impunctate and shining. Scutellum rounded at apex, finely pubescent. Elytron almost 3 times as long as wide; disc opaque, narrowly depressed along basal margin and broadly so posteriorly to scutellum, densely and irregularly covered with distinct punctures, somewhat rugose laterally; interspace finely granulate; punctuation weak on apical 1/3; pygidium strongly curved anteriorly; venter finely pubescent; last visible abdominal sternite with a round depression medially; legs rather slender.

Size. 6.5–7.5 mm in length, 3–3.5 mm in width.

Specimens examined. 1 ♀ (holotype, in Entomol. Inst., Hokkaido Univ., Sapporo), Manapad, Tiruvannamalai, Tamil Nadu, X.1986, TRS. NATHAN leg.; 1 ♀, Karikal, Pondicherry, III.1962, PS. NATHAN leg. (CNC).

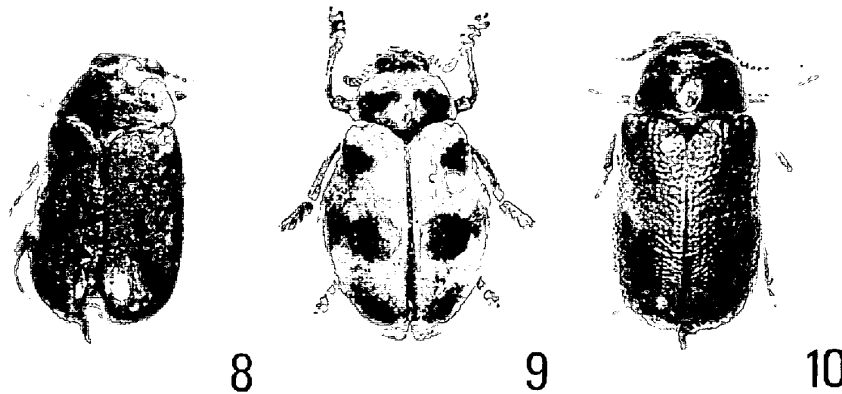
Note. The specimen from Karikal has the posterior band of elytron largely reduced into 2 similarly sized spots (Fig. 7 a). This species is characterized by the densely punctate and somewhat rugose elytra, the finely pubescent head and by the punctuation of pronotum. *A. cribellata* JACOBY from S. India has also opaque elytra, but its elytra are very minutely and closely punctured (Figs. 2 a–c). *A. subrugosa* JACOBY from Assam has the elytra which are very closely and strongly punctured with interspaces finely rugose, but is distinguished from this new species by the impunctate head, etc.

Clytrasoma brivioi n. sp.

(Fig. 10)

Male. Body large and robust; black with pronotum and elytra opaque, dirty yellowish brown; pronotum with a somewhat V-shaped black patch posteriorly; elytron with large spots behind humerus and subapically, median black band composed of 2 transverse black spots; antenna dark brown, with 2nd and 3rd segments brown; venter and legs densely pubescent.

Head densely pubescent and opaque; vertex raised, finely punctate with a deep longitudinal groove between eyes, longitudinally strigose between eyes and on fronto-clypeus; fronto-clypeus broadly and linearly incised at apex. Antenna short, each segment beyond 4th lamina-shaped. Pronotum transverse, 1.8 times as wide as long, strongly rounded at posterior angle, widest before posterior angle, narrowly but distinctly margined; disc flat, sparsely covered with fine punctures and basally with fine pubescence. Elytra strongly dilated from below humerus to middle, thence narrowed to apex; each elytron 2.4 times as long as wide; disc densely covered with fine punctures. Aedeagus robust, broadly and longitudinally raised



Figs. 8–10. — 8, *Aethomorpha mysorensis* n. sp. (holotype); 9, *Clytrasoma brivioi* n. sp. (holotype); 10, *A. rugipennis* n. sp. (holotype).

medially on dorsal side of middle portion, laterally to raised area which is somewhat triangularly depressed; the raised area with a longitudinal groove (Fig. 7 f).

Size. 19 mm in length, 12 mm in width.

Specimens examined. 1 ♂, Sowrikadu, 1,000 m, Palani Hills, S. India, V.1976, T. NATHAN leg. (holotype, in Peabody Museum, Yale Univ., New Haven).

Note. Though this new species is clearly distinguished from *C. palliatam* (FABRICIUS) by its larger size, difference in structure is rather obsolete: the pronotum strongly rounded at posterior angle and widest distinctly apart the angle, whereas in *palliatam* widest at the angle; scutellum is distinctly margined against immarginate *palliatam*; aedeagus is sculptured on the dorsum. This species is named after Rev. C. BRIVIO, from whose collection this specimen was derived.

Coptocephala maharensis n. sp.

(Fig. 11)

Male. Body subparallel-sided and black; elytra blackish brown; mandibles and antennae on 4 basal segments brownish; legs blackish brown; head and under-side covered with fine white pubescence.

Head narrower than pronotum at anterior margin, finely pubescent and with 3 round depressions between eyes, almost impunctate and gently raised at frontoclypeus; vertex shining with fine transverse wrinkles; clypeus broadly and straightly incised at anterior margin; mandible broad, and acutely pointed at apex; antenna not attaining the base of pronotum, finely pubescent; 1st segment thickened; 2nd globular, distinctly shorter than 1st; each segment beyond 4th transverse and subequal in length to each other; 11th ovate. Pronotum transverse, 2 times as wide as long, gently rounded on lateral margins, broadly concave at anterior margin, rather straight but with median lobe developed on posterior margin; both anterior and posterior angles gently rounded; disc impunctate and shining, evenly

convex, but transversely depressed on median lobe. Scutellum broadly triangular and impunctate. Elytra almost as wide as pronotum at base; each elytron more than 3 times as long as wide; weakly widened to apical 3/8th, thence roundly narrowed to apex; disc somewhat opaque, densely covered with large but shallow and irregularly shaped punctures; these punctures with a tendency to arrange in longitudinal rows along suture; interspaces covered with fine punctures. Last visible abdominal sternite medially depressed; legs slender; fore leg with tibia and tarsi distinctly longer than middle or hind ones.

Size. 2.8–2.9 mm in length, 1.3–1.4 mm in width in both sexes.

Specimens examined. 1 ♂ (holotype in Canadian National Collection, Ottawa), 1 ♀, Kate's point, 6 km NE Mahabaleshwar, Mahar, India, 19.X.1985, CW. & LB. O'BRIEN leg.

Notes. This new species is characterized and easily distinguished by small, blackish body with opaque elytra from the known congeners. *Coptocephala minuta* JACOBY from W. India is similarly sized, but is almost wholly fulvous and has the pronotum nearly 3 times as wide as long.

Physosmaragdina dinajpurensis n. sp.

(Fig. 12)

Female. Body robust and subcylindrical; shining light yellowish brown; mandible at apex, antenna on apical segments infusate; pygidium black; metathorax laterally and abdominal sternites largely blackish; venter finely pubescent.

Head shining and impunctate, except for lower portion finely punctate, with 3 round and obscure depressions between eyes; clypeus triangularly incised at anterior margin; antenna short, not attaining middle of pronotum; 4th and following segments distinctly widened. Pronotum transverse, 2 times as wide as long, strongly convex, weakly emarginate at anterior margin, rather straightly narrowed from base to anterior angle; anterior and posterior angles obtusely angulate, side distinctly reflexed near posterior angle; median lobe broad and short; disc shining, sparsely covered with fine punctures. Scutellum regularly triangular, impunctate. Elytra each 2.8 times as wide as long; almost subparallel-sided for basal 2/3, thence roundly narrowed to apex; disc densely covered with small punctures, the diameter of which is distinctly narrower than interspaces, punctuation finer near apex; last visible abdominal sternite with a deep fovea medially; tarsi with 1st and 2nd segments triangularly widened.

Size. 7–7.5 mm in length, 3.2–3.8 mm in width.

Specimens examined. 4 ♀ (one the holotype in Peabody Museum, Yale Univ., New Haven), Dhanjuri, Dinajpur Dist., E. Pakistan, V.1963, MAPELLI leg.

Note. This new species somewhat resembles the members of the genus *Clytra* in distinctly cylindrical and robust body shape, and female with tarsi widened. Because the pronotum is obtusely angulate at the posterior angle, it is better to

place this species in *Physosmaragdina*. This new species is easily distinguished from the known congeners by its robust body shape. One specimen has a small black spot near suture on apical 1/3 of elytron.

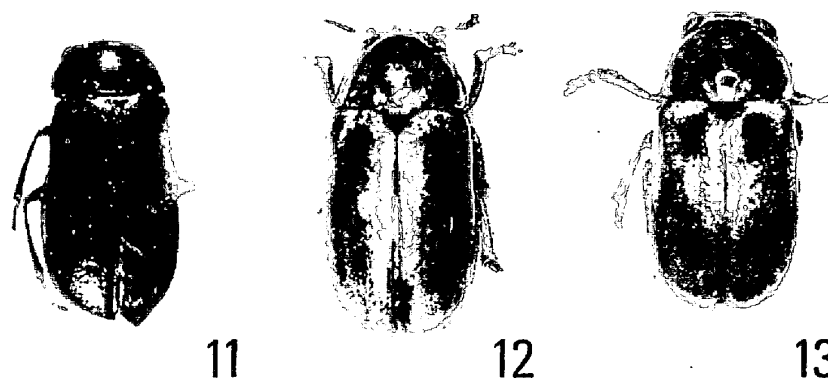
Smaragdina mapellii n. sp.

(Fig. 13)

Male. Body subparallel-sided, rather strongly convex dorsally, light yellowish brown with 4 obscure dark brownish patches on elytron, viz. small humeral, larger sub-basal one, interoposterior one behind middle and somewhat elongate lateroposterior one; antenna beyond 4th segment and mandibles at apex infusate; venter covered with yellowish white pubescence.

Head with 3 round depressions between eyes; vertex gently convex and shining; fronto-clypeus weakly but rather densely punctate; antenna not attaining to base of pronotum, transversely serrate beyond 3rd segment. Pronotum transverse, 1.7 times as wide as long, widest behind middle, thence narrowed to both ends, almost straight at anterior margin, slightly arched at posterior margin with weak median lobe; anterior angle obtuse, and the posterior widely rounded; disc evenly convex, impunctate and shining, though covered with very fine punctures. Scutellum broadly triangular and shining. Elytron subparallel-sided from base to behind middle, thence roundly and gently narrowed to apex; each elytron 2.7 times as long as wide; disc convex, densely covered with distinct punctures, the diameter of which is larger than interspaces on basal half; punctures with a tendency to arrange in longitudinal rows along suture, becoming finer on apical area; interspaces finely punctulate; pygidium convex, granulate and covered with fine punctures and pubescence. Legs robust; tarsi short and strongly widened as in Fig. 7 j; aedeagus as shown in Fig. 7 i.

Size. Male, 4.2–5.1 mm in length, 2.0–2.5 mm in width; female, 4.2–5.1 mm in length, 2.4–2.7 mm in width.



Figs. 11–13. — 11, *Coptocephala maharensis* n. sp. (holotype); 12, *Physosmaragdina dinajpurensis* n. sp. (holotype); 13, *Smaragdina mapellii* n. sp. (holotype).

Specimens examined. 7 ♂ (one the holotype in Peabody Museum, Yale Univ., New Haven), 3 ♀, Dhanjuri, Dinajpur Dist., E. Pakistan, VI.1963, MAPELLI leg. (PM).

Note. This new species is characterized by the coloration and by stout legs with short and wide tarsi. With these characters it is easily distinguished from the known congeners of India. Though it has short and wide tarsi resembling those in the genus *Physosmaragdina*, it is treated as a member of the present genus based on the pronotum which is widely rounded at the posterior angle.

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