

NOTES ON SOME DERMAPTERA (INSECTA) FROM NORTH CACHAR HILLS DISTRICT, ASSAM

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This paper is based upon a collection of Dermaptera from the area of Assam, North Cachar Hills District falling under the Kopili Hydro Electric Project run by North Eastern Electric Power Corporation Limited, a Govt. of India Enterprise. The purpose of the study is to assess the impact on the faunal resources of the area due to the said project.

Altogether, seven species belonging to six genera are reported of which two species, namely *Aborolabis pervicina* (Burr) and *Eparchus insignis* (Haan) were recorded earlier from the area (Srivastava and Lahiri, 1983). Four species namely, *Euborellia annulipes* (Lucas), *Nala lividipes* (Dufour), *Labidura riparia* (Pallas), *Circolabia curvicauda* (Motschulsky) have worldwide distribution and *Eparchus insignis* (Haan) is widely distributed in the Oriental Region. Besides, *Aborolabis emarginata* Srivastava, is at present, known only from NE India whereas *A. pervicina* (Burr) is distributed all along the Himalayas in India, Bhutan and Nepal. The occurrence of all species from the area is quite natural.

SYSTEMATIC ACCOUNT

ANISLABOIDEA

ANISOLABIDIDAE

ANISOLABIDINAE

Aborolabis pervicina (Burr)

(Figs. 1-4)

1913. *Anisolabis pervicina* Burr, *Rec. Indian Mus.* **8**(2) : 137 (Male, Female; India, Assam and Arunachal Pradesh).
1915. *Paralabis pervicina*; Burr, *J. R. micr. Soc.*, **1915** : 540, pl. 12, fig. 3.
1969. *Aborolabis pervicina*; Srivastava, *Entomologists Rec. J. Var.*, **81** : 246, fig. 1.
1983. Srivastava and Lahiri, *Rec. zool. Surv. India*, **81** : 282.
1987. *Aborolabis nigricens* Brindle, *Courierforsch. Inst. Senckenberg*, **93** : 337 (Male, Female; Nepal).
1993. *Aborolabis pervicina*; Srivastava, *Rec. zool. Surv. India*, **90**(1-4) (1992) : 31, figs. 22-26.

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Material examined : India, Assam, North Cachar Hills, Garampani, 1 Male, 2 Females, 13.iii.1970 (S. K. Talukdar coll.).

Diagnostic characters : *Male* : General colour shining reddish to blackish brown.

Head triangular; eyes shorter than post-ocular area. Pronotum quadrate, gently widened posteriorly. Abdomen punctate, sides of segments 6th to 9th acute angled posteriorly, carinate and striate. Penultimate sternite broadly rounded, punctulated, posterior margin truncate. Ultimate tergite and forceps and genitalia as seen in figs. 3-4.

Female : Sides of abdominal segments ecarinate and convex; forceps simple and straight.

Measurements : *Male* : Length body 8.0-16.0 mm, forceps 2.0-3.0 mm; *Female* : Length : body 7.0-18.0 mm, forceps 2.0-3.5 mm.

Distribution : NE India and Himachal Pradesh.

Aborolabis emarginata Srivastava

(Figs. 5-8)

1976. *Aborolabis emarginata* Srivastava, *J. zool. Soc. India*, **26** : (1 & 2) (1974) : 134, figs. 1 C-E (Male, Female; India : Arunachal Pradesh.

1993. *Aborolabis emarginata*, *Rec. zool. Surv. India*, **90**(1-4). (1992) : 24, figs. 1-3.

Material examined : India, Assam, North Cachar Hills, Umrangso, 2 Males, 3 Females, 1996, ex under stones on the edge of reservoir (G. K. Srivastava coll.).

Diagnostic characters : *Male* : General colour blackish brown. Antennae with three basal and one or two pre-apical segments yellowish.

Head about as long as broad; pronotum slightly expanded posteriorly Apterous; sides of abdominal segments 6th to 9th acute angled, carina present on 7th and 8th only. Penultimate sternite with posterior margin broadly emarginate. Ultimate tergite and forceps and genitalia as seen in figs. 7-8.

Female : Sides of abdominal segments rounded, ecarinate and forceps simple and straight.

Measurements *Male* : Length body 11.5-11.7 mm, forceps 1.8-2.9 mm; *Female* : Length : body 9.5-12.9 mm, forceps 1.8-2.0 mm.

Distribution : NE India (Arunachal Pradesh, Meghalaya and Assam).

Euborellia annulipes (Lucas)

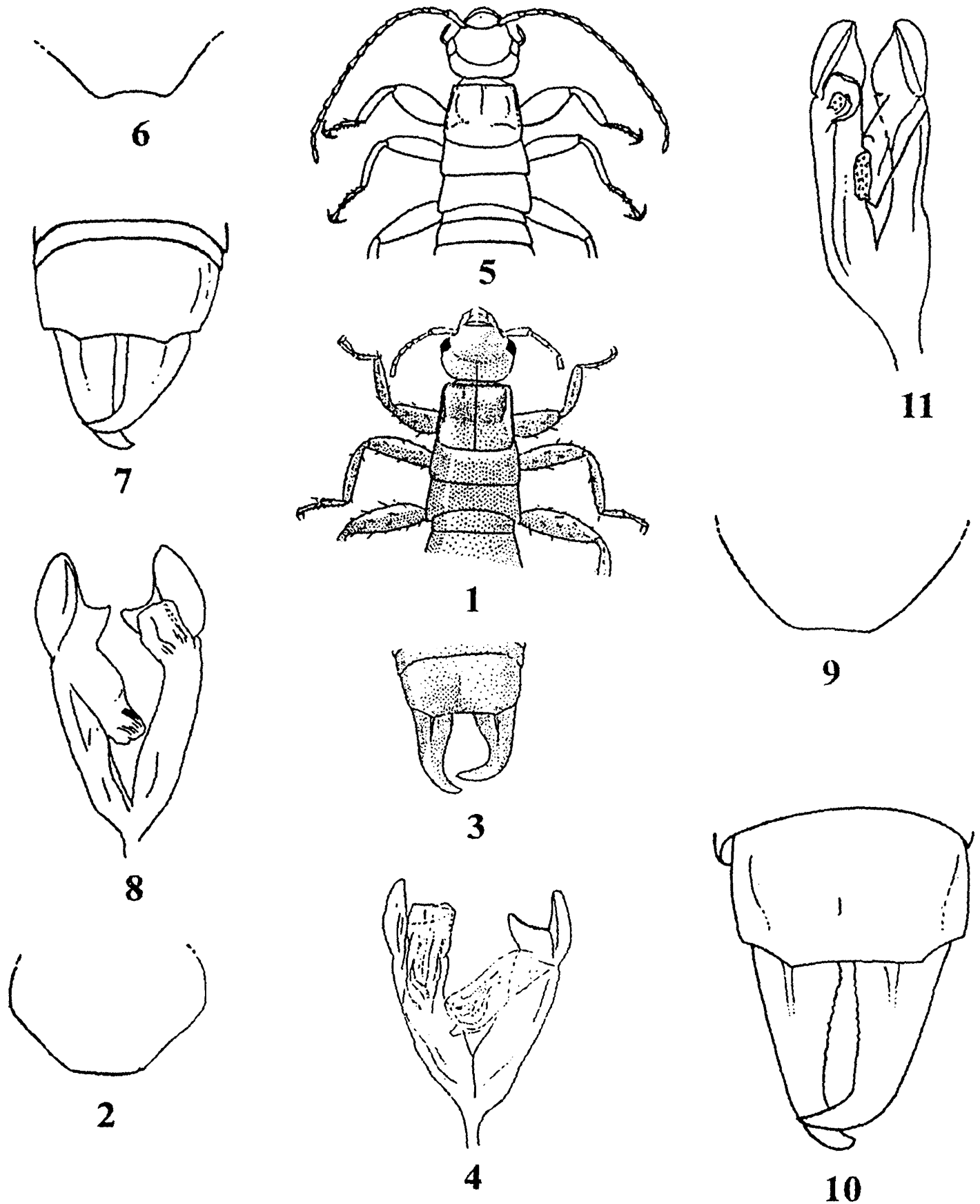
(Figs. 9-11)

1847. *Forficesila annulipes*, *Annl. Soc. Ent. Fr.*, (2) **5** : 84 Female; France-Jardine des Plantes, Paris (Introduced).

1853. *Forficula (Labidura) annulipes*; Fischer, *Orthoropera Europ, Leipzig*, **69**, pl. 6, figs. 6a-c.

1864. *Forficelisa annulipes*; Dohra, *Stettin. ent. Ztg.*, **25** : 290.

1910. *Anisolabis annulipes*; Burr, *Fauna British India, Dermaptera* : 84, pl. 6, fig. 24.



Figs. 1-11. *Aborolabis pervicina* (Burr), Male, 1. Anterior portion of body; 2. Posterior portion of Penultimate sternite; 3. Ultimate tergite and forceps; 4. Genitalia; *Aborolabis emarginata* Srivastava, Male, 5. Anterior portion of body; 6. Posterior half of penultimate sternite; 7. Ultimate tergite and forceps; 8. Genitalia; *Euborellia annulipes* (Lucas), Male; 9. Posterior half of penultimate sternite; 10. Ultimate tergite and forceps; 11. Genitalia.

1914. *Euborellia annulipes*; Burr, *J. R. micr. Soc.*, **1915** : 527, 528 and 545.
 1959. *Anisolabis (Euborellia) annulipes*; Bey-Bienko, *Ent. Obozr.*, **38(3)** : 607.
 1988. *Euborellia annulipes*; Srivastava, *Fauna of Orissa State*, State Fauna Series, **1(2)** : 157, figs. 19-21.

Material examined India North Cachar Hills, Umrangso, near the reservoir, 1 Males, 4 Females, 9 nymphs, ex under stones, 1996 (G. K. Srivastava coll.).

Diagnostic characters : General colour blackish brown to dark brown; antennae with basal and one or two ante-apical segments and sides of pronotum yellow and legs yellow and femora banded with black.

Male abdominal segments 6th to 9th on sides acute angled posteriorly, striate and carinate; penultimate sternite with hind margin briefly rounded; parameres about as broad as long, flat, external apical angle rounded; distal lobes with pads of chitinous teeth.

Measurements Male Length : body 9.5-10.5 mm, forceps 1.9-1.2 mm; Female : body 11.5-13.6 mm, forceps 2.6-3.1 mm.

Distribution : Worldwide.

LABIDURIDAE

NALINAE

Nala lividipes (Dufour)

(Figs. 12-13)

1820. *Forficula pallipes* Dufour, *Ann. Gener. des Phys. Bruxelles*, **4** : 316, pls. 116, fig. 7, 7a and 7b (Male, Female; Lower Catalonia, Spain).
 1828. *Forficula lividipes* Dufour, *Ann. Sci. Nat.*, **13** : 340 (New name proposed).
 1900. *Labidura lividipes*; Bormans and Krauss, *Das Tierreich*, **11** : 36.
 1910. *Paralabidura lividipes*; Burr, *Trans. R. ent. Soc. Lond.*, **1910** : 184.
 1910. *Nala lividipes*; Burr, *Genera Insect.*, **122** : 36.
 1976. *Nala lividipes*; Srivastava, *Rec. zool. Surv. India, Occ. Pap.*, **2** : 41.

Material examined : India, Assam, North Cachar Hills, Umrangso, 1 Male, 1996, ex under stones (G. K. Srivastava coll.).

Diagnostic characters : General colour dull blackish brown to black with varying intensity on various body parts and leg joints dirty yellow.

Elytra and wings well developed, former rough and carinate along the costal margin. Male forceps with a branches stout, incurved; genitalia with parameres narrowed apically, distal lobes with distinct virga. Ultimate tergite and forceps and genitalia of male as seen in Figs. 12-13.

Measurements : Male : Length : body 6.1-8.7 mm, forceps 1.5-2.6 mm; Female : Length : Body 6.0-9.0 mm, forceps 1.15-1.6 mm.

Distribution : Worldwide.

LABIDURINAE

Labidura riparia (Pallas)

(Figs. 14-15)

1773. *Forficula riparia* Pallas, *Reise Russ. Reichs.*, 2 : 727 (Sex ?; Shores of Irtysh River, Western Siberia).
 1863. *Labidura riparia*; Dohrn, *Stettin. ent. Ztg.*, 24 : 313.
 1954. *Diplatys himalayana* Baijal and Singh, *Agra Univ. J. Res. (Sci.)*, 3(2) : 455 (3 nymphs, not Male; India : U.P., Nainital dist.).
 1954. *Spongiphora nainitalensis* Baijal and Singh, *Agra Univ. J. Res. (Sci.)*, 3(2) : 456 (Male; India : U.P., Nainital dist.).
 1954. *Erotosis jeolikotensis* Baijal and Singh, *Agra Univ. J. Res. (Sci.)*, 3(2) : 458 (Female; India : U.P., Nainital dist.).
 1954. *Elaunon nainitalensis* Baijal and Singh, *Agra Univ. J. Res. (Sci.)*, 3(2) : 460 (Male; India : U.P., Nainital dist.).
 1986. *Labidura riparia*; Srivastava, *Rec. zool. Surv. India, Occ. Pap.*, 89 : 4.

Material examined : India : Assam, North Cachar Hills, Umlong, 1 Male, 29.vii.1999; Umrang Reservoir, 1 Male, 3 Females, 1.viii.1998 (S. J. S. Hattar coll.).

Diagnostic characters : General colour varies between yellowish brown and dark blackish brown; antennae, legs and wings yellowish brown.

Antennae with 25-36 segments; eyes distinct but shorter than postocular area. Abdomen, in males, gradually enlarging posteriorly; ultimate tergite with posterior margin in middle straight or sometimes with a pair of sharp spines; parameres longer than broad with a short epimrite at apex, internally. Ultimate tergite and forceps and genitalia of males as seen figs. 14-15.

Measurements : Male : Length : body 14.0-24.0 mm, forceps 4.1-10.0 mm; Female : Length : body 12.0-19.10 mm, forceps 3.0-5.0 mm.

Distribution : Worldwide.

FORFICULOIDEA

SPONGIPHORIDAE

LABIINAE

Circolabia curvicauda (Motschulsky)

(Figs. 16-17)

1863. *Forficesila curvicauda* Motschulsky, *Bull. Soc. Imp. Moscou.*, 36 : 2, pl. 2, fig. 1 (Male, Female; Nura Illia Mountains, Ceylon).
 1864. *Labia curvicauda*; Dohrn, *Stettin. ent. Ztg.*, 25 : 428.
 1867. *Platyslabia guineensis* Dohrn, *Stettin. ent. Ztg.*, 26 : 348 (Male; Principle Island).
 1867. *Labia dimitata* Dohrn, *Sttetin. ent. Zeit.*, 26 : 348 (Male; Luzon).

1903. *Labia flavicollis* Bormans in Burr, *Ann. Mag. nat. Hist.*, (7) **11** : 235 (Male; Samoa).
 1904. *Platylabia camerunensis* Borg. *Ark Zool.*, **1** : 570, pl. 1 26, fig. 4 (M) : Cameroon).
 1907. *Platylabia dimitata* var. *guineensis*; Borelli, *Annali Mus. civ. Stor. nat. Giacomo Doria*, **3**(43) : 382.
 1926. *Labia curvicauda* var. *flavicollis*; Borelli, *Treubia*, **8** : 263.
 1976. *Labia curvicauda*; Srivastava, *Rec. zool. Surv. India, Occ. pap.*, **2** : 32.
 1989. *Parabella curvicauda*; Steinmann, *Das Tierreich*, **106** : 497, figs. 920-922.
 1995. *Circolabia curvicauda*; Srivastava, 1995, *Rec. zool. Surv. India*, **95**(1-2) : 102.

Material examined India, Assam, North Cachar Hills, Umrangso, 1 Male, 1996, ex under bark of a log (G. K. Srivastava coll.).

Diagnostic characters : Colour black or brown; head, elytra and wings black; abdomen and forceps reddish brown, often shaded with black in parts; antennae blackish or reddish brown with one or two ante-apical segments pale. Size small, form depressed.

Head convex, hind margin emarginate; eyes small, shorter than postocular length. Elytra and wings well developed, covered with dense microscopic hairs. Penultimate sternite with hind margin rounded. Pygidium transverse, declivent in basal half, hind margin straight. Ultimate tergite and forceps and genitalia as seen in figs. 16-17.

Female : Pygidium narrower and more prominent and forceps simple and straight.

Measurements : *Male* : Length body 5.6-6.8 mm, forceps 0.5-1.1 mm; *Female* Length : body 5.9-7.2 mm, forceps 0.9-1.5 mm.

Distribution Worldwide.

FORFICULIDAE

OPISTHOCOSMIINAE

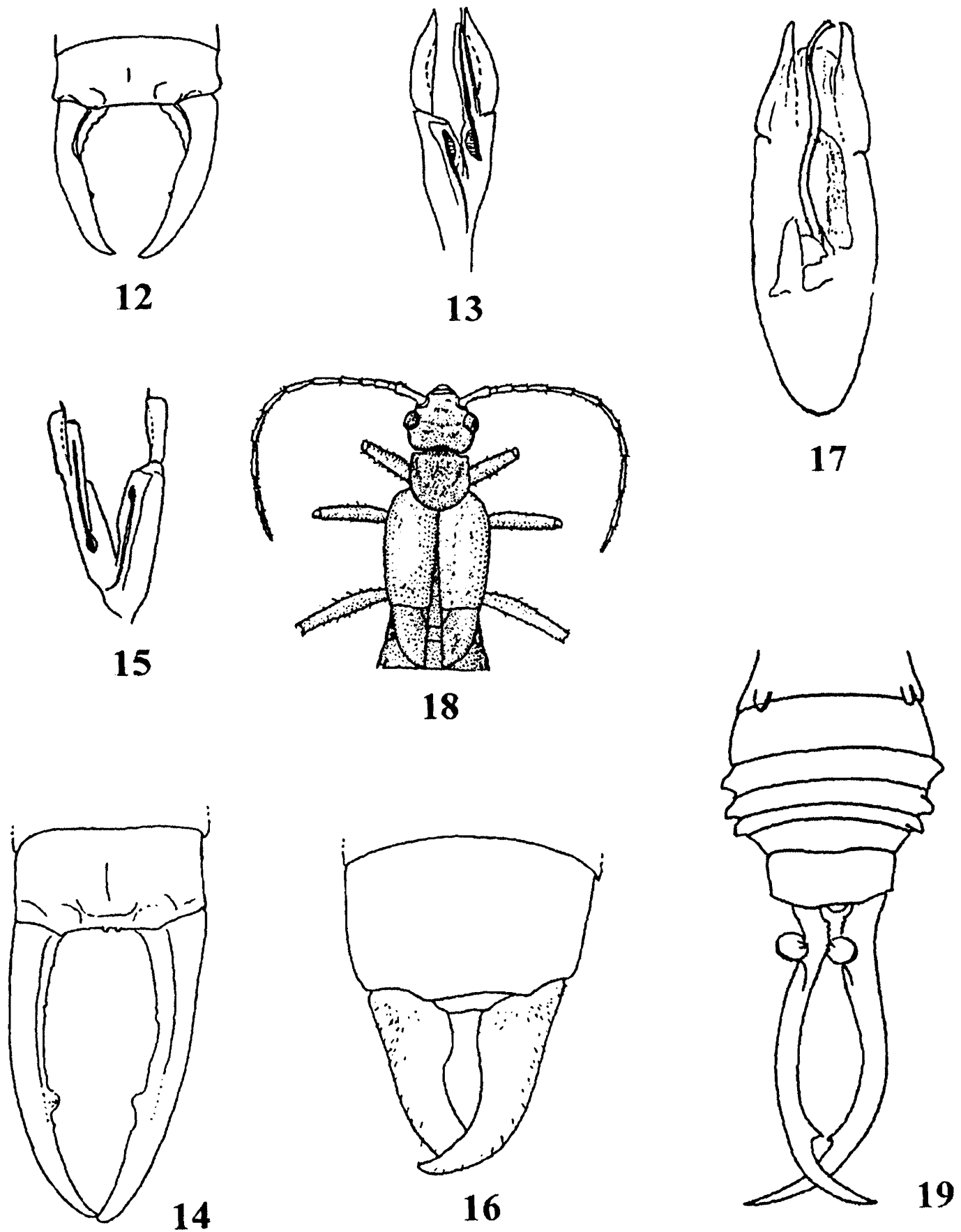
Eparchus insignis (Haan)

(Figs. 18-19)

1842. *Forficula insignis* Haan, *Verh. nat. Gest. nederl. Overz. Bezitt* : 243, fig. 15 not fig. 14 as mentioned in text (Male, Female; Java).
 1865. *Opisthocosmia insignis*; Dohrn, *Stettin. ent. Ztg.*, **26** : 81.
 1907. *Eparchus insignis*; Burr, *Trans. R. ent. Soc. Lond.*, **1907** : 121.
 1954. *Eparchus insignis* (Haan) var. *inermis* Boeseman, *Zool. Verh.*, Leiden, **21** : 114.
 1983. *Eparchus insignis*; Srivastava and Lahiri, *Rec. zool. Surv. India*, **81** : 287 (Meghalaya).

Material examined : India, Assam, North Cachar Hills, Garampani, 2 Females, 26.i.1976 (A. K. Ghosh coll.).

Diagnostic characters : General colour dark brownish black, often lighter, sometimes elytra yellowish brown with a yellow spot.



Figs. 12-19. *Nala lividipes* (Dufour), Male, 12. Ultimate tergite and forceps; 13. Genitalia; *Labidura riparia* (Pallas), Male, 14. Ultimate tergite and forceps; 15. Genitalia; *Circolabia curvicauda* (Motschulsky), Male, 16. Ultimate tergite and forceps; 17. Genitalia; *Eparchus insignis* (Haan), Male, 18. Anterior portion of body; 19. Hind portion of body.

Elytra and wings well developed; legs long and slender, hind tarsi with 1st segment distinctly longer than the remaining two segments together. Sides of abdominal segments 6th to 8th, in males, tuberculated. Ultimate tergite and forceps of males as seen in figs. 19.

Measurements Male : Length : body 7.8-10.4 mm, forceps 3.9-5.6 mm; *Female* : Length : body 8.2-10.5 mm, forceps 2.3-3.4 mm.

Distribution : India, Myanmar, Sri Lanka, Indo-China, Java, Celebes and Hainan Isls.

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REFERENCES

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