Bull. Inst. r. Sci. nat. Belg. Bull. K. Belg. Inst. Nat. Wet.	Bruxelles Brussel	31-VIII-1982
54	ENTOMOLOGIE	11

NOTES ON SOME DERMAPTERA IN THE COLLECTIONS OF INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE

BY

G. K. SRIVASTAVA

Zoological Survey of India, Calcutta

(With 13 textfigures)

The present paper is based upon on a small collection of Dermaptera which comprises 17 species (including 3 identified upto generic level which are represented either by females or nymphs only) under 14 genera. Most of the material was collected from the Oriental Region with a few exceptions from the Solomon Islands. It is proposed to synonymise *Epilandex undulata* RAMAMURTHI, under *E. burri* (BORELLI). Besides, *Epilabis* (*Cryptolabis*) *vallakadaiensis* RAMAMURTHI and DAVID is transferred to the genus *Gelotolabis* BURR, on the basis of male parameres.

I am thankful to the Director, Zoological Survey of India, Calcutta for providing necessary facilities and to Dr. G. DEMOULIN, Chef de la Section Entomologie, Institut royal des Sciences naturelles de Belgique, Bruxelles for placing this interesting collection at my disposal and for very kindly arranging for the publication of this paper.

PYGIDICRANOIDEA

PYGIDICRANIDAE

PYGIDICRANINAE

Tagalina sp.

Material examined. — Iles Salomon, Buin, Ile Bougainville, 1 late nymph (ex coll. J. M. MULLER).

Cranopygia imperatrix (BURR)

Pygidicrana imperatrix BURR, 1899, *Ann. Mag. nat. Hist.*, (7) 3 : 163.

Material examined. — Java : Wynkoopsbay, 1 ♂, 1 ♀ and 1 nymph, Feb., 1937 (Achat LE MOULT).

Distribution. — Sumatra, Java and Borneo.

Cranopygia sp.

Material examined. — India : Tamil Nadu : Yercaud, Shevroy Hills, 4500′, 1 nymph, Feb.-March, 1955 (P. S. NATHAN).

CARCINOPHOROIDEA

CARCINOPHORIDAE

CARCINOPHORINAE

Epilandex burri (BORELLI)
(Figs. 1-7)

Landex Burri BORELLI, 1921, *Bull. Mus. Hist. nat., Paris*, 1921 : 81 (♂, ♀ ; Siam : Bangkok; Type — Paris Museum).

Epilandex burri : HEBARD, 1923, *Mem. Dept. Agric. India, ent. Ser.*, 7 : 27; BORELLI, 1932, *J. Fed. Malay. St. Mus.*, 17 (1) : 181; BOESEMAN; 1954, *Zool. Verh.*, Leiden, 21 : 46; RAMAMURTHI, 1963, *Ann. Mag. nat. Hist.*, (13) 6 : 672; RAMAMURTHI, 1967, *Ent. Medd.*, 35 : 234; RAMAMURTHI, 1968, *Zool. Anz.*, 181 (1 & 2) : 131; KAPOOR, 1969, the *Entomologist* : 117; BRINDLE, 1975, *Ent. Scand. Suppl.*, 1 : 218, figs. 17 & 24.

Epilandex undulata RAMAMURTHI, 1963, *Ann. Mag. nat. Hist.*, (13) 6 : 672, figs. (Holotype ♂; India, Tamil Nadu : Coimbatore — In authors collection). syn. nov.

Material examined. — India : Tamil Nadu: Yercaud, Shevroy Hills, 4500′, 1 ♂ (genitalia mounted between coverslips and pinned with specimen), Feb.-Mar., 1955 (P. S. NATHAN) (I. R. Sc. N. B.); Perumalmalai, Kodaikanal, 5500′, 1 ♂ (genitalia mounted on a slide), under banana sheath, 13.V.1966 (V. C. KAPOOR) (Zoological Survey of India, Calcutta); Coimbatore, Kallar Fruit Research Station, 1500', 1 ♂ (Holotype of *Epilandex undulata* RAMAMURTHI, without genitalia), 8.VI.1963.

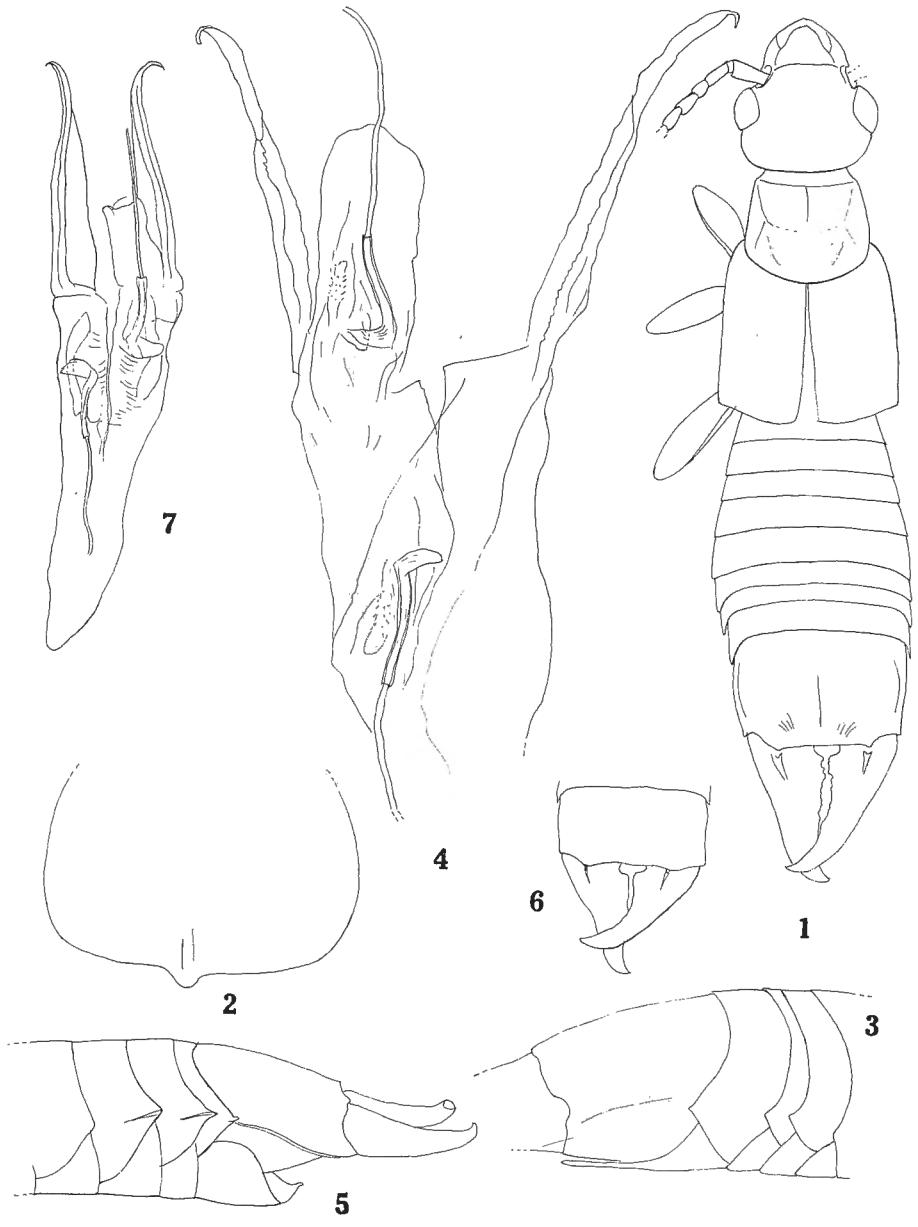

Fig. 1-7. — *Epilandex burri* (BORELLI); ♂ from Shevroy Hills. 1 : Dorsal view; 2 : Penultimate sternite; 3 : Lateral view of hind portion of abdomen; 4 : Genitalia; ♂ from Perumalmalai; 5 : Lateral view of hind portion of abdomen; 6 : Ultimate tergite and forceps; 7 : Genitalia.

Remarks. — The present material agrees well with the original description of the species (BORELLI, 1921) except that the sides of abdominal segments from 7th to 9th are sharply pointed posteriorly and provided with an oblique carina in males from Perumalmalai (Fig. 5) and Coimbatore. However, Borelli (l. c.) mentions that sides of abdominal segments from 4th to 9th are carinate which is rather unusual. Therefore, it would be desirable to check up this point with the type ♂ of this species. Besides, it is interesting to note that the male from Shevroy Hills (Fig. 3) is devoid of any carina on the sides of abdominal segments, which represents a case of individual variation.

The male parameres are long and straight, broader at base and gradually narrowing apically with sharply pointed tip. The external border is thicker and more heavily chitinized than the inner hyaline portion which is flat and thin. Moreover, it tends to be twisted when treated with KOH for clearing and the hyaline portion is not easily visible under the microscope thus giving a false impression of their being very long and narrow. Similarly basal sac of virga also sometimes becomes partly transparent which makes virga look bare, thin and tubular, as has been figured by RAMAMURTHI (1963, fig. 3) for *E. undalata* which is treated here as synonym.

Distribution. — Widely distributed in the Oriental Region.

Epilabis sisera (BURR)

Euborellia sisera BURR, 1914, *Rec. Indian Mus.*, 10 : 286.

Material examined. — India : Tamil Nadu : Yercaud, Shevroy Hills, 4500′, 1 ♂, Feb.-Mar., 1955 (P. S. NATHAN).

Distribution. — Endemic to Peninsular India.

Gelotolabis vallakadaiensis (RAMAMURTHI and DAVID) comb. nov. (Figs. 8-12)

Epilabis (Cryptolabis) vallakadaiensis RAMAMURTHI and DAVID, 1973, *Zool. Anz.*, 190 (5/6) : 439, figs. 9, 10 (Holotype ♂, Shevroy Hills, Vallakadai, 1350 m, under stones — In authors collection).

Material examined. — India : Tamil Nadu : Yercaud, Shevroy Hills, 4500′, 1 ♂ (genitalia mounted between two coverslips and pinned with the specimen), 3 ♀ ♀, 1 nymph, Feb.-March, 1955 (P. S. NATHAN).

Remarks. — The original description of the species is based on a ♂ and the ♀ is described here for the first time. Following additional informations will be useful in identifying the species.

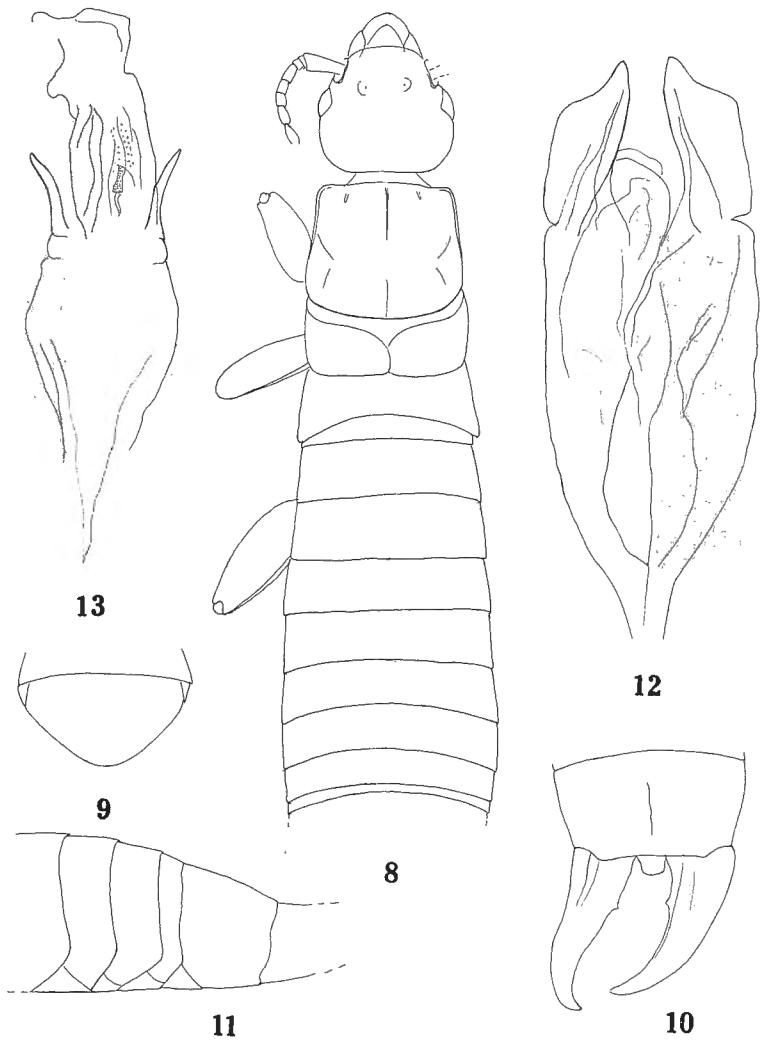

Fig. 8-13. — *Gelotolabis vallakadaiensis* (RAMAMURTHI) ♂; 8 : Dorsal view except ultimate tergite and forceps; 9 : Penultimate sternite; 10 : Ultimate tergite and forceps; 11 : Lateral view of hind portion of abdomen; 12 : Genitalia; *Timomenus bicuspis* (STÅL) ♂; 13 : Genitalia.

♂ : Head punctate in posterior half, longer than broad, feebly emarginate in middle posteriorly, sutures fine, frons moderately convex. Eyes about one third as long as the post-ocular length. Antennae partly broken (only 10 segments present); 1st long, narrowed at base, slightly shorter than the distance betweeen antennal bases; 2nd transverse; 3rd long and slender; 4th about as long as broad, gently expanded apically; 5th longer than 4th but a trifle shorter than 3rd, remaining segments gradually

increasing in length. Pronotum finely punctate, longer than broad, sides diverging posteriorly with hind margin and angles rounded, median sulcus faintly marked in anterior half only. Meso- and metanotum punctate, former with abbreviated elytra, narrowed at base, exposing a tansverse scutellum and posteriorly lobed and meeting along the median line. Abdomen punctate, each tergite near lateral margin with three smooth oval patches, roughly arranged in a triangle; sides of segments convex posteriorly and ecarinate.

♀ : Agrees with male in most characters except that the ultimate tergite more strongly narrowed posteriorly; forceps almost symmetrical and subcontiguous, inner margin with a minute tooth at basal one third.

SRIVASTAVA (1978) while discussing about various species under the genus *Epilabis* BURR, pointed out that this species may be a member of genus *Gelotolabis* BURR. It is now transferred to latter mainly on the shape of parameres which possess slightly projected external apical angle.

Distribution. — Endemic to the mountains of Peninsular India.

LABIDURIDAE

ALLOSTETHINAE

Allostethus setiger VERHOEFF

Allostethus setiger VERHOEFF, 1904, *Arch Naturegesch.*, 1904 : 117.

Material examined. — Java : Djampangs, Tengah, 2 ♂♂, 3 ♀♀, Jan., 1937; Wynkoopsbay, 2 ♂♂, 1 ♀, 1 nymph, Feb., 1937 (Achat LE MOULT).

Distribution. — Thailand, Sumatra and Java.

NALINAE

Nala lividipes (DUFOUR)

Forficula lividipes DUFOUR, 1829, *Annals. Sci. nat.*, 13 : 340.

Material examined. — India : Tamil Nadu : Yercaud, Shevroy Hills, 4500′, 5 ♂♂, 5 ♀♀, Feb.-Mar., 1955 (P. S. NATHAN).

Distribution. — Widely distributed all over the world.

LABIDURINAE

Labidura riparia (PALLAS)

Forficula riparia PALLAS, 1773, *Reise Russ. Reichs.*, 2 : 727.

Material examined. — India : Tamil Nadu : Yercaud, Shevroy Hills, 4500', 3 ♂♂, 2 ♀♀, Feb.-Mar., 1955 (P. S. NATHAN); Iles Salomon : Buin, Ile Bougainville, 1 ♂ (ex. coll. J. MULLER); Nouvelle-Guinée : Irian Barat, Sentani, 2 ♀♀, 18.III.1973; Irian Gaya, 2 ♂♂, 2.IV.1973 (X. MISONNE).

Distribution. — World wide.

FORFICULOIDEA

CHELISOCHIDAE

CHELISOCHINAE

Hamaxas feae (BORMANS)

Chelisoches feae BORMANS, 1894, *Ann. Mus. Civ. Stor. nat. Giacomo Doria*, (2) 14 : 393 (Burma).

Material examined. — Java : Wynkoopsbay, 1 ♂, Feb., 1937 (Achat LE MOULT).

Distribution. — Widely distributed in Oriental Region. Also reported from New Guinea and New Zealand.

Hamaxas sp.

Material examined. — Celebes : Iles Molluques, Menado, 1 ♀ (VAN BRAECKEL).

Remarks. — In the absence of ♂ it is not possible to determine this specimen upto specific level.

Chelisoches morio (FABRICIUS)

Forficula morio FABRICIUS, 1775, *Syst. ent.* : 70.

Material examined. — Iles Salomon : Buin, Ile Bougainville, 5 ♂♂, 6 ♀♀ (ex coll. J. MULLER).

Distribution. — Widely distributed in Oriental Region and Pacific Islands.

FORFICULIDAE

ALLODAHLINAE

Allodahlia scabriuscula (SERVILLE)

Forficula scabriuscula SERVILLE, 1839, *Histoire Naturelle des Insectes Orthoptères* : 38.

Material examined. — Java : Wynkoopsbay, 1 ♂, Feb., 1937 (Achat LE MOULT).

Distribution. — Widely distributed in Oriental Region.

Allodahlia coriacea (BORMANS)

Anechura coriacea BORMANS, 1894, *Ann. Mus. Stor. nat. Giacomo Doria*, (2) 14 : 403.

Material examined. — Java : Djampangs, Tengah, 1 ♂, 1 ♀, Jan., 1937; Wynkoopsbay, 1 ♂, 1 ♀ (Achat LE MOULT); Birmanie : Carin Cheba, 900-1000 m, 1 ♂, 1 ♀, May-Dec., 88; Bhamo, 1 ♂, Nov., 1886 (L. FEA); det. by BORMANS (1883) as *Allodahlia ancylura* DOHRN and by VANSCHUYTBROECK, 1969 as *Allodahlia macropyga* (WESTWOOD).

Distribution. — Widely distributed in the mountain regions of Oriental Region.

Remarks. — The specimens from Burma possess clear yellow wings. The body punctation and the shape of pygidium agree well with the type of the species.

FORFICULINAE

Forficula beelzebub (BURR)

Chelisoches beelzebub BURR, 1900, *Ann. Soc. Ent. Belg.*, 44 : 51.

Material examined. — China : Yunnan Fou San. Nen Kai, 1 ♂, 3 ♀♀ (ex coll. LE MOULT).

Distribution. — It occurs in mountains of N. India, Nepal, Bhutan, Burma, Tibet and China. Adventive to Africa.

OPISTHOCOSMIINAE

Eparchus insignis (HAAN)

Forficula insignis HAAN, 1842, *Verh. nat. Gesch. Nederl. Overz. Bezitt. Orth.* : 243.

Material examined. — India : Tamil Nadu : Yercaud, Shevroy Hills, 4500′, 3 ♂♂, 7 ♀♀, Feb.-Mar., 1953 (P. S. NATHAN).

Distribution. — Oriental Region.

Timomenus bicuspis (STÅL)
(Fig. 13)

Forficula bicuspis STÅL, 1860, *Eug. Risa Ins.* : 301.

Material examined. — Java : Wynkoopsbay, 2 ♂♂, 1 ♀, Feb., 1937 (Achat LE MOULT).

Remarks. — This species can be easily distinguished from other members of the genus by the presence of two vertical spines on the hind margin of ultimate tergite. Male genitalia (Fig. 13) is figured here for the first time.

Distribution. — Malaysia and Java.

REFERENCES

BORELLI, A.

1921. Dermaptères nouveaux du Muséum Paris. — *Bull. Mus. Hist. nat. Paris*, 1921 : 77-83.

BORMANS, A. de

1883. Etude sur quelques Forficulaires nouveaux ou peu connus précédée d'un tableau synoptique des genres de cette famille. — *Ann. Soc. ent. Belg.*, 27 (2) : 59-90.

RAMAMURTHI, B. N.

1963. Notes on Indian Dermaptera. — *Ann. Mag. nat. Hist.*, (13) 6 : 671-676.

SRIVASTAVA, G. K.

1978. On a new genus and three new species of Dermaptera from India with notes on Epilabis BURR. — *Bull. zool. Surv. India*, 1 (1) : 71-76.

STEINMANN, H.

1979. The Dermaptera in the P.A.N. Zoologiczny Instytut, Warszawa.. — *Fol. ent. hung.*, 32 (1) Series Nova : 149-175.

VANSCHUYTBROECK, P.

1969. Catalogue des Dermaptera des collections entomologiques de l'Institut royal des Sciences naturelles de Belgique. — *Bull. Inst. r. Sci, nat. Belg.*, 45 (41) : 1-22.