

# REICHENBACHIA

STAATLICHES MUSEUM FÜR TIERKUNDE IN DRESDEN

Bd. 19

Ausgegeben: 15. Dezember 1981

Nr. 24

## The Survey of the Dermaptera Material in the Staatliches Museum für Tierkunde Dresden

Part I: Catadermaptera

With 19 Figures

HENRIK STEINMANN

Budapest

**Abstract.** A revision of the Dermaptera material preserved in the Staatliches Museum für Tierkunde Dresden, 100 known and 4 new species could be established. Description of the new species *Gonolabis panayica* (Part I), *Nesogaster fulgor*, *Auchenomus pueritis*, and *Diaperasticus krausei* (Part II).

In recent years I have been studying the Dermaptera material of various Museum in Europe. Through the kindness of Dr. R. KRAUSE I had the opportunity to study and elaborate the earwings material of the Dresden Museum. The great majority of the several hundreds of dry specimens derive from the circumtropical regions. The best proportion of the material is very old, mostly purchased from private collectors supplied with old labels and specific nomenclature making it thereby rather difficult to interpret, thus, the material can best be evaluated from taxonomical point of view mainly. Owing to this fact, the examined specimens shall not be listed in detail, in order to avoid misunderstandings, but will be summed up in a concise form. A great value of this collection is that almost all Dermaptera materials arriving to German soil were directed to Berlin in the Museum für Naturkunde, thus, very little has been known about the Dermaptera material preserved in the Dresden Museum.

The present paper gives a survey of this material from taxonomical viewpoint well complemented with the genital apparatus of the males of the types and of the less known species.

Family 1: Pygidicranidae VERHOEFF, 1902

Subfamily: Anataelinae BURR, 1909

**Anataelia canariensis** BOLIVAR, 1899

Act. Soc. esp. Hist. nat., 1899: 98.

Distribution: Canary Islands.

Material examined: Islas Canarias, Teneriffa, Cabrera, 3 females.

Subfamily: Diplatyinae VERHOEFF, 1902

**Schizodiplatys sublobatus** (BORELLI, 1923)

Boll. Mus. Zool. Anat. comp. Univ. Torino 38 N. S., nr. 13: 3.

Distribution: Philippines Islands.

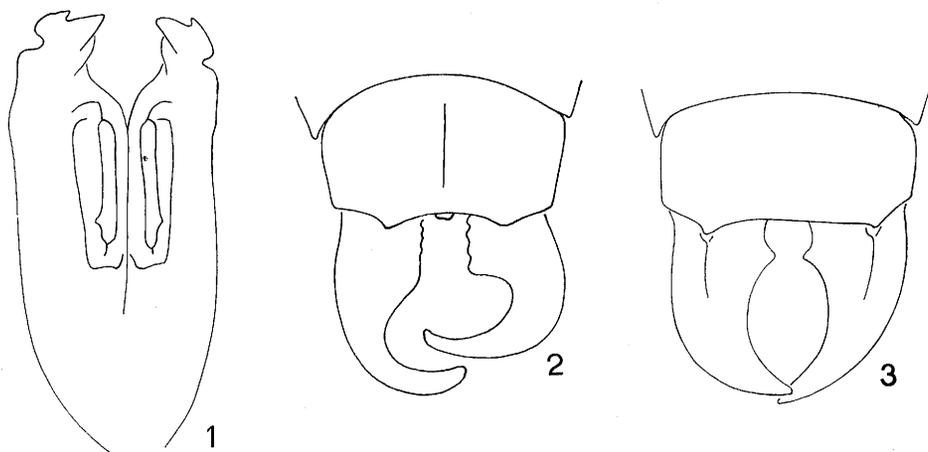
Material examined: Philippines, Luzon, Mt. Banahao, 1 male, 1 female, 2 broken specimen.

Subfamily: Esphalmeninae BURR, 1909

**Esphalmenus lativentris** (PHILIPPI, 1863)

Zeitschr. ges. Naturw. 21: 217.

Distribution: Chile, Argentina, Brazil, Peru.



Figs. 1—3. 1: Male genital armature of *Esphalmenus lativentris* (PHILIPPI, 1863) — 2: Ultimate tergite with forceps of *Anisolabis maritima* (GENÉ, 1852) — 3: Ditto, of *Gonolabis tanganyikae* BRINDLE, 1964 (Original)

Material examined: Valdivia, 445, „*Brachylabis chilensis*“, gen. prep. No. 690, det. Dr. H. STEINMANN, 1 male. — Chile, 1 male. Without labels 1 male, gen. prep. No. 722, det. Dr. H. STEINMANN, and ditto, 2 males and 4 females.

Male forceps strongly curved, slightly thickened proximad; its latter portion without upper tooth and slender portion also dentate. Male genitalia (Fig. 1) well developed, large; paramere broad, median longitudinal incision of anterior margin between external parameres deep; genital lobes fully developed, virga with long basal vesicle. External paramere specific; outer external parameral process relatively small, acute terminating in a ridge or tubercle.

Subfamily: *Pyragrinae* BURR, 1909

***Pyragra fuscata fuscata*** AUDINET-SERVILLE, 1831

Ann. Sci. nat., 22: 34.

Distribution: Central America (Mexico to Nicaragua), Guianas, Colombia, and Ecuador. Material examined: Guatemala, Panzos, 4 females.

***Pyragra fuscata brasiliensis*** (GRAY, 1832)

In: GRIFFITH, Animal Kingdom 15: 184.

Distribution: Southern Brazil, Paraguay, and Argentina.

Material examined: Brazil: Espirito Santo, Theresopolis, Rio Grande do Sul, 10 specimens.

Subfamily: *Pygidicraninae* BURR, 1908

***Dacnodes frontalis*** (KIRBY, 1903)

Ann. Mag. nat. Hist. (7) 11: 61.

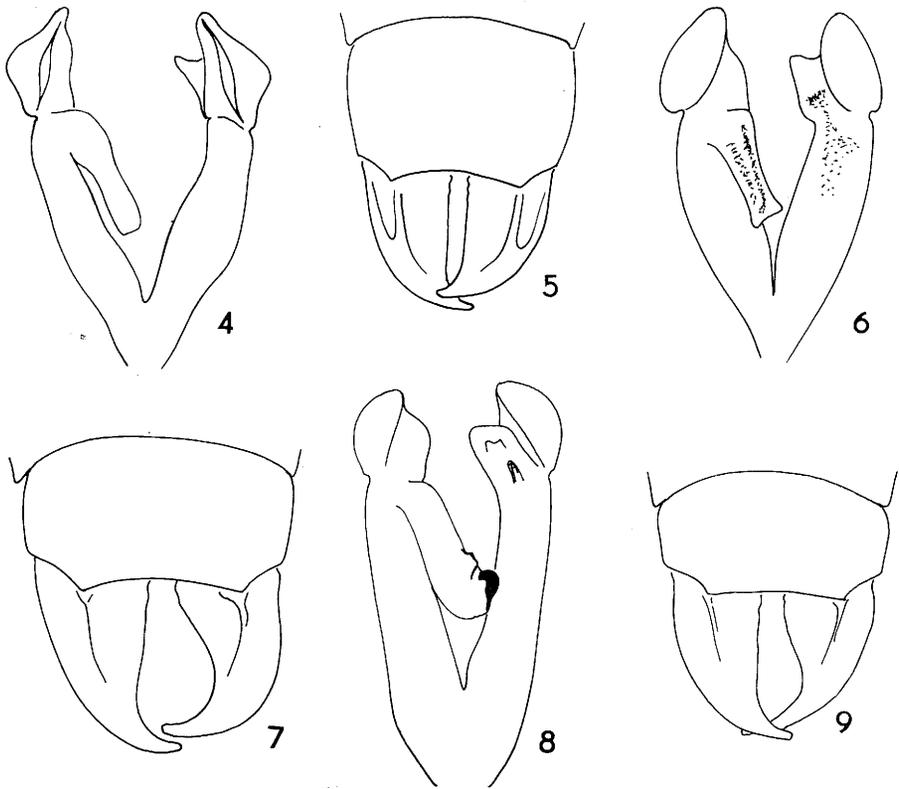
Distribution: Cameroons.

Material examined: Umg. Kamerunberg, 1 female.

***Tagalina grandiventris*** (BLANCHARD, 1853)

Voy. Pole Sud. 4: 349.

Ultimate tergite rather abruptly expanded, its surface dull, granulate; median longitu-



Figs. 4–9. 4: Male genital armature of *Gonolabis tanganyikae* BRINDLE, 1964 – 5: Male ultimate tergite with forceps – 6: Male genital armature of *Gonolabis panayica* sp. n. – 7: Male ultimate tergite with forceps – 8: Male genital armature of *Euborellia annulipes* (LUCAS, 1847) – 9: Male ultimate tergite with forceps of *Euborellia stali* (DOHRN, 1864) (Original)

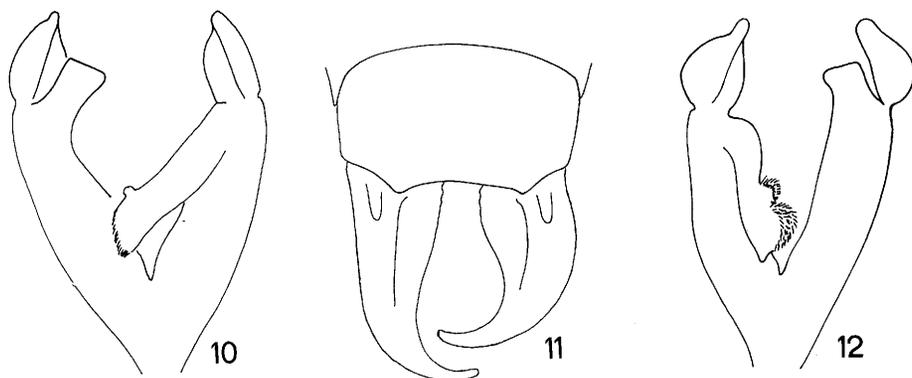
dinal sulcus present. Forceps of male asymmetrical, strongly trigonal basally, cylindrical and curved apically; left branch broader at base than right. Male genitalia characteristic, extraordinary, paramere broad, genital lobes developed, virga specific, bell-shaped, short.

Distribution: Solomon Islands, Bismarck and Admiralty Islands, Buru and Ceram. Material examined: Luzon, Laguna Paete, and Mt. Banahao. New for fauna of Philippines; 7 ex.

***Tagalina semperi* DOHRN, 1863**

Stett. ent. Zeit. 24: 45.

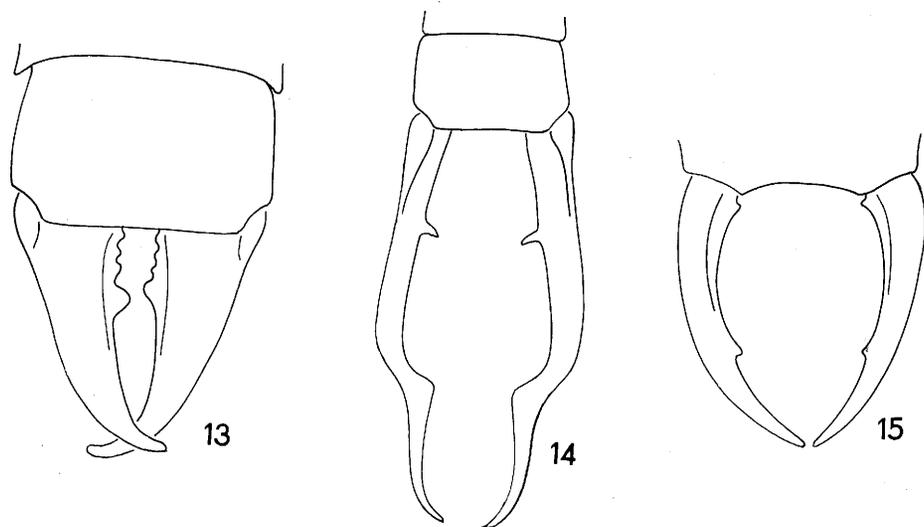
Abdomen finely sculptured and pubescent, expanded to last tergite. Ultimate tergite very broad, strongly inflated, tuberculate laterad in middle; posterior margin truncate or slightly concave mesad, flanked on each side by a large tubercle which projects above forceps. Forceps of male asymmetrical, left branch broad and flattened in basal portion, thence narrowed and curved to pointed apex.



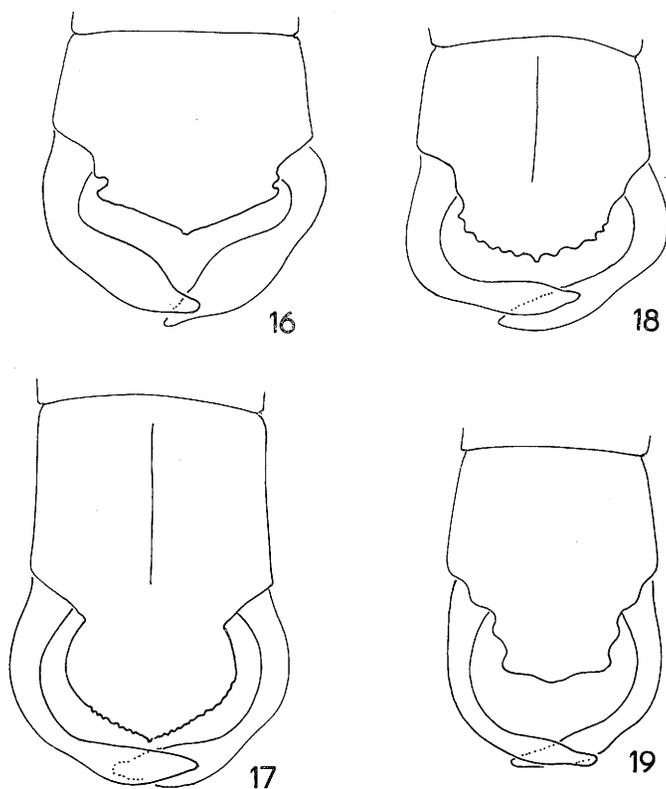
Figs. 10–12. 10: Male genital armature of *Euborellia stali* (DOHRN, 1864) – 11: Male ultimate tergite with forceps – 12: Male genital armature of *Euborellia modesta* (GENÉ, 1839) (Original)

Distribution: Philippines to New Guinea.

Material examined: Kaiser Wilhelmsland, Toricelli Gebirge, 1 male, 2 females, and 1 immature.



Figs. 13–15. 13: Ultimate tergite and forceps of *Allostethus indicum* (BURMEISTER, 1838) – 14: Male abdominal end with forceps of *Forcipula trispinosa* (DOHRN, 1863) – 15: Male forceps of *Nala lividipes* (DUFOUR, 1820) (Original)



Figs. 16–19. Ultimate tergite with forceps of: 16: *Apachyus beccari* DUBRONY, 1879 – 17: *A. charthaceus* (DE HAAN, 1842) – 18: *A. depressus* (BEAUVOIS, 1805) – 19: *A. javanus* VERHOEFF, 1902 (Original)

Subfamily: Echinotermatinae BURR, 1910

***Echinotermes sumatranum*** (DE HAAN, 1842)

Verh. nat. Ges. Orth., p. 241.

Abdomen strongly punctured, setulose and pubescent on proximal tergites; lateral areas of abdominal tergites rounded with those of 6th and 7th obtusely angled and more or less carinate. Pygidium exposed for a short distance, transverse and pubescent.

Distribution: From North India to Australia.

Material examined: Kaiser Wilhelmsland, Neu Pommern, Mindoro, N. Palawan and Mindanao; 45 ex.

***Echinotermes philippinense*** HINCKS, 1959

Syst. Mon. Dermaptera 2: 156.

Abdomen broadest about middle, gradually contracted to last tergite; sides of abdominal tergites produced, rounded with a most faint traces of carinae on the 6th and 7th. Ultimate tergite sparsely and somewhat irregularly punctured, with very short and slender setae. Pygidium very broad, concave mesad, subtuberculate at caudal angles.

Distribution: Philippines.

Material examined: Philippinen, Panay Island, Surigao, Luzon, Siargao, Ripong, Mindanao; 74 ex.

Subfamily: *Cylindrogastriinae* MACCAGNO, 1929

***Cylindrogaster thoracicus*** DOHRN, 1863

Stett. ent. Zeit. 24: 59.

Pronotum longer than broad, parallel-sided, with a dark lateral stripe. Abdomen slender, cylindrical. Forceps long, elongated; trigonal basally, cylindrical apically.

Distribution: Brazil.

Material examined: Brazil, Petropolis, 2 ex.

Family 2: *Carcinophoridae* POPHAM, 1965

Subfamily: *Carcinophorinae* HINCKS, 1954

***Carcinophora americana*** (BEAUVOIS, 1817)

Ins. rec. Afr.-Amer., Orth., p. 165.

Large and robust species. Male forceps asymmetrical, relatively long, branches slender; trigonal basally, cylindrical apically. Forceps of female symmetrical, contiguous, tapering. Tegmina well developed, wings fully or rather short.

Distribution: West Indies: Cuba, Jamaica, Haiti, Puerto Rico, Hispaniola, and recorded from Guatemala, Nicaragua, Costa Rica, Panama, Ecuador, Venezuela, Colombia, and Peru.

Material examined: Haiti, 3 females.

***Carcinophora rosenbergi*** (BURR, 1899)

Ann. Mag. nat. Hist. (7) 4: 253.

Abdomen elongated, more or less parallel-sided, or a little expanded to 5th and 6th abdominal segments. Male forceps asymmetrical, trigonal basally, with a large dorsal ridge, and cylindrical apically. Female forceps symmetrical, tapering, slender, contiguous.

Distribution: Ecuador and Colombia.

Material examined: Bucay, 3 females.

***Carcinophora gagatina*** (KLUG apud BURMEISTER, 1838)

Handbuch der Entomologie 2: 753

Distribution: Puerto Rico, Colombia.

Material examined: Colombia, 1 female.

***Titanolabis colossea*** (DOHRN, 1864)

Stett. ent. Zeit. 25: 286.

Male very large-sized, yellowish-brown. Wingless species. Abdomen expanded to 5th and 6th abdominal tergites; smooth, broad and flat. Ultimate tergite as long as wide, posterior margin truncate. Male genitalia very specific, paramere long and relatively narrow, median incision of anterior margin deep and wide, plate thereby narrow V-shaped. Female forceps with branches subcontiguous at the base, stout, and robust; gradually tapering, with the inner margin crenulate.

Distribution: New Caledonia, New Hebrides, Fiji, Australia: New South Wales, Queensland.

Material examined: New South Wales, 1 female.

***Anisolabis maritima*** (GENÉ, 1852)

Ann. Soc. Nat. Regn. Lomb. Venet. Padova 2: 224.

Male forceps (Fig. 2) asymmetrical, branches remote and trigonal at base, in the basal portion stout, straight, and somewhat dilated, especially the right branch; the left

branch being gently and regularly incurved inwards, so that the apical third of the branch is at angles to the longitudinal axis; outer margin presents a regular curve; inner margin is curved in a semicircular and shows rectangular projection at the basal third where the attenuation.

Distribution: Cosmopolitan.

Material examined: Panama, Canary Islands, 32 ex.

**Gonolabis tanganyikae** (BRINDLE, 1964)

Ann. Mag. nat. Hist. (13) 7: 754.

Male forceps (Fig. 3) of *Gonolabis*-type: asymmetrical, trigonal basally, cylindrical and curved apically; inner margin with large tooth. Genitalia (Fig. 4) characteristic; paramere strongly V-shaped, median longitudinal incision between external parameres very broad and deep; genital lobes without virga; external paramere widened medially.

Distribution: Tanzania.

Material examined: D. O. Afrika, 2 ex.

**Gonolabis panayica sp. n.**

Male colour reddish dark brown, mouthparts and antennae brown, head shining, red, pronotum and ultimate tergite shining reddish-brown, abdomen coriaceous, reddish; legs yellowish brown but femora with dark brown bands. Head tumid, postfrontal and coronal sutures indistinct. Eyes normal, shorter than the length of the behind eyes. Antennae broken in holotype, first antennal joint relative long, but a little shorter than the distance between antennal bases; second joint short, transverse, third long, longer than the fourth joint. Pronotum quadrate, lateral margins parallel-sided, all angles rounded; median longitudinal furrow indistinct. Tegmina and wings entirely absent. Mesonotum and metanotum transverse, abdomen a little expanded to median segments. Ultimate tergite shining, broad, typical. Forceps (Fig. 5) stout and broad, trigonal basally, a little curved and cylindrical apically; inner margins straight, crenulate, without large tooth. Genitalia (Fig. 6) very characteristic; paramere well developed, V-shaped, median longitudinal incision of anterior margin deep; genital lobes without virgae, a little similar to *G. formosae* (BORELLI), but narrowed. External paramere specific, oval, not expanded to middle zone. Length of body with forceps: 18 mm.

Female unknown.

Holotype male: Panay Island (Arabean Ocean at South India), Capiz, Jamindan, coll. W. SCHULTZE, gen. prep. No. 689, det. Dr. H. STEINMANN, Coll. W. SCHULTZE Ankauf 1942. Deposited in the Staatliches Museum für Tierkunde Dresden, DDR.

Identification key  
to the Oriental group of *Gonolabis* species

- |    |   |   |
|----|---|---|
| 1  | External paramere of male genitalia hardly broadened medially   | 2 |
| 1' | External paramere of male genitalia normal, medially not hardly broadened; characteristic, oval; genital lobes marbles. Ultimate tergite broad, posterior margin convex; forceps more or less symmetrical; inner margin straight. <b>G. panayica sp. n.</b> |   |
| 2  | Median incision of anterior margin of male paramere narrow; genital lobes relatively short, external paramere candy-light-shaped, a little of <i>Apolabis</i> -type. <b>G. formosae</b> (BORELLI)   |   |
| 2' | Median incision of anterior margin of male paramere broad and deep, characteristic; external paramere egg-shaped; male forceps strongly asymmetrical, hardly trigonal basally, and curved apically. <b>G. mystica</b> STEINMANN                             |   |

**Euborellia annulipes** (LUCAS, 1847)

Ann. Soc. Ent. France (2) 5: 84.

Tegmina and wings completely absent. Meso- and metanotum normal. Abdomen faintly punctured, depressed, tergites 7-9 with sides rugose but only tergites 7-8 with a lateral longitudinal ridge, on each side. Ultimate tergite broad; forceps (Fig. 7) asymmetrical. Genitalia (Fig. 8) with specific genital lobe, its latter with sclerotized plates at apically.

Distribution: Cosmopolitan, distributed in all faunal regions.

Material examined: Italia, Canary Islands, Formosa, Indonesia; 15 ex.

**Euborellia stali** (DOHRN, 1864)

Stett. ent. Zeit. 25: 286.

Tegmina present as small ovate flaps on the side of the mesonotum. Abdomen punctured, expanded to middle. Ultimate tergite broad, transverse, without median longitudinal sulcus. Forceps (Fig. 9) of male broad basally, and a little trigonal, inner margins crenulate; tapering and cylindrical in the apical half. Genitalia (Fig. 10) specific; paramere strongly V-shaped, very deep and wide; genital lobes without virgae, but with sclerotized pads apically.

Distribution: Cosmopolitan.

Material examined: North Palawan, 2 ex.

**Euborellia moesta** (GENÉ apud AUDINET-SERVILLE, 1839)

Hist. Nat., Orth., p. 28.

Ultimate tergite broad, transverse, with faintly median longitudinal sulcus. Forceps (Fig. 11) asymmetrical, trigonal basally, strongly curved apically. Genitalia (Fig. 12) very similar to *E. annulipes* (LUCAS), but genital lobes with specific pads apically. External paramere oval, apex obtuse.

Distribution: Europe: Spain, France, Italy; Africa: Tunisia and Ethiopia.

Material examined: Sicilia, Canary Islands, 7 ex.

Subfamily: *Brachylabinae* BURR, 1909

**Brachylabis coriacea** BURR, 1910

Trans. Ent. soc. London, 1910: 192.

Distribution: Brazil.

Material examined: Brazil, Petropolis, 1 immature.

Family 3: *Labiduridae* VERHOEFF, 1902

Subfamily: *Allostethinae* VERHOEFF, 1904

**Allostethus indicum** (BURMEISTER, 1838)

Handbuch der Entomologie 2: 751.

Abdomen normal, ultimate tergite with median longitudinal sulcus. Penultimate sternite strongly punctured, with a broad longitudinal ridge medially. Male forceps (Fig. 13) asymmetrical, strongly widened basally, cylindrical except near base which is flattened ventrally. Female similar to male, but penultimate sternite without ridge.

Distribution: Java, Borneo, Celebes, Sumatra, Malaya, and Philippines.

Material examined: Java, 8 ex.

Subfamily: *Labidurinae* BURR, 1909

**Labidura riparia** (PALLAS, 1773)

Reise Russ. Reich 2: 727.

Distribution: Cosmopolitan.

Material examined: Bulgarien, Hispania, GDR: Sachsen, France, USSR: Ukrajna: Kiev, Islas Canarias, Aegypt, Morocco, Tunisia, Asia Minor, China, Persia; 120 ex.

**Forcipula trispinosa** (DOHRN, 1863)

Stett. ent. Zeit. 24: 310.

Abdomen with spines on tergites 3–5. Abdominal segments 3–5 with one flattened thorn-like spine on each side which is at the end of an oblique crest. Ultimate tergite large, transverse, with median longitudinal sulcus. Forceps (Fig. 14) of male very long, with large, acute ventro-lateral tooth at first, basal portion.

Distribution: India, Burma.

Material examined: Luzon (new for the fauna of the Philippines), 1 male, and 6 females.

Subfamily: *Nalinae* STEINMANN, 1975**Nala lividipes** (DUFOUR, 1820)

Ann. Gen. Sci. Phys. 5: 316.

Tegmen long, well developed, finely tuberculate, each tegmen with a lateral longitudinal keel. Wings fully developed. Abdomen broad, depressed, sometimes widened medially or posteriorly. Forceps (Fig. 15) of male arcuate, without a basal inner tooth, and with or without a small ventromedian tooth towards apex.

Distribution: From Southern Europe into North Africa and the eastern half of Africa south of the Sahara, into Arabia, Iran and eastwards into India and other parts of South-east Asia, China, Japan and the Philippines, and Australia.

Material examined: Philippines: Manila, Madagascar, and Neu Pommern; 22 ex.

Family 4: *Apachyidae* VERHOEFF, 1902Subfamily: *Apachyinae* BURR, 1915**Apachyus beccari** DUBRONY, 1879

Ann. Mus. Stor. Nat. Genova 14: 349.

Abdomen parallel-sided at laterally; abdominal tergites punctured, ultimate tergite very broad, anal process triangular, but very short (Fig. 16), with serration on posterior margin.

Distribution: New Guinea, New Britain.

Material examined: Neu Pommern, 3 males.

**Apachyus charthaceus** (DE HAAN, 1842)

Verh. Nat. Ges. Nederl. Overs. Bezitt., Orth., p. 239.

Ultimate tergite broad, a little depressed ventrally, median longitudinal sulcus well marked; anal process is almost rounded (Fig. 17), with marginal serration prominent. Forceps typical, of *Apachyus*-type.

Distribution: Java, Borneo, Sumatra.

Material examined: Java, 1 male.

**Apachyus depressus** (PALISOT DE BEAUVOIS, 1805)

Ins. rec. Afr.-Amer., Orth., p. 36.

Abdomen almost parallel-sided, rather narrowed towards base; rugosely punctured. Ultimate tergite with depressed anal process, its latter rounded (Fig. 18); posterior serration prominent. Median longitudinal sulcus present.

Distribution: West and Central Africa.

Material examined: D. O. Afrika, and Umg. Kamerunberg; 2 ex.

**Apachyus javanus** VERHOEFF, 1902

Zool. Anz. No. 665: 200.

Abdomen more or less parallel-sided, ultimate tergite elongated, median longitudinal sulcus indistinct. Anal process of ultimate tergite characteristic, as in Fig. 19; posterior margin of anal process undulate.

Distribution: Java, Sumatra.

Material examined: Luzon (new for the fauna of the Philippines), 1 male.

**References**

- BOESEMAN, M., 1954: The Dermaptera in the Museum at Leiden and Amsterdam. — Zool. Verh. Leiden **21**: 1–122.
- BRINDLE, A., 1973: The Dermaptera of Africa, Part I. — Mus. Roy. Afr. Centr., Tervuren, **8**: 1–335.
- BURR, M., 1911: Dermaptera. In: Genera Insectorum **122**: 1–112.
- HINCKS, W. D., 1955: A systematic Monograph of the Dermaptera of the World. Part I. London, pp. 218.
- DOHRN, H., 1862–1867: Versuch einer Monographie der Dermapteren. — Stett. ent. Zeit. **23**: 225–238, **24**: 35–66, **25**: 68–99, **28**: 341–343.
- SAKAI, S., 1970–1973: Dermapterorum Catalogus Praeliminaris. I.–VII. — Daito Bunka Univ. Tokyo *I*: 1–91, *II*: 1–177, *III*: 1–68, *IV*: 1–14, *V*: 1–162, *VI*: 1–265, *VII*: 1–357.
- STEINMANN, H., 1975: Suprageneric Classification of Dermaptera. — Acta Zool. Acad. Sci. Hung. **21**: 195–220.

## Author's address:

Dr. H. Steinmann, Zoological Department, Hungarian Natural History Museum  
H - 1088 Budapest, Baross u. 13; Hungary