BULLETIN OF THE UNIVERSITY OF UTAH

Volume 29 June 28, 1939 No. 12

On a Collection of Chilopods from the East Indies

BY

RALPH V. CHAMBERLIN

BIOLOGICAL SERIES, Vol. V, No. 2

PUBLISHED BY
THE UNIVERSITY OF UTAH
SALT LAKE CITY

THE UNIVERSITY PRESS
UNIVERSITY OF UTAH
SALT LAKE CITY

On a Collection of Chilopods from the East Indies

By RALPH V. CHAMBERLIN

The present paper is a report upon a collection of chilopods received for identification from the Buitenzorg Museum, Java, through the courtesy of Dr. Dammerman.

CRYPTOPIDAE

Cryptops doriae Pocock

Cryptops doriae Pocock, Ann. Mus. Civ. Genova, 1891, vol. 31, p. 421.

Locality.—Java Sea: Woehler I., taken 21 Oct., 1921, by Dammerman.

Otocryptops melanostomus (Newport)

Scolopocryptops melanostoma Newport, Trans. Linn. Soc., 1845, vol. 19, p. 406.

Otocryptops melanostoma Pocock, J. Linn. Soc. London, 1891, vol. 24, p. 464

Localities.—New Guinea: Doormanpad, 2000-2900 m., 30 Oct., 1920, coll. by W. C. van Heurn; Pionierbivak, June-Aug., 1920, coll. by W. C. van Heurn

OTOSTIGMIDAE

Otostigmus punctiventer (Tomosvary)

Branchiotrema punctiventer Tomosvary, Term. Fuz., 1885, vol. 9, p. 66.

Otostigmus punctiventer Pocock, in Willey's Reisen, 1898, vol. 1, p. 61.

Localities.—New Guinea: Doormanpad, Oct., 1920, W. C. van Heurn; Pionierbivak, 1920, W. C. van Heurn.

Sumatra: Lampongs, Wai Lima, Nov.-Dec., 1921, coll. Karny and Siebers.

New Guinea: Bataviabivak, 25 Aug., 1920, W. C. van Heurn.

Otostigmus spinosus (Porath)

Otostigmus spinosus Porath, Bih. K. Sv. Vet. Ak. Handl., 1876, IV, No. 7, p. 22.

Sumatra: Lampongs, Wai Lima, Nov.-Dec., 1921, coll. Karny and Siebers.

Otostigmus loriae (Silvestri)

Otostigma loriae Silvestri, Ann. Mus. Civ. Genova, 1894, vol. 39, p. 627.

Otostigmus loriae Kraepelin, Rev. der Scolopendriiden, 1903, p. 117.

Locality.—New Guinea: Pionierbivak.

Otostigmus telus, sp. nov.

Color olive brown.

Antennae of holotype consisting of 23 articles of which the first 2⅓ - 2¼ are glabrous.

Dorsal plates sulcate from fifth segment and margined from eighth or ninth caudad. Posterior tergites with conspicuous but low and rounded ridges which become lower and less developed forward, fading out on about fifth segment; surface not densely clothed with very fine spinous points. Last dorsal plate strongly margined laterally, the caudal margin obtusely angular; a deep longitudinal impression extending from caudal point forward beyond middle of length.

Sternites smooth. Last ventral plate considerably narrowed caudad with caudal margin considerably curved.

Coxopleurae shortly produced; the produced portion shorter than the basal part, ending in three terminal sides, with two lateral spines and none on dorsal surface.

Legs 1 to 19 with 2 tarsal spines; twentieth pair with one tarsal spine, last with none.

Femur of anal legs ventrally with 3 spines within and 3 without; one spine on inner upper margin in line with the very small spine at distal end.

Length, about 48 mm.

Locality.—New Guinea: Pionierbivak. One specimen taken June-Aug., 1920, by Dr. van Heurn.

A species close to *O. loriae* Silvestri.

Ethmostigmus platycephalus (Newport)

Heterostoma platycephala Newport, Trans. Linn. Soc., 1845, vol. 19, p. 415.

Ethmostigmus platycephalus Kraepelin, Rev. Scolopendriden, 1903, p. 162.

Localities.—New Guinea: Bivak Holsin, Mar. 5, 1910; Prauvenbir; Swaust Valley, Nov., 1920; Doormanpad, Oct., 1920.

Ethmostigmus platycephalus loriae (Silvestri)

Heterostoma loriae Silvestri, Ann. Mus. Civ. Genova, 1894, vol. 34, p. 631.

Locality.—New Guinea: near Mamberano and Identburg rivers.

Ethmostigmus rubripes (Brandt)

Scolopendra rubripes Brandt, Bull. sc. Ac. Petersbourg, 1840, vol. 7, p. 156.

Ethmostigmus rubripes Kraepelin, Rev. Scolopendriden, 1903, p. 161.

Locality.—New Guinea: Pionierbivak, Mamberano River, Dec., 1921, coll. W. C. van Heurn.

Ethmostigmus spinosus nannus, var. nov.

A form bearing to *E. spinosus* about the same relationship that *loriae* of Silvestri bears to *E. platycephalus* in that it lacks a dorsal spine on the coxopleural process. The process ends in a single or a double point. The spining of the anal legs as in *spinosus* but the terminal spine a process relatively smaller than in the males of *spinosus* but decidedly larger than ordinary spines. A tibial spine present on the twentieth legs. Last ventral plate with caudal margin rather deeply excised.

The specimens are small, averaging about 35 mm. in length.

Locality.—New Guinea: Doormanpad, 1410 m. Two specimens taken in Oct., 1920, by van Heurn.

Ethmostigmus telior, sp. nov.

Dorsum dark olive brown, greener along caudal borders of some of the plates. Antennae, prehensors and legs brown.

Antennae rather long, reaching nearly to fourth segment.

Prosternal teeth 3 + 3, the inner one with denticle on side.

Dorsal plates sulcate from second tergite caudad, the sulci fine, those of second tergite diverging caudad, the others parallel. Margining furrow incomplete of fifth and a few following segments, becoming more strongly developed posteriorly. Surface of tergites smooth and shining.

Ventral plates smooth, without median pit or furrow. Last ventral plate narrowed caudad as usual with posterior corners rounded. Caudal margin wide and only slightly incurved.

Coxapleural processes rather short and thick, the ends rounded. Indications of two or three minute spinules on rounded apex and a single spinule on side, with none above.

Femur of anal legs rather short and thick, enlarged distad; beneath with two spines ectally and one mesally, the inner side with a series of three spines; no spine above excepting the one at distal corner which is of same size as the others.

Length about 42 mm.

Locality.—New Guinea: Pionierbivak. June-Aug., 1920. One specimen taken by Dr. van Heurn.

This form seems especially distinct in the short rounded coxopleural processes and in the characteristic spining of the anal legs.

SCOLOPENDRIDAE

Scolopendra morsitans Linne

Scolopendra morsitans Linne, Syst., ed. 10, p. 638.

Locality.—Java: Batavia Bay, Purmerend. Nov., 1919.

Scolopendra subspinipes Leach

Scolopendra subspinipes Leach, Trans. Linn. Soc., 1814-15, vol. 11, p. 383.

Localities.—New Guinea: Prauvenbir, Nov., 1920, coll. W. C. van Heurn; Doormanpad, Oct., 1920, coll. W. D. van Heurn; Pionierbivak, Mamberano River, Dec., 1921, W. C. van Heurn coll.
Bali.

Krakatau, Sept. and Dec., 1919, Dammerman coll.

Java: Buitenzorg, June 24, 1921, coll. Driesmann; Hoorn, Baii van Batavia.

Scolopendra subspinipes dehaani Brandt

Scolopendra de Haani Brandt, Bull. Ac. Petersbourg, 1840, vol. 7, p. 152.

Scolopendra subspinipes dehaani Kraepelin, Rev. Scolop., 1903, p. 260.

Locality.—Sumatra: Lampongs, Wai Lima, 1921, coll. Karny and Siebers.

SCHENDYLIDAE

Eucratonyx hamatus Pocock

Eucratonyx hamatus Poc., Willey's Zool. results, 1898, pt. 1, p. 66, pl. 6, fig. 2c.

Locality.—New Guinea: Bataviabivak, 25 Aug., 1920, coll. W. C. van Heurn.

ORYIDAE

Orphnaeus brevilabiatus (Newport)

Geophilus brevilabiatus Newport, Trans. Linn. Soc. London, 1844, vol. 19, p. 436.

Orphnaeus brevilabiatus Pocock, Weber's Reise, 1894, vol. 3, p. 317.

Locality.—Java: Buitenzorg.

Endoptelus, gen. nov.

In general structure near *Orphnaeus*, from which distinguished by the thick, compressed antennae contiguous at base and the prolongation of each procoxa on several (8-9) segments preceding the last pediferous into a long, free process typically surpassing the two or three first articles of corresponding leg. Labrum wide, gently concave, the median portion nearly straight, bearing numerous slender teeth except at ends, these uniform throughout. Mandible bearing seven (?) lamellae. First maxillae with coxae fused, coxal process and telopodite thick, rounded, without membranous lappets. Claw of second maxillae pectinate. A single row of paratergites. Pores of sternites in a square very thick at lateral ends and thin or broken at middle of anterior and posterior sides. The last spiracle-bearing pleurite with no paratergite above it.

Genotype.—*E. papuicolens*, sp. nov.

Endoptelus papuicolens, sp. nov.

(Plate 1, ff. 1, 2.)

Yellow throughout.

Head wider than long, anteriorly pointed from near middle of length, almost wholly concealing the prehensors, the basal plate as wide as head, its lateral ends convex and anterior margin widely and weakly concave. Antennae thick and flattened, contiguous at base, short, acuminate, all joints short excepting the last which is as long as the two preceding articles taken together (see fig. I). Labrum with very fine and uniform teeth except toward ends. (See fig. II).

Prehensors of usual form, claws when closed reaching anterior end of head.

Paired sulci of dorsal plates deeply impressed, and commonly a weaker additional sulcus on each side of the middle pair. Last dorsal plate rather small, shield-shaped.

Sternites with a deep median impression. Pores in a quadrangle very thick at ends leaving the median pore-free area rather small. Pores also present upon subcoxae.

Spiracles elliptic. On eight segments preceding the last the pediferous precoxae are prolonged into conspicuous long, slender and distally rounded lappets. The segment preceding the first of these eight with the precoxae more moderately produced, and the other precoxae normal.

Last ventral plate very wide and short, narrowed caudad, with caudal margin wide, straight or slightly concave.

Anal legs acuminate.

Pairs of legs, 79.

Length, about 35 mm.

Locality.—New Guinea: Pionierbivak. One specimen taken June-Aug., 1920, by Dr. van Heurn.

MECISTOCEPHALIDAE

Mecistocephalus magister, sp. nov.

(Pl. 1, ff. 3-6.)

Head and prehensors typically dusky chestnut, the dorsum brown, dusky from a fine network of black lines. Antennae chestnut and legs brown.

The cephalic lamina shaped nearly as in *insularis*, being widest at level of frontal suture from where narrowing continously and nearly uniformly to the more abruptly narrowed caudal end region; anterior corners widely rounded, the anterior margin a little excised between bases of antennae. Lamina little less than twice as long as the greatest width.

Antennae rather long, reaching well upon the third tergite, strongly attenuated distad.

Claws of prehensors when closed widely exceeding the front margin of the head. Prosternum with anterior margin bearing two small teeth. Joints of prehensors armed as usual; the femuroid with two stout teeth of which the distal one is the larger, claw with tubercle like tooth at base and the two intermediate joints each with a well developed tooth of which the more distal one is the larger.

Labrum with median piece strongly narrowed caudad, its sides incurved, unidentate. Lateral pieces with margins convex adjacent to median piece, each bearing at this inner end seven distinct rounded teeth, the margins otherwise smooth. Mandible bearing fifteen lamellae of which the last two pairs are abortive and the thirteenth of intermediate development. First lamella with five teeth.

Sternites each with a deep Y-shaped impression, the branches of which diverge at nearly a right angle.

Last ventral plate very strongly narrowed caudad, the sides straight. Pores of coxopleurae minute and very numerous, densely arranged over entire surface.

Pairs of legs, 49.

Length, to 100 mm.

Locality.—New Guinea: Doormanpad. Oct., 1920, several adults and many partly grown. W. C. van Heurn.

Mecistocephalus vanheurni, sp. nov.

(Pl. 3, ff. 17-19.)

Body dark brown or somewhat chestnut. Cephalic plate and prehensors shining black or nearly so. Antennae dusky chestnut. Legs light brown.

Head plate close to 1.85 times as long as the greatest width. Anterior margin convex, excised at middle. Sides subparallel, only very slightly converging from anterior corners to behind middle and then more abruptly converging to caudal corners. Caudal margin straight. Antennae short.

Labrum with median piece a little narrowed caudad, abruptly pointed behind in a single median tooth which projects beyond caudal margin of lateral pieces. Lateral pieces with free margin more incurved toward lateral ends.

Mandible with seven lamellae and one or two abortive ones at end of series; the first lamella bears six long teeth. Mesal angle below this lamella acutely produced into a translucent process, the mesal margin wholly without serrations.

Areolated area of clypeus much longer than the posterior nonareolated bands. Sublateral teeth rather small.

Teeth on anterior margin of prosternum minute. Claw of prehensors stout, the tooth at base obtusely rounded. Femuroid with the usual two teeth of which the distal one is much the larger and projects cephalad. Each of the succeeding joints bearing a conspicuous tooth as shown in the figure.

Impression of sternites furcate, the angle formed by the branches rectangular or very nearly so.

Sternite of pregenital segment long, the sides converging caudad, the caudal end rounded. Coxopleurae with pores of moderate size or larger, decreasing in size from inner row to most dorsal, absent from mesal border and from dorsal surface.

Pairs of legs, 49.

Length of holotype, 50 mm.

Locality.—New Guinea: Doormanpad. 1800-2400 m. Four adults taken by W. C. van Heurn, 27-30 Oct., 1920.

Mecistocephalus zygethus, sp. nov.

(Pl. 3, ff. 13-15.)

A species close to *M. rubriceps* Wood and *M. modestus* Silvestri between which it seems to be intermediate in size. It agrees with these forms in having the impression of the sternites not branched at anterior end and in the small number of lamellae of the mandibles, but differs in the shape of the labrum.

Head and prehensors reddish chestnut. Dorsum light brown mottled and areolated with darker brown. Legs yellow.

Labrum with median piece relatively large, lanceolate in outline, side pieces with free margin straight, except at outer ends where a little curved forward, not at all convexly protruding adjacent to middle piece as is the case in *rubriceps* and *modestus*. Mandible with seven or eight lamellae of which the first bears seven teeth.

Claws of prehensors when closed reaching beyond end of first antennal article; teeth on prosternal margin minute; femuroid with the usual two teeth of which the distal one is much the larger; teeth on each of the following articles, that of the second being large; tooth at base of claw noduliform.

Sternite of pregenital segment trapeziform, strongly narrowed caudad, caudally rounded. Coxopleurae with pores ventrally and laterally, the upper part of side and dorsal surface free from pores; pores rather large below and becoming smaller dorsad, about twenty-one in number.

Pairs of legs, 51.

Length, about 35 mm.

Locality.—New Guinea: Doormanpad. 1800-2400 m. 27-30 Oct., 1920. Three specimens. W. C. van Heurn, coll.

Dasyptyx eupistus, sp. nov.

(Pl. 2, ff. 7-9, Pl. 3, f. 16.)

Head and basal plate and prehensors chestnut, the antennae light brown. Dorsum brown and venter lighter brown, both darkened with a network of black. Legs light brown, the proximal joints of the anal pair minutely spotted with black.

The cephalic plate widest at anterior corners from where narrowing caudad, the caudal margin slightly convex. Antennae long. Sublateral teeth long and acute.

The labrum with median piece broad and rounded anteriorly, narrowing caudad and at free end abruptly narrowed to the single acute tooth; each lateral piece produced at mesal end in an acute tooth little ectad of which the margin bulges convexly caudad. Clearly distinct in form of both median and lateral pieces from *gigas* and *subgigas*, which are its nearest known relatives.

Mandibles with seventeen lamellae, of same general type as those of *gigas;* first lamella with six large teeth and a reduced tooth or angle below the first of these.

Maxillae as drawn.

Prehensors when closed extending much beyond anterior margin of head. Basal tooth of claw represented by an obtuse angulation; femuroid with two well developed teeth of moderate size of which the distal one is larger; teeth of intermediate joints small, the proximal one especially so.

Sternal impressions conspicuously furcate, the branches on the tenth sternite meeting at a slightly acute angle.

Sternite of pregenital segment very strongly narrowed caudad, sides straight, and the caudal margin narrow and straight. Coxapleurae with very numerous, densely arranged pores over whole surface, the pores small and very small; no especially enlarged pores such as present in *subgigas*.

Pairs of legs, 49.

Length, about 50 mm.

Locality.—New Guinea: Pionierbivak. June-Aug., 1920. Two specimens collected by Dr. van Heurn.

Dasyptyx pseustes, sp. nov.

(Pl. 2, ff. 10-12.)

Color in general as in *eupistus* and related species, with the same marbling and network of black, the network especially dense.

The head of characteristic shape, being widest near level of labrum behind which nearly evenly narrowing, with sides convex, as shown in the figure. Sublateral spines moderate, acute.

Labrum with free margins of lateral pieces characteristically and conspicuously concave, the inner ends beings acutely extended caudad adjacent to tip of median piece. In form clearly apart from other known species of the genus.

Mandible with about twenty-one dentate lamellae; first small, with four slender teeth which are longer than in *gigas* and obviously smaller than those in, e. g., *eupistus*.

Prehensors of usual large size. Characterized by reduction of teeth on joints, none being developed on claw or two intermediate joints, and the two on the femuroid being small and noduliform.

Sternal impressions in region of tenth segment with anterior branches forming a right angle.

Sternite of pregenital segment strongly narrowed, with the sides convex, the anal end terminating in a small rounded process. The coxopleurae with numerous small and very small pores which are evenly distributed and well spaced.

Number of segments, 51.

Length, about 40 mm.

Locality.—New Guinea: Prauwenbivak. Nov., 1920. Two specimens of which one lacks the head end. Van Heurn.

LITHOBIIDÆ

Australobius ethodes, sp. nov.

Head, dorsum and venter brown. Legs brown proximally, yellow distally. Antennae brown excepting distal ends which are yellow.

Antennae long, each composed of 20 articles, all of which are proportionately long; ultimate article a little shorter than the two preceding taken together.

Ocelli typically seven in number, arranged in two series; 1 + 3, 3. Of these the single ocellus much the largest, the most anterior of lower series smallest.

Anterior margin of prosternum wide, slightly convex on each side of median notch. Teeth small, black, nearly uniform in size; 2(3) + 3 - 2. The outer tooth ectad of the diastema on the right side is normal in size and form but has close to it on its dorsal side a smaller tooth giving it the appearance of being bifid.

Cephalic plate rather wide between antennae, only slightly incurved. Margined caudally and laterally, with lateral marginal interruption slight.

Posterior angles of ninth, eleventh and thirteenth dorsal plates sharply produced. Minor plates strongly margined laterally, the margining continuing about caudal corners and a short distance mesad thereof, and also margined less strongly along anterior margin. Major plates all strongly margined laterally; the first, third and fifth also distinctly margined caudally, the caudal borders of the others less distinctly margined.

Coxal pores circular, small; 6, 6, 6, 5.

Dorsal spines of penult legs 0, 0, 3, 2, 0 (1?); ventral, 0, 1, 3, 3, 1; claws 2. Dorsal spines of antepenult legs 0, 3, 2, 2. Anal legs missing from type. Ventral spines of first and second legs 0, 0, 0, 1, 1. Tibiae of first 7 pairs of legs with 1 dorsal spine (anterior), those of 8 to 13 pairs, 2.

Gonopods of male uniarticulate, short and rounded, setase.

Length, 20 mm.

Locality.—New Guinea: Doormanpad. Elevation, 1800-2400 meters. One male taken by W. C. van Heurn, 27-30 Oct., 1920.

SCUTIGERIDAE

Thereuopoda clunifera (Wood)

Cermatia clunifera Wood, Jour. Ac. Nat. Sci. Phil., 1862, ser. 5, vol. 2, p. 10.

Thereuopoda clunifera Verhoeff, Sitzungs-Ber. der Ges. naturf. Freunde, 1904, No. 10, p. 275.

Localities.—Java: Batavia, Nov. 1918, coll. Schouten; Buitenzorg, Mar. 5, 1920, coll. van Heurn, and 3 Sept., 1920, coll. J. Lang.

Plate I

Endoptelus papuicolens, n. sp.

1. Head, dorsal view.
2. Labrum.

Mecistocephalus magister, n. sp.

3. Head in outline, dorsal view.
4. Prehensor.
5. Labrum.
6. Mandible, first lamella.

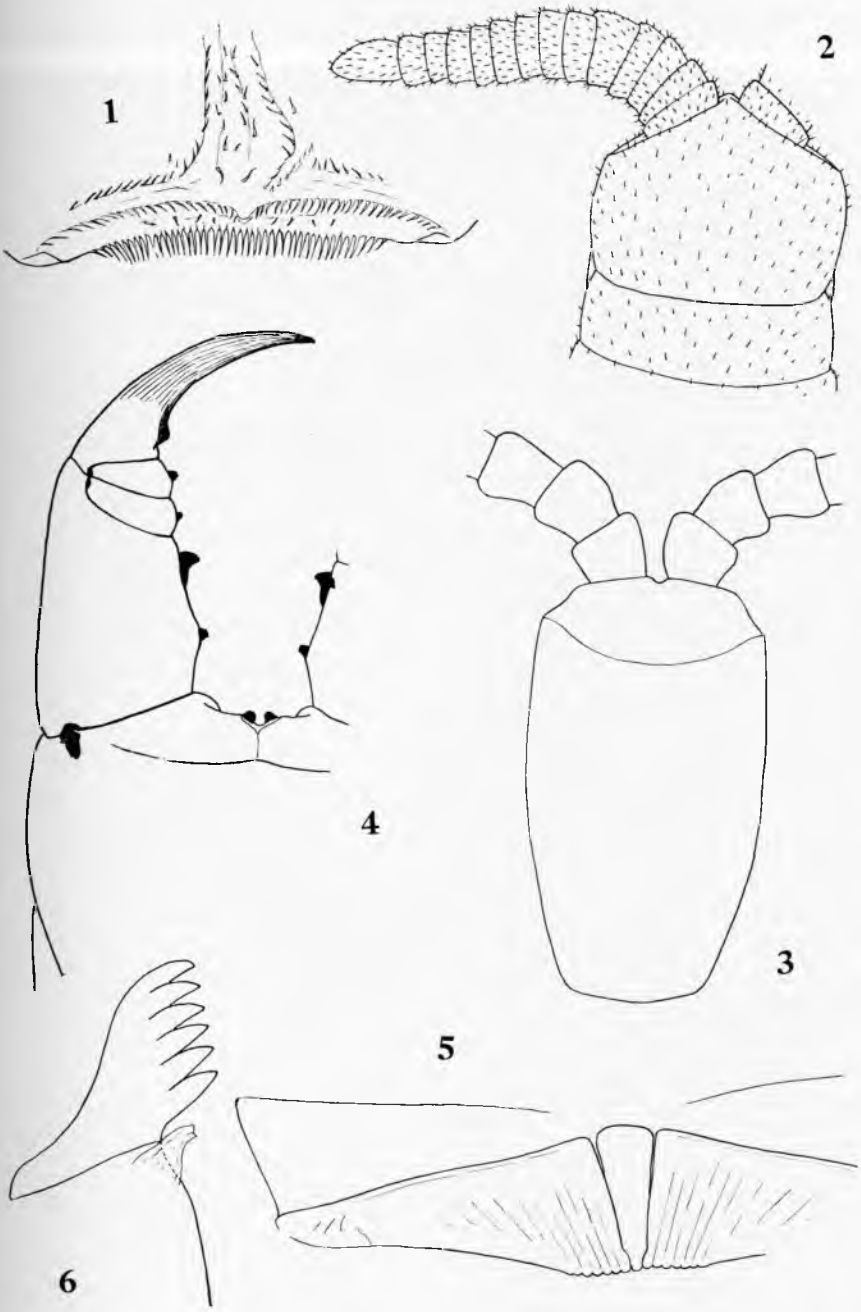

1
2
4
3
5
6

Plate II

Dasyptyx cupistus, n. sp.

7. Mandible, first lamella.
8. Labrum.
9. Prehensor.

Dasyptyx pseustes, n. sp.

10. Head in outline.
11. Labrum.
12. Prehensor.

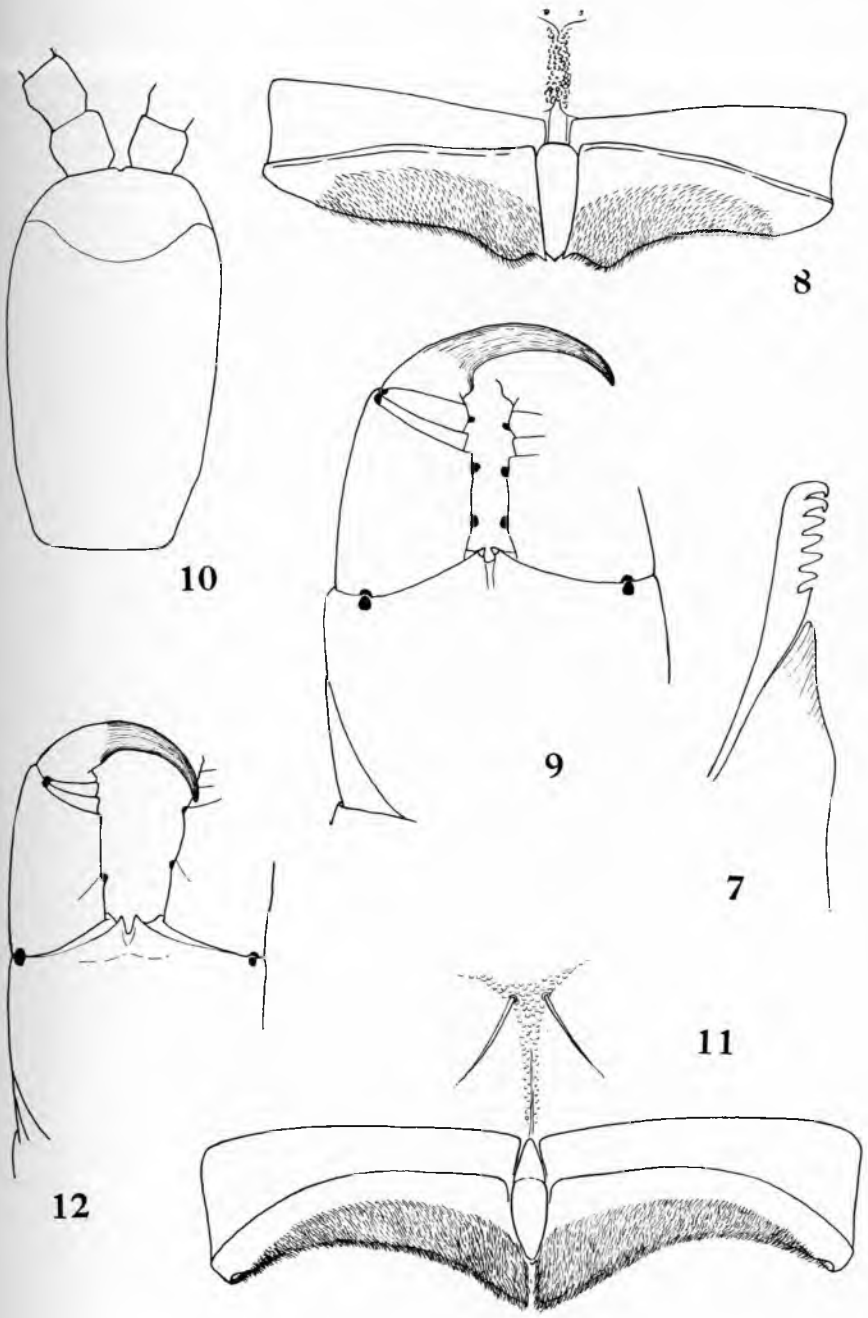

8
10
9
7
11
12

Plate III

Mecistocephalus zygethus, n. sp.

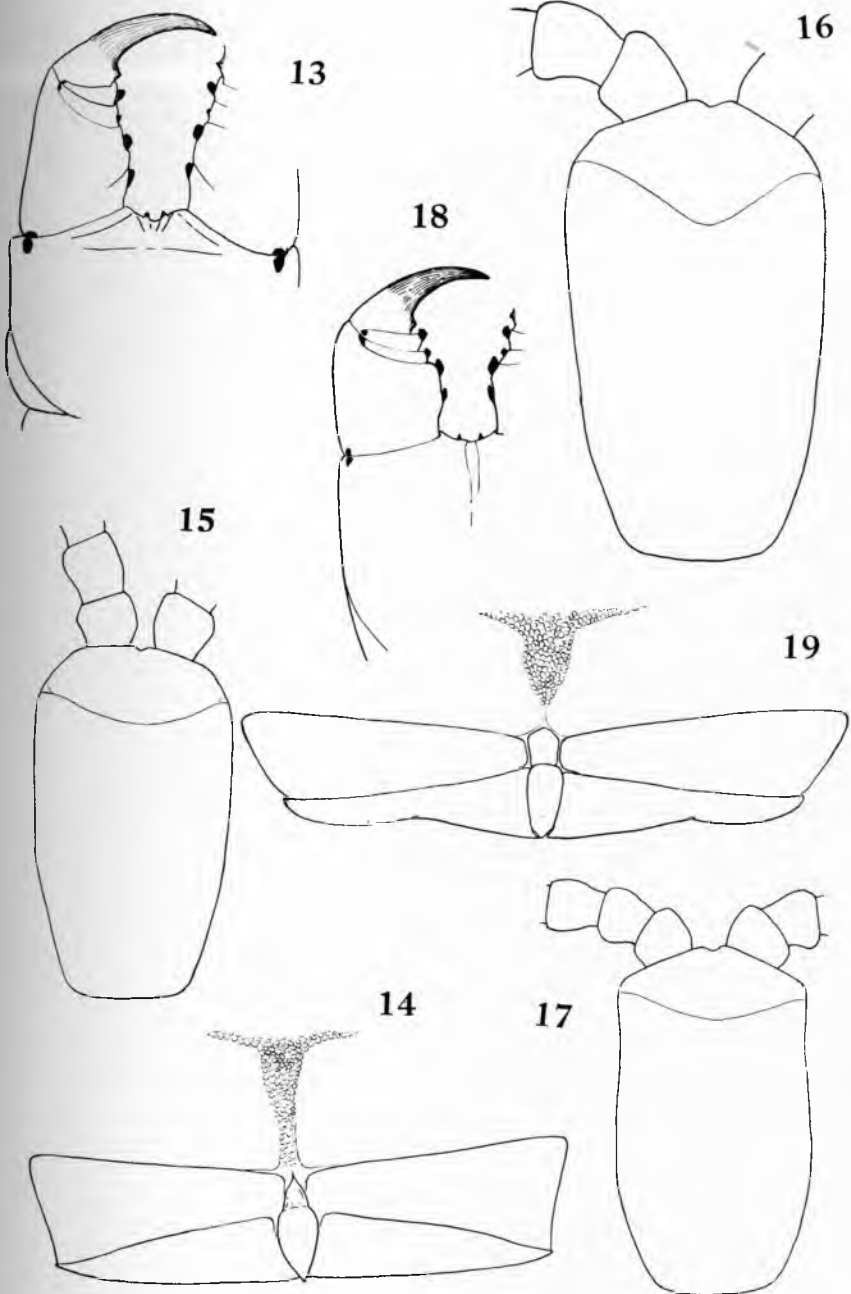
13. Prehensor.
14. Labrum.
15. Head in outline.

Mecistocephalus eupistus, n. sp.

16. Head in outline.

Mecistocephalus vanheurni, n. sp.

17. Head in outline.
18. Prehensor.
19. Labrum.


13
16
18
15
19
14
17