

AMPHIPODA*

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Dans ce travail on présente 14 nouvelles espèces d'amphipodes appartenant aux sous-ordres Gammaridea et Caprellidea collectées par l'Expédition organisée par le Muséum National d'Histoire Naturelle „Grigore Antipa“ de Bucarest dans l'Archipel Indonésien, en 1991. Aussi, on signale pour la première fois dans les eaux indonésiennes d'autres 38 espèces, 30 genres et 9 familles. A la fin du travail on présente la liste des espèces signalées.

The present paper is based on the amphipods collected by Romanian Scientific Expedition organized by “Grigore Antipa” National Museum of Natural History in the Indonesian Archipelago, in the year 1991. The studied material provided from 33 Stations (Table 1) from Bunaken Island (situated at, about, 12-14 Km West of city Manado from the North of Celebes Island), and, partially (for the moment only from two Stations), from Makassar Strait, of the littoral of Kalimantan Island, in front of Bontang locality, at, about, 7 km (Table 2).

All samples were collected by Modest Guțu, by dredges in free diving, between 1 and 7 meters, in coral reef or near of them (for other details see Guțu, 1997).

Up today a total of 134 amphipod species, included in 29 families of the Suborders Gammarides, and Caprellidea, are recorded in the marine waters of Indonesia.

This paper add to the amphipod fauna of this country, 9 families, 30 genera and 52 species, of which 14 are new to science (see list of the species), and herein described.

The TERMINOLOGY, and systematic procedure of this paper follows Barnard and Karaman (1991) for the Suborder Gammaridea, but we used in particular, for the family Melitidae, the concept of Jarrett and Bousfield (1996). For the Suborder Caprellidea, the Laubitz's paper (1993) has been followed.

* In: M. GUȚU (Co-ordination), Results of the Zoological Expedition organized by “Grigore Antipa” Museum in the Indonesian Archipelago (1991). I. Peracarida (Crustacea).

The check list of the amphipod species is arranged alphabetically. Following the scientific name, author, and date of each species, we add the material examined by stations, according to Table 1 and 2. New records for Indonesian waters has an asterisk.

Table 1

Collecting station from Bunaken

Station	Depth	Date	Station	Depth	Date
1	3.5 m	14.04.1991	19	2 m	20.04.1991
2	2.5 m	20.04.1991	20	2.5 m	20.04.1991
3	3 m	20.04.1991	21	5 m	20.04.1991
4	3.5 m	20.04.1991	22	1.5 m	17.04.1991
5	4.5 m	18.04.1991	23	4.5 m	16.04.1991
6	3.5 m	20.04.1991	24*	7 m	17.04.1991
7	3 m	20.04.1991	25	2.5 m	16.04.1991
8	2.5 m	16.04.1991	26	2 m	20.04.1991
9	4 m	20.04.1991	27	3.5 m	20.04.1991
10	2.5 m	16.04.1991	28	3 m	20.04.1991
11	3.5 m	20.04.1991	29	2.5 m	20.04.1991
12	7 m	16.04.1991	30	4 m	17.04.1991
13	3 m	20.04.1991	31	1 m	17.04.1991
14	1.5 m	16.04.1991	32	2 m	18.04.1991
15	6 m	17.04.1991	33	3 m	18.04.1991
16	1 m	16.04.1991	34	4.5 m	17.04.1991
17	2 m	17.04.1991	35*	6 m	17.04.1991
18	3.5 m	20.04.1991	*Sts	from N of	Bunaken

Table 2

Collecting stations from Bontang

Station	Depth	Date	Station	Depth	Date
1	2 m	18.05.1991	2	3 m	18.05.1991

SUBORDER GAMMARIDEA Latreille, 1803

Family AMPHILOCHIDAE Boeck, 1871

Gitanopsis antipai n.sp.

(Figs 1-3)

Holotype: ovigerous female, 1.6 mm, Bunaken, Station 29, it will be deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-319.

Paratypes: 2 ovigerous females, from Bunaken, Station 29; in the same collection with no. AMP-320, and 1 ovigerous female from Bontang

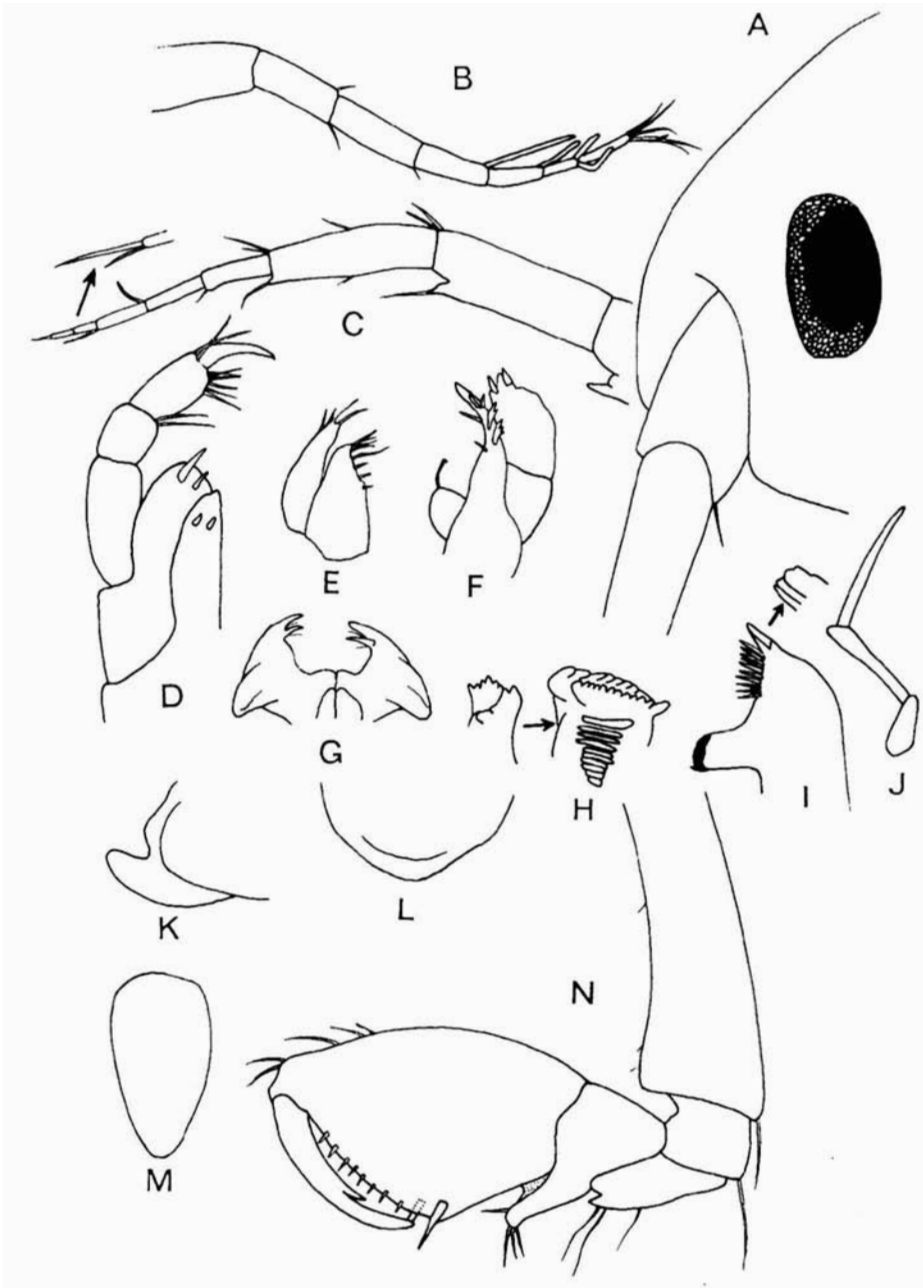


Fig. 1 – *Gitanopsis antipai* n.sp., A, lateral view of head; B, antenna 1; C, antenna 2; D, maxilliped; E, maxilla 2; F, maxilla 1; G, lower lip; H, left mandible; I, right mandible; J, mandible palp; K, epistome; L, upper lip; M, telson; N, gnathopod 1.

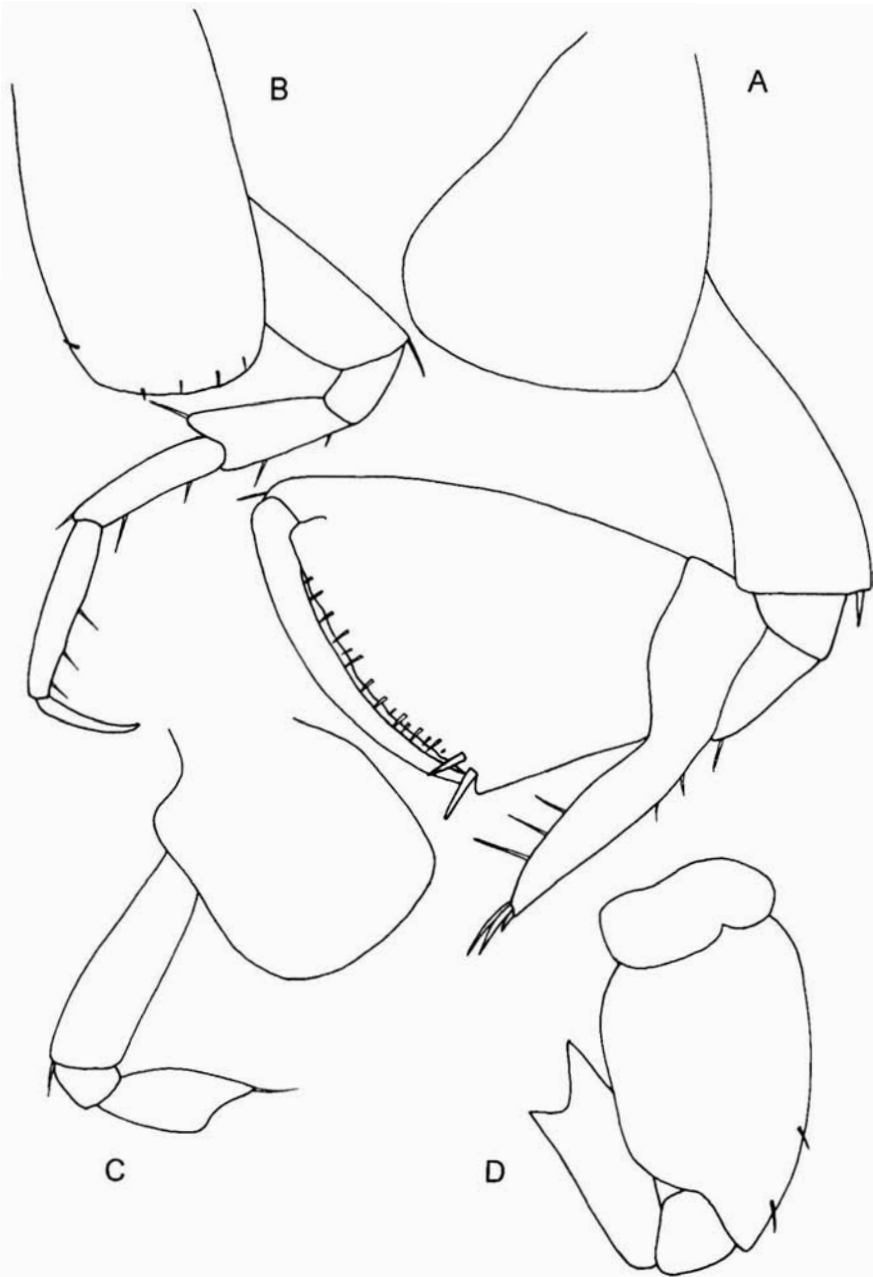


Fig. 2 – *Gitanopsis antipai* n.sp., A, gnathopod 2; B, pereopod 3; C, pereopod 4; D, pereopod 6.

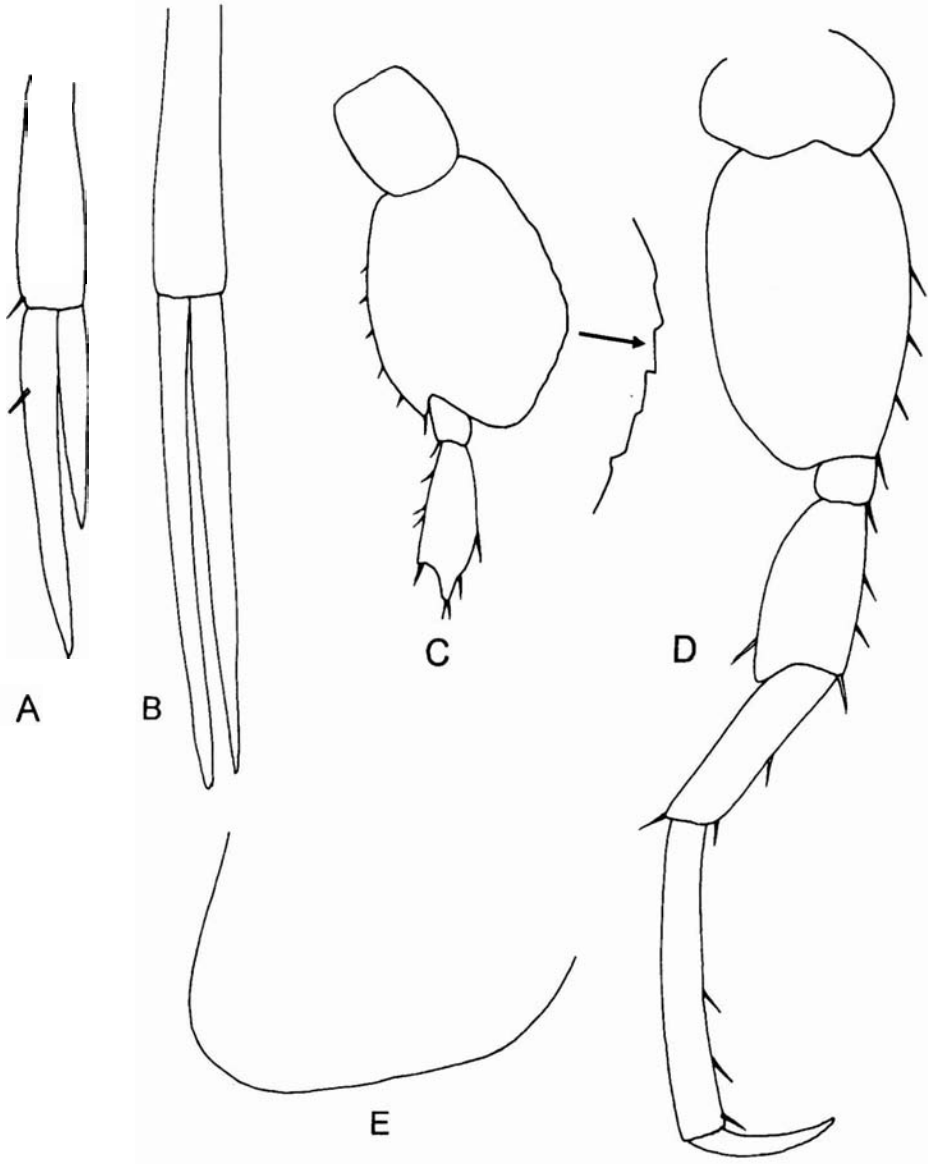


Fig. 3 – *Gitanopsis antipai* n.sp., A, uropod 2; B, uropod 1; C, pereopod 7; D, pereopod 5; E, epimere 3.

(Strait Makassar), Station 1, it will be deposited in the collection of the Zoological Museum of Bogor (Indoensia).

Diagnosis. Adult female. Lateral cephalic lobe not completely rounded. Eye large, reniforms, with core of black pigment. Antenna I without accessory flagellum, with aesthetascs on the first 3 articles of the peduncle. Coxae without teeth. Metasom segments 1-2 smooth. Gnathopods subchelate, with article 6 with a well defined palm. Posterior lobe of the article 5 of the gnathopod 2 extending 100 percent along posterior border of the article 6; article 6 of gnathopod 2 a little longer than broad; palmar border of article 6 longer than posterior border. Telson short, less than twice longer than broad.

Additional observations. Upper lip rounded. Epistome pointed. Lower lip without inner lobes, with one medium cone on each outer lobe. Article 2 of maxilla 1 with 3 apical spines, outer lobe with 6 setae, inner lobe small with 1 short seta. Maxilla 2 with inner lobe shorter and wider than outer. Right mandible with 3 incisive teeth, 10 lateral setae and a medium triturative molar; mandible palp article 3 longer than 2. Left mandible with 6 incisive teeth. Inner lobe of maxilliped with 2 small subterminal teeth; outer lobes rounded and with 2 setae apically; article 3 of palp with distal setae, article 4 as long as 3. Gnathopod 1 with lobe of article 5 reaching half way of posterior border of article 6, article 6 longer than wide, article 6 with one spine on palmar angle. Gnathopod 2 article 2 with one spine on posterodistal angle; lobe on article 5 with at least 2 distal spines; article 6 with 2 spines on palmar angle. Pereiopod 3 very slender, article 7 simple. Article 2 of pereiopods 5-7 with posterior lobe; posterior border without spines. Uropod 1 peduncle and rami naked; rami as long as peduncle. Uropod 2 with 1 spine at the first third of the outer ramus. Uropod 3 missing in all the specimens. Telson with a rounded distal end.

Male: unknown.

Remarks: *Gitanopsis antipai* n.sp. differs from *G.difficilis* Barnard, 1961 and *G.arctica* Sars, 1895 by having a shorter rostrum. As *G.antipai* n.sp. has a naked inner ramus of uropod 2, it differs from the following species, which have spines on this piece: *G.baciroa* Barnard, 1979; *G.brevicula* Hirayama, 1983; *G.desmondi* Barnard, 1972; *G.tortugae* Shoemaker, 1933; *G.pele* Barnard, 1970; *G.kupe* Barnard, 1972; *G.tai* Myers, 1985; *G.denticulata* Rauschert, 1994 and *G.fucatosquamosa* Rauschert, 1994.

G.antipai n.sp. differs from *G.bispinosa* (Boeck, 1871), by having smooth dactyl on gnathopods and from *G.tenuipes* Ledoyer, 1982 by its well developed gnathopods. Also *G.antipai* n.sp. differs by having a long article 5 of second gnathopod from *G.tortugae* Shoemaker, 1933; *G.subpusilla* Rabindranath, 1972; *G.petulans* Karaman, 1980; *G.pele* Barnard, 1970 and *G.kupe* Barnard, 1972. On the other hand, *G.antipai*

n.sp. differs from *G.japonica* Hirayama, 1983; *G.longa* Hirayama, 1983, *G.robastodentes* Hirayama, 1983; *G.squamosa* (Thomson, 1880); *G.vilordes* Barnard, 1962; *G.inermis* (Sars, 1883), and *G.pusilloides* Shoemaker, 1942 because of its shorter telson.

From *G.brevicula* Hirayama, 1983 by bearing less ornaments on rami of uropods 1-2.

G.antipai n.sp. is very similar to *G.pusilla* Barnard, 1916 but differs by the lack of accessory flagellum; gearing 2-3 spines on distal end of lobe of article 5 of gnathopod 2, palmar angle of the same with 2 spines; epimerum 3 without spines on lower border, a less inflated article 2 on pereopod 7, and a less spinose uropods 1-2. Finally, it is a smaller and rare species in comparison with *G.pusilla* which is a very common species.

Etymology: In the memory of the famous Romanian zoologist, Grigore Antipa the founder of the modern museum which, today, has his name.

Family ANAMIXIDAE Stebbiug, 1897

Paranamixis ledoyeri n.sp.

(Figs 4, 5)

Holotype: adult, male, 2.1 mm, Bunaken, Station 23, it is deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-321.

Paratype: adult, male, 2 mm; collected besides the holotype; it will be deposited in the collection of the Zoological Museum of Bogor (Indonesia).

Diagnosis. Adult male. Body without carine or spines. Head not so expanded forward, cephalic lobes poorly developed, slightly rounded. Eyes perfectly circular. Antenna 1 a little longer than 2; articles of peduncle decreasing in length distally; article 3 evidently shorter than 2; flagellum of 9 articles, with one aesthetasc on article 6. Antenna 2 articles 3-5 slender; 4 and 5 subequals in length; flagellum very short of 4 articles. Coxa 2 longer than wide with anterior entire borders and an anteroventral excavation. Article 2 of gnathopod 2 smooth till apex; article 6 posterior border with 3 teeth increasing in size distally. Uropod 1 with 2 small spines on inner ramus; outer naked. Uropod 2 with 2 spines similar to those of 1, in both rami.

Additional observations. Maxillipeds with surface of article 4 of palp striated, and bearing 2 apical and 3 subapical setae; article 7 with tiny setae on its posterior border. Inner face of lobe on article 5 of second gnathopod with 5 rows of short setae.

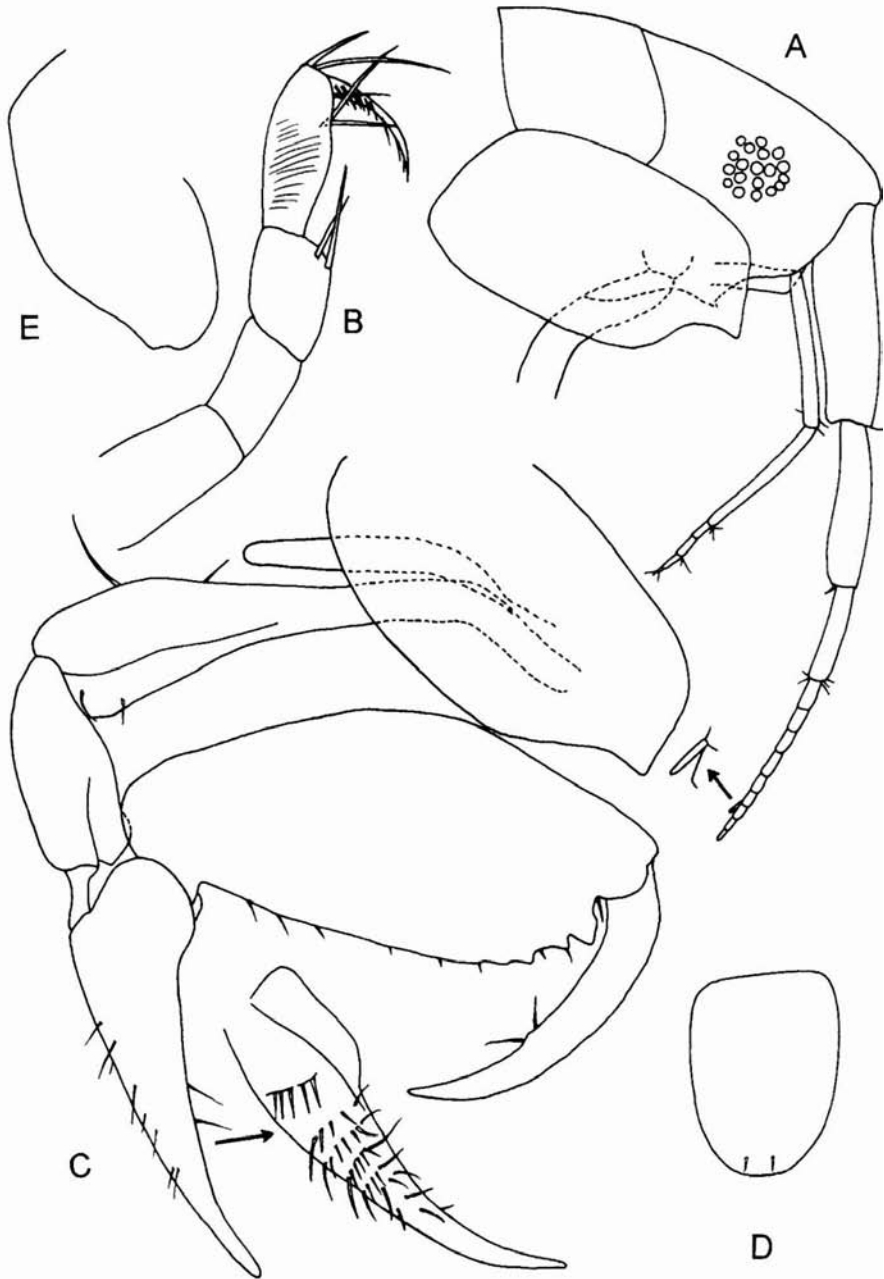


Fig. 4 – *Paranaxis ledoyeri* n.sp.. A. anterior view of head; B. maxilliped; C. gnathopod 2; D. telson; E. coxa 2 of male of 2.1 mm.

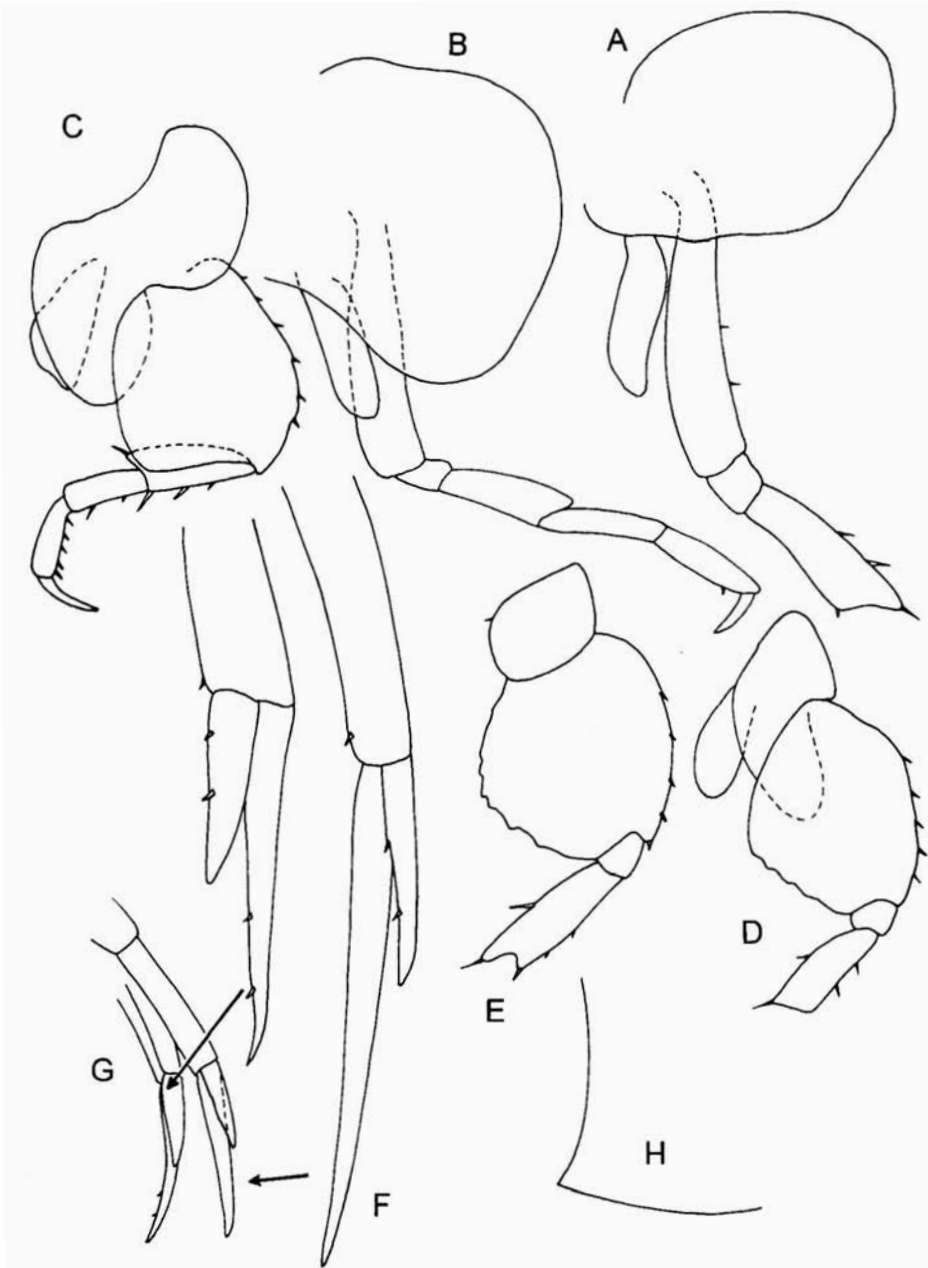


Fig. 5 – *Paranamixis ledoyeri* n.sp., A, pereopod 3; B, pereopod 4; C, pereopod 5; D, pereopod 6; E, pereopod 7; F, uropod 1; G, uropod 2; H, epimere 3.

Coxae 3-4 subspherical, wide with entire borders. Pereiopods 3-4 slender, 3 longer than 4; pereopod 4 with articles 5-6 subequals in length. Coxa 5 long and bilobed. Pereiopod 5 article 2 with wide posterior lobe; articles 5-6 subequals in length; anterior border of 6 armed with 5 equidistant spines. Pereiopods 6-7 article 2 lobated with a crenulated posterior border. Pereiopods 5-7 with 5-7 spines on the anterior border of article 2. Tip of uropods 1-2 not surpassing each other, when observed in lateral view. Telson rounded, with 2 small subterminal setae.

Female. Unknown, probably missidentified as some species of *Anamixis* in the *Leucothoides* form, after the studies carried out by Thomas and Barnard (1983).

Remarks. There are five species known on the genus up today. *Paranamixis aberro* Hirayma, 1983; *P. bocki* Schellenberg, 1938; *P. excavatus* Ledoyer, 1978; *P. indicus* Sivaprakasam, 1968 and *P. madagascariensis* Ledoyer 1982 (Barnard and Karaman, 1991).

P. ledoyeri n.sp. differs from *P. aberro*, *P. bocki*, *P. indicus* and *P. madagascariensis* by bearing and excavated coxa 2. *P. ledoyeri* n.sp. differs from *P. excavatus* in spine of that the twice have an excavated coxa 2, by the entire anterior border of this coxa and article 2 of gnathopod 2; the circular eye; the subequal in length articles 4-5 of antenna 2; the 3 teeth on palmar margin of article 6 of gnathopod 2; the relative length of articles 5-6 of pereopods 4-5; the relative position of tips of uropods 1-2, and the armature of uropods 1-2.

Etymology. Species named in the honour of the French carcinologist Dr Michael Ledoyer for his great contribution to our knowledge of the amphipods of the Indian Ocean and the Mediterranean Sea.

Family COROPHIIDAE-ISCHYROCERIDAE
(sensu Barnard and Karaman, 1991)

***Bemlos subtriangulum* n.sp.**

(Figs 6-8)

Holotype: adult male, 2.8 mm, Bunaken, Station 30, deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-322.

Paratypes: 1 ovigerous female, from the same station, deposited in the same collection, no. AMP-323, and 2 males which will be deposited in the Zoological Museum of Bogor (Indonesia).

Another material, from Bunaken stations 5, 6, 7, 9, 18, 27.

Diagnosis. Adult male. Body without distinct marking in the type series, but with coxae mottled with dark brown pigment on some other adult specimens (all preserved in alcohol). Head with lateral cephalic lobes rounded; anteroventral margin produced acute. Eye medium, circular. Male pereon segments 2, 4 and 5 with conical spiniform sternal processes; that of 3, very strong and curved always forward. Article 2 of mandible palp 2/3 length of 3. Gnathopod 1 and 2 with subequal articles 5-6 bearing a spine defining the palmar angle of article 6. Gnathopod 2 with a strong triangular tooth in palmar angle, before the spine. Coxa 1 quadrangular; anterior border a little convex. Coxa 2 rounded. Uropods 1 and 2 with an interramal process on distal part of the peduncle. Rami of uropod 3 as length as peduncle, bearing only distal setae. Epimerum 3 posteroventral corner rounded but entire with one tiny setae.

Additional observation. Article 3 of antenna 2 and the first of antenna 1 subequal in diameter. Upper lip wider than long, with small medium concavity. Inner lobe of maxilliped with a long apical and subapical setae; outer with 12-14 odontoid inner spines and 4-5 setae; article 4 of palp with nail. Right and left mandibles with incisor of 5 teeth. Lacinia mobilis of left mandible with 4 teeth. Maxilla 1 with 5 terminal and 4 subterminal setae on article 2 of the palp. Maxilla 2 normal for the genus. Lower lip with about 10 setae on distal margin of outer plate.

Pereopods 3-4 almost devoid of setae. Rest of pereopods missing. Inner ramus of uropod 1 with 1 medial spine; outer one with 2. Inner ramus of uropod 2 with 3 spines; outer one with 2. Peduncle of uropod 3 with a small distal lobe, beside articulation of inner ramus. Telson with one long and one short setae on each side.

Female, ovigerous. Gnathopod 1 bigger than 2; article 6 subtriangular, a little longer than 5. Articles 4-5 of both gnathopods with setae covering the posterior border, with a spine on palmar angle.

Remarks. Three species of the genus are previously recorded from the Indonesian waters: *Bemlos griseus* (Sivaprakasam, 1970), *B. quadrimanus* (Sivaprakasam, 1970), and *B. subtriangulatum* n.sp. of which the last one is easily distinguished by the morphology of gnathopod 1 of the male, and the strongly developed spiniform sternal process on male segment 3.

From *B. triangulum* Myers, 1975, its most closely related species in the Indo-Pacific Ocean, *B. subtriangulum* differs by having the coxa 1 anterior border convex, a spine behind the triangle tooth on palmar border of male gnathopod 1; a curved forward well developed sternal process on segment 3, and an interramal spine on distal part of peduncle of uropod 2.

Etymology: "subtriangulum" because the similarities of this new species with *Bemlos triangulum* Myers, 1975.

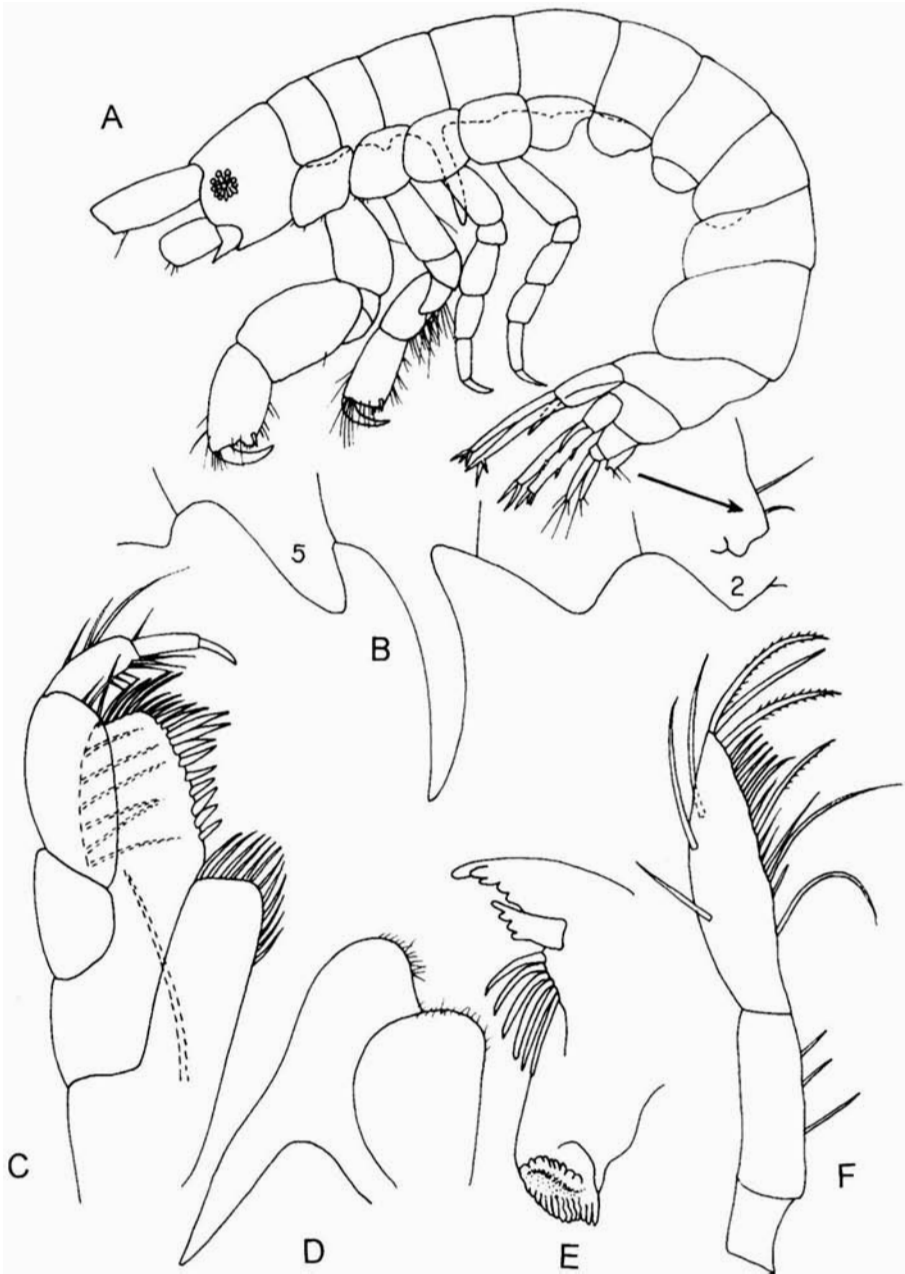


Fig. 6 – *Bemlos subtriangulum* n.sp.. A. lateral view of body; B. pereion segmented 2–6 with midventral sternal processes; C. maxilliped; D. lower lip; E. left mandible; F. mandible palp.

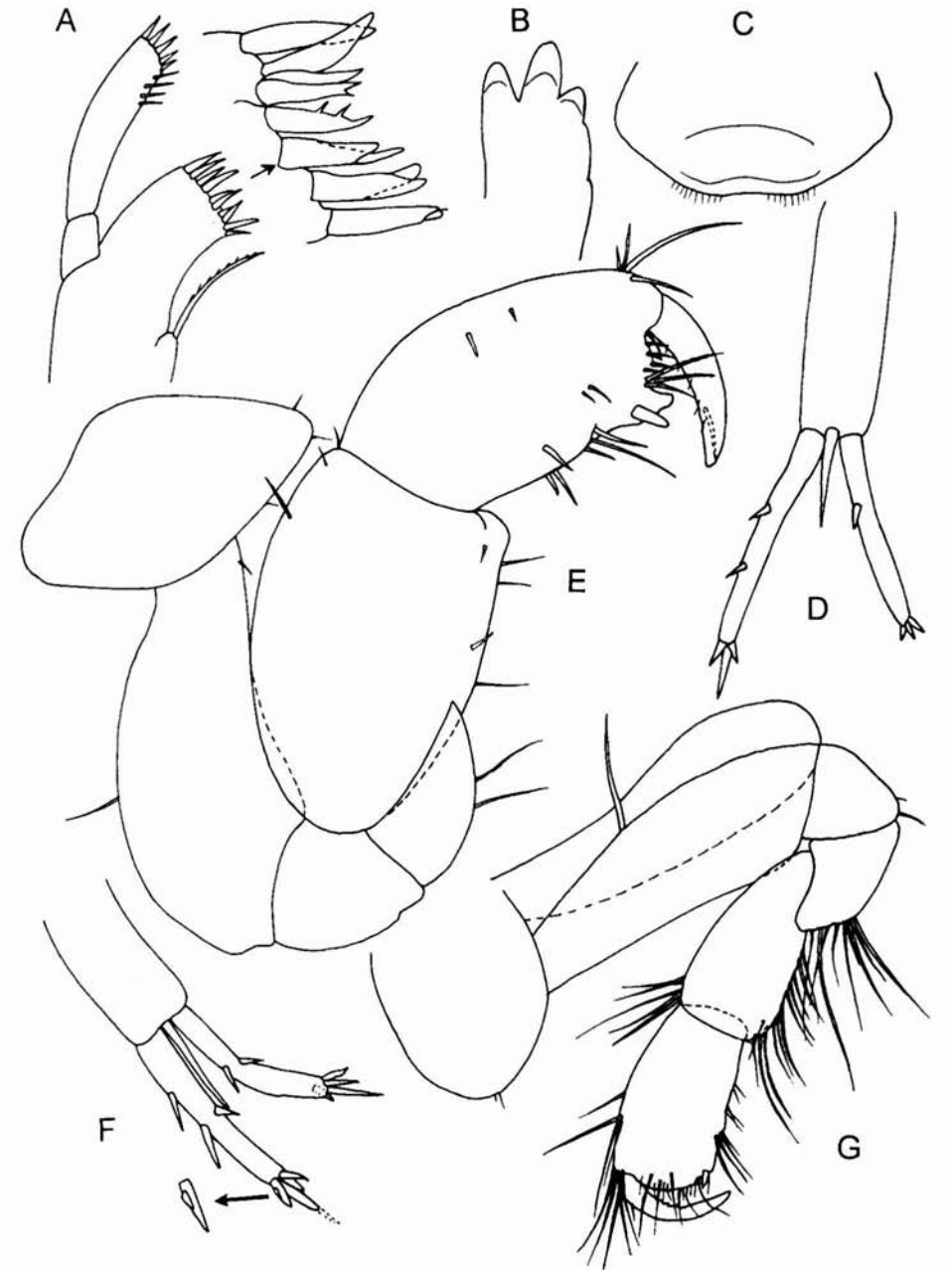


Fig. 7 – *Bemlos subtriangulum* n.sp., A, maxilla 1; B, molar of right mandible; C, upper lip; D, uropod 1; E, gnathopod 1; F, uropod 2; G, gnathopod 2.

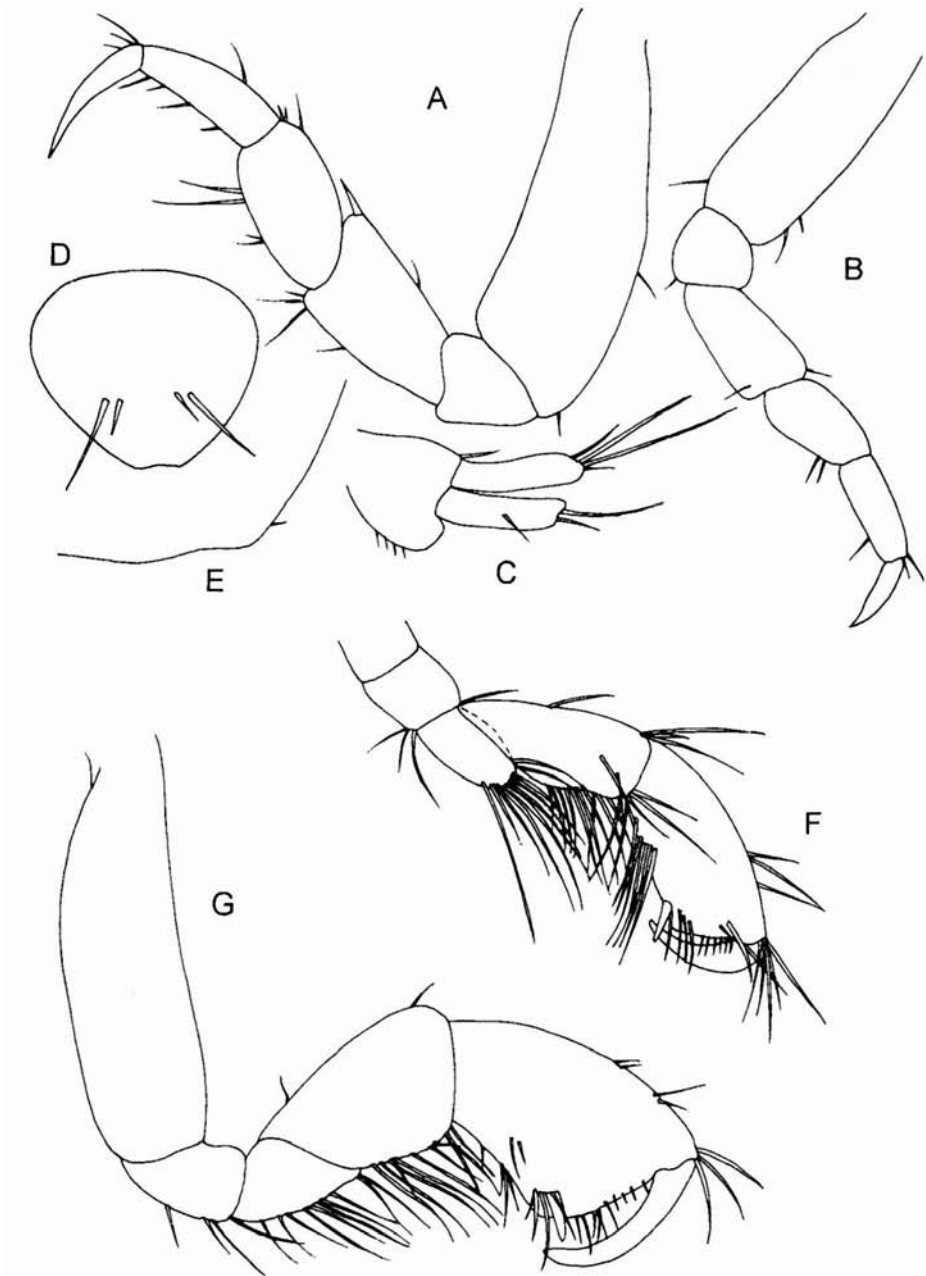


Fig. 8 – *Bemlos subtriangulum* n.sp.. A. pereopod 4; B. pereopod 3; C. uropod 3; D. telson; E. epimere 3; F. gnathopod 2 of female; G. gnathopod 1 of female.

***Cheiriphotis quadrichelatus* n.sp.**

(Figs 9-12)

Holotype: adult male, 2.2 mm; Bunaken, Station 14, deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-324.

Paratypes: 2 subadult males, from the same station, deposited in the same collection, no. AMP-325 and 2 subadult males, too, from the same station, it will be deposited in the collection of the Zoological Museum of Bogor (Indonesia).

Other material: Bunaken, Station 20, 3 adult males and 1 juvenile.

Diagnosis. Adult male. Body without carinae or spines. Head with lateral cephalic lobes ahead. Insertion of antenna 1 very recesses. Eye circular, big, situated above the article 3 of peduncle of antenna 2. Mandible palp articles 2 and 3 subequals in length. Maxilliped with a short inner lobe, lower lip without lobe. Coxa 1 the largest, produced forward. Coxae 2-7 very short and narrow. Article 5 of gnathopod 1 longer than 6; palmar border of 6 very oblique with 11-12 setae. Gnathopod 2 very strong, article 2 moderately stout, article 5 smaller than 6; article 6 quadrate, big, bearing a fixed finger directed fore and upward; palm with straight border; article 7 robust and curved, forming a fully chelate gnathopod. Pereopod 5 and 7 with a moderated rectangular posterior lobe. Uropod 1 with inter-

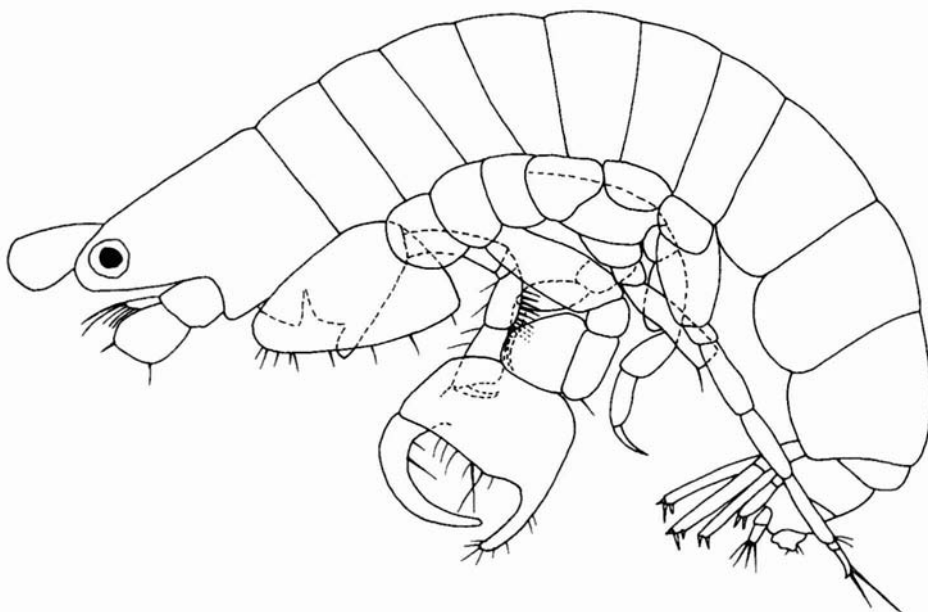


Fig. 9 – *Cheiriphotis quadrichelatus* n.sp., lateral view of body.

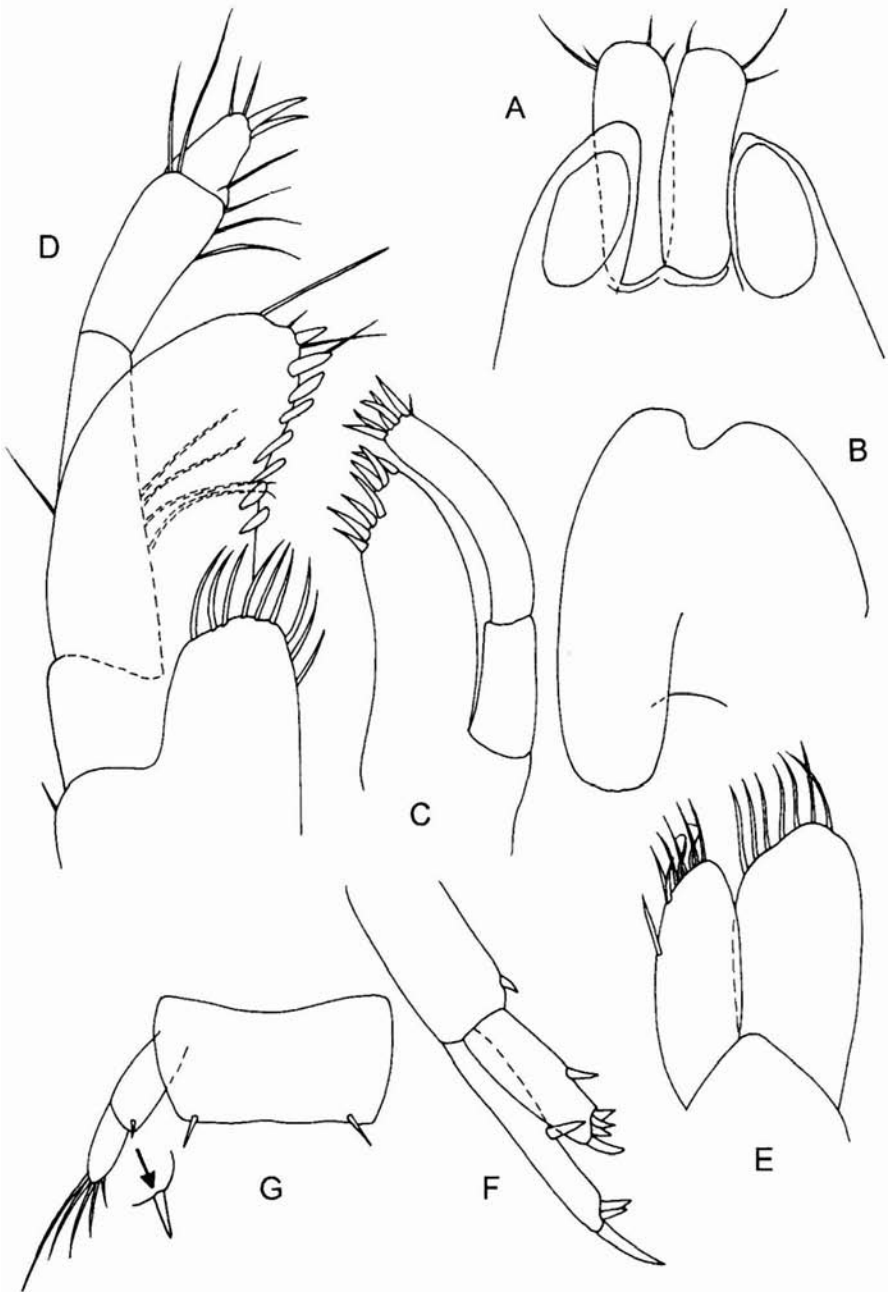


Fig. 10 – *Cheiriphotis quadrichelatus* n.sp., A. dorsal view of head; B. lower lip; C. maxilla 1; D. maxilliped; E. maxilla 2; F. uropod 2; G. telson and uropod 3.

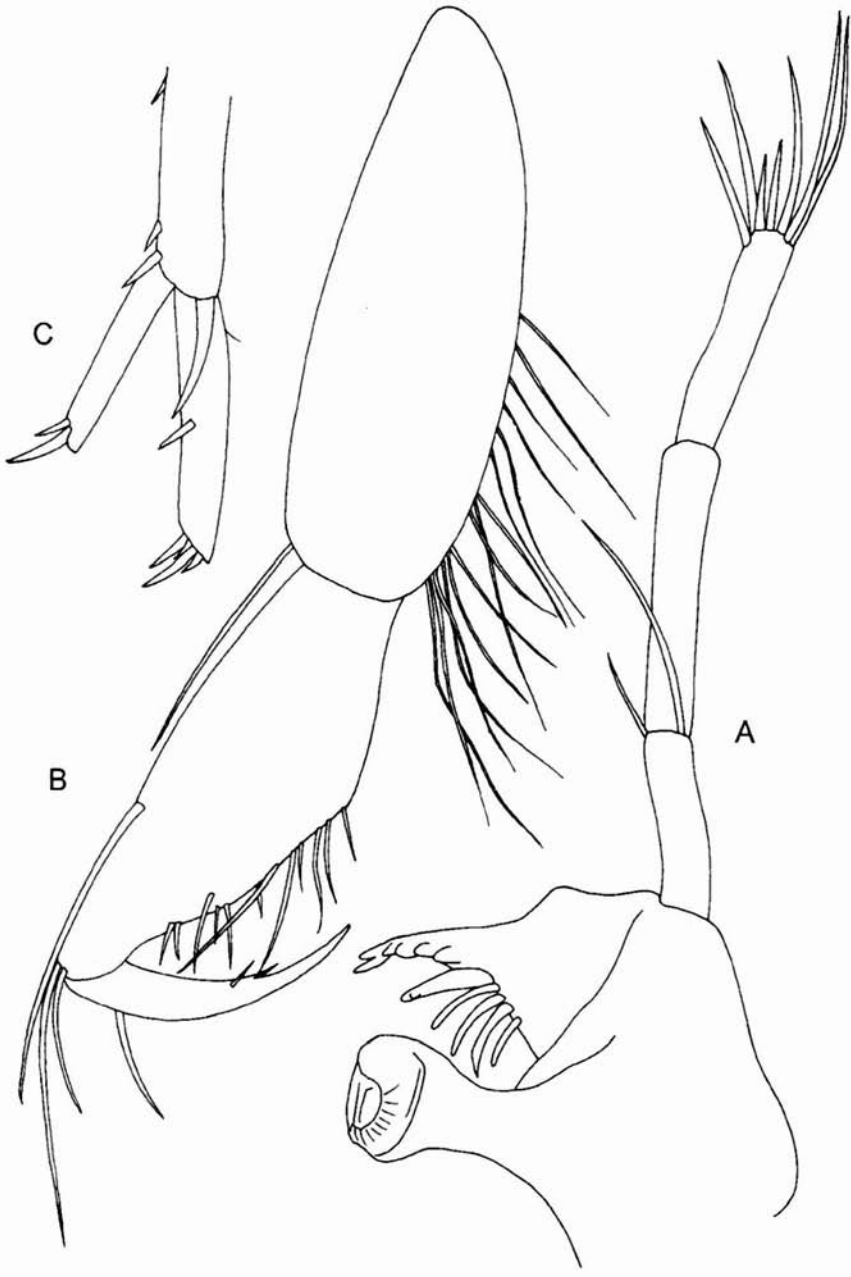


Fig. 11 – *Cheiriphotis quadrichelatus* n.sp., A, mandible; B, gnathopod 1; C, uropod 1.

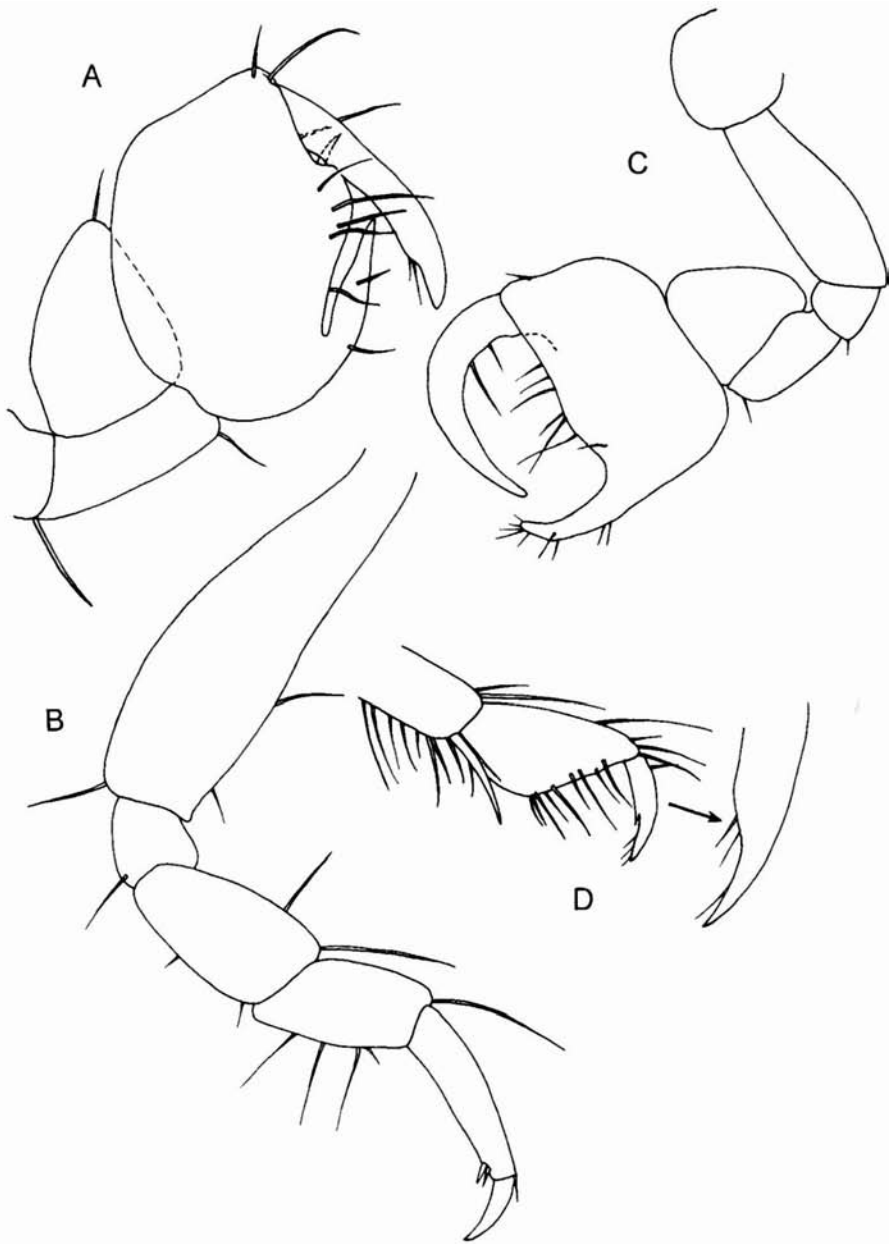


Fig. 12 – *Cheiriphotis quadrichelatus* n.sp.. A. gnathopod 2 of a male of 1.6 mm;
B. pereopod 3; C. gnathopod 2; D. gnathopod 1 of a male of 1.6 mm.

ramal spine on distal part of peduncle. Uropod 3 with ramus shorter than peduncle, bearing 5 distal setae. Telson very short.

Additional observations. Incisor of mandible with 6 teeth, lacinia mobilis with tiny teeth. Molar of medium size, mounted in a long peduncle, triturative. Maxilla 1 outer lobe armed with 7 teeth, palp article 2 longer than 1, bearing 4 spines and two setae. Maxilla 2 only with distal setae, inner lobe bearing a sublateral one. Lower lip without inner lobe. Gnathopod 1 very setigerous on posterior border of article 5. Gnathopod 2 almost naked. Pereopod 3-7 with article 6 longer than 5, article 7 short; articles with very sparsely setae. Uropod 1 outer ramus with 1 median spine and 4 terminal ones, inner only with 2 distal setae. Uropod 2 with a median spine on both rami, inner bearing 4 and outer 3 distal setae.

Young male. Gnathopod 2 with fixed finger not yet separated from palmar border, as seen in figure.

Female. Unknown.

Remarks: As Ruffo (1969) stated, the species of the genus are very variable, even so, from the 10 known species (Barnard and Karaman, 1991), the morphology of the gnathopod 2 of young and hyperadult specimens already given are completely unusual into the genus. Perhaps, more near to genus *Photis*, but the small size of coxae, and the one ramus uropod 3 fixes this species into the former genus, as the 11 ones.

Etymology: "Quadre" and "chelatus" for the quadrate form, and chelate condition of gnathopod 2.

***Leptocheirus makassarensis* n.sp.**

(Figs 13-16)

Holotype: ovigerous female, 3.7 mm, Bunaken, Station 4, it is deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-326.

Paratypes: 2 females with oostegites, Bontang, Station 1 in the same collection, with no. AMP-327 and 2 ovigerous female (Bontang, Station 1), which will be deposited in the Zoological Museum of Bogor (Indonesia).

Diagnosis. Adult female. Metasom segments smooth. Head with lateral cephalic lobe almost quadrate. Eye well developed. Coxae and epimera without setae. Coxa 1 with anteroventral angle ahead, 2-4 similar but 3 the longest; 5 excavated. Article 3 of mandible palp longer than 2. Lower lip with long mandibular lobes. Inner plate of maxilla 1 small with 1 apical seta; article 2 of palp bearing 6 setae; outer plate with 11 spines. Article 2 of palp of maxilliped longer than articles 3-4 together; articles 2-3 very setigerous on inner border; article 4 with nail. Palmar border of article 6 of gnathopod 1 transverse. Article 5 of gnathopod 2 inflated; triangular. Article 7 of pereopods 3-4 almost as long as article 6. Pereopods 5-6 with

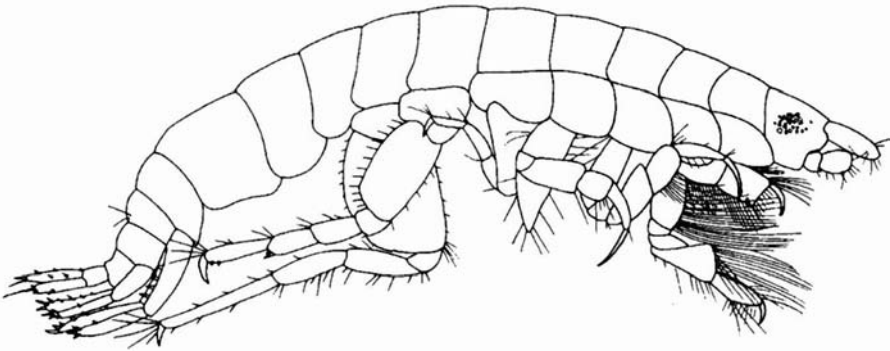


Fig. 13 – *Leptocheirus makassarensis* n.sp., lateral view of body.

article 2 not dilated, but wider on 7. Article 6 of pereopod 7 almost as long as articles 4-5 together. Uropods 1-2 bearing a strong inter-ramal spine. Telson with 1 long and 2 short submedian setae on each side.

Additional observations. Upper lip wider than long, slightly concave anteriorly. Incisor and lacinia mobilis of mandible both with 3 teeth. Mandible with 6 lateral setae.

Maxilla 2 with a facial oblique row of setae. Gnathopod 1-2 both, with setae on anterior border of article 2. Pereopods 3-5 almost naked on posterior border of article 2. Pereopods 3-5 almost naked on posterior border of article 2. Pereopod 6 with long setae and pereopod 7 with short ones, on posterior border of article 2. Peduncle of uropod 1 with 5 marginal spines. Peduncle of uropod 2-3 with 1 distal spine. Rami of all uropods armed with spines. Peduncular interramal spine on uropod 1 half length of the shorter ramus. peduncular interramal spine on uropod 2 $\frac{1}{3}$ the length of the longest ramus.

Male: Unknown but there is no sexual dimorphism in the genus.

Remarks: *L. makassarensis* n.sp. differs from *L. bispinosus* Norman, 1908, bearing smooth epimera and a wide lower lip. From *L. pectinatus* (Norman, 1869), because of coxa 1 devoid of setae, and coxa 2 bigger. From *L. dufesni* Ledoyer, 1982 by bearing a more setigerous gnathopod 1. Also, from *L. guttatus* (Grube, 1864) for the inflated and triangular article 5 of gnathopod 2. *L. makassarensis* n.sp. differs from *L. hirsutimanus* (Bate, 1862) by having a small coxa 2, as well as from *L. longimanus* because of a more hairy gnathopod 2. From *L. mariae* Karaman, 1973 with the normal article 5 and a wider palmar border of male gnathopod 1 and epimera devoid of setae. From *L. pectinatus* (Norman, 1869) and *L. pilosus* Zaddach, 1844, by having coxae 1-2 smaller, and article 6 of pereopod 7 almost devoid of setae or spines. *L. makassarensis* n.sp. differs from *L. pinguis* Bate, 1862, *L. plumulosus* Soemaker, 1932, and *L. rhizophorae* Ortiz y Lalana, 1980 because of the small and naked coxae 1-2. Finally,

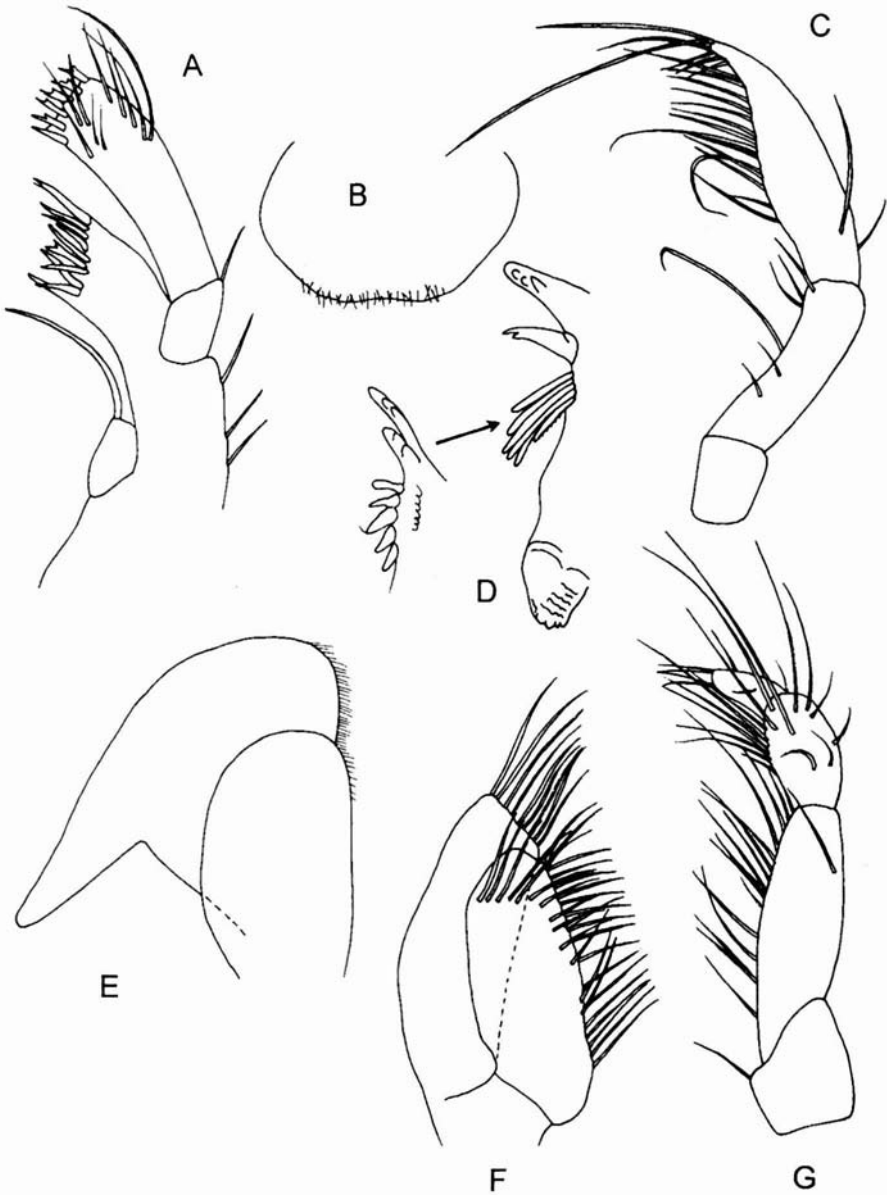


Fig. 14 – *Leptocheirus makassarensis* n.sp., A, maxilla 1; B, upper lip; C, mandible palp; D, mandible; E, lower lip; F, maxilla 2; G, maxilliped.

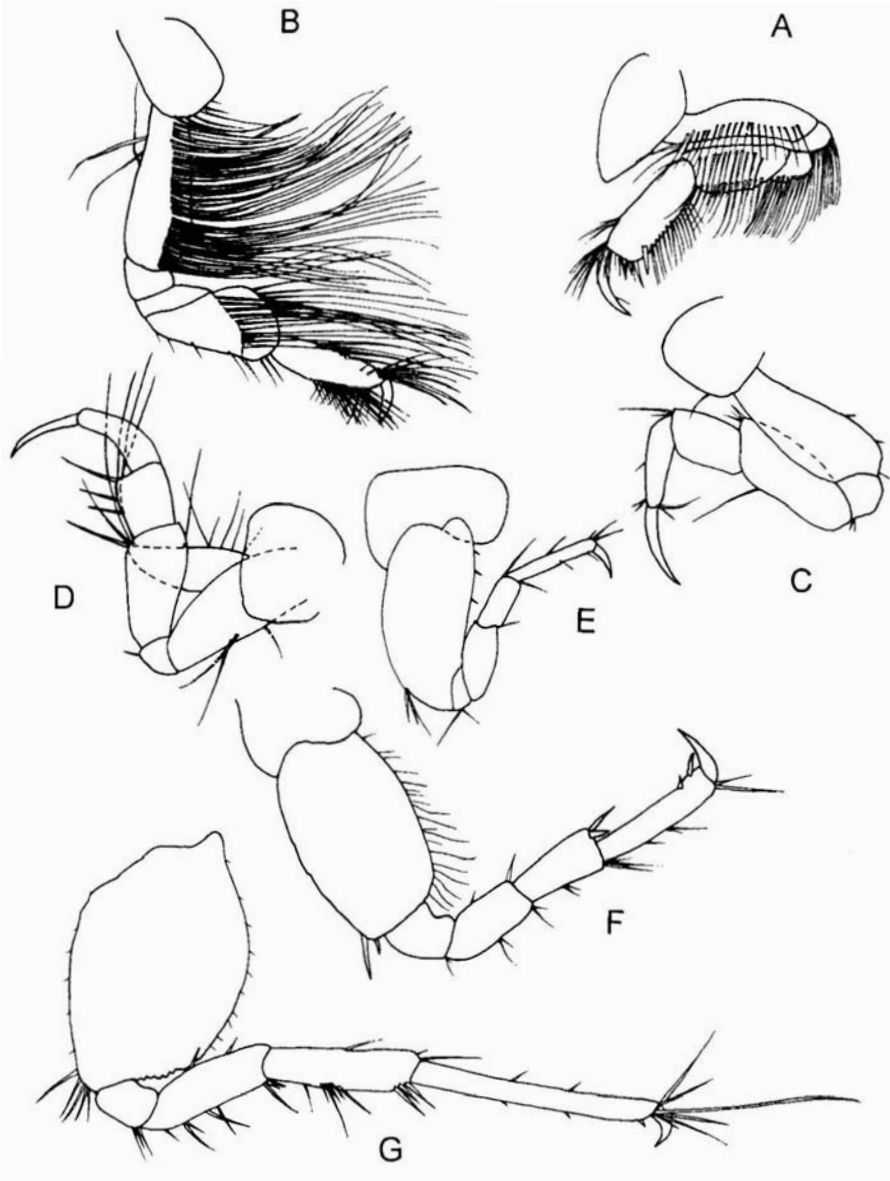


Fig. 15 – *Leptocheirus makassarensis* n.sp., A. gnathopod 1; B. gnathopod 2; C, pereopod 3; D. pereopod 4; E. pereopod 5; F. Pereopod 6; G. pereopod 7.

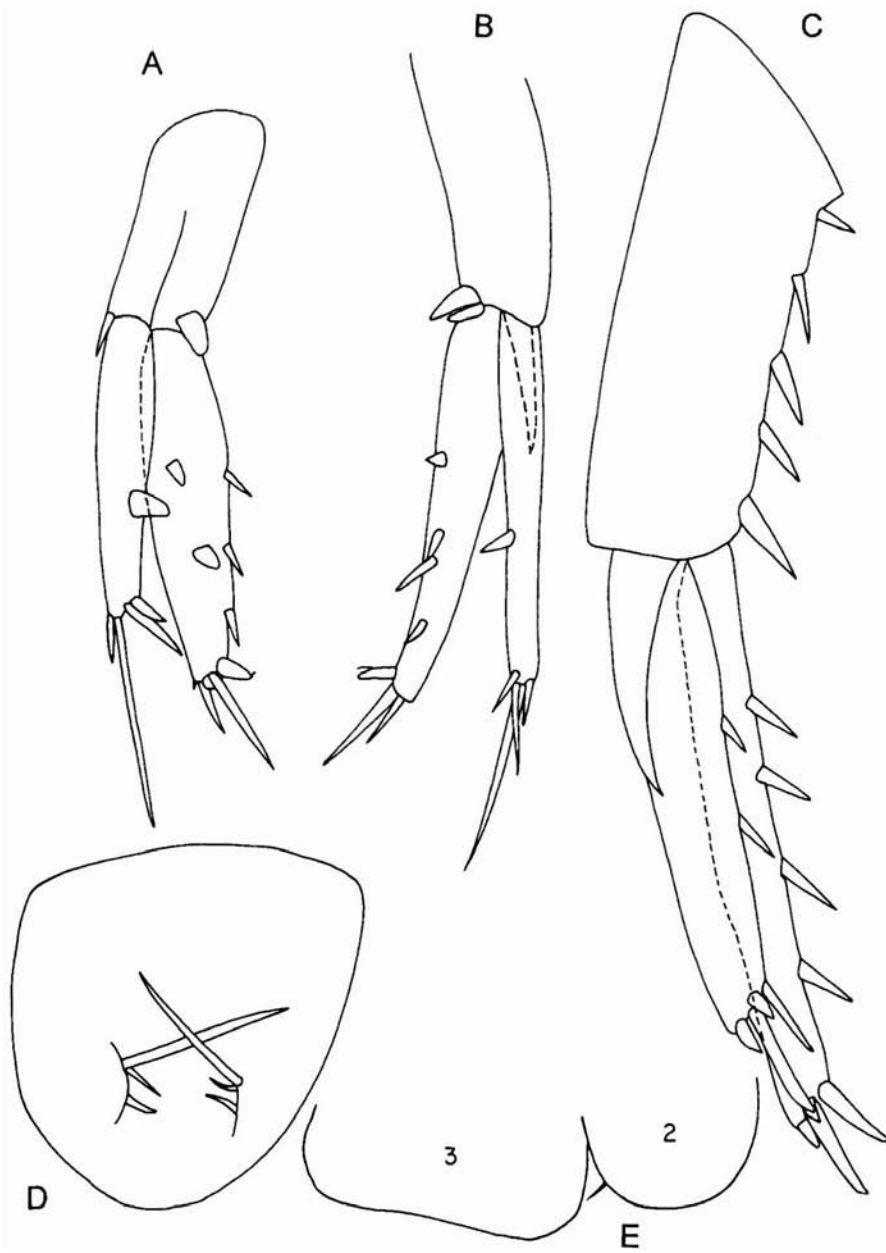


Fig. 16 – *Leptocheirus makassarensis* n.sp., A, uropod 3; B, uropod 2; C, uropod 1; D, telson, E, epimera 2–3.

L.makassarensis n.sp. differs from *L.tricristatus* (Chevereux, 1886) for the smooth urosoma. The finding of *L.makassarensis* n.sp. represents the Eastern known finding of the genus. Only *L.dufresni* Ledoyer, 1982, was up today, the Eastern species (Madagascar).

Etymology: It is named after one of the collecting places (Strait Makassar).

Family DEXAMINIDAE Leach, 1814

Guernea sulawesiensis n.sp.

(Figs 17-20)

Holotype: adult male, 1.2 mm Bunaken, Station 21, it is deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-328.

Paratypes: 1 female with oostegites, it was collected beside the holotype; deposited in the same collection, no. AMP-329 and 1 female which will be deposited in the collections of the Zoological Museum of Bogor (Indonesia).

Other material: 8 females (2 ovigerous); Bunaken, Station 34.

Diagnosis. Adult male. Body with conspicuous carinae; head with lateral cephalic lobe subrounded. Eye large with big outer ommatidia. Coxae 1-4 rounded below. Coxa 5 the biggest. Antenna 1 peduncle with decreasing 1-2 articles; flagellum of 7 articles. Antenna 2 with a wide peduncle article 4 and narrow article 5; flagellum of 10 articles. Gnathopod articles 5-6 subequals in length, palm of article 6 almost transverse covered with setae. Article 5 of gnathopod 2 with setae covering entire posterior border. Article 5 of pereopods 3-4 thorny. Article 2 of pereopod 5 with a spinose anterior border. Article 4-5 of pereopod 7 setose and well dilated. Uropods 1-2 bearing not so long apical spines. Telson with 2 apical spines on each lobe. Left mandible with a lacinia mobilis of 2 strong teeth; incisor weakly (slightly) serrate. Right mandible with 2 parallel small carinae, incisor smooth. Lower lip with a medium cone on each side. Outer lobe of maxilla 1 with one article and 1 apical seta; inner lobe rounded and naked. Maxilliped bearing a very slender and short article 4.

Additional observations. Maxilla 2 bearing 6 setae on outer, and 2 on inner lobes. Upper lip rounded. Coxa 2 with entire rounded border. Pereopods 3-4 bearing 3 and 4 spines respectively, on posterior border of article 5. Article 4 of pereopod 6 with setae on both sides. Article 2 of pereopod 7 subquadrate; articles 4-5 very setigerous. Epimerum 3 subrounded bearing 1 short seta and another one long.

Female. Antenna 1 with a flagellum of 6 articles. Antenna 2 with a very short flagellum of 3 articles.

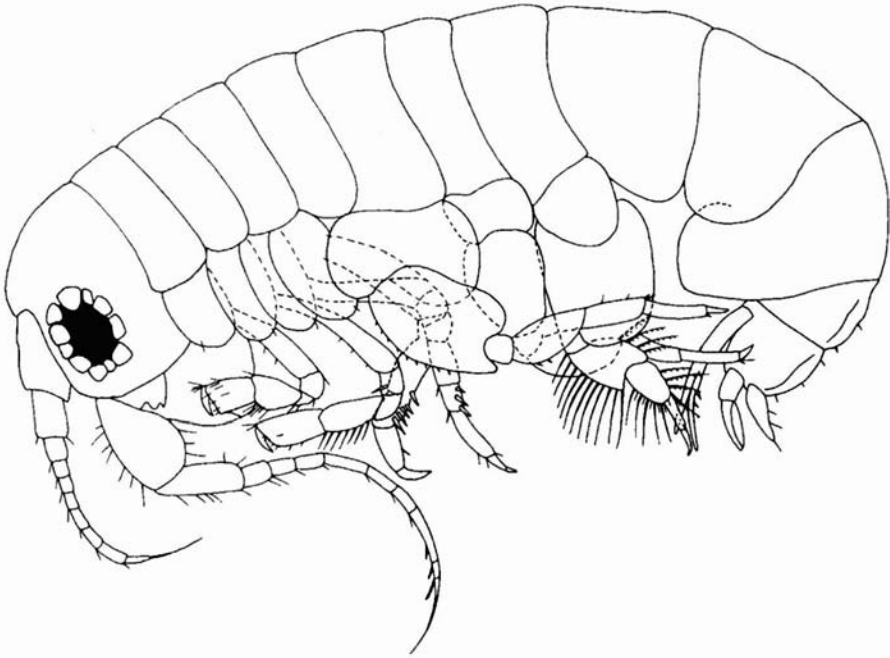


Fig. 17 – *Guernea sulawesiensis* n.sp., lateral view of body.

Remarks: *Guernea sulawesiensis* n.sp. differs from *G.latipes* Ledoyer, 1982, *G.longicornis* Ledoyer, 1982, *G.sombati* Hirayama, 1986, *G.tumulosa* Griffiths, 1976 and *G.rhomba* Griffiths, 1976 by bearing shorter apical spines on uropods 1-2. From *G.brevispinis* Ledoyer, 1982 because of a longer apical spines on uropods 1-2.

G.sulawesiensis n.sp. differs from *G.gelane* Barnard, 1972, *G.coalita*, *G.melape* Barnard, 1972, *G.tumaru*, Barnard, 1972 and *G.nordenskioldi* (Hansen, 1887) by having a maxilla 1 palp with 1 article. From *G.endota* Barnard, 1972, *G.ezoensis* Ishimaru, 1987, *G.ipelya* Thomas and Barnard, 1991, *G.longicornis* Ledoyer, 1982, *G.longidactyla* Hirayama, 1986, *G.melape* Barnard, 1972, *G.reducans* Barnard, 1970 and *G.rectocephala* Hirayama, 1985 by bearing a non carinate or spiny urosoma. On the other hand, it differs from *G.minor* Ishimaru, 1987, *G.yamminye* Thomas and Barnard, 1991 by lacking and type of dorsal constriction on dorsal part of urosomal segments. The not serrated coxa 2 lower border of *G.sulawesiensis* n.sp. are important elements to distinguish the former from *G.longicornis* Ledoyer, 1982. Also, the less setose telson of *G.sulawesiensis* n.sp. is another task when separating it from *G.sombati* Hirayama, 1986, *G.longidactyla* Hirayama, 1986, and *G.mackiei* Hirayama, 1986. The simple molar of *G.sulawesiensis* n.sp. is the best way when

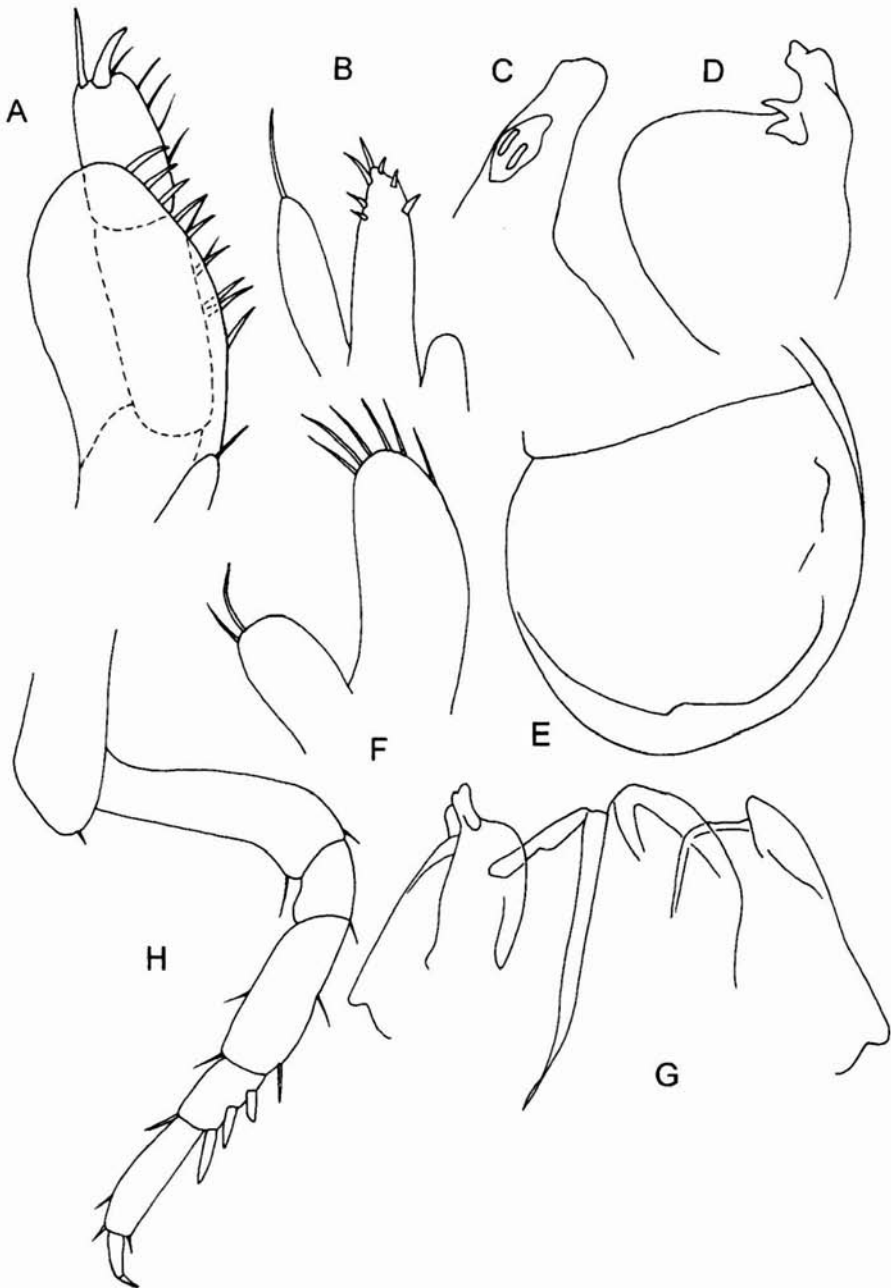


Fig. 18 – *Guernea sulawesiensis* n.sp.. A, maxilliped; B, maxilla 1; C, right mandible; D, left mandible; E, upper lip; F, maxilla 2; G, lower lip; H, pereopod 3.

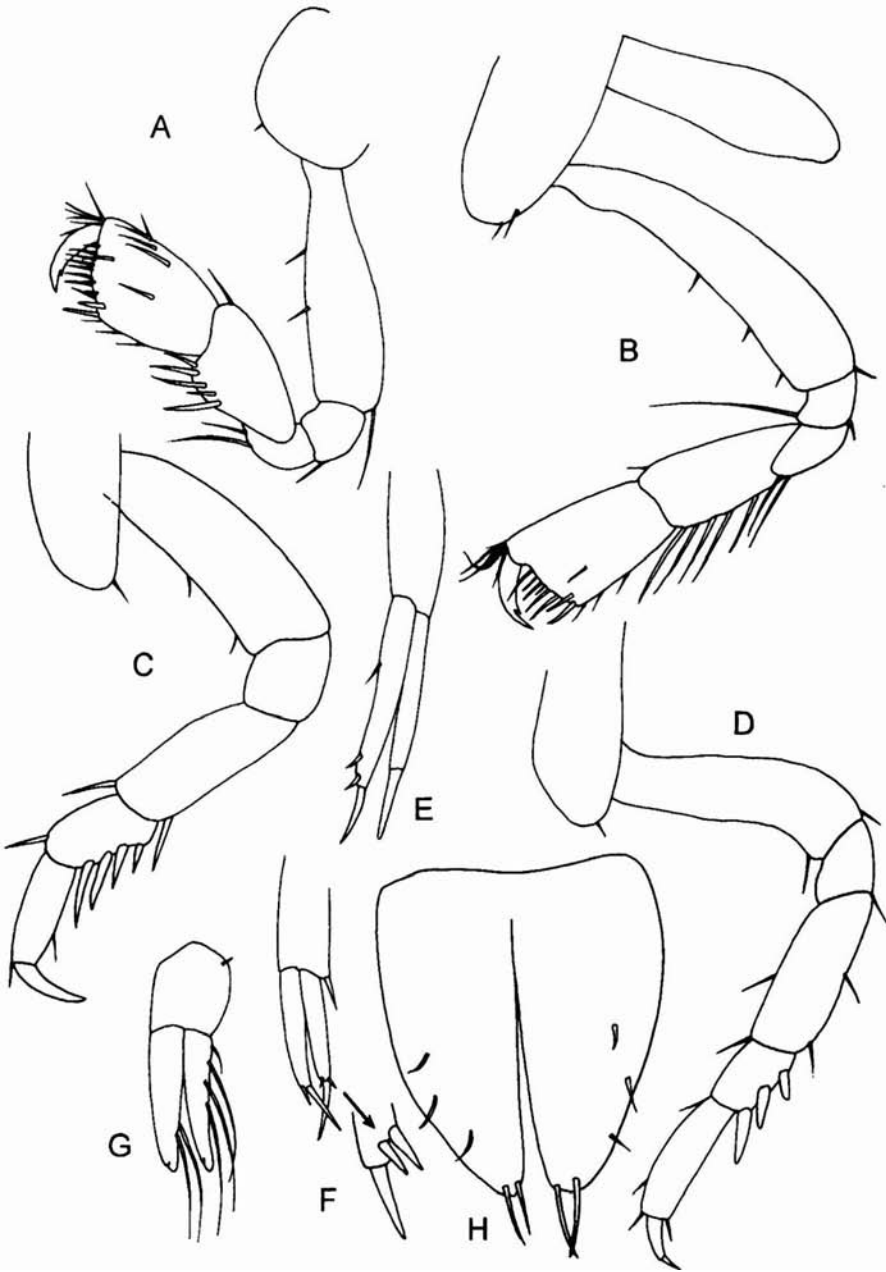


Fig. 19 – *Guernea sulawesiensis* n.sp., A, gnathopod 1; B, gnathopod 2; C, pereopod 4; D, pereopod 3; E, uropod 1; F, uropod 2; G, uropod 3; H, telson.

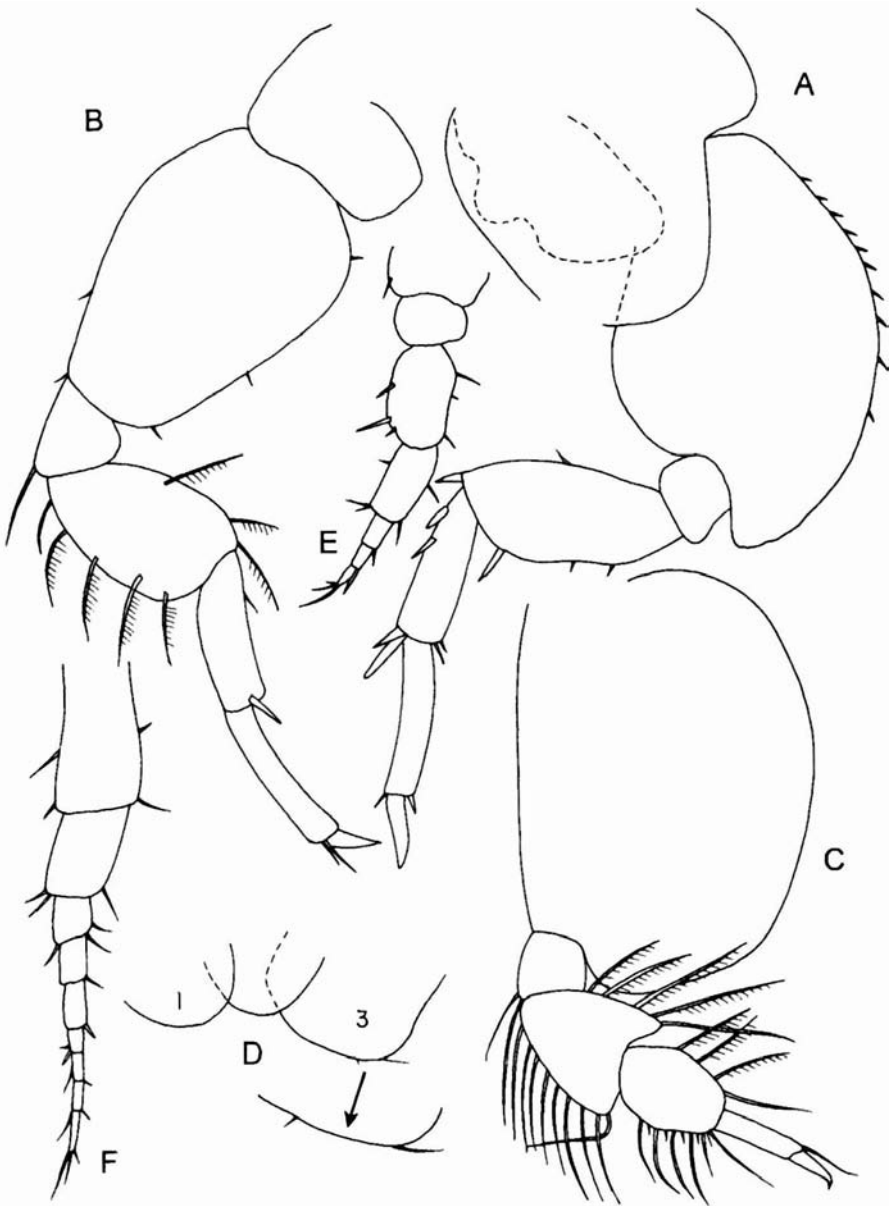


Fig. 20 – *Guernea sulawesiensis* n.sp.. A. pereopod 5; B. pereopod 6; C. pereopod 7; D. epimera; E. antenna 2 of female; F. antenna 1 of female.

distinguishing the Japanese species (*G. magnaphilostoma*, *G. terelamina*, *G. tomiokaensis*, *G. nullispina* and *G. rectocephala*), all described by Hirayama (1985). *G. sulawesiensis* n.sp. differs from *G. spinicornis* Ledoyer, 1982 because of a relative narrow pereopod 5, as well as from *G. tenuipes* Ledoyer, 1982 by bearing article 5 of gnathopod 2 as long as 6. Perhaps, the highest affinities of *G. sulawesiensis* n.sp. is found when comparing it with *G. unchalka* Barnard, 1972 but the female antenna 2 of the former has no aesthetascs; the non ornamented urosoma lacinia mobilis simple; palp of maxilla 1 with only one seta and inner lobe of maxilliped with 1 seta.

Etymology: It is named after the collecting place (North of Sulawesi Island).

Family EOPHLIANTIDAE Sheard, 1936

***Wandelia orghidani* n.sp.**

(Figs 21-24)

Holotype: ovigerous female, 2 mm, Bunaken, Station 29, it is deposited in the collections of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-330.

Paratype: 1 female; 1.9 mm; Bunaken, Station 27; it will be deposited in the collection of the Zoological Museum of Bogor (Indonesia).

Other material: 1 male, 1.7; Bunaken, Station 2.

Diagnosis. Body smooth. Head with short and rounded lateral cephalic lobes. Anterolateral incision for reception of antenna 2 vestigial. Article 1 of peduncle of antenna 1 not strongly inflated, bearing long aesthetascs in both sexes. Epistome rounded from lateral view. Upper lip softly subrounded. Right lacinia mobilis vestigial, pointed; left broad with some teeth. Incisor almost straight. With two raker spines and no molars in mandibles. Inner plate of maxilla 1 as long as the solitary apical spine; outer plate with 7 large spines; the small additional ones absent. Outer lobes of maxilliped shorter than the inner ones; inner lobe with two spines; palp not exceeding apical part of inner lobe; basal article of palp with one inner setae; article 2 with 3, 3 and 4, each with 4 setae. Lower lip with narrow inner lobes; mandible lobes pointed. Maxilla 2 with inner lobe as broad as the outer one, both with apical setae. Pereopod 6 article 2 with entire posterior border, and a long and guarding article 4 which extends till apex of 5, in both sexes. Pereopod 7 with a slender and short lobe on articles 3 and 4 in males.

Additional observations. Article 7 of pereopods 6 and 7 more than half length of article 6. Pleopod with two curved coupling hooks, with widely expanded peduncle; inner ramus proximally unarmed. Outer ramus of uropod 2 shorter than inner. Uropod 3 wider than long. Epimerum 3 posteroventral corner evanescent.

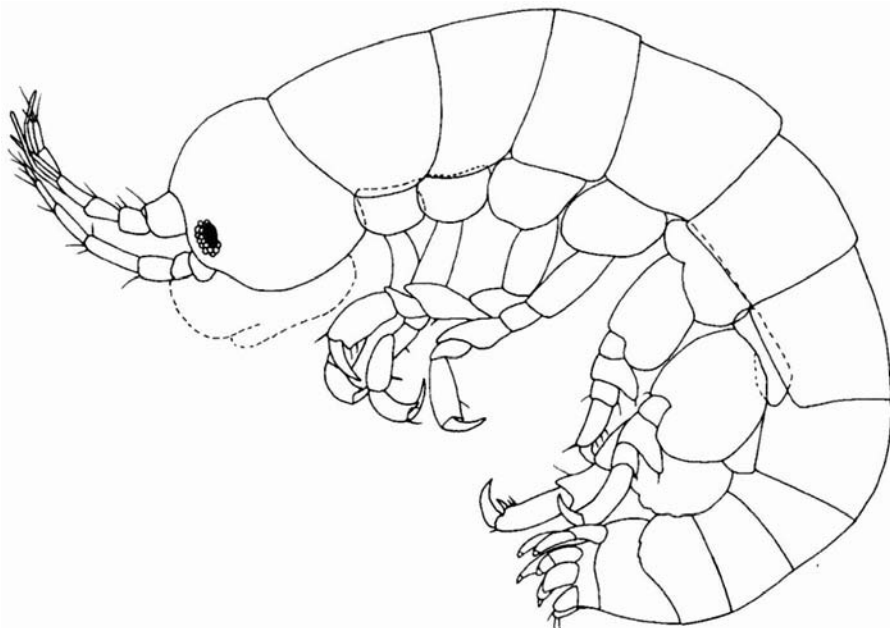


Fig. 21 – *Wandelia orghidani* n.sp., lateral view of body.

Article 2 of pereopod 7 without dark pigment forming spots in both sexes, in alcohol.

Oostegites of medium size, nor reaching apical part of article 4 on pereopod 4; setae with not completely curled setae. Gnathopods palmar lobes on article 6 with entire borders.

Remarks: There are only two valid species on the genus, of which the type species *Wandelia ceassipes* Chevreux, 1906 in spite of its insufficient description, is confined to East Antarctica, so, our discussion will be focused on the only other known species, *W. wairarapa* Barnard, 1972 from New Zealand. *W. orghidani* n.sp. differs from this species by bearing a subrounded lip; a shorter inner lobe of maxilla 1, inner lobe of maxilliped longer than outer, and with only 2 apical spines, mandible lobes of lower lips pointed. Inner lobe of maxilla 2 as broad as outer; pereopod 6 article 2 with entire border and a longer guarding article; pereopod 7 with a slender and short lobe on articles 3 and 4 in males; longer article 7 on pereopods 6-7; outer ramus of uropod 2 shorter than inner; epimerum 3 posteroventral corner evanescent, and pleopod 3 with two curved coupling hooks.

Etymology: Named in honour of the late Romanian Professor Dr. Traian Orghidan, for his great contribution to speleology and carcinology.

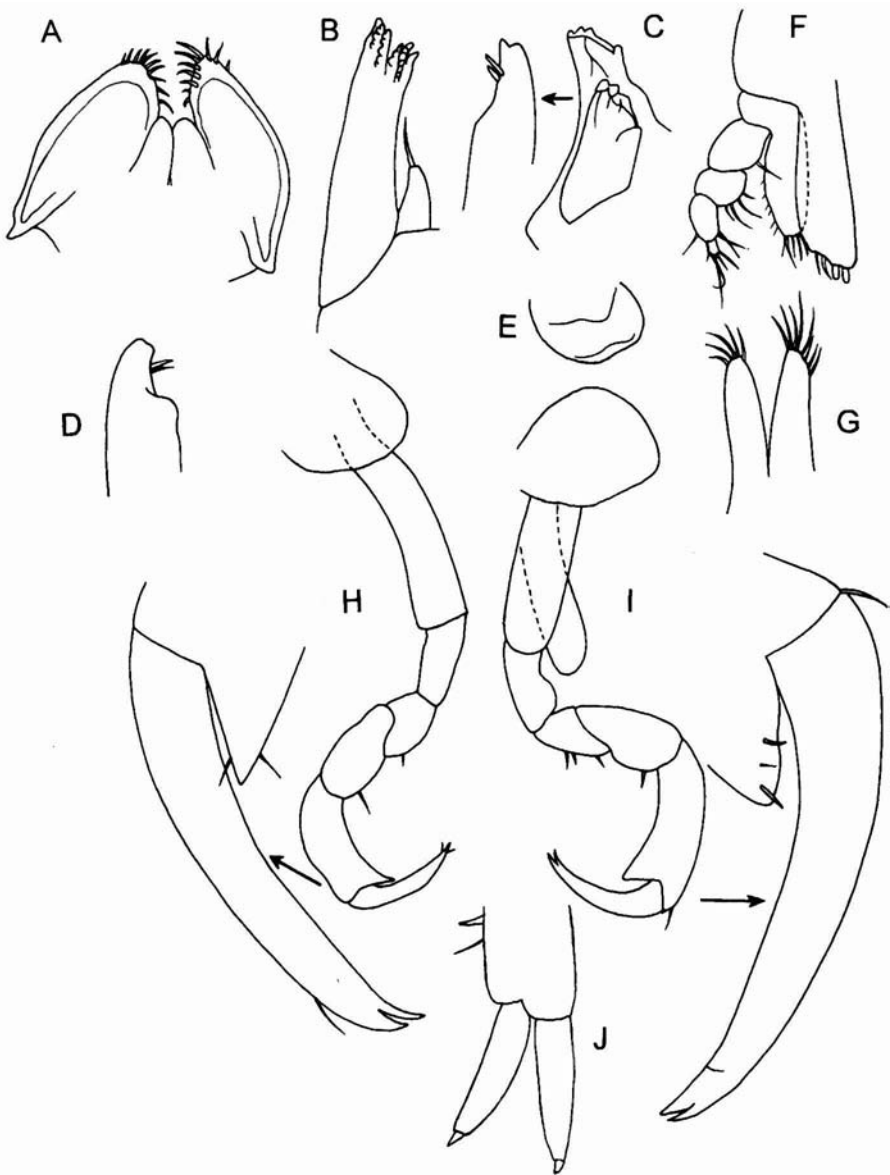


Fig. 22 – *Wandelia orghidani* n.sp., A, lower lip; B, maxilla 1; C, right mandible; D, left mandible; E, upper lip; F, maxilliped; G, maxilla 2; H, gnathopod 1; I, gnathopod 2; J, uropod 1.

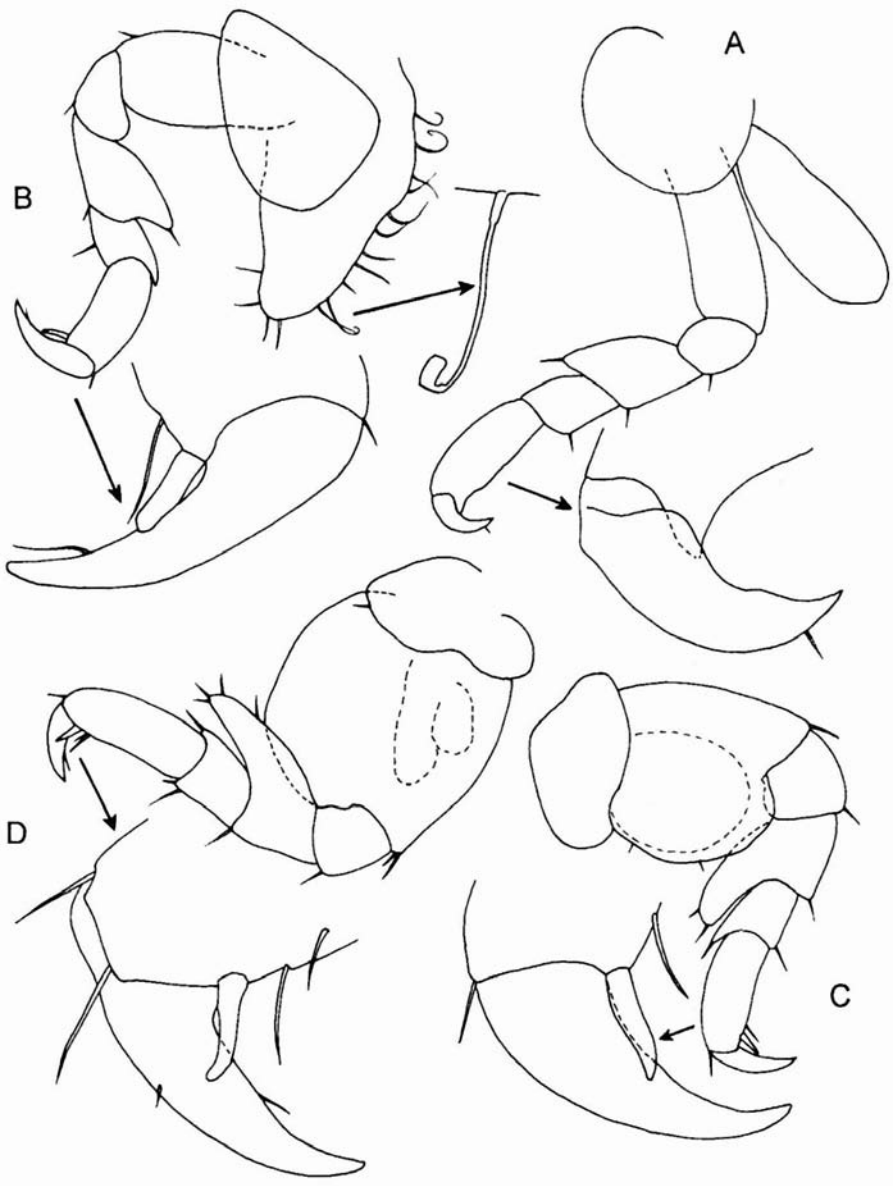


Fig. 23 – *Wandelia orghidani* n.sp.. A, pereopod 3; B, pereopod 4; C, pereopod 5; D, pereopod 6.

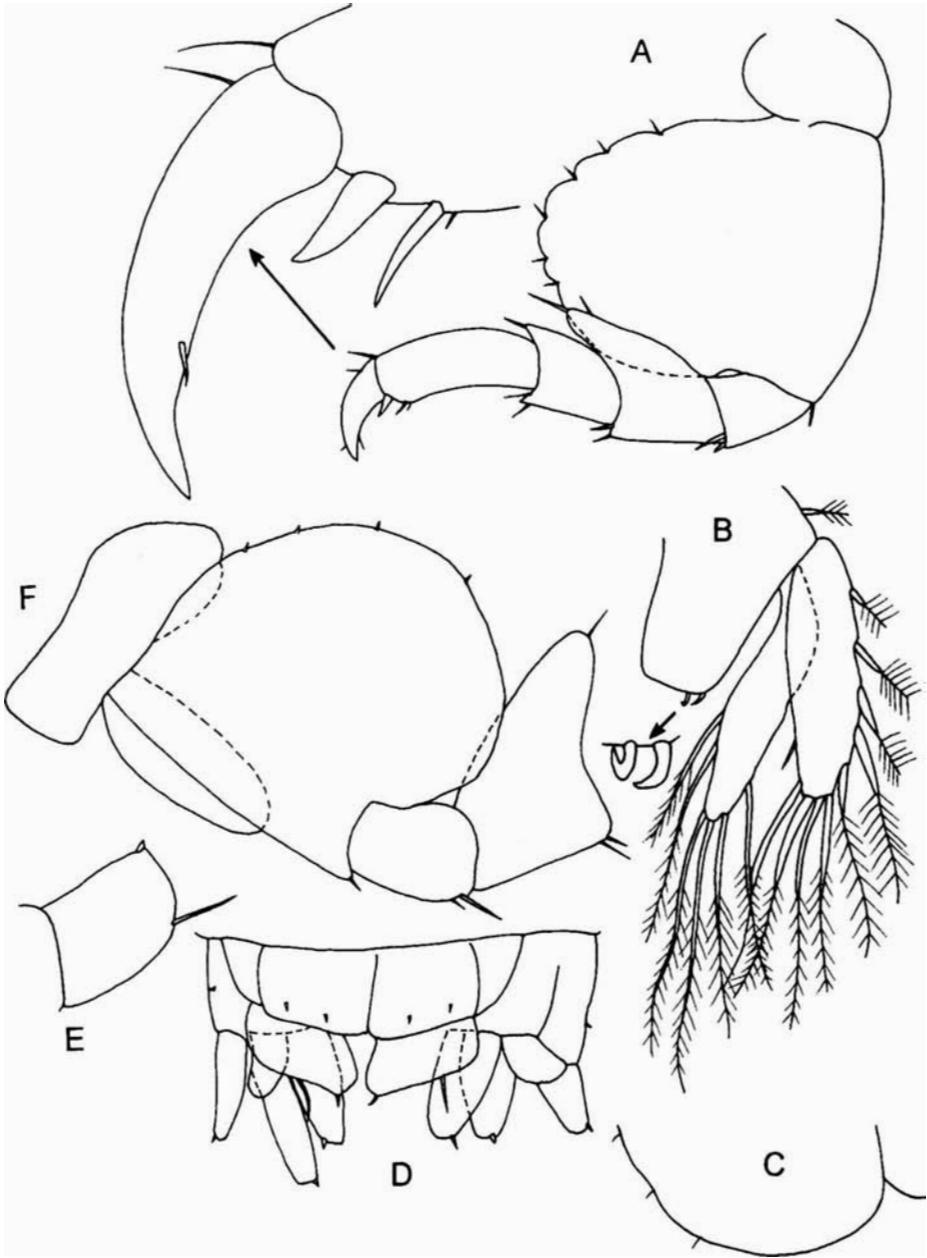


Fig. 24 – *Wandelia orghidani* n.sp.. A, pereopod 7; B, pleopod 3; C, epimera 3; D, urosoma, dorsal view; E, uropod 3, lateral view; F, pereopod 6 of female.

Family LYSIANASSIDAE Dana, 1849

Azotostoma bunakenensis n.sp.

(Figs 25-27)

Holotype: female with oostegites, 1.9 mm, Bunaken, Station 27, it deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-331.

Diagnosis. Adult female. Head with lateral cephalic lobe almost in right angle, pointed with convex and slightly concave borders. Eye subrounded, diameter almost the wide of article 1 of antenna 1. Epimerum 3 ventral border right posterior; posterior convex; both naked. Antenna 1 accessory flagellum with 2 articles; article 1 longer than 2; article 2 with long setae. Antenna 2 with a flagellum of 4 articles. Maxilliped palp longer than outer lobe; article 2 as long as 3-4 together; articles 3 and 4 subequals in length; inner border of article 2 devoid of setae. Mandible palp article 2 with a long apical spine; article 3 as long as 2. Maxilla 1 with obscurely biarticulate palp; outer lobe with 7 small distal teeth; without lateral setae on apical half. Maxilla 2 normal. Gnathopod 1, article 3 with posterior border covered by small combed setae; article 6 as long as 7; articles 6-7 completely smooth, with 3 apical setae which are equal or longer than half length of article 7. Gnathopod 2, article 5 with anterodistal setae; article 6 with 6 curved and bifurcate setae, of which the second is the longest; and the 6th the shortest, which articulate behind the short and blunt article 7. Rami of uropod 1 shorter than peduncle. Telson longer than wide.

Additional observations. Article 4 of pereopods 3-4 longer than article 7; article 5 shorter than 6. Article 2 of pereopods 5-6 subquadrate; with setae on anterior border. Anterodistal border of article 2 of pereopods 7 with one distal and one subdistal spines. Uropod 2 with an inner distal spine on peduncle and a spine on inner border of outer ramus. Peduncle of uropod 3 with an inner distal spine; rami naked.

Male. Unknown.

Remarks: *Azotostoma bunakenensis* n.sp. differs from *A. fusta* Barnard, 1965, the only known species of the genus up to day, by the articles 2-3 of mandible palp equals in length, and article 2 with a long apical spine; the pointed distal part of outer lobe of maxilliped; the small eye; articles 6-7 of gnathopod 1 smooth; article 6 of gnathopod 2 with 6 curved bifurcate setae and telson clearly longer than wide.

Etymology: Named after the collecting place (Island Bunaken).

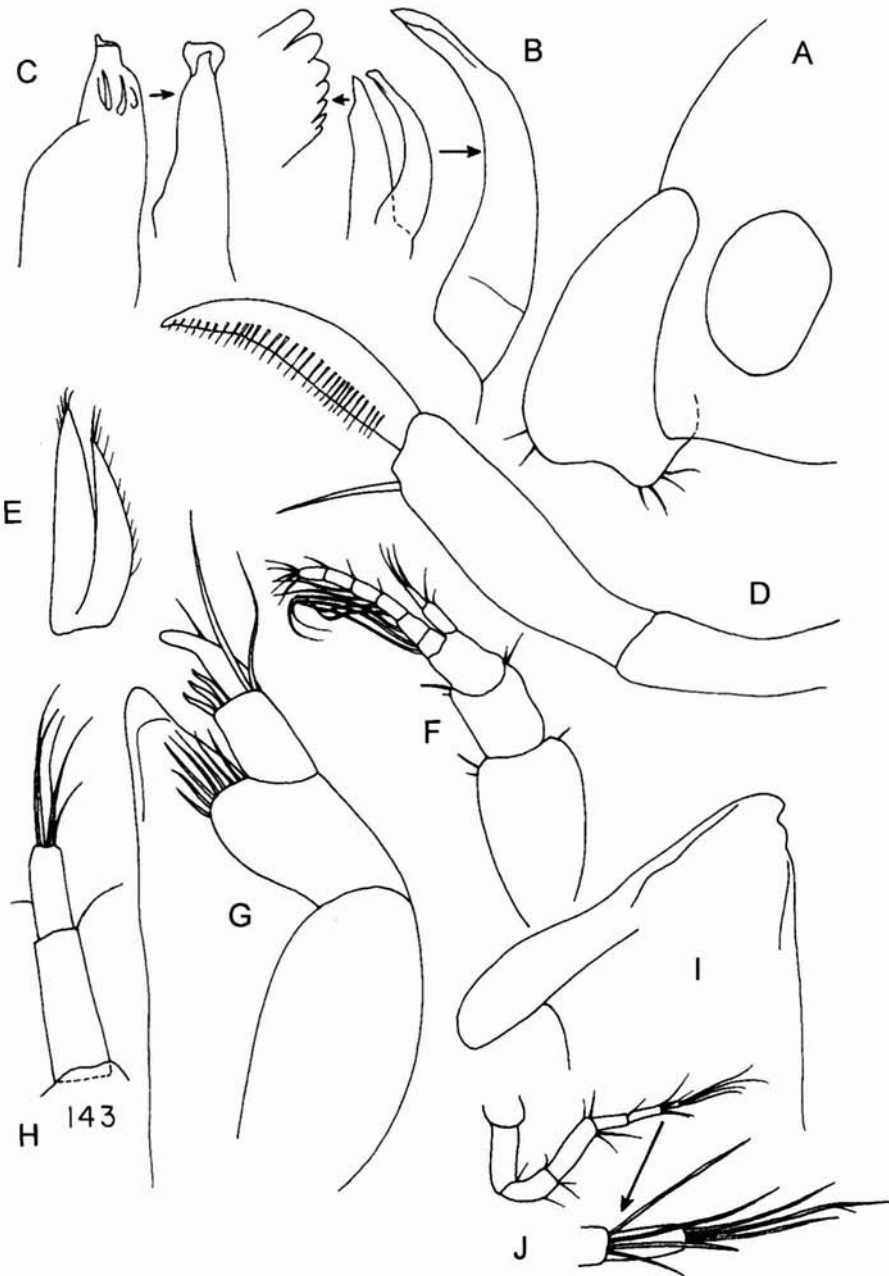


Fig. 25 – *Azotostoma bunakenensis* n.sp., A, lateral view of head; B, maxilla 1; C, mandible; D, mandible palp; E, maxilla 2; F, antenna 1; G, maxilliped; H, accessory flagellum; I, lower lip; J, antenna 2.

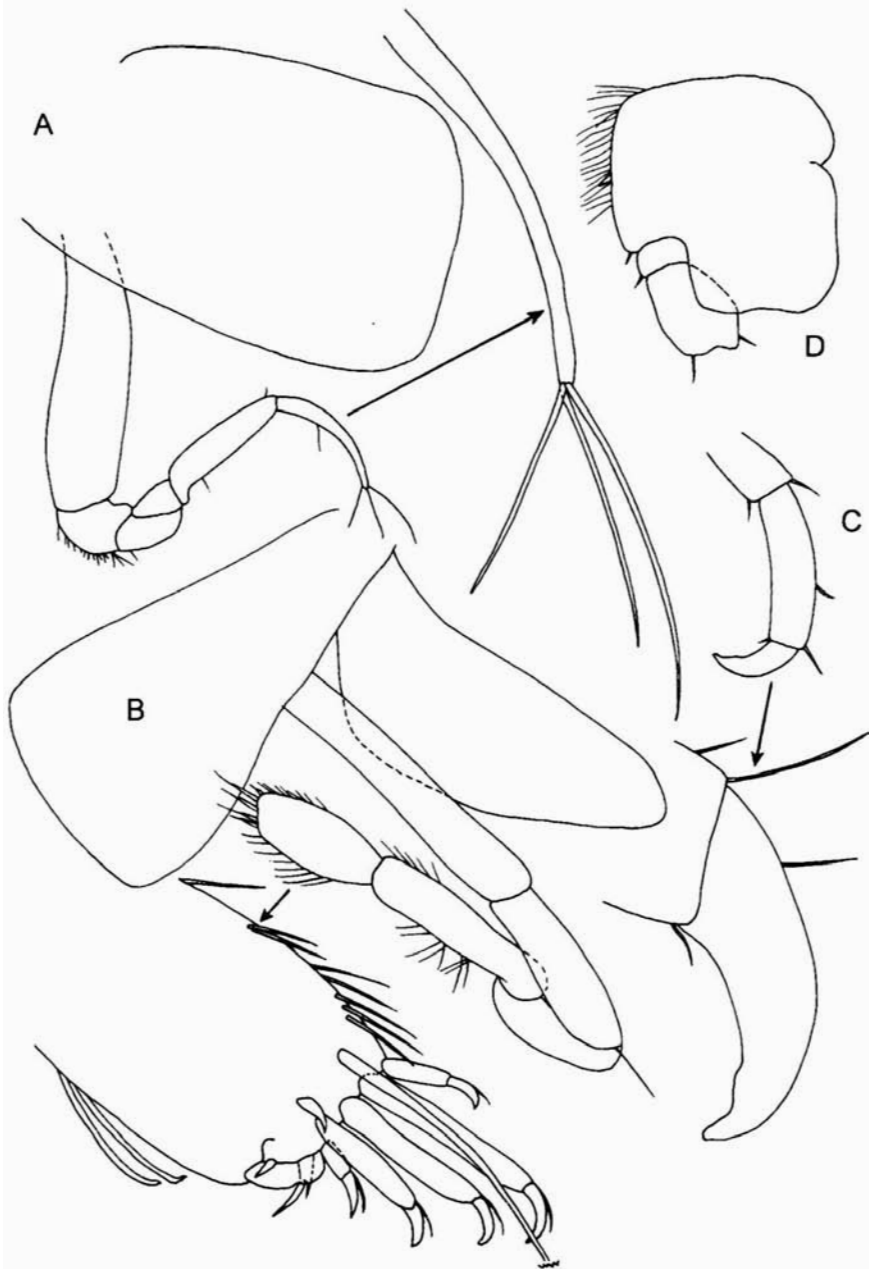


Fig. 26 – *Azotostoma bunakenensis* n.sp., A, gnathopod 1; B, gnathopod 2; C, pereopod 4; D, pereopod 5.

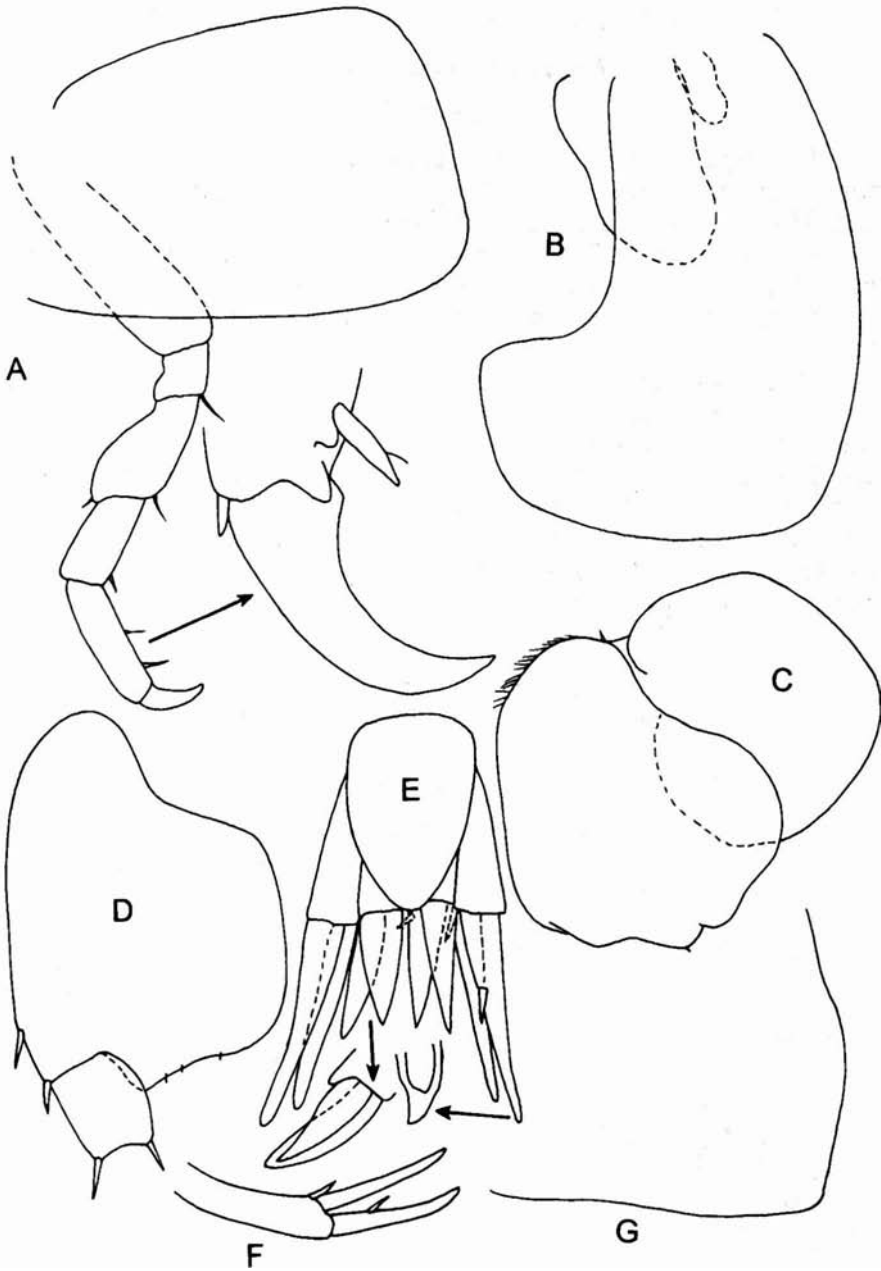


Fig. 27 - *Azotostoma bunakenensis* n.sp., A, pereopod 3; B, coxa with branchia and oostegite; C, coxa article 2 of pereopod; D, pereopod 7; E, urosoma, dorsal view; F, uropod 1; G, epimera 3.

Family MELITIDAE, sensu Jarret and Bousfield, 1996

***Eriopisella paraupolu* n.sp.**

(Figs 28-32)

Holotype: female (with oostegites), 2.9 mm, Bunaken, Station 2, it deposited in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-332.

Paratype: female 2.1 mm, from the same Station; it will be deposited in the collection of Zoological Museum of Bogor (Indonesia).

Other material: 1 female (ovigerous), 2.8 mm, from the same Station.

Diagnosis. Female. Urosomal segments smooth. Eye small. Lateral cephalic lobe rounded and scarcely protruding. Article 2 of antenna 1 longer than 1; accessory flagellum vestigial; with 3 setae on its single article. Left mandible palp with 2 apical setae on article 3; incisor with 4 small teeth; lacinia mobilis with 3. Right mandible palp with 3 apical setae on article 3. Inner lobe of maxilla 1 with 2 setae. Coxa 1 extended forward. Article 6 of gnathopod 1 as long as 5; not widening distally; palmar border oblique. Coxa 2 rounded. Article 5 posterior border forming

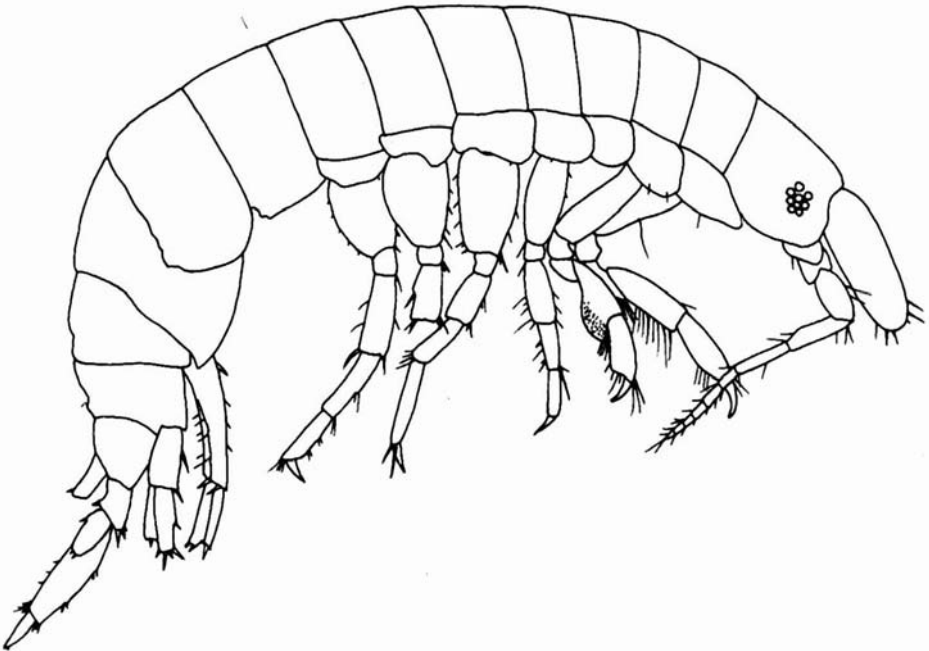


Fig. 28 – *Eriopisella paraupolu* n.sp., lateral view of body.

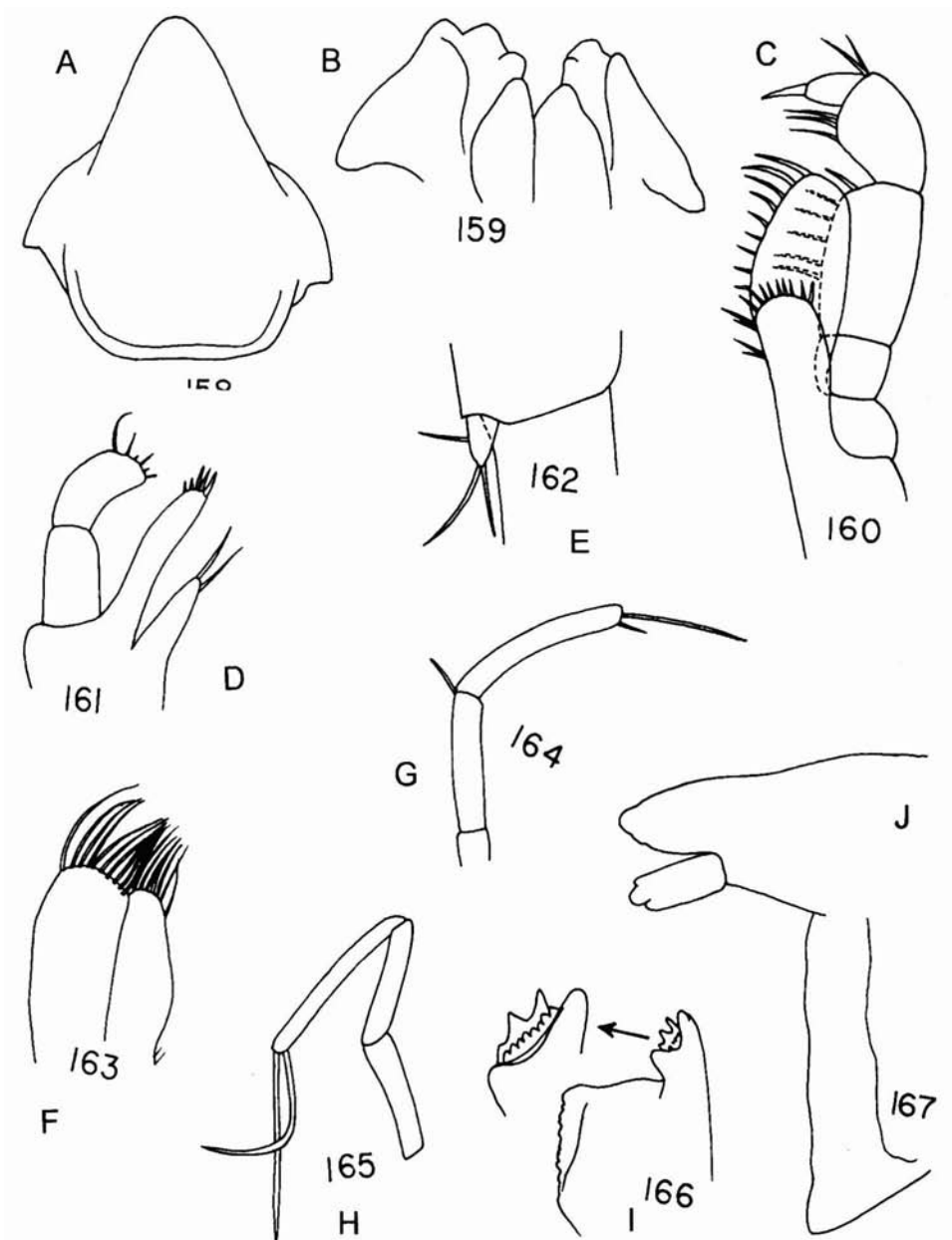


Fig. 29 – *Eriopisella paraupolu* n.sp., A, upper lip; B, lower lip; C, maxilliped; D, maxilla 1; E, accessory flagellum; F, maxilla 2; G, mandible palp of female; H, mandible palp of male; I, right mandible; J, left mandible.

lobe; article 6 rectangular; not widening distally, palmar border oblique. Coxa 2 rounded. Article 5 posterior border forming lobe; article 6 rectangular, not widening distally; palmar border oblique, with spine on palmar angle. Article 7 of pereopods 3-5 simple. Article 2 of pereopods 5-7 without posterior lobe. Article 2 of pereopod 5 very slender. Peduncle of uropod 1 with 4 pairs of spines, interramal spine less than 1/3 the length of the rami. Uropod 2 without interramal spine. Uropod 3 with article 2 of outer ramus longer than inner ramus. Telson wider than long; lobes subrounded, each with one small subdistal inner spine, and one lateral plumose seta. Epimerum 2 without setae. Epimerum 3 with a small posteroventral tooth.

Additional observation. Upper lip wide and short. Lower lip with inner lobes well developed. Maxilliped outer plate not reaching article 2 of palp; palp with long nail. Maxilla 2 outer lobe with 10 apical setae; inner lobe with 7. Article 2 of pereopods 5-7 almost naked, with an entire border.

Male. Unknown, but must be similar to female.

Remarks: Up to day there are 8 known species of the genus (Barnard and Barnard, 1983). *Eriopisella paraupolu* n.sp., differs from *E. capensis* (Barnard, 1916) by bearing eye; the uropod 3 with less spines and epimerum 3 with a small distoventral tooth. From *E. dentifera* Ledoyer, 1978, by the vestigial accessory flagellum, article 6 of gnathopod 2 not widening distally; peduncle of uropod 1 with more spines; and a longer article 2 outer ramus, and the position of the spine on each telsonic lobe. From *E. epimera* Griffiths, 1974, because of the shorter telsonic spines; and the shape of the epimerum 3. From *E. madagascariensis* Ledoyer, 1967, by the shorter interramal spine on uropod 1 and the female article 5 of gnathopod 2 without lobe. From *E. pusilla* Chevreux (Chevreux and Fage, 1925), because of the biggest eye; the less spinose article 5 of gnathopod 2; a vestigial accessory flagellum; and the longer and not widening distally article 5 of gnathopod 1. From *E. nagatai* Gurjanova, 1965, by the entire coxa 1; and by bearing eye. On the other hand, *E. paraupolu* n.sp. differs from *E. propagalio* Imbach, 1969, by bearing eye; a less conspicuous cephalic lobe, and the palmar border of article 6 of gnathopod 2 with less spines. From *E. upolu* Barnard, 1970, and *E. sechellensis* (Chevreux, 1901), by the smallest eye; the inner lobe of maxilla 1 with 2 setae; the article 7 of pereopods 3-5 simple (bifid in *E. sechellensis*); the epimerum 2 ventral border without a tuft of setae; article 2 of uropod 3 outer ramus longer than inner ramus; interramal spine on peduncle of uropod 1, and inner lobe of maxilla 1 with 2 setae.

Etymology: From the combination of “*para*” =beside and *upolu*, from the species *E. upolu* described by the late Barnard, in 1970.

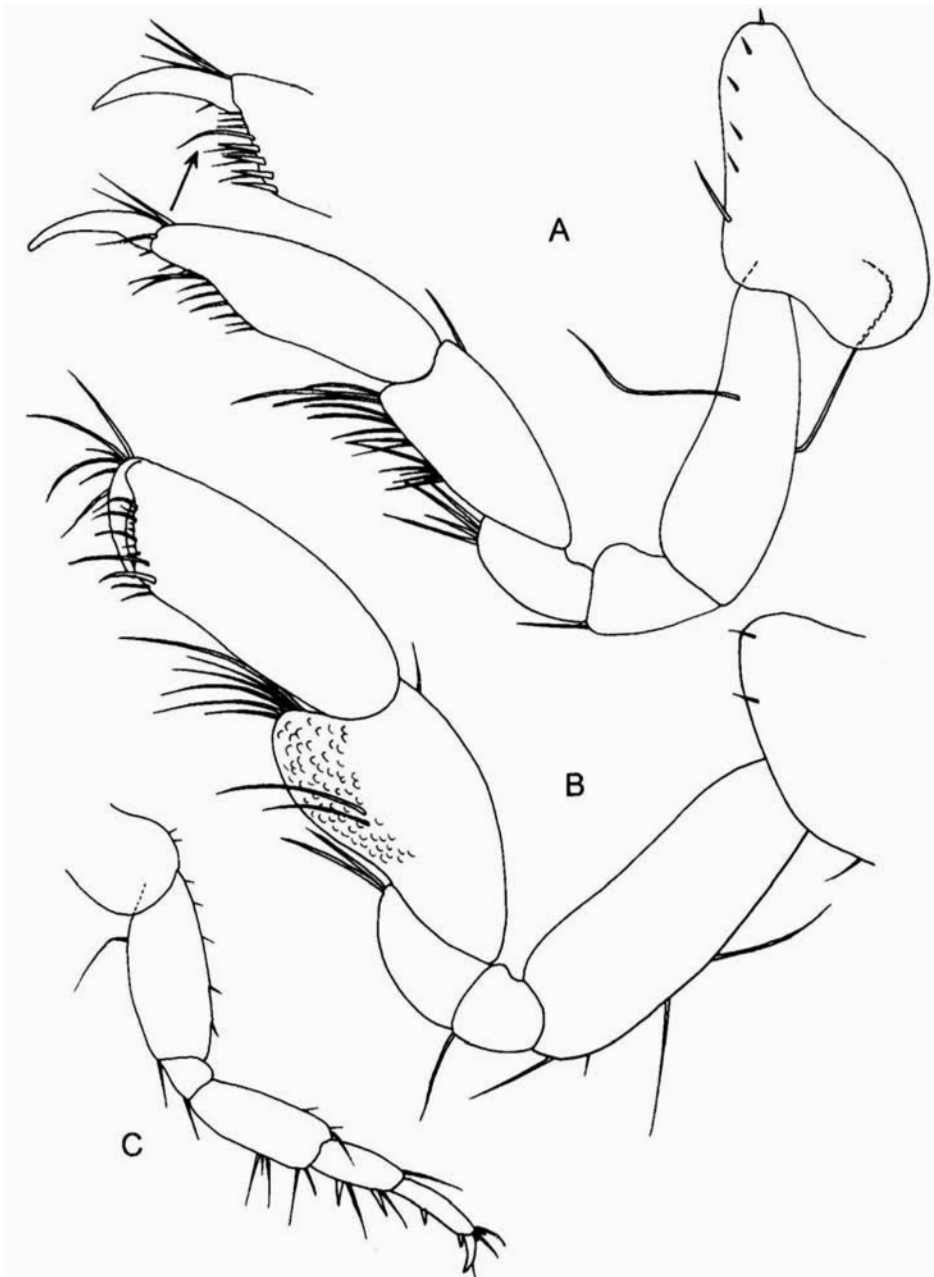


Fig. 30 – *Eriopisella paraupolu* n.sp., A, gnathopod 1; B, gnathopod 2; C, pereopod 4.

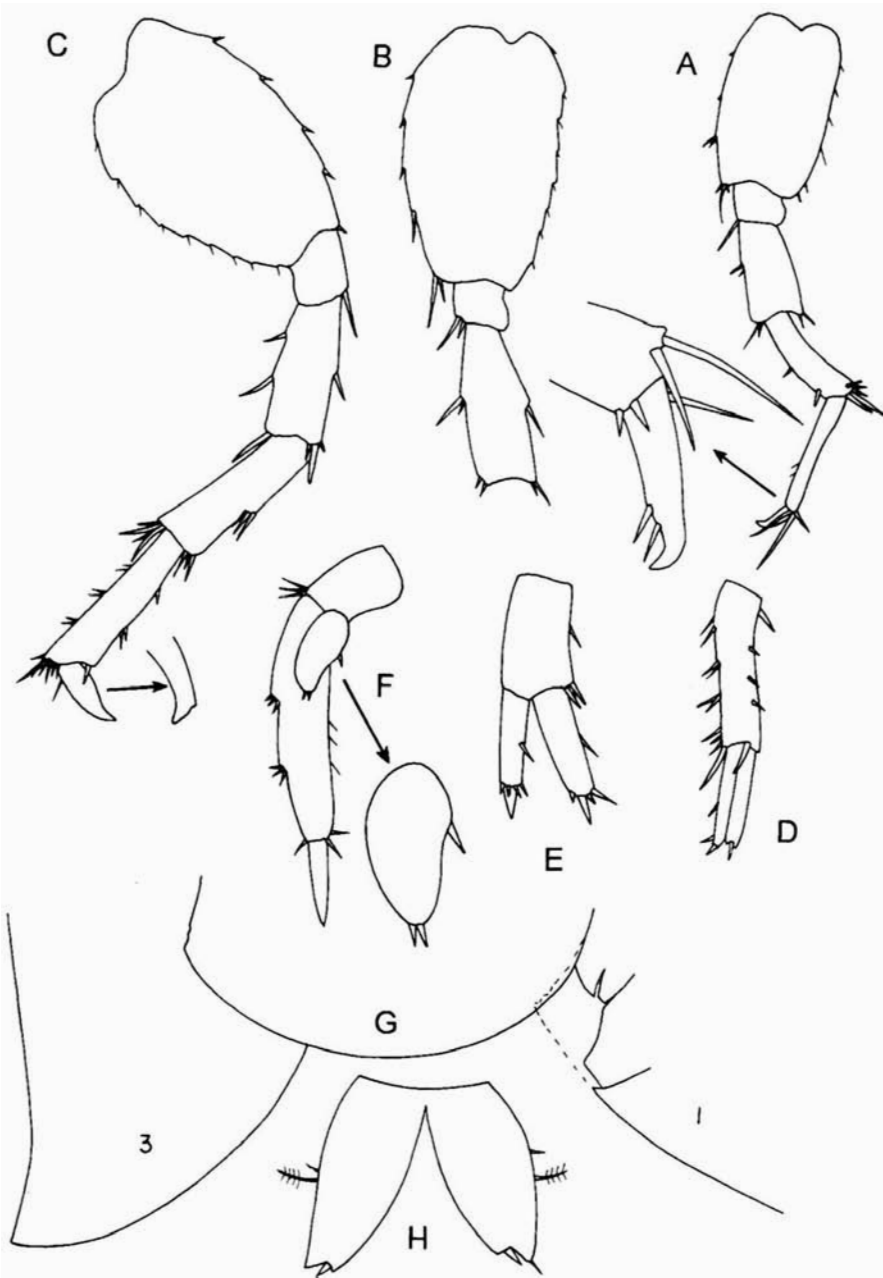


Fig. 31 – *Eriopisella paraupolu* n.sp., A, pereopod 5; B, pereopod 6; C, pereopod 7; D, uropod 1; E, uropod 2; F, uropod 3; G, epimera; H, telson.



Fig. 32 – *Eriopisella paraupolu* n.sp., A, ganthopod 1; B, gnathopod 2 of female; C, articles 4–7 of pereopod 4 of female; D, articles 2–3 of female pereopod 5; E, distal end of pereopod 6 of female.

***Pareiasmopus dancaui* n.sp.**

(Figs 33-38)

Holotype: male, Bunaken, Station 29, it deposited in the collection of the "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-333.

Paratypes: 2 females (ovigerous) in the same collections, no. AMP-334, and 2 specimens it will be deposited in the collection of Zoological Museum of Bogor (Indonesia).

Other material: Specimens from the following Bunaken Stations: 2, 6, 7, 11, 16, 17, 20, 22, 25, 27, 29, 31, 32.

Diagnosis. Male. Head with deep anteroventral notch; lobe ventral to notch very pointed. Eye oval and big. Lateral cephalic lobes rounded, accessory flagellum of antenna 1 with 2-3 articles. Pereonite 7 without dorsal teeth. Pleonites 1-2 and 4 with dorsal teeth. Inner lobe of maxilla 1 with 2 apical setae. Inner lobe of maxilla 2 with very slender setae. Posteroventral corner of coxa 1-3 without notches. Lower lip with 2 apical cones on outer lobe. Palmar border on article 6 of gnathopod 2 with 3 hollows; palm very oblique (almost 45° from vertical). Article 7 of pereiopods with distal constriction, with 2 setules; locking spines simple. Article 2 of pereiopod 7 with irregular posterior serration.

Additional observation. Article 1-2 of antenna 2 with a supradistal spine. Outer lobe of maxilliped with 11 odontoid spines. Upper lip rounded. Right mandible with 2 teeth on incisor; lacinia mobilis of 4 teeth (one long); with 3 lateral setae. Left mandible with 2 teeth on incisor, lacinia mobilis of 2 teeth and 4 setae. Palp of both mandibles with articles 1 and 3 equals in length; article 2 half the length of the two others. Article 5-6 of gnathopod 1 subequals in length; palmar border of 6 oblique; with a tooth on palmar angle. Article 5 of gnathopod 2 with a rounded posterior lobe article 6 big and powerful; palmar border with 3 spiny humps, the first under article 7 insertion, second and third equals and equidistantly distributed; with a tooth on palmar angle. Pereiopods 3-4 article 2 almost devoid of setae; article 6 posterior border with spines, article 7 very short. Pereiopod 5 articles 5-6 with very long posterior setae. Pereiopods 6-7 border of posterior lobe with irregular serration; that of pereiopod 7 with very long setae. First uropod without basolateral spine; outer ramus with 3 short and 1 apical spines; inner ramus with 2 and 1 respectively. Uropod 2 rami longer than peduncle; outer ramus with 3 short and one long apical spines; inner ramus with 2 and 1 respectively. Uropod 3 inner distal corner of peduncle with 2 spines; rami subequals in length. Telson deeply cleft wider than long; with 2-3 long and 2 short distal spines on each lobe; lateral margins naked. Epimerum 2 posteroventral corner curved and pointed. Epimerum 3 posteroventral corner with a big curved tooth followed ahead by 2-3 others.

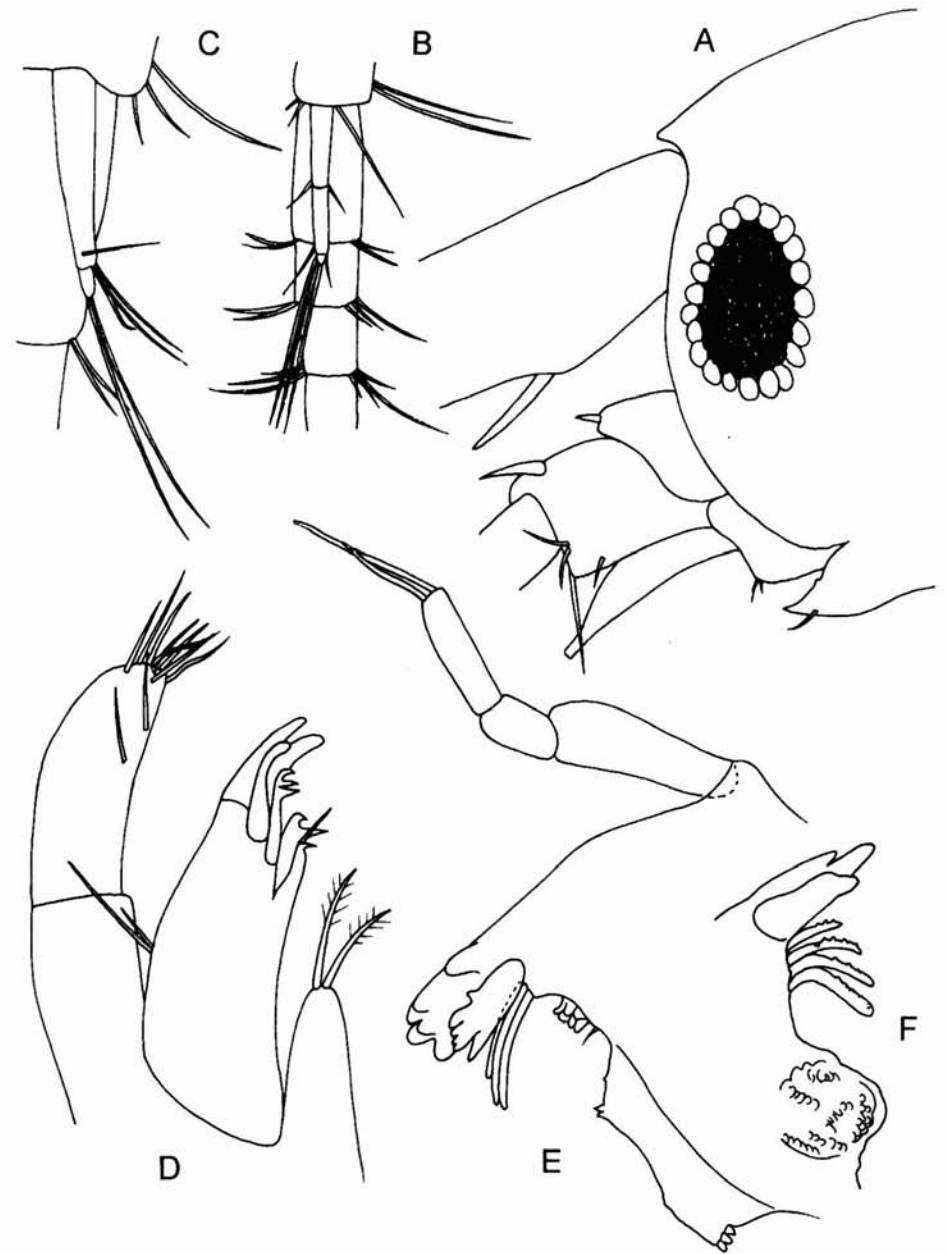


Fig. 33 – *Parelasmopus dancaui* n.sp., A, head; B, accessory flagellum of adult male; C, accessory flagellum of juvenil male; D, maxilla 2; E, right mandible; F, left mandible.

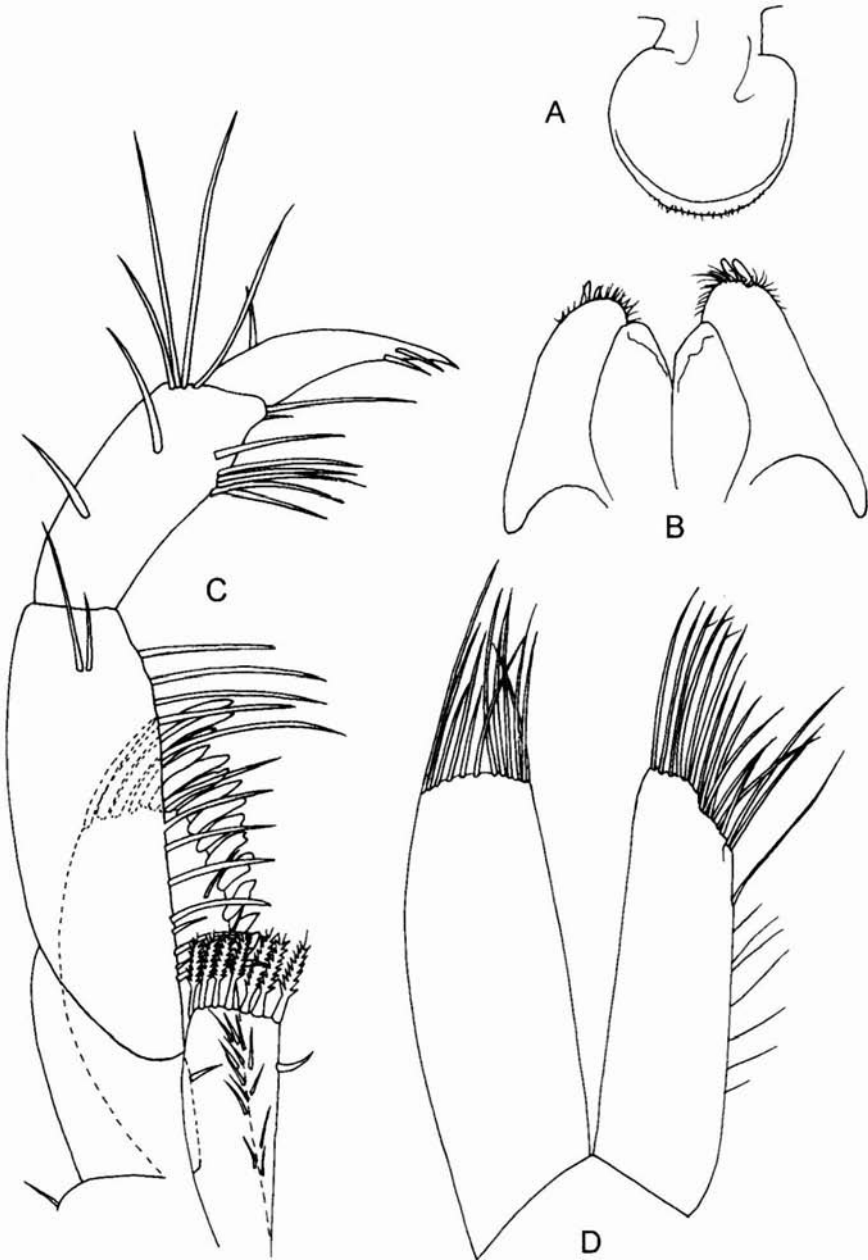


Fig. 34 – *Parelasmopus dancaui* n.sp., A, upper lip; B, lower lip; C, maxilliped; D, maxilla 2.

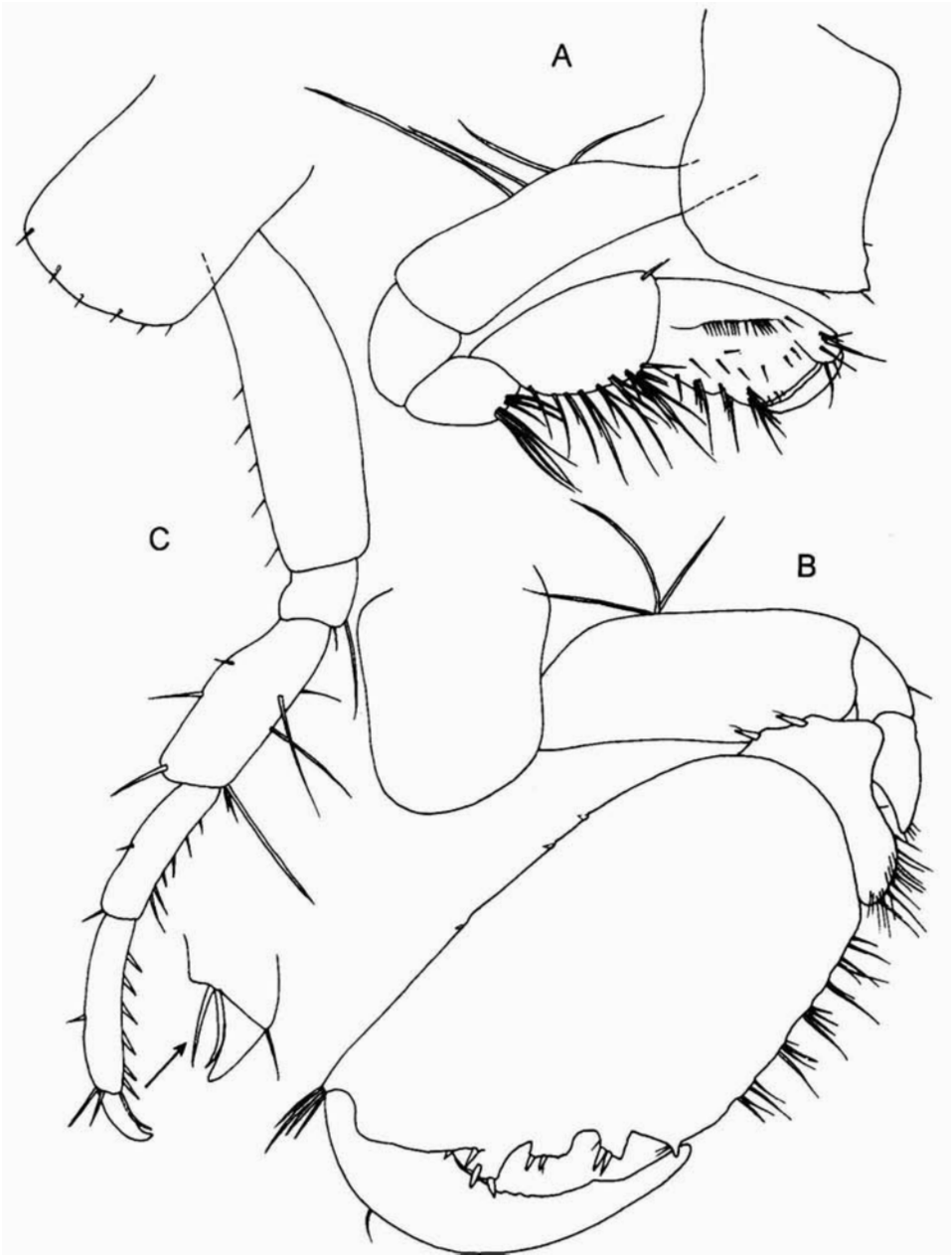


Fig. 35 – *Pareiasmopus dancaui* n.sp., A, gnathopod 1;
B, gnathopod 2; C, pereopod 3.

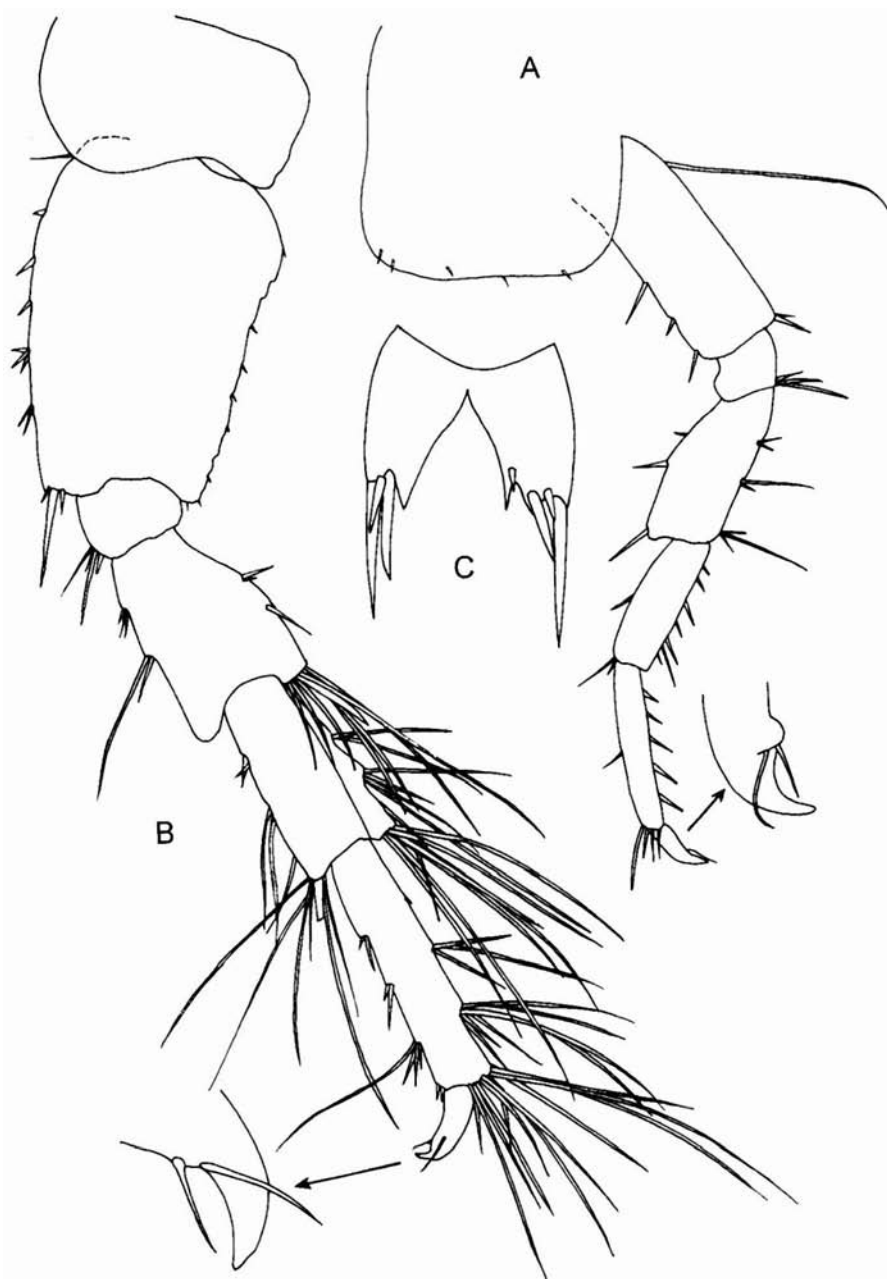


Fig. 36 – *Parelasmopus dancaui* n.sp., A, pereopod 4; B, pereopod 5; C, telson.



Fig. 37 – *Pareiasmopus dancaui* n.sp., A, pereopod 6; B, pereopod 7; C, uropod 1; D, uropod 2; E, uropod 3.

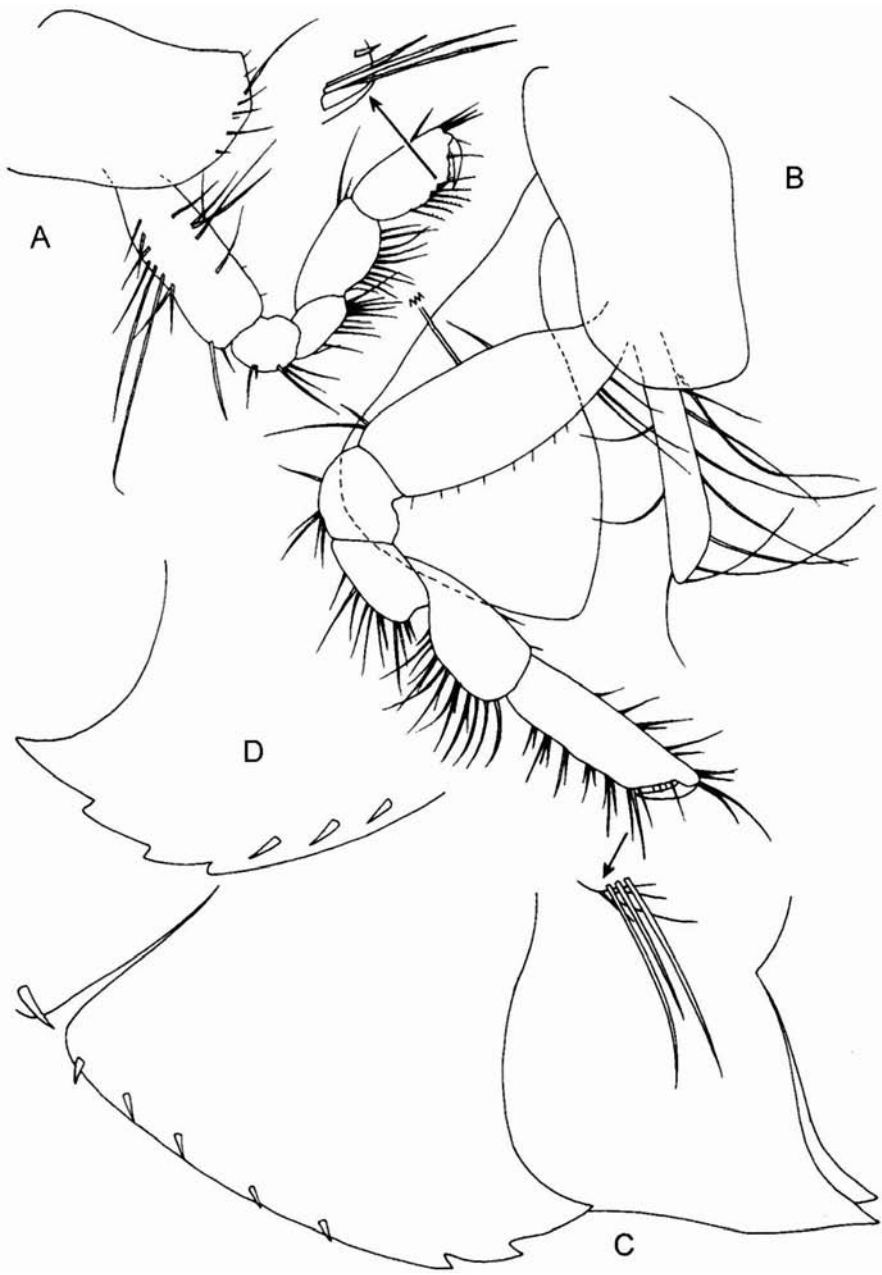


Fig. 38 – *Parelasmopus dancaui* n.sp., A. gnathopod 1 of female; B. gnathopod 2 of female; C. epimera of male; D. epimere 3 of female.

Female. Similar to male, but with a single seta on inner lobe of maxilla 1; with a very narrow article 6, and article 4 without tooth on gnathopod 2.

Remarks: There are 7 species of this bicarinate genus. *Pareiasmopus albidus* (Dana,1852); *P.echo* Barnard,1972; *P.setiger* Chevreux,1901; *P.suensis* (Haswell,1879); *P.suluensis* (Dana,1852); *P.ya* Barnard,1972, and *P.zelei* Ledoyer,1982.

As *Pareiasmopus dancaui* n.sp. have no dorsal teeth on pereonite 7, our discussion will be focused in distinguishing this species with the only others which this character; *P.albidus* and *P.ya*, *P.dancaui* n.sp. differs with *P.albidus* and *P.ya* by the very oblique palmar border of gnathopod 2 on male, which has 3 hollows (see Barnard,1972, pag.258, for additional information). From *P.ya* also differs by bearing lateral setae on inner lobe of maxilla 2 and by having article 4 without tooth on gnathopod 2, in female.

Etymology. In honor of the late roumanian speleologist Dr.Dan Dancău for his contributions on fresh water amphipod systematic and biology.

Family PARACALLIPIOIDAE Barnard and Karaman,1982

***Katocalliope gutui* n.sp.**

(Figs 39-44)

Holotype: male adult; Bunaken, Station 17, it is deposited in the collection of "Grigore Antipa" National Museum Of Natural History of Bucharest, no. AMP-335.

Paratypes: 8 females and males in the same collection, no. AMP-336, and 10 females and males it will be deposited in the collection of Zoological Museum of Bogor (Indonesia).

Other material: Bunaken Station 8,14,17,26,30,32.

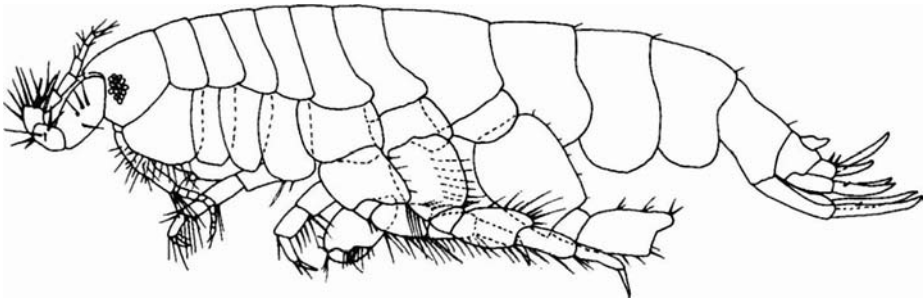


Fig. 39 – *Katocalliope gutui* n.sp., lateral view of body.

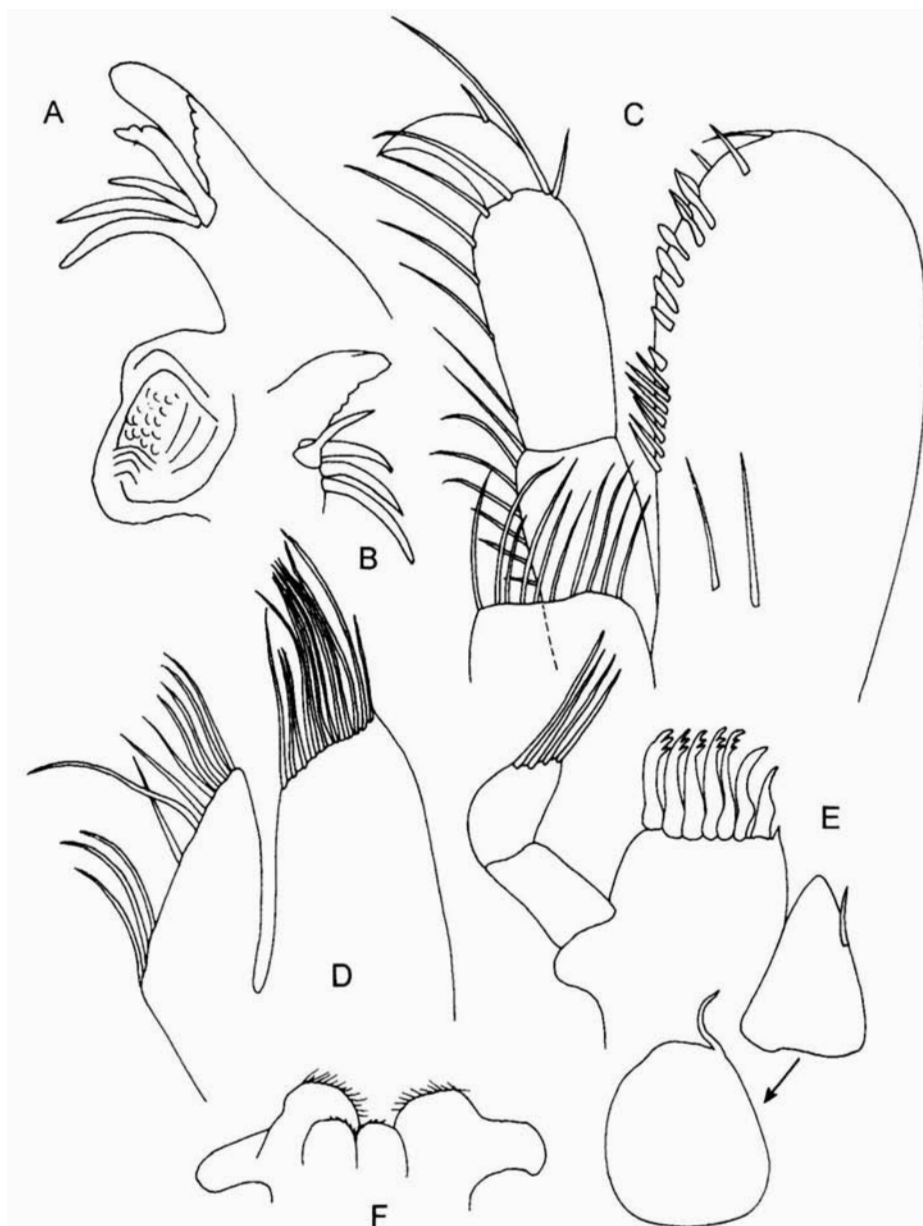


Fig. 40 – *Katocalliope gutui* n.sp., A, left mandible; B, right mandible; C, maxilliped; D, maxilla 2; E, maxilla 1; F, lower lip.

Diagnosis. Adult male. Rostrum of medium size, blunt. Lateral cephalic lobes small subrounded. Eyes of medium size with more than 12 ommatidia. Antennae turned outwards laterally. Antenna 1 longer than 2; article 1 large outer facial formula 3+1; articles 2 and 3 short and equal in length; primary flagellum with 6-7 articles almost without aesthetasc; accessory flagellum absent. Antenna 2 sharply twisted out and backwards, gland cone of medium size; article 4 slightly expanded, posterior border with strong setae; article 5 shorter and thinner than 4, clavate bearing stout setae on distal posterior border; flagellum with 8 articles, first 3 articles, each with calceolus on anterior face. Upper lip rounded. Mandibular incisor short, teeth ill-defined; lacinia mobilis on each side spine-like, left stouter; with 3 raker spines on both mandibles. Lower lip with strong extended and rounded mandibular lobes; inner lobes small but unfused together. Inner plate of maxilla 1 leaf-like, without apical point and one apical seta; outer plate with 7 spines; palp article 2 wider than 1, with 4 apical setae. Inner lobe of maxilla 2 triangle shape, smaller than outer. Maxilliped palp reaching apical part of outer lobe; article 7 without accessory apical setules. Coxa 1 expanded distally. Coxa 2-3 tapering distally. Coxa 4 adz-shaped. Gnathopod 1 small, widening distally but not lobate; article 6 longer than 5; with 2-3 small teeth on palmar border just beside insertion of article 7, palm oblique and with small callus on palmar angle. Gnathopod 2 large; article 5 with acute, curved posterior lobe. Article 6 longer than 5, oblique slightly excavated in middle, this sinus bearing 4 thick spines, of which the lowest 2 are very small; palmar angle with a large callus delimited by setae. Pereiopods 3-4 fossorial, with article 4 as long as 2. Pereiopods 5-6 short, fossorial with articles 4-5 strongly setose; article 2 of pereiopod 5 with setae on anterior and posterior borders. Pereiopod 7 article 2 with spines on both margins. Uropod 1 with 3 spines on peduncle, and medial spine on each ramus. Uropod 3 outer ramus shorter than inner. Telson thick, subquadrate with slightly bilobate posterior border. Epimera rounded and very similar to each other.

Additional observations. Mandibles with a very developed triturative molar; without palp. Palp of maxilla 1 articulated forming an angle, not in strike line. Upper lip with a bilobated outer lobe. Outer plate of maxilliped with 2 apical and 2 subapical setae, 7 odontoid spines and a tuft of 7 setae on its inner border, inner lobe only with terminal setae. Pereiopods 3-4 without apical flake. Coxa 1 with 8 long setae, and 1 antero and 2 posteroventral short setae; coxa 2 with 4 long setae (3 broken on Holotype); coxa 4 with 2 groups of 3 long coxae. Uropod 2 with rami equals in length.

Female. Gnathopod 1 slender; articles 5-6 equals in length; article 7 very short and blunt palmar border absent. Gnathopod 2 a little larger than 1 slender; article 5 forming a blunt medial posterior lobe; article 6 as long as

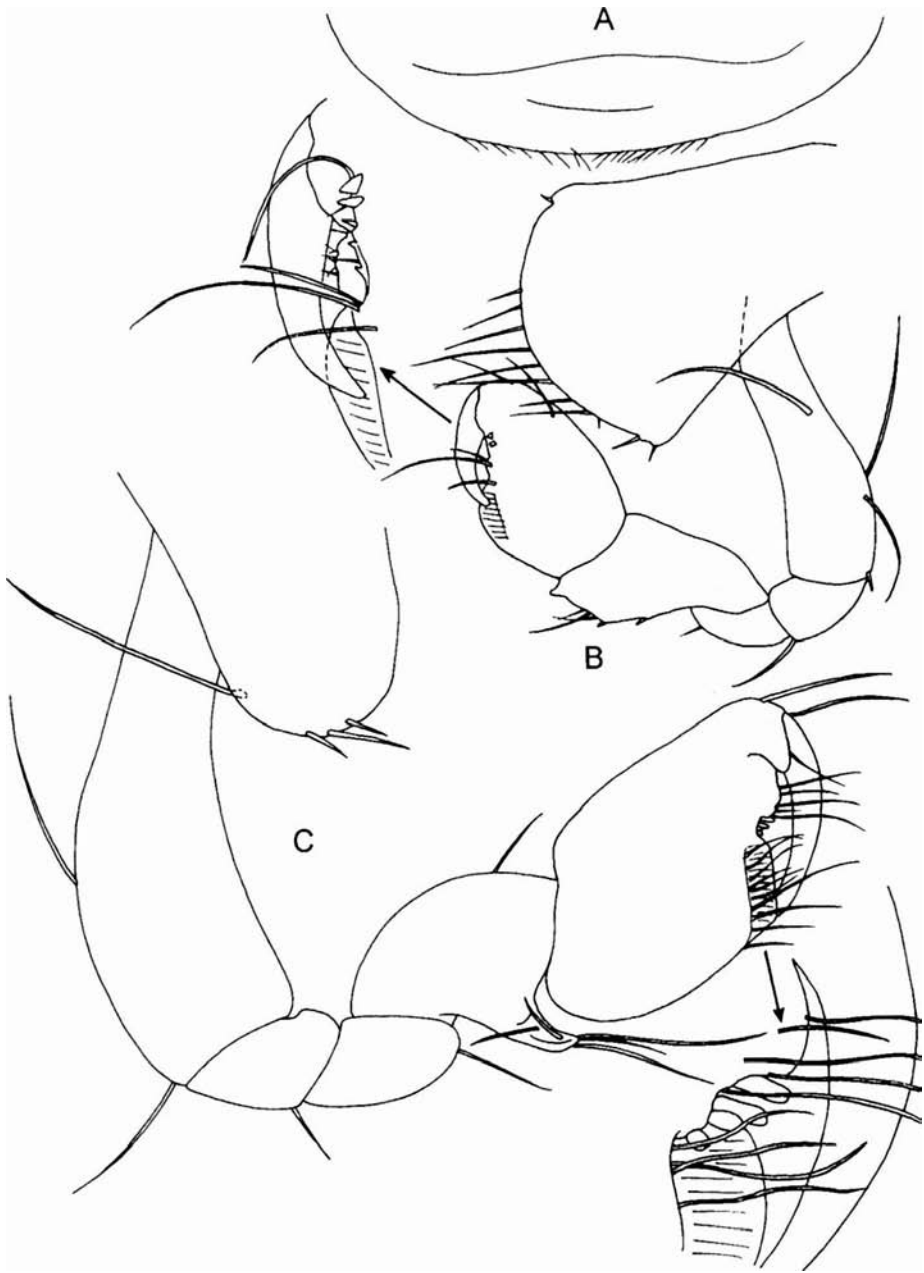


Fig. 41 – *Katocalliope gutui* n.sp., A, upper lip;
B, gnathopod 1; C, gnathopod 2.

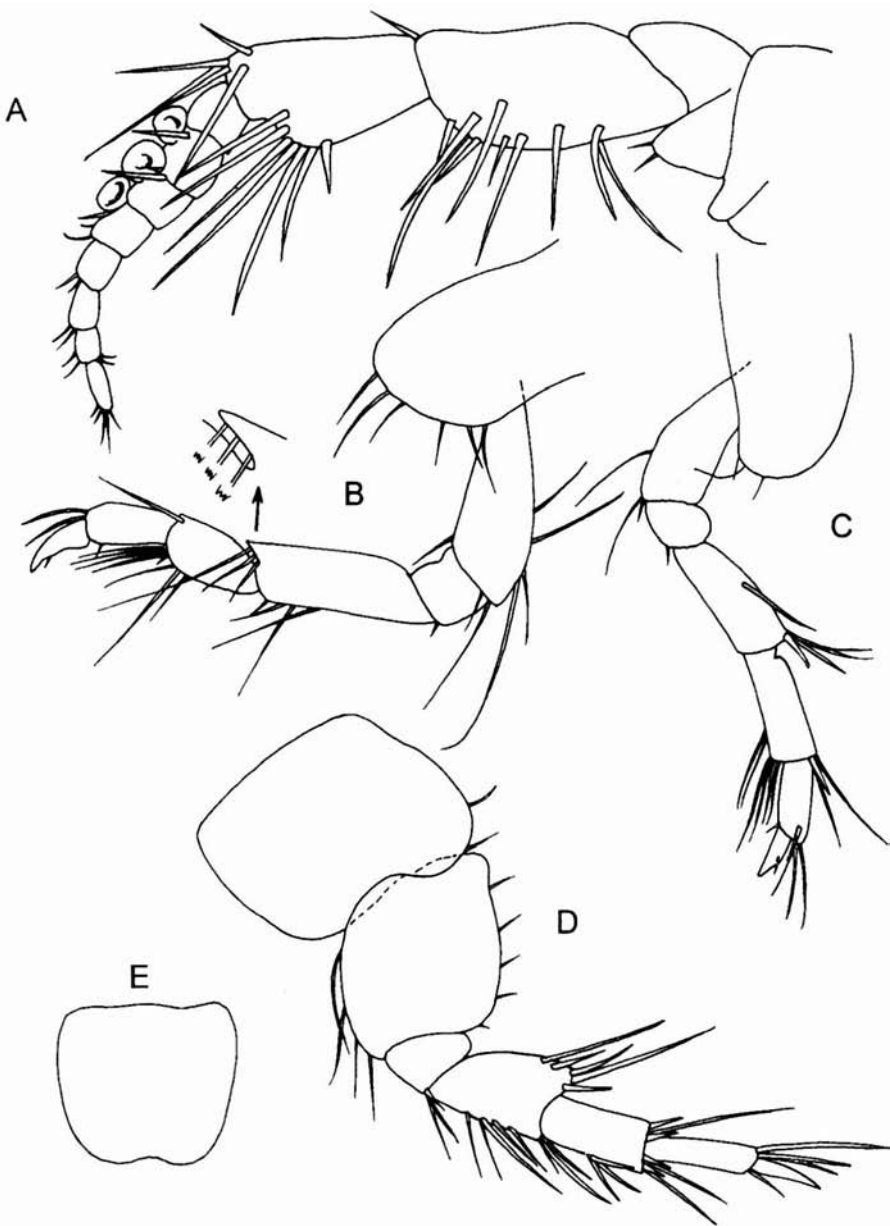


Fig. 42 – *Katocallope gutui* n.sp., A, antenna 2; B, pereopod 4; C, pereopod 3; D, pereopod 5; E, telson.

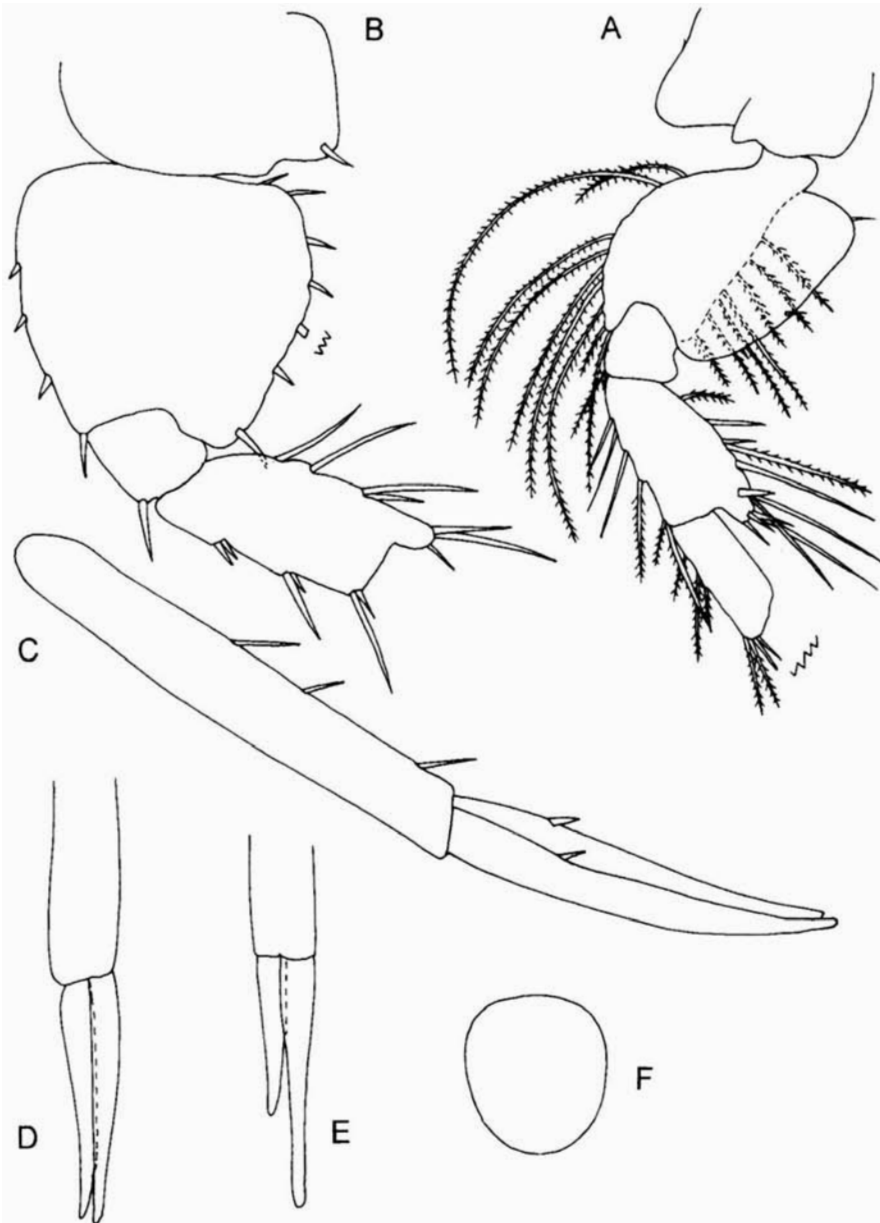


Fig. 43 – *Katocalloipe gutui* n.sp.. A, pereopod 6; B, pereopod 7; C, uropod 1; D, uropod 2; E, uropod 3; F, telson of female.

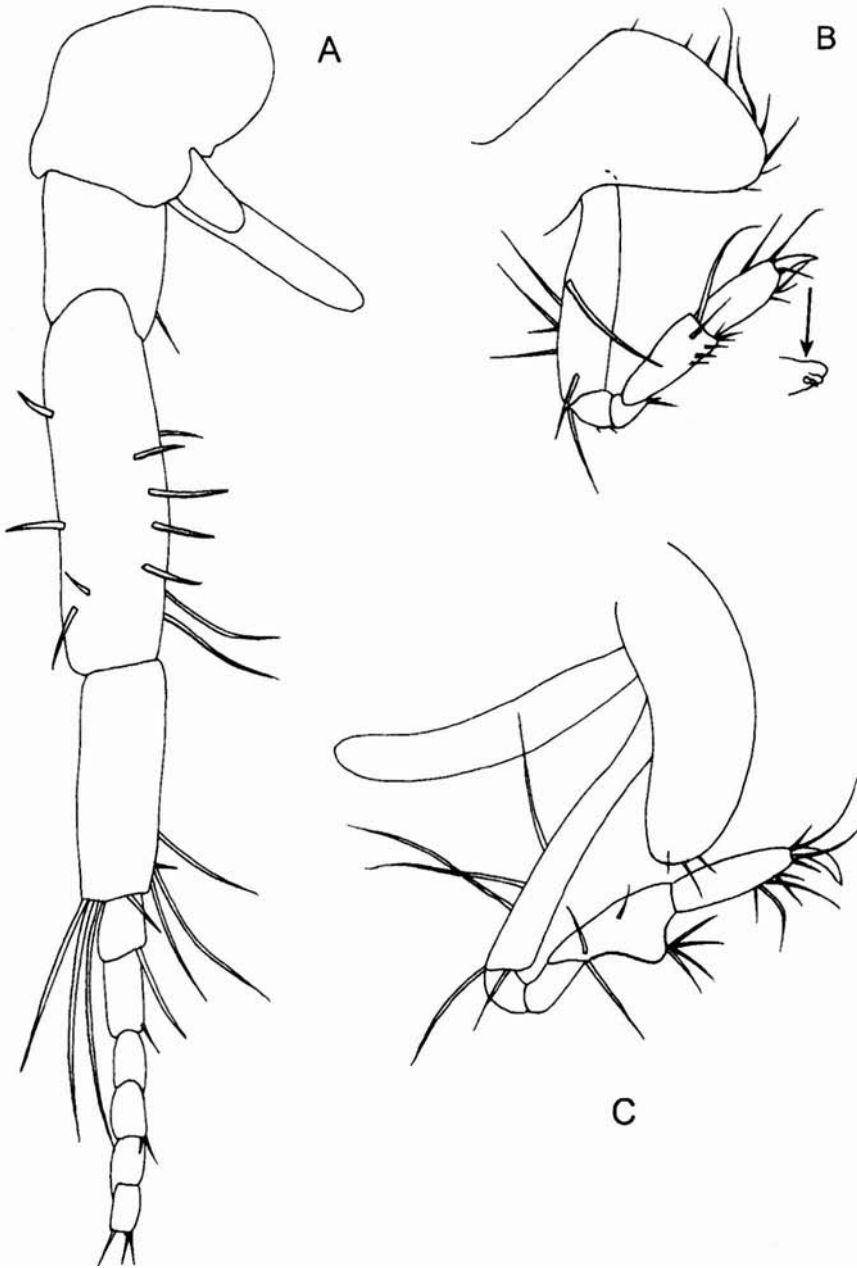


Fig. 44 – *Katocallope gutui* n.sp., A, antenna 2 of female; B, gnathopod 1 of female; C, gnathopod 2 of female.

5; article 7 normal; palmar border absent. Oostegite slender and as long as article 2. Antenna 2 with a very long glandular cone. Telson subrounded naked.

Remarks: *Katocalliope gutui* n.sp.; differs from *K.kutyeri* Barnard and Drummond, 1984, the only species on the genus known up today, by the longer antenna 2; the unfused inner lobes of lower lip; the inner lobe of maxilla 2 without apical point; the article 7 on pereopods 3-4 without apical flake; the palmar border on gnathopod 2 which is slightly excavated and armed with 4 teeth; the outer ramus of uropod 3 shorter than outer and the telson with slightly bilobated posterior lobe. Also, the female of the former has a blunt posterior lobe of gnathopod 2, and a naked telson.

Etymology: Species named in honor of our friend, Modest Guțu, for his contributions to the knowledge of tanaidacean crustaceans, as well as by his effort in the collecting of this material in the "Grigore Antipa" National Museum of Natural History Expedition, in Indonesian Archipelago, in 1991.

***Paracalliope bacescui* n.sp.**

(Figs 45-49)

Holotype: male adult, Bunaken, Station 20, in the collection of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-337.

Paratypes: 9 specimens (females and males) in the same collection, no. AMP-338, and 9 specimens (females and males), all collected in the same station, it will be deposited in the collection of Zoological Museum of Bogor (Indonesia).

Other material: 9 females and 4 males collected from the same Station.

Diagnosis. Adult male. Rostrum small. Lateral cephalic lobe almost in right angle. Eyes medium and ell separated medially. Antenna 1, 2/3 length of antenna 2; article 1 longer than 2-3 together; flagellum with 13 articles, with a calceolus on each of the first four articles. Antenna 2 with 14 articles; gland cone not well developed. Left mandible with 6 teeth on incisor; lacinia mobilis with 4 teeth; 3 long and 1 short raker; molar well developed with 1 long curved setae. Right mandible with 6 teeth on incisor; 2 on lacinia mobilis, and 3 raker setae. Mandible palp articles increasing in length apically; article 3 with 3 D and 4 E setae. Inner lobe of lower lip small but clearly present. Maxilla 1 with 9 setae on inner lobe; outer with 14 terminal setae; palp article 2 longer than 1, and with 6 apical setae; maxilla 2 inner lobe with lateral and facial rows of setae; maxilliped article 2 reaching distal part of outer lobe. Coxae 1-4 almost of equal depth; coxae 5-6 smaller; coxa 7 the smallest; coxa 4 not excavated posteriorly. Gnathopod

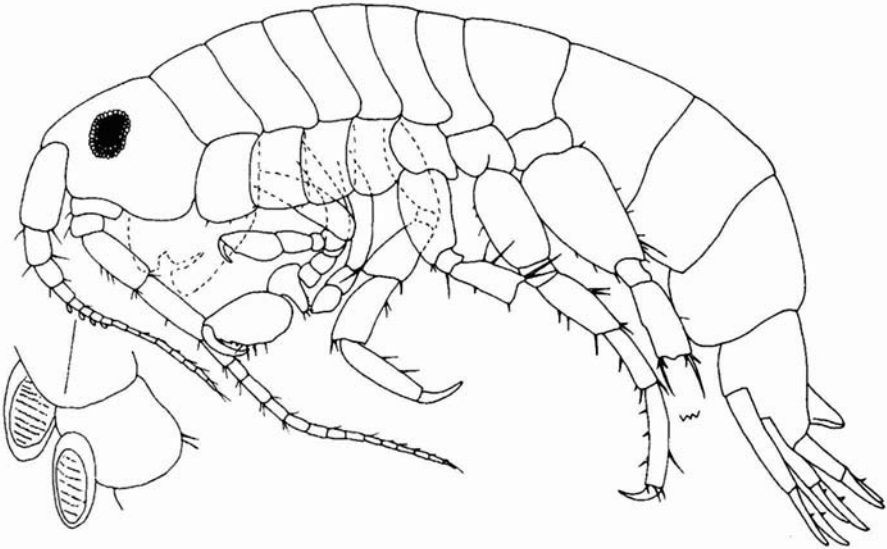


Fig. 45 – *Paracalliope bacescui* n.sp., lateral view of body.

small than 2; article 5 with posterior lobe, article 6 ovoidal, palm not clearly defined; distal part of article 7 with 1 anterior and 1 posterior spines. Right gnathopod 2 article 5 with a long curved posterior lobe; article 6 very inflated, with one middle sinus on palmar border, and a strong single spine between it and palmar angle; anterior half of palmar border with a right double border. Left gnathopod 2 with evanescent medial sinus on palmar border of article 6. Uropods 1 and 3 with rami equals in length. Uropod 2 outer ramus shorter than outer. Rami of all uropods each, with a single spine. Telson quadrangular with 2 short posterolateral setae. Epimera 2-3 posteroventral angle evanescent.

Additional observations. Pereiopods 3-4 similar, slender; articles 4 and 5 subequals in length; article 6 longer than 5; almost devoid of setae. Article 2 of pereiopods 5-7 of increasing wide; without posterior lobe. Pereiopod 6 longer than 5; pereiopod 7 the largest, but broken on Holotype. Pleopods without coupling spines; pleopod 2 with a tuft of setae on inner ramus.

Female. Gnathopod 1 articles 3-4 very short: article 5 triangle-shaped with a rounded posterior lobe; article 6 with an irregular and oblique palmar border; palmar angle with 3 small spines. Gnathopod 2 article 3 longer than 4; as long as 5 and 6; article 5 with subquadrate posterior lobe; palmar border on article 6 almost transverse, with 2 long setae; article 7 simple.

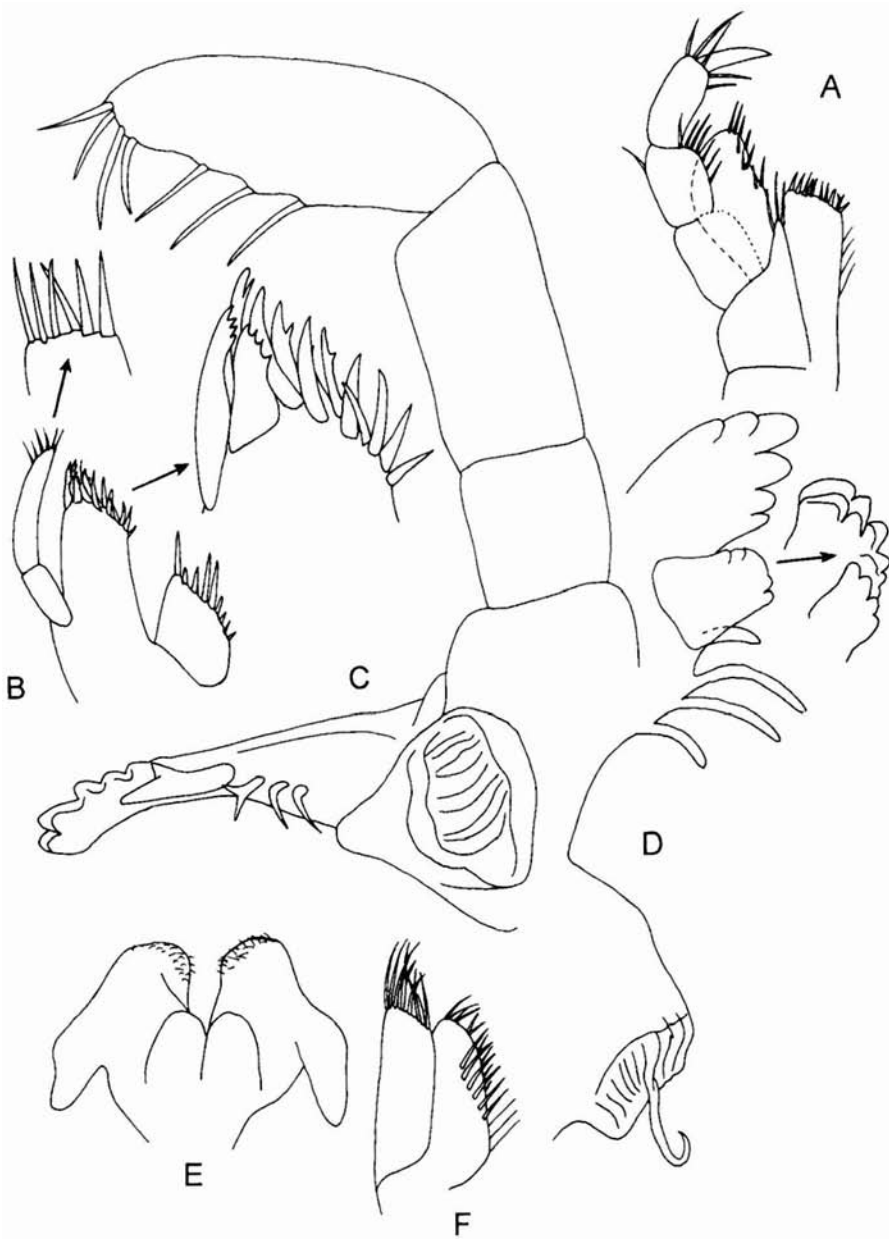


Fig. 46 – *Paracalliope bacescui* n.sp., A, maxilliped; B, maxilla 1; C, right mandible; D, left mandible; E, lower lip; F, maxilla 2.

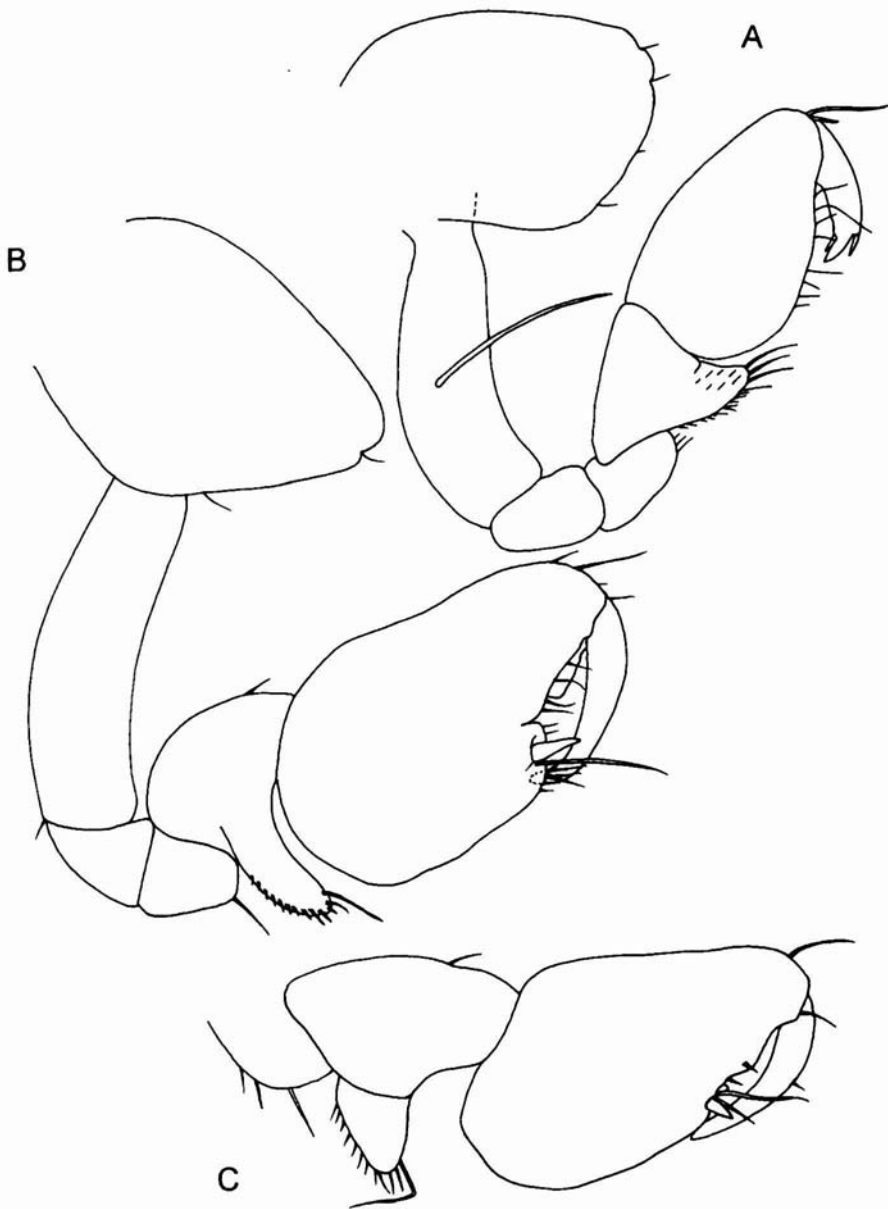


Fig. 47 – *Paracalliope bacescui* n.sp., A, right gnathopod 1; B, right gnathopod 2; C, left gnathopod.

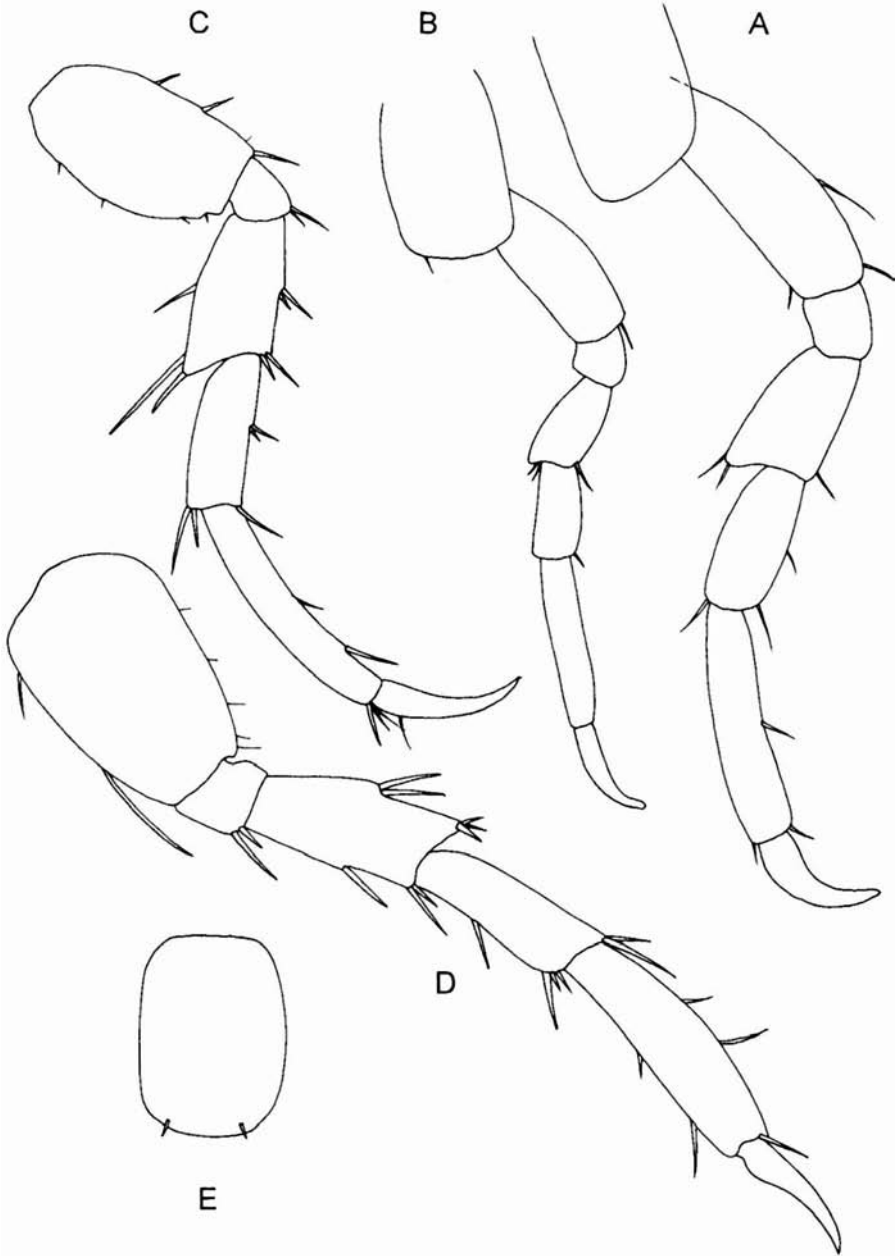


Fig. 48 – *Paracalliope bacescui* n.sp., A, pereopod 3; B, pereopod 4; C, pereopod 5; D, pereopod 6; E, telson.

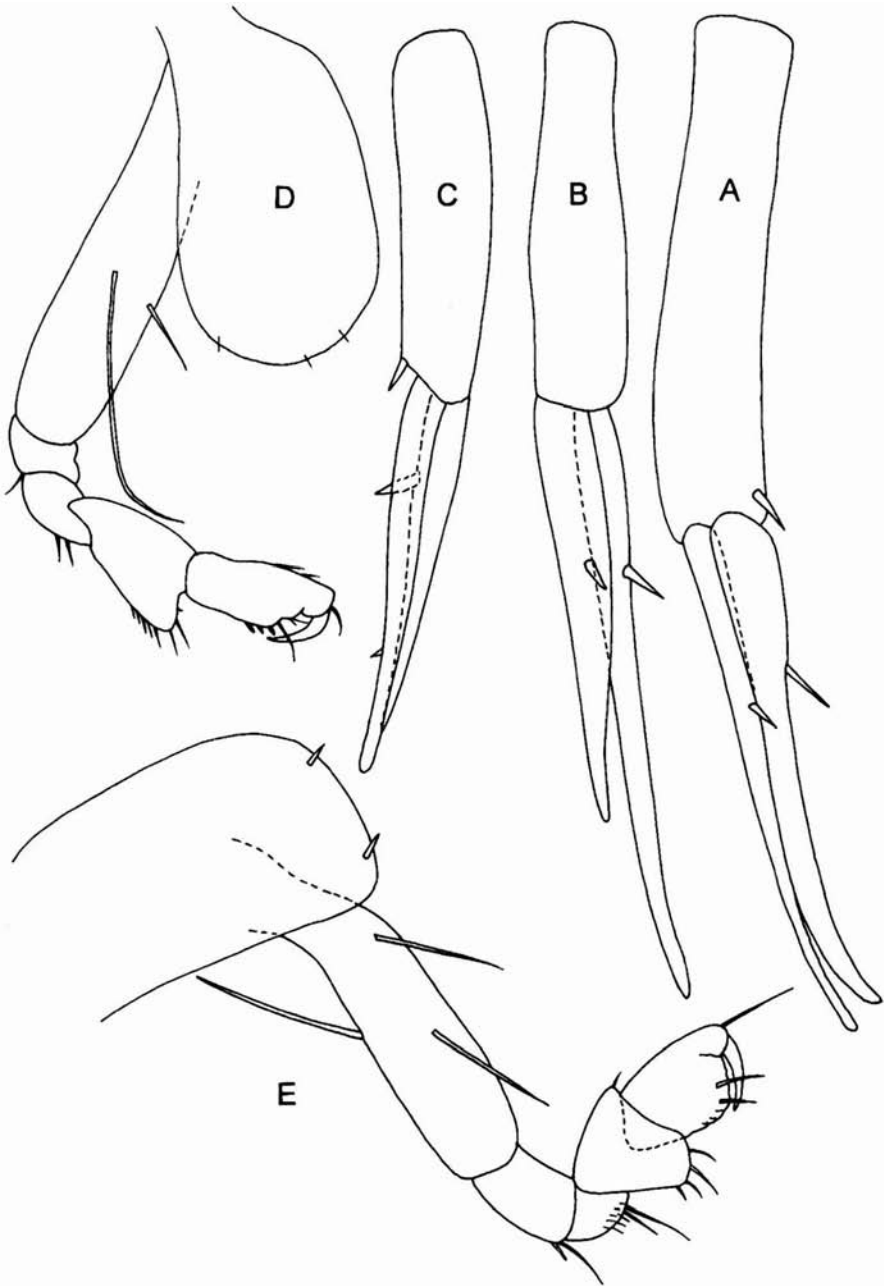


Fig. 49 – *Paracalliope bacescui* n.sp., A, uropod 1; B, uropod 2; C, uropod 3; D, gnathopod 1 of female; E, gnathopod 2 of female.

Remarks: There are 10 known species in the genus, of which *Paracalliope australis* (Haswell, 1880); *P. dichotomus* Morino, 1991; *P. fluviatilis* (Thomson, 1879); *P. karitane* Barnard, 1972; *P. novizealandiae* (Dana, 1853); *P. larai* Knott, 1975; *P. lowryi* Barnard and Drummond, 1992; *P. vicinus* Barnard and Drummond, 1992, differ from *P. bacescui* n.sp., by bearing on rami of uropods 1-3 more than 1 spine each.

The resting, *P. mapeta* Myers, 1985 and *P. novaecaledoniae* Ruffo and Vesentini, 1972, as well as all others, differ from *P. bacescui* n.sp. by bearing the palmar border of male gnathopod 2 armed with more than one powerful spine; article 5 of gnathopod 1 on female, without completely rounded posterior lobe, and gnathopod 2 on female, with a narrow posterior lobe.

Etymology: Species named in honor to Professor Dr. Mihai Băcescu, for his large contribution to Carcinology, and Marine Biology, as well as a gratefulness for introducing the senior author in the world of Amphipodology, more than 20 years ago.

Family PHOXOCEPHALIDAE Sars, 1895

***Birubius murarui* n.sp.**

(Figs 50-53)

Holotype: female (with oostegites), Bunaken, Station 13, it is deposited in the collections of "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-339.

Paratypes: 1 female, collected from the same Station deposited in the same collection, no. AMP-340 and 1 specimen, it will be deposited in the collection of Zoological Museum of Bogor (Indonesia).

Other material: Bontang, Station 2; Bunaken, Stations 7, 15, 28, 35.

Diagnosis. Female. Epimerum 3 without tooth; head with rostrum weakly constricted, reaching middle of article 2 on antenna 1; eye medium. Article 2 of antenna 1 more than half length of article 1; article 3 half length of article 2; accessory flagellum of 6 articles; primary flagellum of 11 articles. Spine formula on article 4 of antenna 2 = 1-3-3-3; dorsal margin naked; ventral margin with 11 setae; flagellum with 11 articles; as long as the length of peduncle. Right mandible right incisor with 4 teeth; lacinia mobilis simple. Left mandible incisor with 3 teeth; lacinia mobilis with 4 big and 1 small teeth (or absent). Mandibles with 8-10 raker spines; molar with 3-4 primarily spines; palp article 2 with 2 short and 1 disto-large inner spines; article 3 with 7 distal long setae. Inner lobe of maxilla 1 with 3 apical setae; outer lobe with 11 setae; palp biarticulate; with 3 apical and 2 subapical setae on article 2. Maxilla 2 with 4 apicolateral setae on outer lobe; inner with 2 medial setae. Inner lobe of maxilliped with 5 distal setae; outer with 2 apical and with 6 long and 2 short lateral setae; palp article 1-2 with

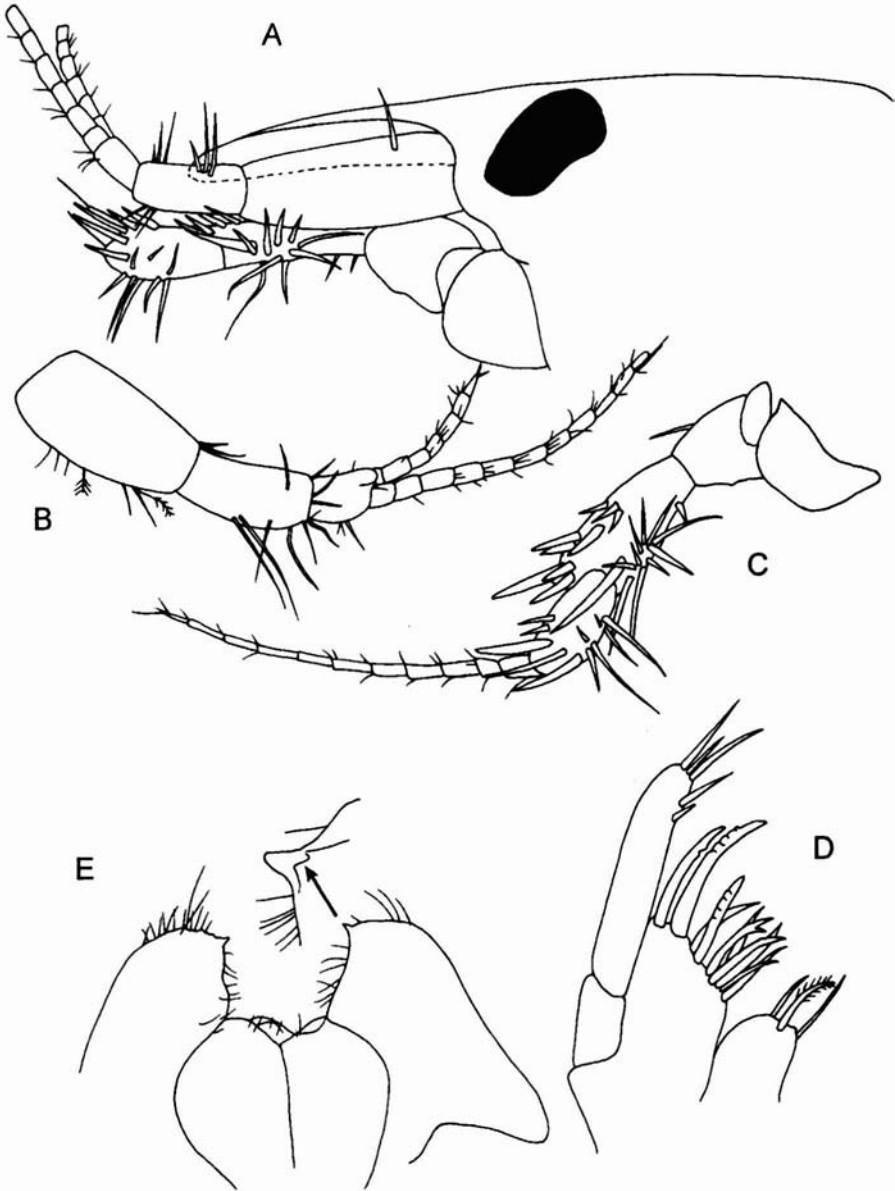


Fig. 50 – *Birubius murarii* n.sp., A, lateral view of head; B, antenna 1; C, antenna 2; D, maxilla 1; E, lower lip.

1 apicolateral setae; medial margin of article 2-3 strongly setose; article 3 not protuberant, without facial setae. Lower lip with apical point on outer lobe; inner lobes well developed. Coxa 4 lacking long ventral setae. Uropod 1 without basofacial setae. Epimeron 3 lacking special vertical row of posterior setae; facial setae lacking. Coxae 1-2 with 6 ventral setae; coxa 3 devoid of long setae. Article 5 of gnathopods long; palmar border of article 6 very oblique. Article 2 of outer ramus of uropod 3 very short bearing 2 long apical setae. Inner ramus half length of outer. Telson bilobated, each lobe with an apico-distal constriction bearing a strong spine and one seta; with one baso-lateral spine, each one.

Additional observations. Article 6 of gnathopod 1 narrower and longer than that of gnathopod 2. Palmar angle on both gnathopods without spine. Article 4 of pereopods 3-4 with setae on posterior lobe; article 5 with strong spines on posterior border; article 6 narrow and a little longer than 5; article 7 very short. Article 4 of pereopod 5 forming posterior lobe; with 4 setae. Pereiopod 6 big and powerful; with many spines and long setae; article 5 of 2/3 length of 6. Pereiopod 7 with a wide posterior lobe, reaching basal half of article 5; article 4 with a discrete posterior lobe. Rami of uropod 1-2 as long as peduncle. Outer ramus of uropod 1 with 6 spines, and inner with 2, both rami with apical nail. Outer ramus of uropod 2 with 4 spines, inner naked; both rami with apical nail, peduncle with a row of 7 spines. Epimeron 3 with 3-5 setae on lower posterior border. Oostegites on segments 2-5; slender and never larger than article 2.

Male. Head with a more deflected rostrum. Big eye. Palmar angle of both gnathopod article 6 with a spine. Pereiopods 5-6 with articles 4-6 with spines and very long setae. Peduncle of uropod 2 with a row of 9 spines. Uropod 3 with peduncle bearing 2 distal spines; rami slender; article 2 of outer ramus, shorter than in female.

Remarks: There are 38 known species of *Birubius*, of which 37 are recorded from Australia, and one, *B.rostratus* (Dana,1853), is the only represented in Indonesian waters (Barnard and Karaman,1991). When Barnard and Drummond (1978) were describing *B.jirrandus*, one the 37 Australian species, they pointed out that "this species fits the description of *B.rostratus* (Dana) presented by Stebbing (1906) and Pirlot (1932), except that *B.jirrandus* has ventral setae on epimeron 3 and only 9 spines on the outer plate of maxilla 1 and has a somewhat more attenuate rostrum than does *B.rostratus*, "but also that they could not make a positive identification because they discovered that extremely minute details such as right lacinia mobilis, etc. are very important items when distinguishing characters among phoxocephalis in the South western Pacific and the details are unknown from earlier studies" . Now, we must consider these 2 species very similar and we are distinguishing *B.murariui* n.sp. from both of them, because *B.rostratus* is the only known *Birubius* in Indonesia, and

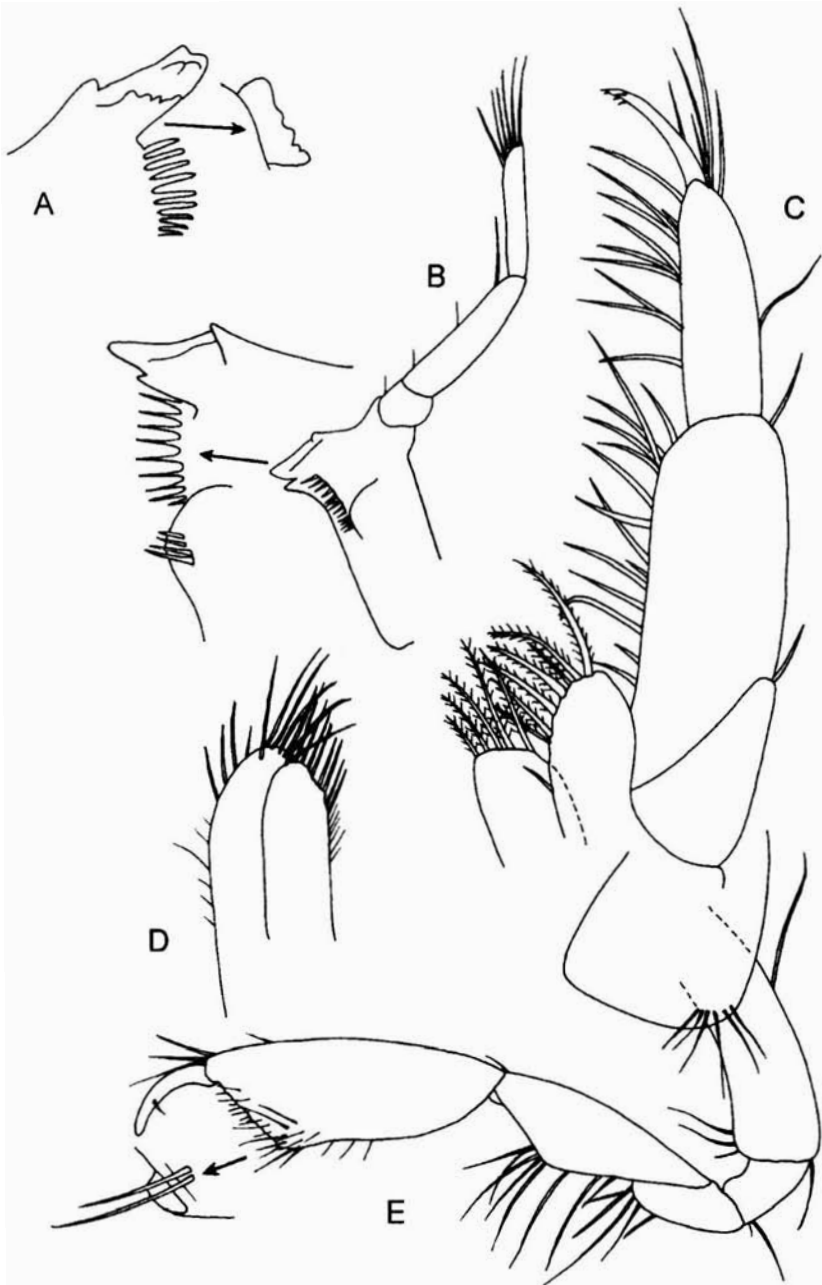


Fig. 51 - *Birubius murariui* n.sp., A, left mandible; B, right mandible; C, maxilliped; D, maxilla 2; E, gnathopod 1.

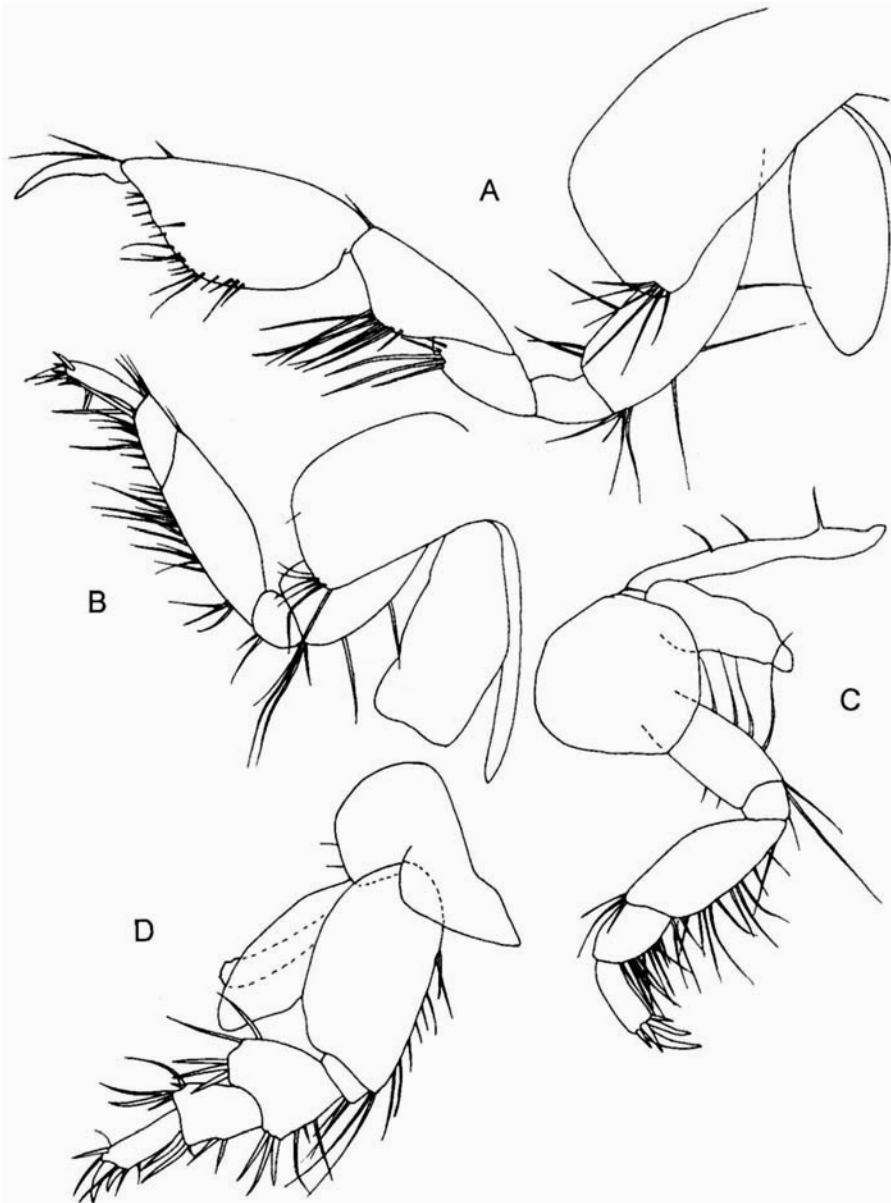


Fig. 52 – *Birubius murariui* n.sp.. A, gnathopod 2; B, pereopod 3; C, pereopod 4; D, pereopod 5.

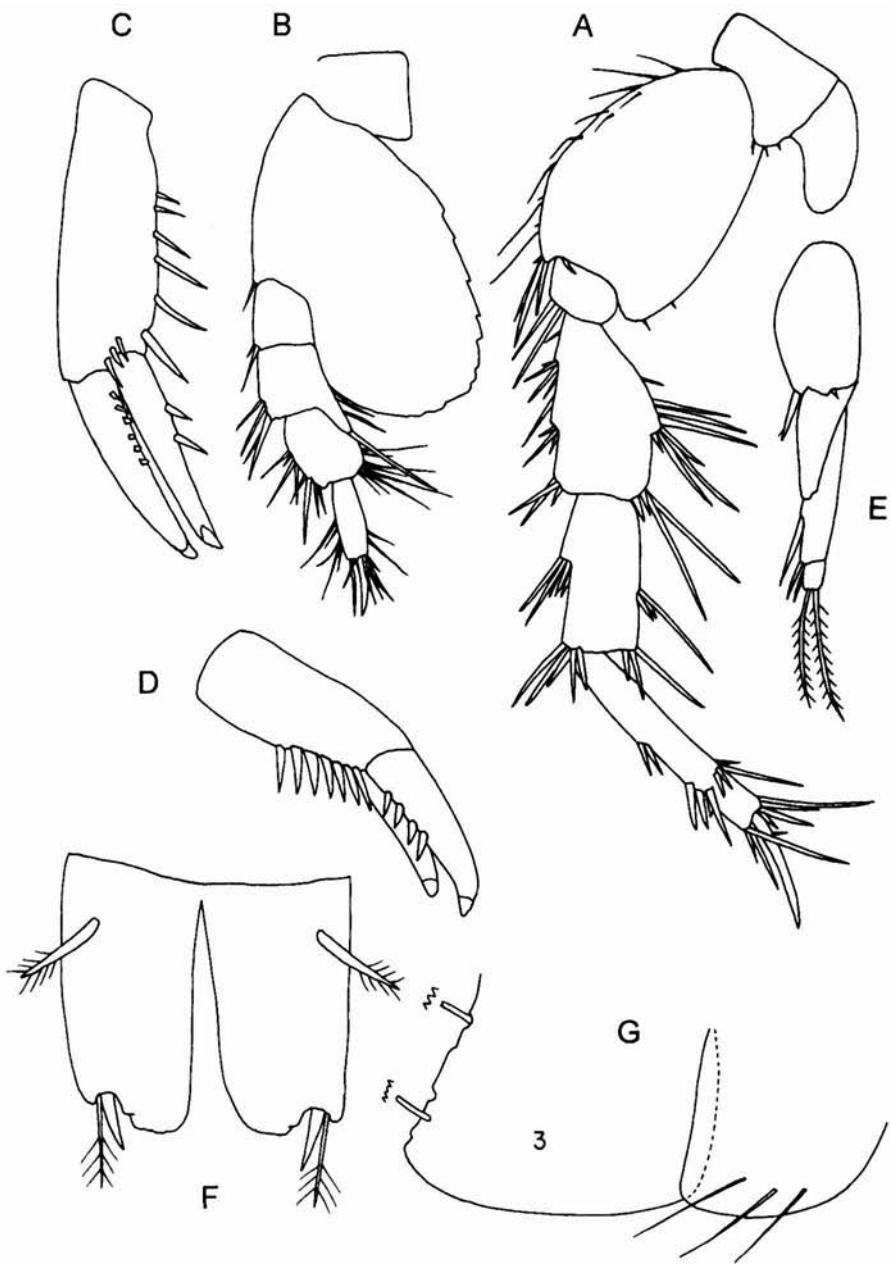


Fig. 53 – *Birubius murariui* n.sp., A, pereopod 6; B, pereopod 7; C, uropod 1; D, uropod 2; E, uropod 3; F, telson; G, epimera 2-3.

B.jirrandus is very similar to *B.rostratus*. On the other hand, when keying *B.murariui* n.sp. by using Barnard and Drummond's, 1978 (Key C) for the genus (pag.193), we realized the morphological similarities of this new species with *B.kabbulinus*. So, *B.murariui* n.sp. differs from *B.rostratus* and *B.jirrandus* by bearing uropod 1 without basofacial setae; a different armament on uropods 1-2; a non setose coxa 3; another spine formula on article 4 of antenna 2 (1-3-3-3); only 5 apical setae on article 2 of maxilla 1; a less expanded, and less setose articles 4-5 of pereopod 5, palmar angle on article 6 of both gnathopods without spine, and a different armament on inner and outer lobes of maxillipeds.

Also, male of *B.murariui* n.sp. differs from *B.kabbulinus*, (original description based only on an unique male) by bearing, a bigger eye; more rakers on left mandible; only 3 apical setae on inner lobe of maxilla 1 without setae on inner border of palp article 2; a longer palp article 3 on mandible; a longer article 6 on gnathopod 1; a longer article 5 on gnathopod 2; coxa 3 without long tuft of setae; uropod 1 without basofacial setae; ventral border epimeron 3 devoid of setae and posterior border of same with 3-4 setae; telson with an apicolateral constriction, and a shorter outer ramus article 2 on uropod 3.

Etymology: Species named in honor of Dr.Dumitru Murariu, mammalogist, present Director of the "Grigore Antipa" National Museum of Natural History, Bucharest, leader of the Expedition to the Indonesian Archipelago.

Family SYNOPIIDAE Dana, 1855

Synopia paravariabilis n.sp.

(Figs 54-59)

Holotype: male (adult), 1.7 mm, Bontang, Station 2, it is deposited in the collection of the "Grigore Antipa" National Museum of Natural History of Bucharest, no. AMP-341.

Paratypes: collected in the same Station, 3 specimens in the same collection, no. AMP-342 and 4 specimens it will be deposited in the collection of Zoological Museum of Bogor (Indonesia).

Other material: more than 20 females and males from Bunaken, Stations: 4, 7, 9, 15, 17, 18, 21, 25, 28, 31, 34, 35.

Diagnosis. Forehead protuberant, lateral cephalic lobe not sharp; eye present subtriangular in lateral view; spherical and almost from side to side, in dorsal view; with 3-5 ommatidia on accessory eyes. Antenna 1 half length of 2; accessory flagellum 2 articulated; primary flagellum with 6 articles; article 1 as long as 2-3 together. Antenna 2 with articles 4-5 long, flagellum of 8 articles. Inner lobe of maxilliped with apical setae; outer with 2-3 apical and 7-9 on inner margin; palp article 2 with inner setae; article 3

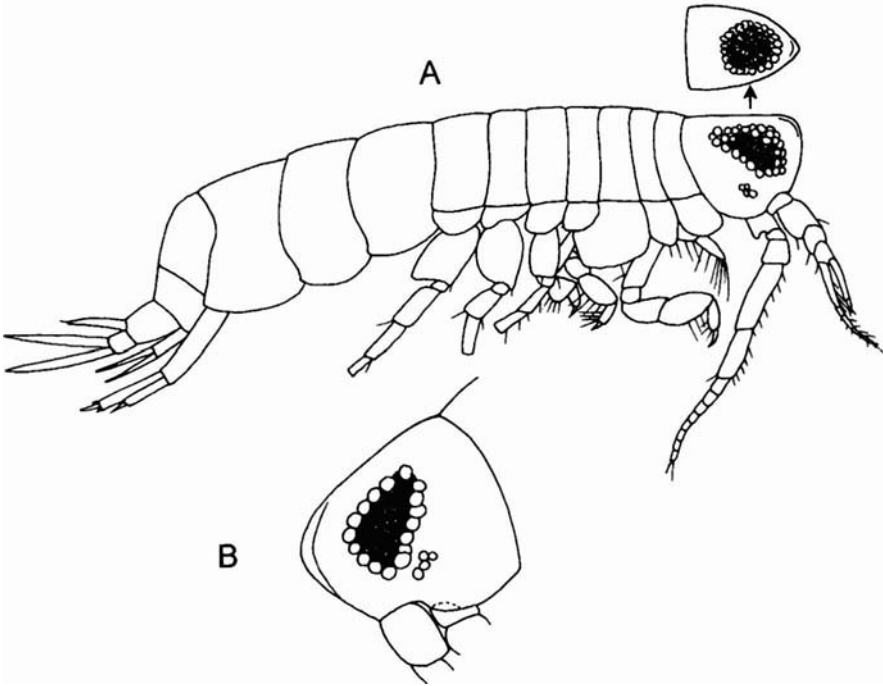


Fig. 54 – *Synopia paravariabilis* n.sp., A, lateral view of body;
B, lateral view of head of female.

with 2 inner and 2 outer apical setae; article 4 with 2 apical setae. Lower lip with inner lobes small but separated; mandible lobe small. Palp of maxilla 1 with 5 terminal setae on article 2; inner lobe with 5 distal setae. Maxilla 2 outer lobe a little longer than inner; inner with lateral setae. Mandible with incisor of 5 teeth; molar triturative; with 4-5 raker spines; palp article 2 naked, article 3 with 2 setae. Telson very long; trifid apically; longer than peduncle of uropod 1, reaching half way of rami of uropod 1; with two long apical setae which are always present, and at least, 3 time the length of the medial lobe of the trifid distal part of the telson.

Additional observations. Gnathopod 1 article 5 very strong, and longer than article 2; article 6 subrounded; article 7 with nail, and almost as long as 6. Gnathopod 2 article 5 as long as 2, slender, article 6 less than half length of 5; article 7 very short, 1/8 length of article 6. Pereiopod 3 article 5 as wide as, and longer than 4, with only few setae; article 6 almost devoid of setae; article 7 almost half length of 6. Pereiopod 4 article 4-5 wide and with few setae. Pereiopod 5 article 2 with subparallel anterior and posterior borders. Pereiopod 6 article 2 subrounded. Pereiopod 7 article 2 with small posterior lobe; anterior and posterior borders subparallel. Epimera 1-3 with

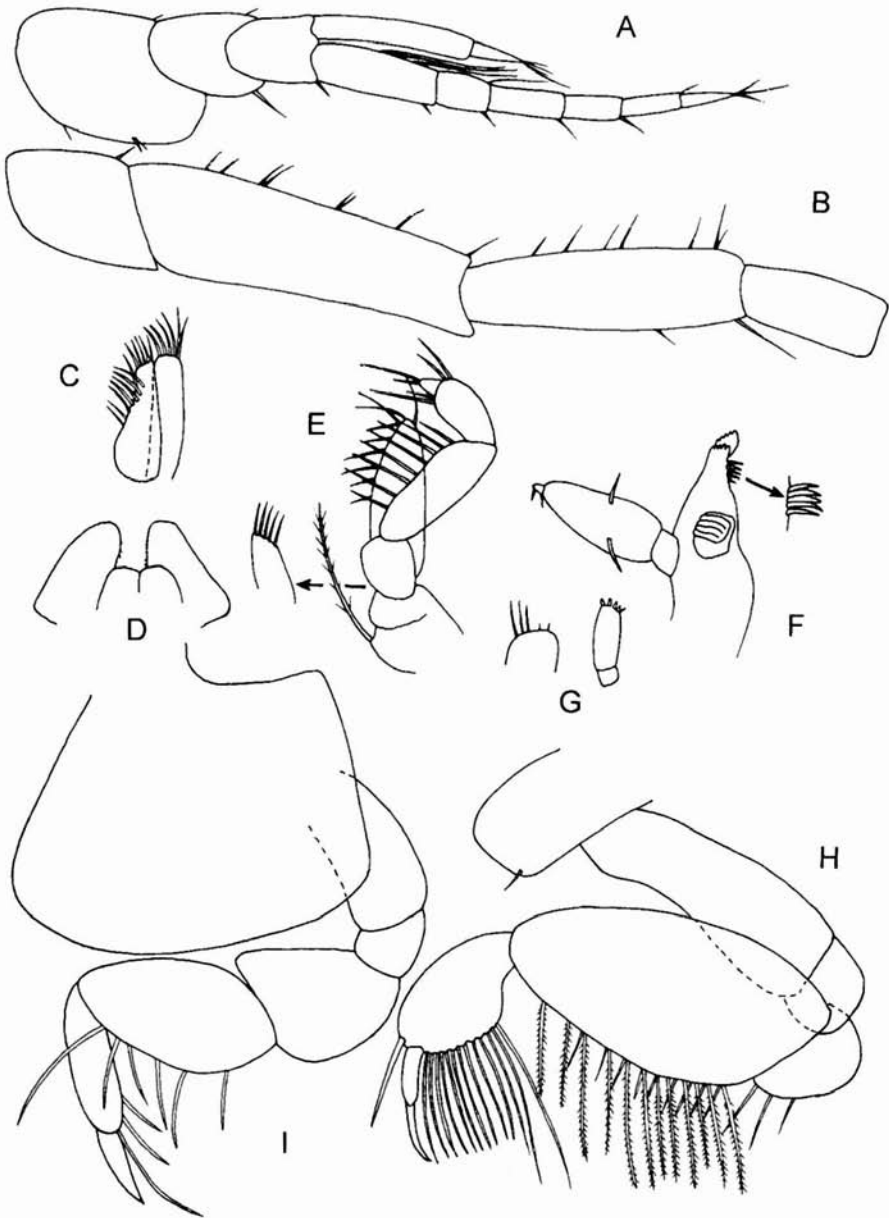


Fig. 55 – *Synopia paravariabilis* n.sp., A, antenna 1; B, antenna 2; C, maxilla 2; D, lower lip; E, maxilliped; F, mandible; G, palp and inner lobe of maxilla 1; H, gnathopod 1; I, pereopod 3.

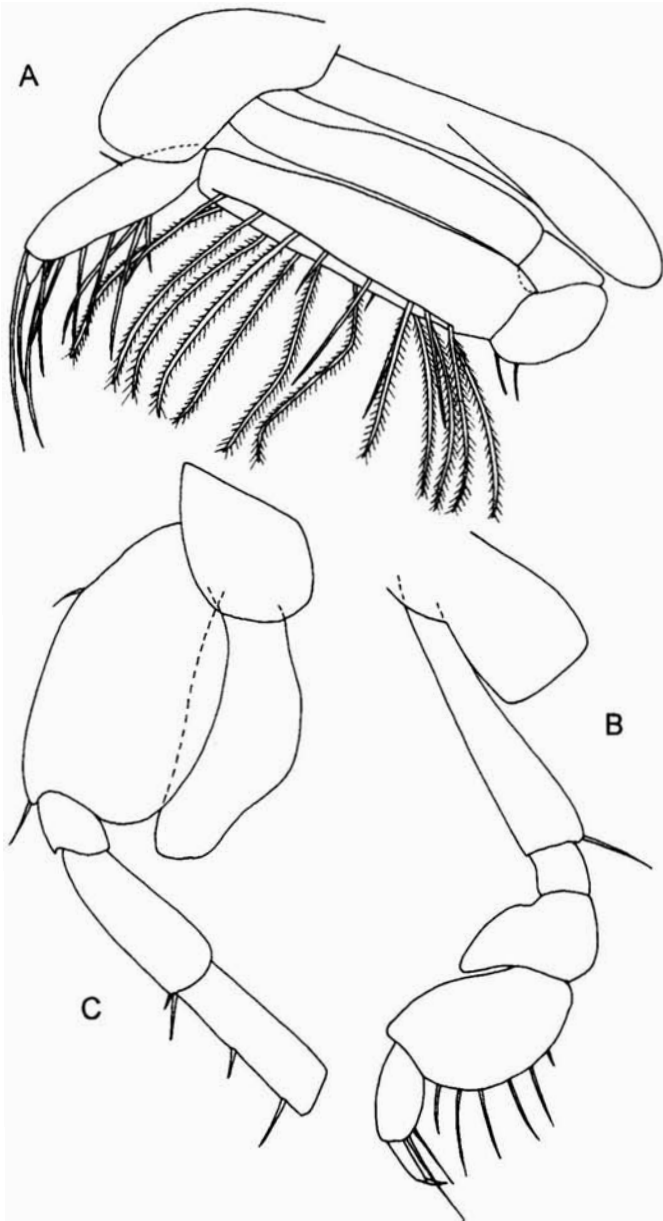


Fig. 56 – *Synopia paravariabilis* n.sp., A, gnathopod 2;
B, pereopod 4; C, pereopod 5.

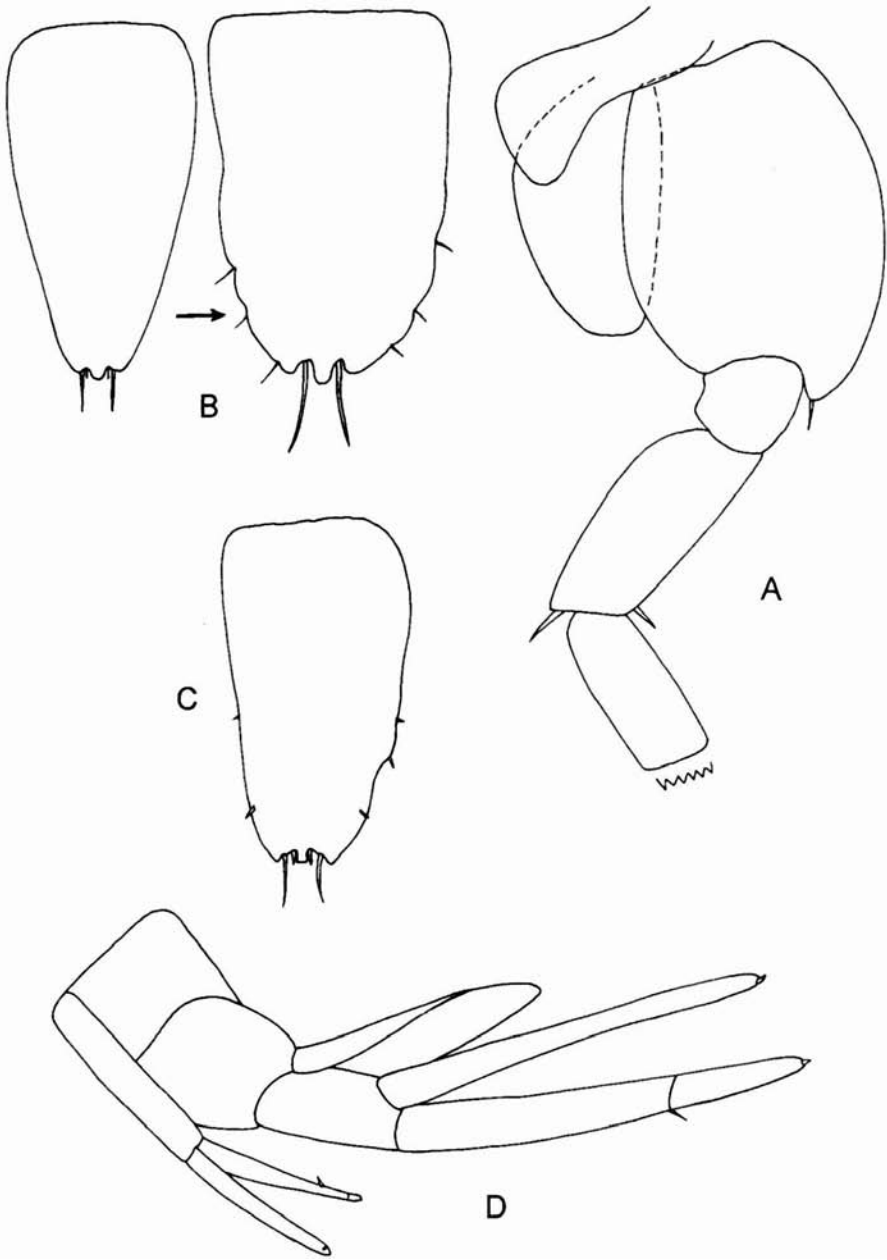


Fig. 57 – *Synopia paravariabilis* n.sp., A, pereopod 6; B, two forms of male telson; C, telson of female; D, lateral view of urosome.

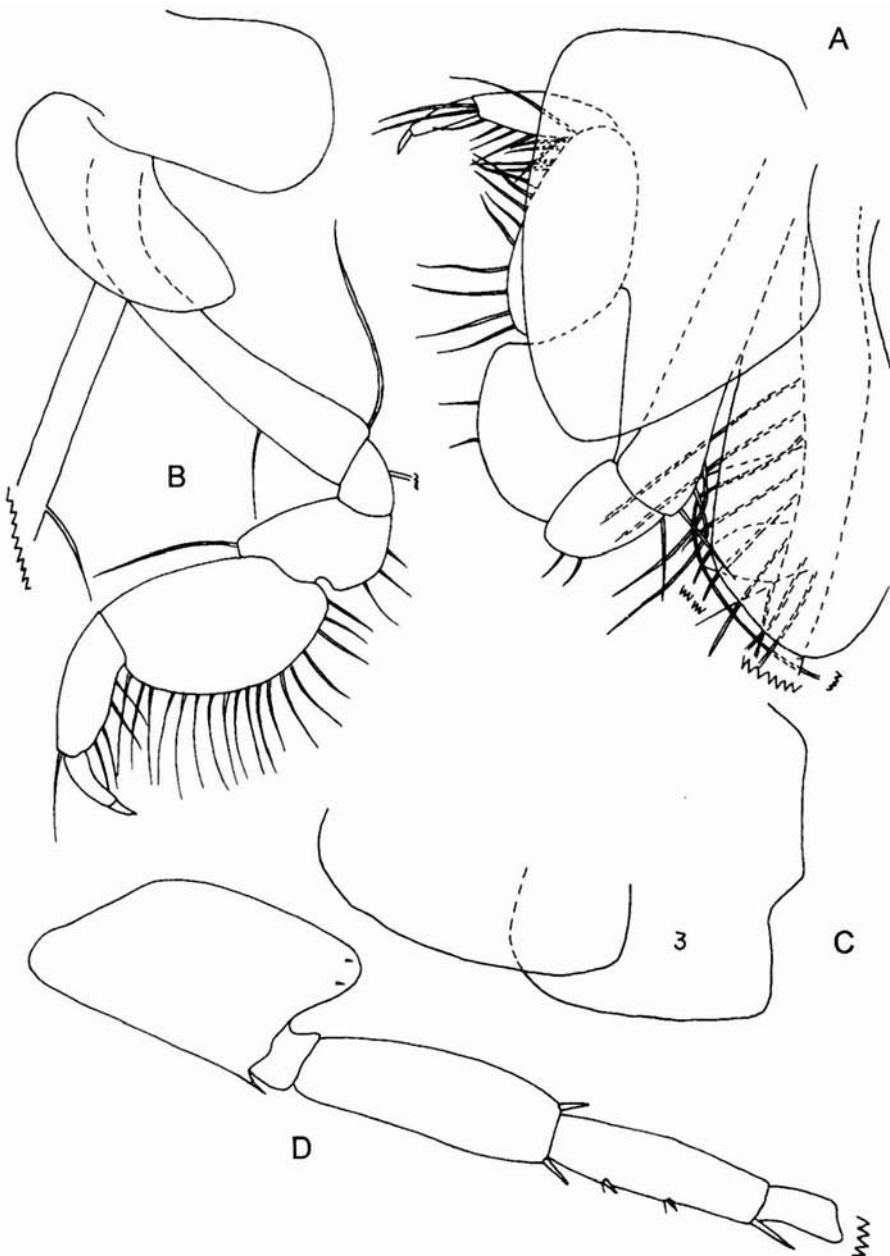


Fig. 58 – *Synopia paravariabilis* n.sp., A, pereopod 3 of female; B, pereopod 4 of female; C, epimera 2-3; D, pereopod 7 of female.

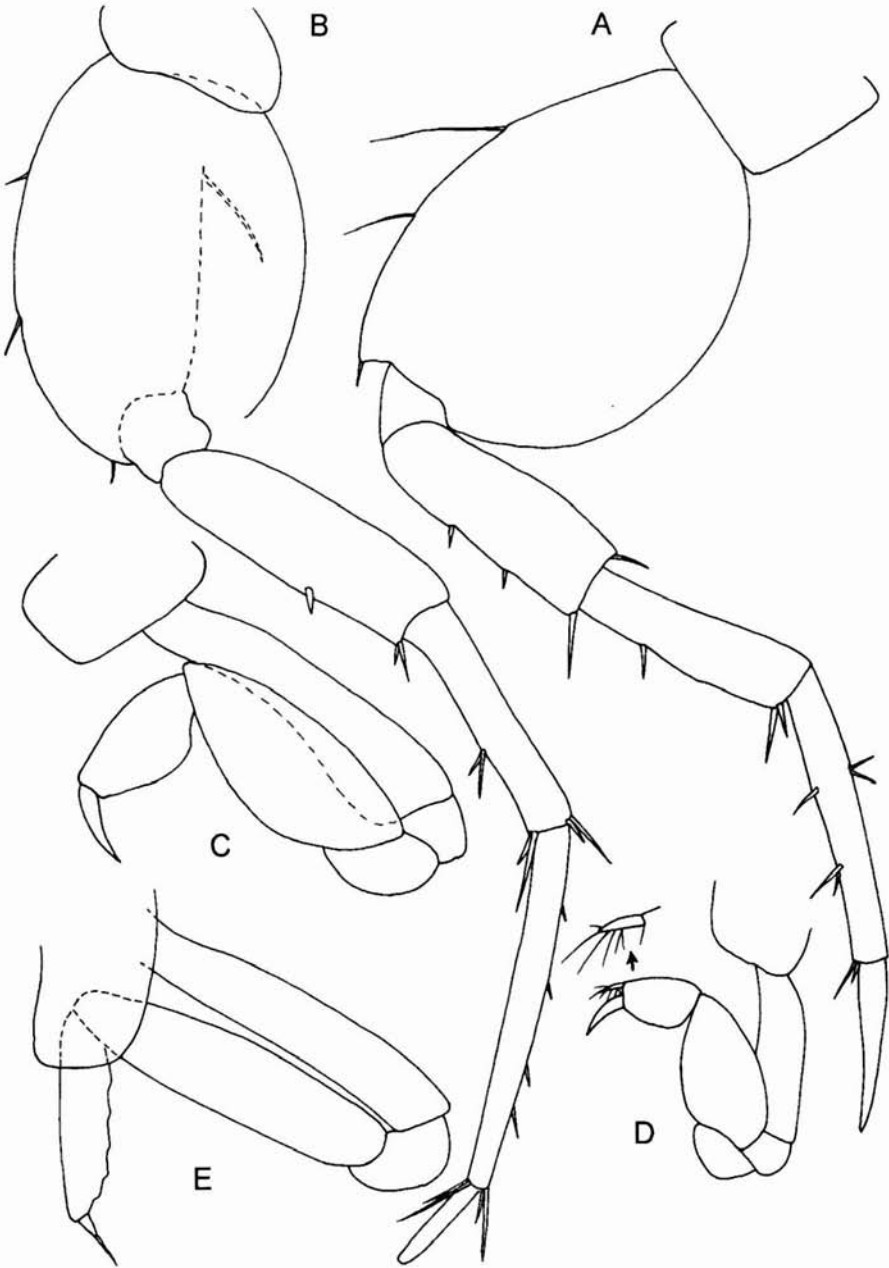


Fig. 59 – *Synopia paravariabilis* n.sp., A, pereopod 5 of female; B, pereopod 6 of female; C, gnathopod 2 of female; D, gnathopod 1 of another female (anomalous); E, gnathopod 2 of female. (Figures C–E with setae removed).

posteroventral point, unarmed. Uropod 2 with rami subequals in length; not reaching distal part of peduncle of uropod 3. Uropod 3 article 2 half length of 1. Gills on segment 2-6, almost as long as article 2 on gnathopod 2 and pereopods 3-5; the last one shorter.

Female. Very similar with male, but article 5 of gnathopod shorter than 2, articles 5-6 very setigerous; pereopod 3 article 4 wider than 5; pereopod 4 article 5 more setigerous; article 2 of pereopod 5 is subspheric, and article 2 of pereopod 7 has a longer posterior lobe.

Remarks: There are 9 valid species of the genus *Synopia* (Barnard and Karaman, 1991), of which only one, *S. variabilis* has the telson entire and trifold. So, *S. paravariabilis* n.sp. differs from *S. variabilis* in the numbers of accessory eye (3-5 ommatidia); lower lip with more defined inner lobes (see Ledoyer, 1986 for comparison); the more setigerous posterior border of articles 5-6 of female gnathopods; the stronger article 5 of male gnathopod 1 (see Barnard, 1965); the longer telson, and the posterior setae on trifold distal end of telson, which are also longer. This last character showed a great stability in all the specimens of both sexes which have been studied, and must be the easier task when distinguishing both species.

Etymology: From "para" beside and "variabilis", the specific name on its most close species.

The check list of the recorded amphipods:

SUBORDER GAMMARIDEA Latreille, 1816

Family AMPELISCIDAE Costa, 1857

- * *Ampelisca pygmaea* Schellenberg, 1938
 - Bunaken: St.17;
- Ampelisca subbrevicornis* Pirlot, 1936
 - Bunaken: St.2;
- * *Ampelisca tenuicornis* Liljeborg, 1856
 - Bunaken: Sts 2, 8, 15, 20, 22, 26, 30, 32;
- Ampelisca* sp.
 - Bunaken: Sts 17, 26;
- Byblis rhinoceros* Pirlot, 1936
 - Bunaken: Sts 12, 30;

*Family AMPHILOCHIDAE Boeck, 1871

Gitanopsis antipai n.sp.

- Bunaken: St.29;
- Bontang: St.1;

- * *Gitanopsis pusilla* Barnard,1916
 – Bunaken: Sts 2, 5, 6, 7, 9, 11, 17, 18, 22, 25, 26, 28, 30, 31, 32;
Gitanopsis sp.
 – Bunaken: St.11;
 – Bontang: St.2;

Family AMPITHOIDAE Stebbing,1899

- Ampithoe alluaudi* Chevreux,1901
 – Bunaken: Sts 2, 9;
Ampithoe ramondi Audouin,1826
 – Bunaken: St.23;
Ampithoe sp.
 – Bunaken: St.26;
 * *Cymadusa brevidactyla* (Chevreux,1907)
 – Bunaken: Sts 4, 5, 6, 7, 9, 10, 11, 18, 26, 28, 30;
Cymadusa filosa Savigny,1816 (form B of Ledoyer,1982)
 – Bunaken: Sts 26, 31, 32;
Cymadusa imbroglia Rabindranath,1972
 – Bunaken: St.17;
Cymadusa sp.
 – Bunaken: St.22;
Sunamphitoe pelagica (Milne Edwards,1830)
 – Bunaken: St.17;

*Family ANAMIXIDAE Stebbing,1897

- * *Anamixis* sp.
 – Bunaken: Sts 2, 7, 23, 31;
Paranamixis ledoyeri n.sp.
 – Bunaken: St.23;

Family CHELURIDAE Allman,1847

- * *Tropichelura insulae* (Calman,1910)
 – Bunaken: Sts 12, 15;

Family COLOMASTIGIDAE Stebbing,1899

- * *Colomastrix lunalilo* Barnard,1970
 – Bontang: St.1;
Colomastrix sp.
 – Bunaken: St.17;

Family COROPHIIDAE–ISCHYROCERIDAE
sensu Barnard and Karaman,1991

- * *Ampelisciphotis tridens* Pirlot,1938
– Bunaken: St.24;
- * *Aorchoides dilatata* Ledoyer,1972
– Bunaken: St.13;
- * *Aoroides columbiae* Walker,1898
– Bunaken: St.4;
- * ***Bemlos subtriangulum*** n.sp.
– Bunaken: Sts 5, 6, 7, 9, 18, 27, 30;
- Bemlos* sp.
– Bunaken: St.28;
- * ***Cheiriphotis quadrichelatus*** n.sp.
– Bunaken: Sts 14, 20;
- * *Dodophotis distinguenda* Ruffo,1955
– Bunaken: St.17;
- Erichthonius brasiliensis* (Dana,1853)
– Bunaken: Sts 8, 18, 28;
- Erichthonius pugnax* (Dana,1852)
– Bunaken: Sts 9, 12, 26;
- * *Gammaropsis afra* Stebbing,1888
– Bunaken: Sts 5, 7, 15, 17, 20, 22, 26;
- Gammaropsis atlantica* Stebbing,1888
– Bunaken: Sts 2, 11, 12, 24, 31, 32, 35;
– Bontang: St.2;
- * *Gammaropsis photissimilis* Ruffo,1969
– Bunaken: St.26;
- * *Globosolembos indicus* (Ledoyer,1967)
– Bunaken: St.23;
- * *Globosolembos ruffoi* (Myers,1975)
– Bunaken: Sts 1, 5, 30;
- Grandidierella bonnieroides robusta* Ledoyer,1982
– Bunaken: Sts 8, 20, 30;
- * *Grandidierella longidactyla* Ledoyer,1982
– Bunaken: St.19;
- Lembos* ?
– Bunaken: St.15;
- * ***Leptocheirus makassarensis*** n.sp.
– Bunaken: St.4;
– Bontang: St.1;
- * *Photis cavimana* Ledoyer,1979
– Bunaken: Sts 8, 17, 26;

Photis longicaudata (Bate and Westwood,1863)

– Bunaken: Sts 6, 9, 17, 25, 32;

* *Xenocheira seurati* Chevreux,1907

– Bunaken: St.10;

Family DEXAMINIDAE Leach,1814

* *Guernea spinicornis* Ledoyer,1982

– Bunaken: St.13;

Guernea sulawesiensis n.sp.

– Bunaken: Sts 21, 34;

Guernea sp.

– Bunaken: St.23;

* *Paradexamine micronesica* Ledoyer,1979

– Bunaken: Sts 2, 6, 9, 10, 11, 24, 27, 30, 32;

* *Paradexamine mozambica* Ledoyer,1979

– Bunaken: Sts 5, 7, 10, 11, 13, 15, 17, 20, 22, 27, 30, 31, 35;

– Bontang: St.2;

* *Paradexamine orientalis* (Spandl,1923)

– Bontang: St.1;

Paradexamine serraticra (Walker,1904)

– Bunaken: Sts 18, 25, 26;

Paradexamine sp.

– Bunaken: Sts 23, 29;

– Bontang: St.2;

* Family EOPHLIANTIDAE Sheard,1936

Wandelia orghidani n.sp.

– Bunaken: Sts 2, 27, 29;

Family LEUCOTHOIDAE Dana,1852

* *Leucothoe bannwarthi* Schellenberg,1928

– Bontang: St.1;

* *Leucothoe dentata* Ledoyer,1973

– Bunaken: Sts 5, 9, 34;

* *Leucothoe hyhelia* J.L.Barnard,1965

– Bunaken: Sts 4, 9, 10, 11, 12, 15, 18, 23, 29;

* *Leucothoe madrasana* Sivaprakasam,1969

– Bunaken: Sts 18, 28;

– Bontang: St.1

* *Leucothoe micronesia* Barnard,1965

– Bunaken: Sts 23, 24;

- * *Leucothoe richiardii* Lessona, 1865
 – Bunaken: Sts 5, 21;
 * *Leucothoe spinicarpa* (Abildgaard, 1789)
 – Bunaken: Sts 19, 27, 30;
Leucothoe sp.
 – Bunaken: St.22;

Family LILJEBORGIIDAE Stebbing, 1899

- Liljeborgia* sp.
 – Bunaken: St.23;

Family LYSIANASSIDAE Dana, 1849

- Arugella* sp.
 – Bunaken: St.23;
***Azotostoma bunakenensis* n.sp.**
 – Bunaken: St.27;
Lysianassa sp.
 – Bunaken: St.24;
Menigrates ?
 – Bunaken: St.5;
Parambasia sp.
 – Bunaken: Sts 5, 9, 10, 30;

Family MELITIDAE, sensu Jarret and Bousfield, 1996

- * *Ceradocus serratus* (Bate, 1862)
 – Bontang: St.1;
 * *Dulichella appendiculata* (Say, 1818)
 – Bontang: St.1;
 * *Elasmopus ecuadorensis hawaiiensis* Schellenberg, 1938
 – Bontang: St.1;
 * *Elasmopus gracilis* Schellenberg, 1938
 – Bontang: St.2;
***Eriopisella paraupolu* n.sp.**
 – Bontang: St.2;
Eriopisella cf. sechellensis (Chevreux, 1901)
 – Bunaken: Sts 13, 34;
 – Bontang: St.2;
 * *Gammarella amikai* (J.L. Barnard, 1970)
 – Bunaken: Sts 12, 24;
Maera serrata Schellenberg, 1938
 – Bunaken: Sts 12, 22, 25, 31;
 – Bontang: Sts 1, 2;

Maera sp.

– Bontang: St.2;

Pareiasmopus dancaui n.sp.

– Bunaken: Sts 2, 6, 7, 11, 16, 17, 20, 22, 23, 25, 27, 29, 31, 32;

Pareiasmopus setiger Chevreux,1901

– Bunaken: St.17;

– Bontang: St.1;

Pareiasmopus sp.

– Bunaken: St.10;

– Bontang: St.2;

Family OEDICEROTIDAE Liljeborg,1865

* *Perioculodes aequimanus* (Kossman,1880)

– Bontang: St.2;

Perioculodes sp. A

– Bunaken: Sts 2, 5, 7, 8, 9, 12, 17, 18, 22, 25, 28, 29, 30, 31, 32, 34;

Perioculodes sp. B

– Bunaken: Sts 11, 13;

* *Westwoodilla* sp.

– Bunaken: St.10;

* Family PARACALLIOPIIDAE Barnard and Karaman,1982

* *Indocalliope* sp.

– Bunaken: Sts 5, 7, 8, 9, 25, 26;

Katocalliope gutui n.sp.

– Bunaken: Sts 8, 14, 17, 26, 30, 32;

Paracalliope bacescui n.sp.

– Bunaken: St.20;

Family PHOXOCEPHALIDAE Sars,1895

Birubius murariui n.sp.

– Bunaken: Sts 7, 13, 15, 28, 30, 35;

– Bontang: St.2;

Metaphoxus ?.

– Bunaken: Sts 24, 25;

* Family PODOCERIDAE Leach,1814

* *Podocerus* sp.

– Bunaken: Sts 2, 7, 8, 9, 17, 18, 20, 22, 25, 26, 29, 31, 32;

– Bontang: St. 2;

* Family SEBIDAE Walker,1908

* *Seba typica* (Chilton,1884)

– Bunaken: St.12;

Family SYNOPIIDAE Dana,1855

Synopia paravariabilis n.sp.

– Bunaken: Sts 2, 4, 7, 9, 13, 15, 17, 18, 20, 21, 25, 28, 30, 31,
32, 34, 35;

– Bontang: St.2;

SUBORDER CAPRELLIDEA Leach,1814

* Family CAPRELLINOIDIDAE Laubitz,1993

* *Paedaridium* sp.

– Bunaken: St.14;

* Family PARACERCOPIDAE Vassilenko,1972

* *Cercops* sp.

– Bunaken: St.32;

Family PARIAMBIDAE Laubitz,1993

* *Paradeutella* sp.

– Bunaken: Sts 2, 20;

* Family PHTISICIDAE Vassilenko,1968

* *Phtisica marina* Slabber,1769

– Bunaken: Sts 6, 10, 11, 18, 30;

* *Protomima imitatrix* Mayer,1903

– Bunaken: Sts 12, 27;

Family PROTELLIDAE McCain,1970

* *Metaprotella sandalensis* Mayer,1898

– Bunaken: Sts 6, 7, 10, 12, 15, 24, 29;

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AMPHIPODA

REZUMAT

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Tabelul ce însoțește lucrarea, prezintă lista tuturor speciilor determinate până în prezent în apele din această zonă.

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