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Amphipoda from the South Pacific: Tonga

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ABSTRACT. Thirty-two species of gammaridean Amphipoda are recorded from Tongatapu, Tonga. Five species are new to the Vanuatu-Tonga island arc, and these are figured, along with four other species. Seventy-two percent of the species collected are also known from Fiji. Two species are endemic to Tonga.

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Only four species of gammaridean amphipod appear to have been recorded from the Tonga island archipelago prior to the present work. All were collected by the U.S. Exploring expedition of 1838-42 and reported on by Dana (1853). Of these, one species, *Orchestia spinipalma* Dana (= *Talorchestia)* has since been recorded from the Bismark Archipelago, the Philippines, Australia and New Zealand, but the other three species *(Allorchestes gracilis* Dana, *Amphithoe tongensis* Dana and *Gammarus albidus* Dana) have not been recorded again either in Tonga or elsewhere, and even their identity remains equivocal.

The present work reports on a collection of gammaridean amphipods made by the writer on the island of Tongatapu, Tonga in 1979. Eleven families and thirty-two species are represented in the collection. Two species, *Lembos saloteae* Myers, described previously (Myers 1985a) from the same collection and *Parawaldeckia mua* Myers, are endemic. Seventy-two percent of the gammarideans represented in the collection are also known from Fiji. This might be anticipated, since the two archipelagos form part of the Vanuatu-Tonga island arc which originated at the mid Eocene/late Eocene boundary (c. 40 my BP).

Figures are given of the five species not previously recorded from the Vanuatu-Tonga island arc. Species described and figured from Fiji (Myers 1985c) are merely recorded (Table 1), except where significant variation is exhibited.

Specimens are housed in the author's personal collection and in the Australian Museum.

Of the 32 species in the Tongan material only *Amphilochus menehune* Barnard, *Gitanopsis tai* Myers, *Lembos saloteae* Myers and *Globosolembos excavatus* Myers have not been deposited in the Australian Museum.

Abbreviations Used in Figures

A1	Antenna 1
C1-2	Coxae 1-2
Epl-3	Epimera 1-3
G1-2	Gnathopods 1-2
Hd	Head
Md	Mandible Palp
P3-7	Pereopods 3-7
P7D	Dactylus of pereopod 7
Pl 1-4	Pleonites 1-4
Pr 6-7	Pereonites 6-7
T	Telson
Ul-3	Uropods 1-3.

FAMILY LEUCOTHOIDAE

Leucothoe hyhelia Barnard
Fig. 1

Leucothoe hyhelia Barnard, 1965: 489, fig. 5.—Barnard, 1970: 205, fig. 135.—? Ledoyer, 1978: 298.—? Ledoyer, 1979a: 102, fig. 63.

Remarks. Some doubt exists concerning the material attributed to this species by Ledoyer (1979a) from Madagascar. In that material, the palm of the hyperadult male gnathopod 2 propodus is distinctly toothed, the telson is distally simple and the peduncular articles of antenna 2 are elongate and slender. None of these character states were observed by Barnard (1965, 1970) nor were they exhibited by Tongan material. Material ascribed to *L. hyhelia* by Ledoyer (1978) from Mauritius was not figured, and in the light of the above comments must also remain unconfirmed.

Distribution. Hawaii, Tonga, ?Madagascar, ?Mauritius.

FAMILY ANAMIXIDAE

Paranamixis madagascarensis Ledoyer

Paranamixis bocki Ledoyer, 1967: 125, fig. 5c.—Ledoyer, 1978: 231, fig. 14 (not *P. bocki* Schellenberg, 1938).
Paranamixis madagascarensis Ledoyer, 1982: 141, fig. 49. — Myers, 1985c: 42, figs. 30–31.

Remarks. The *Leucothoides* form appears to be identical to that described from Fiji (Myers, 1985c) and attributed to *P. madagascariensis*. The *Leucothoides* material from Tonga is therefore assumed to be attributable to this species, but rearing of *Leucothoides* males through to hyperadult is required for confirmation.

FAMILY LYSIANASSIDAE

Parawaldeckia mua n. sp.

Figs 2–3

Type material. HOLOTYPE, ♀, 4.0 mm, AM P36954, Pangaimotu Island, among *Amphiroa* sp. on inner reef, 23 September 1979.

Description. Length, 4.0 mm. Eye large. Antenna 1 short, article 1 of peduncle not produced dorsodistally over article 2; article 3 of peduncle slightly telescoped into article 2; flagellum shorter than peduncle with 6 articles, accessory flagellum with 4 articles. Antenna 2 short, subequal in length with antenna 1, flagellum with 6 articles. Mandible palp, article ratios 5:12:10, article 3 weakly falcate and lacking terminal setae. Gnathopod 1 carpus and propodus subequal. Gnathopod 2 coxa over twice as long as broad; carpus and propodus

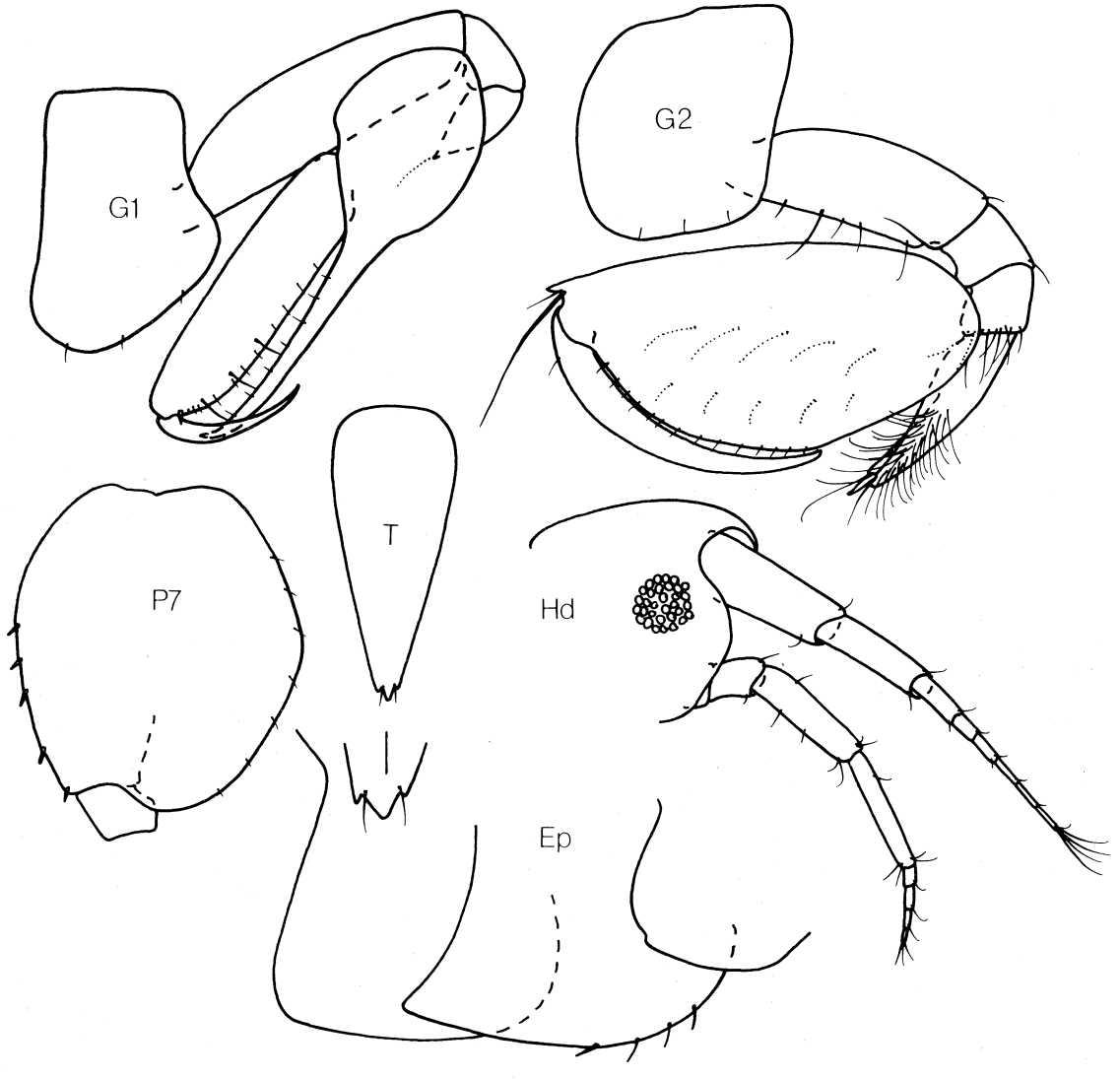

Fig. 1. *Leucothoe hyelia* Barnard, ♂ 2.5 mm, Utulau.

densely setose. Pereopod 5 basis grossly expanded, broader than long. Pereopod 7 basis slightly broader than long, posterior margin subrectangular, crenulate. Epimeron 3 evenly rounded. Uropod 1 outer ramus with two spines. Uropod 2 rami without spines. Uropod 3 peduncle greatly expanded; outer ramus with strong broad distal spine; inner ramus about half length of outer. Telson subsquare, with furled lateral margins.

Male unknown.

Remarks. *Parawaldeckia mua* is close to *P. lowryi* Myers and *P. dabita* Lowry and Stoddart. In the short antenna 2 and short inner ramus of uropod 3, *P. mua* is closest to *P. dabita,* however, the mandibular palp is most similar to *P. lowryi.* It differs from *P. dabita* in the strongly curved dactyls of pereopods 3–7 and less spinous uropods 1–2 as well as in the shape of the mandibular palp. Lowry (pers. comm.) considers *P. mua* to be closest to *P. lowryi.*

Distribution. Tongan endemic.

FAMILY MELITIDAE

Elasmopus alalo n. sp.

Figs 4–5

Elasmopus pseudaffinis.—Barnard, 1965: 501, figs 12–13.—Ledoyer, 1972: 219, pls 38, 39.—Ledoyer, 1978 (in part): 273, fig. 29A.—Berents, 1983: 118; figs 15–16.—Ledoyer, 1984: 65, fig. 30b. (not *E. pseudaffinis* Schellenberg, 1938: 53, fig. 25).

Type material. HOLOTYPE, ♂, 12.5 mm, AM P36955, Utulau, rock terrace. PARATYPES (57) AM P36956, same locality as holotype.

Description. Length 12.5 mm. Head with subocular notch. Eye subround. Mandible palp article 3 strongly falcate, evenly setose on posterior margin. Antenna 1 and 2 setose; antenna 1 elongate, flagellum with about 32 articles; accessory flagellum multiarticulate. Gnathopod 1 coxa anterodistal corner produced forward, rounded; carpus and propodus subequal in length. Male gnathopod 2 coxa subtriangular; basis slender; merus with short acute posterodistal tooth; carpus short, anterior margin with one medial spine; propodus four times length of carpus, subrectangular, palm oblique, strongly spinose with deep, round bottomed excavation; dactylus strongly falcate, over half length of propodus. Female gnathopod 2 propodus one and a half times length of carpus and more than twice as long as broad, palm very oblique, defined by a spine. Pereopods 5–7 basis posterior margin smooth, but with fine setae. Pereopod 7 basis posteroproximal margin with 4–6 spines. Epimeron 3 with small tooth, but no notch. Uropod 3 rami subequal with short marginal spines. Telson apices sinuous, rounded, each lobe with two very small spines.

Remarks. Myers (1985c) questioned Barnard's (1965) and Berent's (1983) identifications of *E. pseudaffinis* from Micronesia and north-eastern Australia respectively and noted that Ledoyer (1978) had distinguished two "forms" of *E. pseudaffinis* from Madagascar and Mauritius. In the same paper, Myers (1985c) described from Fiji what he considered to be *E. pseudaffinis* Schellenberg, and suggested that the material of Barnard, Berents and Ledoyer (form 'A') probably represented a hitherto unrecognised species. Present material is ascribable to this new species and is given the name *E. alalo* n. sp.

Elasmopus alalo actually can now be seen to differ from *E. pseudaffinis* in a very large number of characters, principally the setose antennae, completely

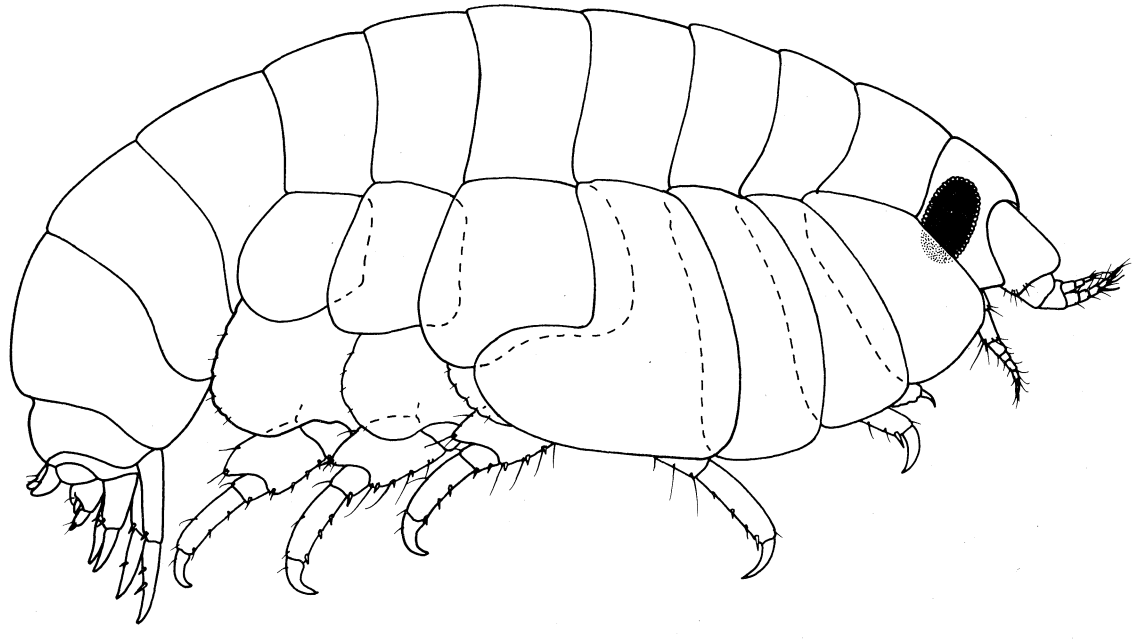

Fig. 2. *Parawaldeckia mua* n. sp., ♀ Holotype, 4.0 mm, Pangaimotu Island.

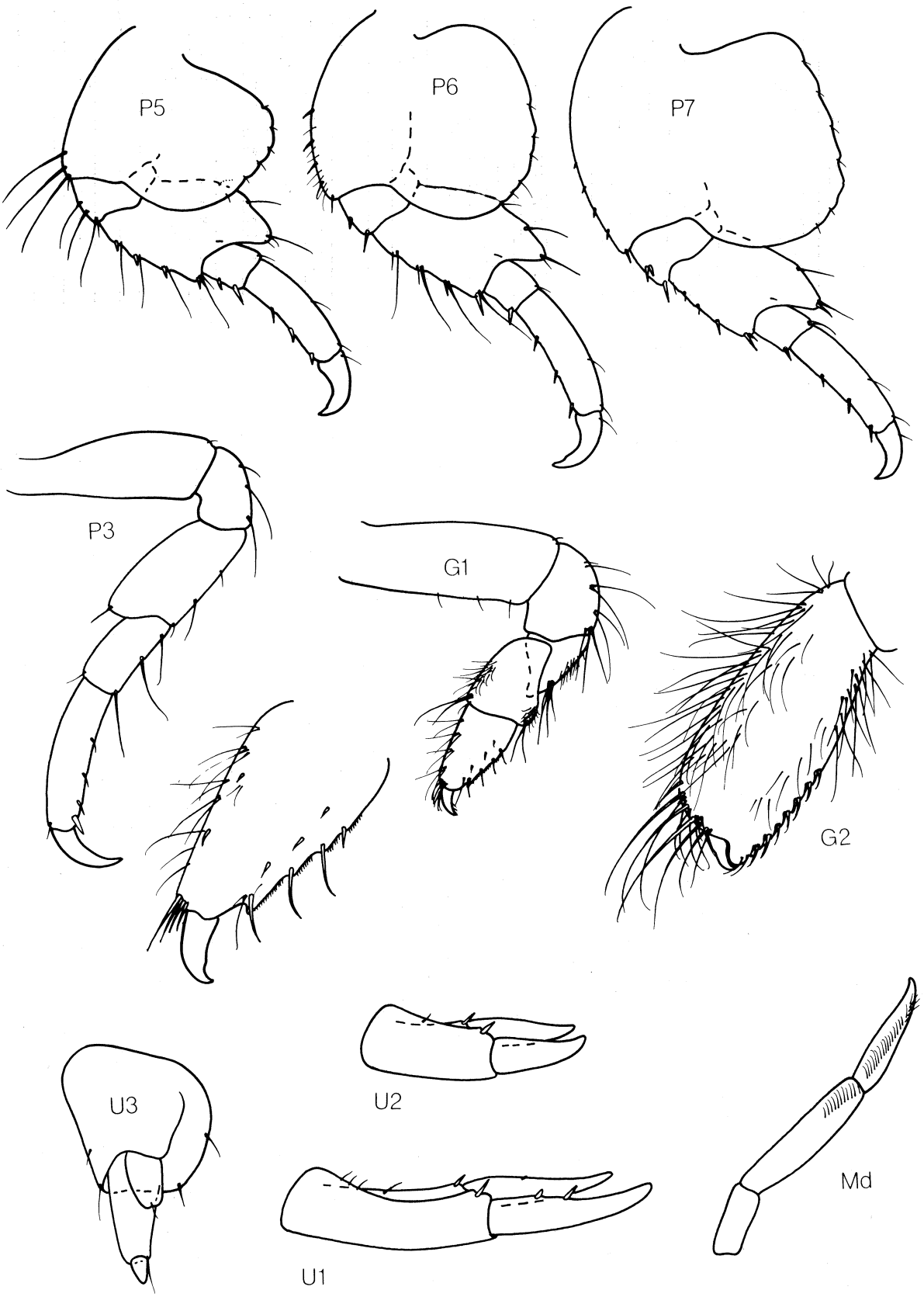

Fig. 3. *Parawaldeckia mua* n. sp., ♀ Holotype, 45.0 mm, Pangaimotu Island

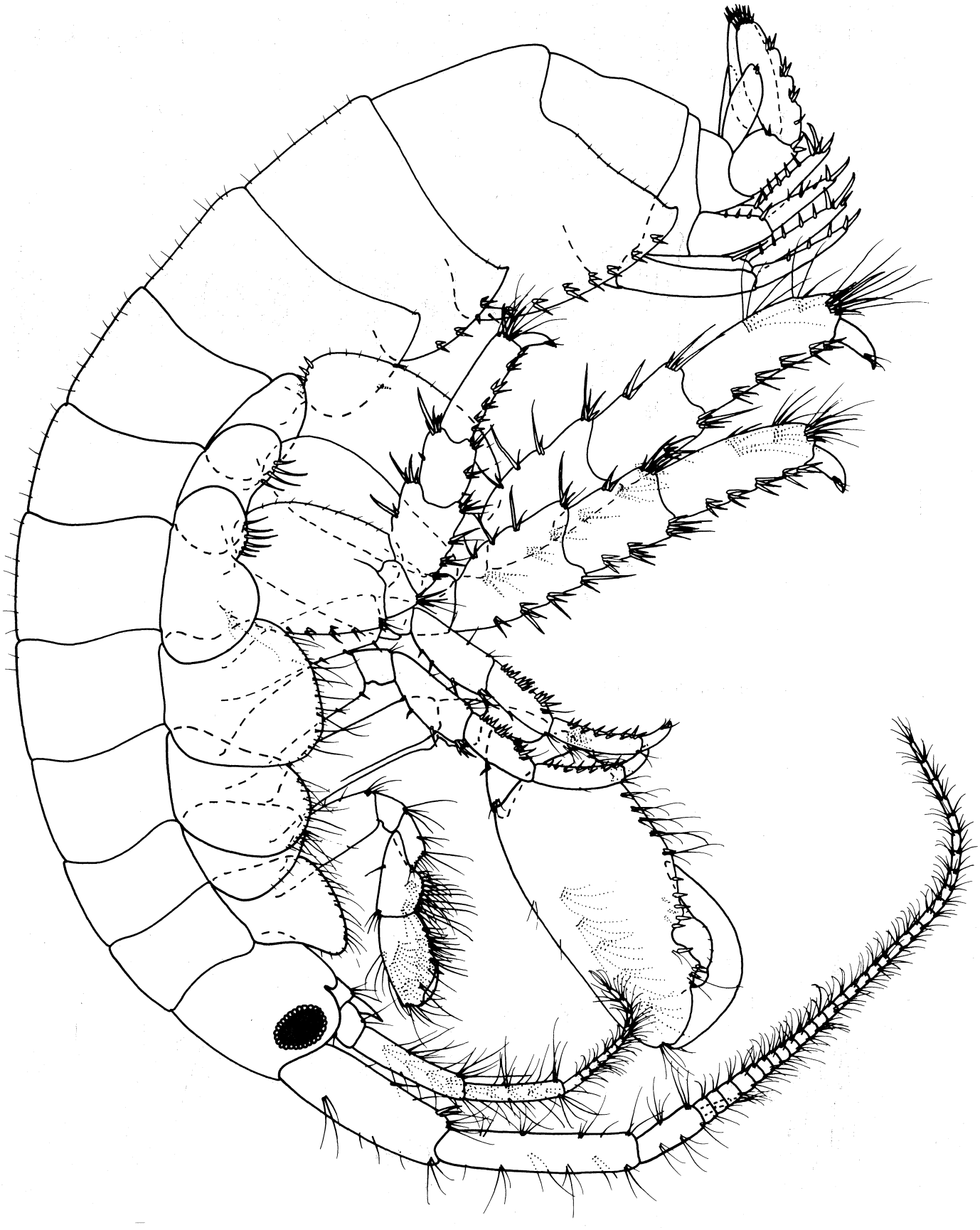

Fig. 4. *Elasmopus alalo* n. sp., ♂ 12.5 mm, Utulau.

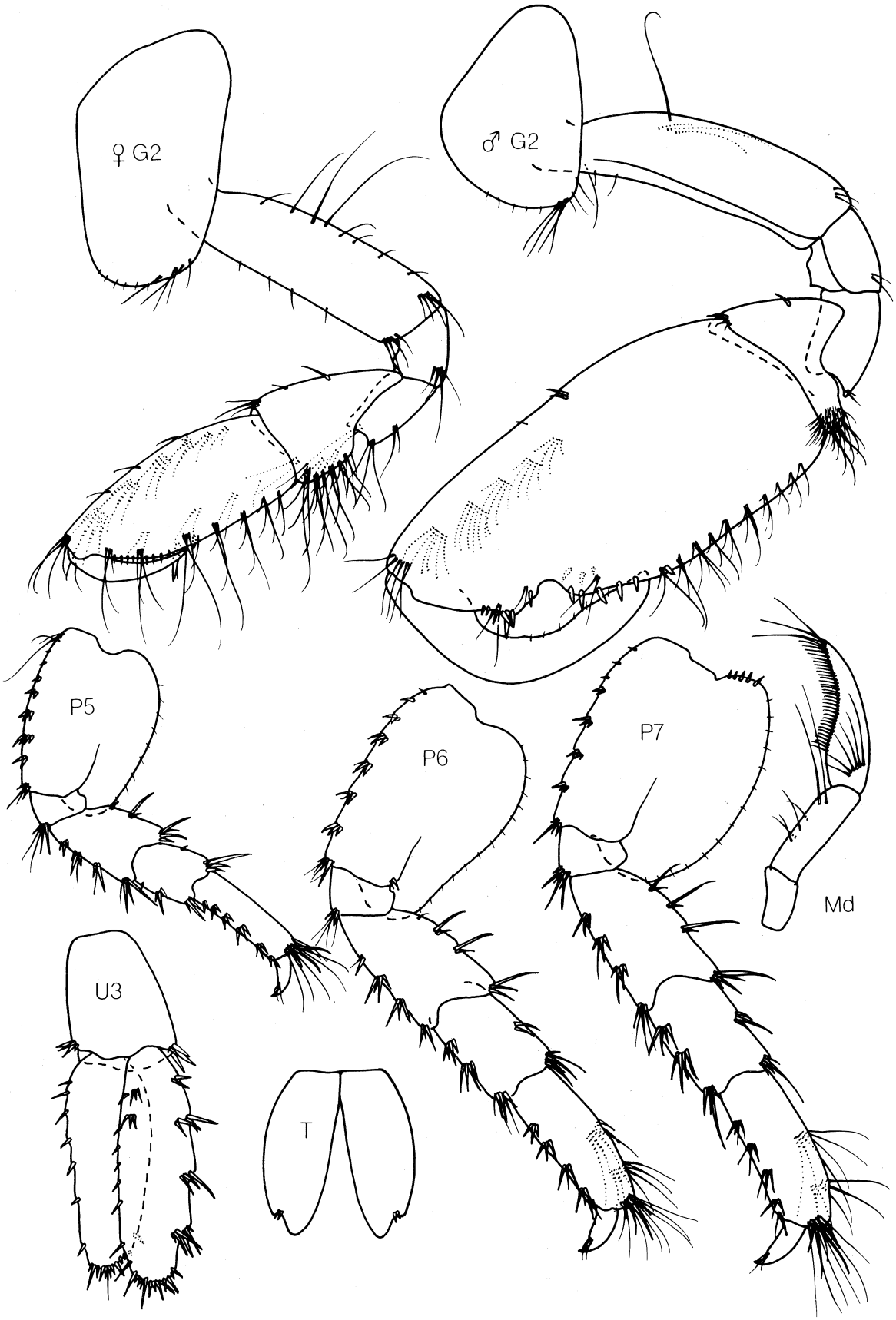

Fig. 5. *Elasmopus alalo* n. sp., ♂ 12.5 mm, ♀ 12.0 mm, Utulau.

different mandibular palp, non-acute coxa 1, subtriangular ♂ coxa 2 lacking spines, quite different ♂ gnathopod 2 (lacking spines on anterior margin of carpus, poorly produced merus, spinous palm of quite different shape, stout dactylus), non castellate pereopod 5–7 basis, short spined uropod 3 rami and telsonic apices. It is also a much larger species (12.5 mm as opposed to 6.0 mm in *E. pseudaffinis).*

Elasmopus gracilis Schellenberg
Figs 6–7

Elasmopus gracilis Schellenberg, 1938: 59, fig. 31.—Ledoyer 1967: 129, fig. 11.—Ruffo, 1969: 29, fig. 8.—Ledoyer, 1982: 488, fig. 176.

Remarks. Myers (1985c) noted the record of *E. gracilis* from Fiji (Schellenberg, 1938) but listed the species as requiring confirmation from that island group on the grounds that only females were recorded from there. The present record at least confirms the species from the Vanuatu-Tonga island arc and suggests that Schellenberg's Fiji record may have been correct.

Distribution. Red Sea, Madagascar, Ellice Islands, Tonga and probably Fiji.

Elasmopus molokai Barnard
Fig. 8

Elasmopus molokai Barnard, 1970: 120, figs 71–72.—Myers, 1985c: 102, fig. 82.
Elasmopus molakai (sic.)—Ledoyer, 1984: 63, fig. 30a.

Remarks. Myers (1985c) pointed out that the Fijian material of this species differed from Hawaiian material in the presence of a tooth on the mediodistal excavation of the posterior margin of the male gnathopod 2 in some, but not all specimens. In the four Tongan males, this tooth is always present. For differentiating characters of this species and *E. hooheno* Barnard, see Myers (1985c).

Parelasmopus suensis (Haswell)
Fig. 9

Megamoera suensis Haswell, 1880: 335, pl. 21, fig. 5.
Parelasmopus suensis—Barnard, 1974: 143.—Berents, 1983: 138, figs 28–29.—Myers, 1985c: 126, figs 100–101.

Remarks. The genus *Parelasmopus* is badly in need of revision but sufficiently extensive materials are not yet available. Barnard (1974) documented what he considered to be major specific characters in the genus. These were: presence or absence of dorsal teeth on pereonite 7 in adults; nearly transverse or strongly oblique palm of male gnathopod 2; grossly or weakly serrate basis of pereopods 5–7; anteroventral tooth present or absent on coxa 1; and extremely long setae on pereopods 5–7.

In present material, pereopods 5–7 bear extremely long setae, only in hyperadult males. This does not necessarily preclude this character state as a useful specific indicator, since it may be shown to occur in hyperadults of some but not all species. Nevertheless, it clearly shows that it is a character that must be used with caution when examining materials. Serration of the pereopod 5–7 basis is of dubious value since there appears to be gradation from fine to coarse toothing. Present material is somewhat intermediate in this respect. On the basis of pereonal and pleonal tooth formula, present material [pereonite 7 (2) pleonites 1 (2), 2 (2), 3 (0), 4 (1)] aligns itself with *P. suensis* (Haswell), *P. setiger* (Chevreux) and *P. suluensis* Stebbing (not Dana). It closely resembles material ascribed to *P. suensis* by Berents (1983) and Myers (1985c) but neither worker had hyperadult males present in their collections (Berents' material 6.8 mm, that of Myers 6.0 mm). Tongan males exhibiting densely setose pereopod 5–7 range from 8.0–10.0 mm.

Whether the three species mentioned above are synonymous cannot yet be ascertained [see Barnard (1974) for notes on *P. suensis* and *P. setiger*] but since *P. suensis* (Haswell) has priority that name is used herein for Tongan material.

Dana (1853) described and figured *P. albidus* (as *Gammarus albidus)* from Tongatapu, and makes no mention of paired teeth on pereon segment 7, although his figure indicates an angular posterodistal margin to segment 7. The small teeth on this segment could easily have been overlooked under the magnification of his hand lens. On the other hand, as pointed out by Barnard (1974) it is unlikely that he would have totally overlooked the serrations on pereopod 5–7 bases (which he figures as smooth). One is inclined to believe that Dana's Tongan material and present material from the same island is synonymous. This, however, would require the placing of *P. suensis* (Haswell) in the synonymy of *P. albidus* (Dana) which has priority. In order to prevent disruption in the present state of uncertainty, the position of *P. albidus* is left unresolved.

Mallacoota nananui Myers
Fig. 8

Elasmopus subcarinatus Chilton, 1915 (in part): 325, fig. 5.
Mallacoota subcarinata—Barnard, 1972: 114, figs 59–60.—Ledoyer, 1984: 72, fig. 34.
Mallacoota nananui Myers, 1985c: 121, fig. 95.

Remarks. This species is close to *M. latidactyla* Ledoyer, but differs in having article 2 of the mandibular palp longer than article 1, the telson more spinous and male gnathopod 2 with the posterior margin of the propodus sinuous not straight, the palm irregularly toothed, but never with deep round-bottomed excavation. In *M. latidactyla,* the deep palmar excavation remains unoccluded by the dactylus posterior margin when it is in the closed position and is presumably used for grooming the antenna 1.

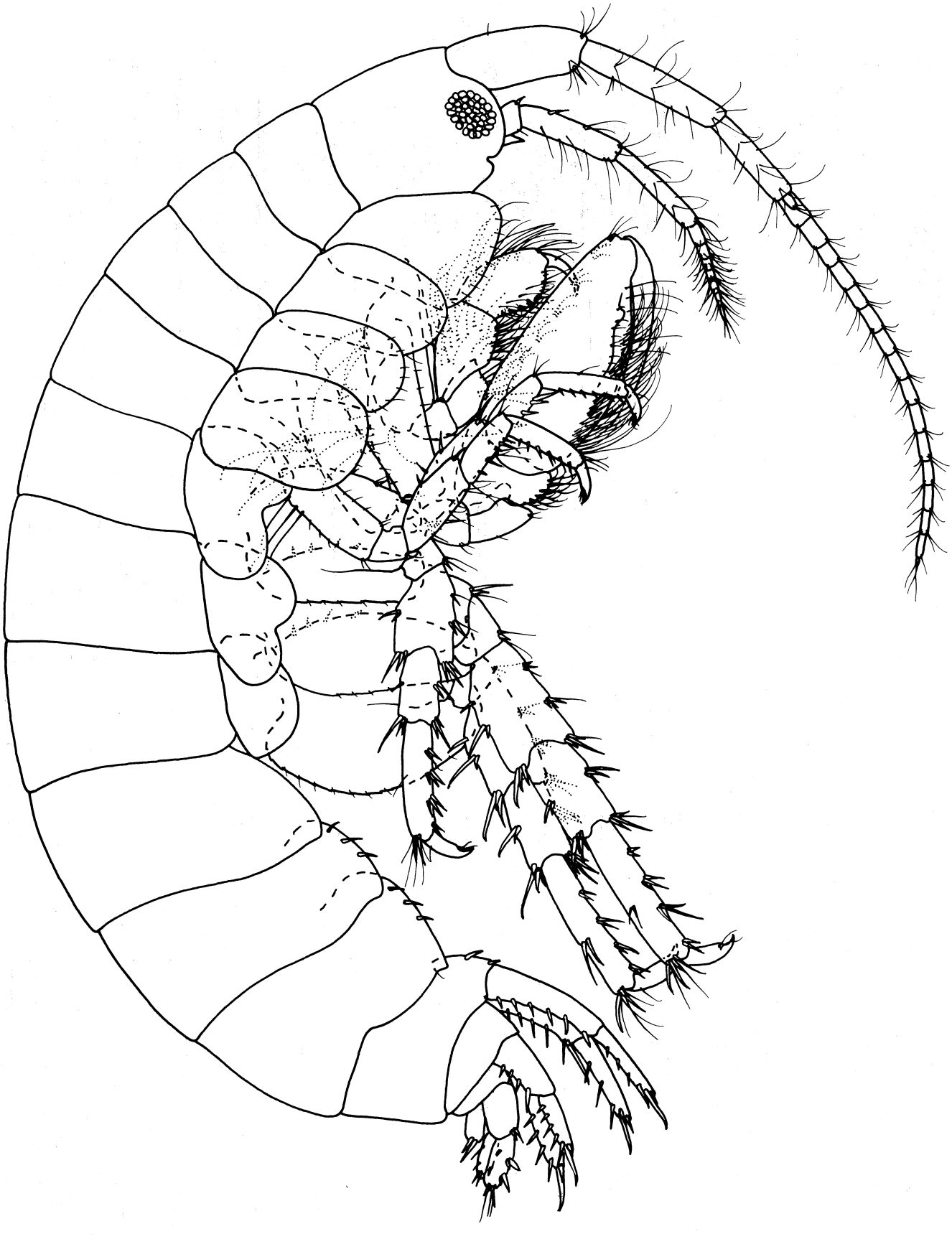

Fig. 6. *Elasmopus gracilis* Schellenberg, ♂ 4.0 mm, Utulau.

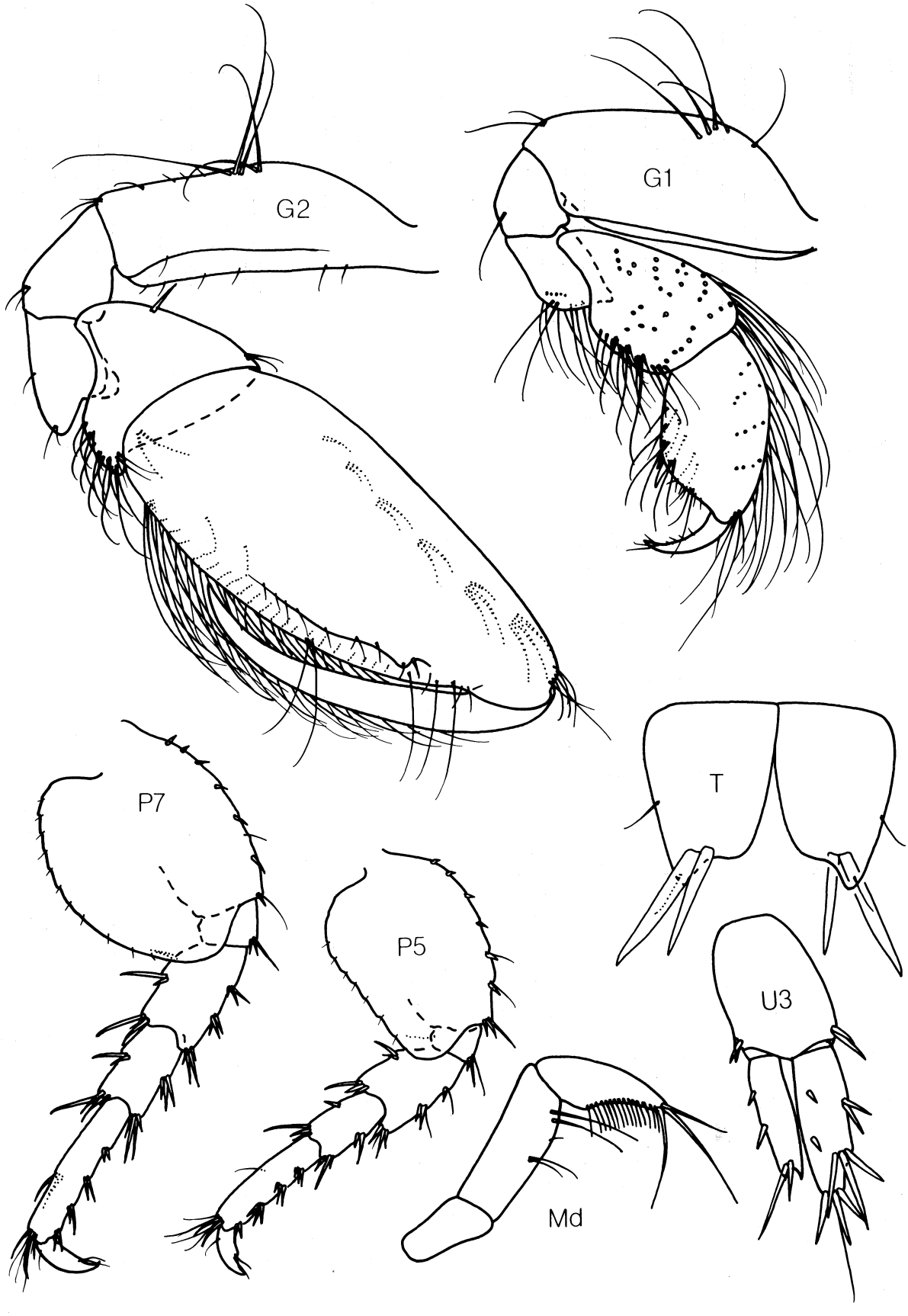

Fig. 7. *Elasmopus gracilis* Schellenberg, ♂ 4.0 mm, Utulau.

Eriopisella seychellensis (Chevreux)
Fig. 10

Eriopisa seychellensis Chevreux, 1901: 403, figs 19–23.— Barnard, 1935: 284, fig. 4.

Remarks. Barnard (1970) described a new subspecies of *E. seychellensis* from Hawaii (*E. s. upolu)* which differed from the nominate subspecies by the "hands of the gnathopods" being slightly narrower, less ovate and more rectangular, the lateral cephalic lobes more strongly rounded, and the dactyls of pereopods 3–5 not bifid (= 5–7 in present terminology). Chevreux's figure of an entire female is a little crude by modern standards, so that it is difficult to give weight to the significance of head lobe shape and gnathopod proportions, although the enlarged figures of the gnathopoda do indicate a very broad gnathopod 2 carpus. The non bifid dactyls of the Hawaiian subspecies do seem significant. Present material has bifid dactyls on pereopods 5–7 and is therefore allocated for the moment to the nominate subspecies.

Ledoyer (1984) records *Eriopisella seychellensis upolu* from New Caledonia. He describes the dactylus of pereopods 5–7 as "simples", but figures them bifid. Tongan and New Caledonia materials do not appear to differ significantly from one another.

Distribution. Seychelles, Hawaii, New Caledonia, Tonga (including subspecies).

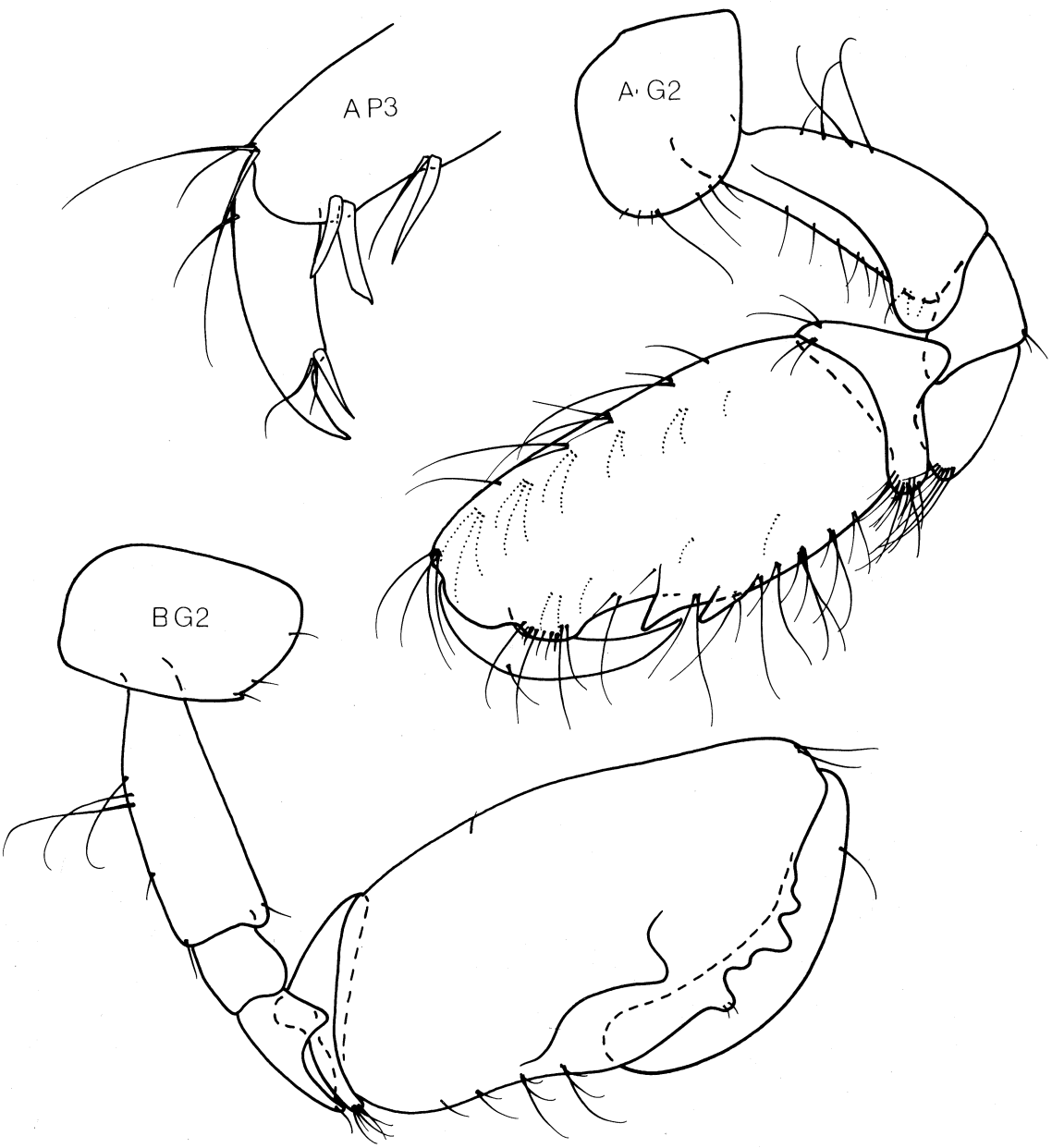

Fig. 8. A, *Elasmopus molokai* Barnard, ♂ 5.0 mm, Nukualofa; **B,** *Mallacoota nananui* Myers, ♂ 7.0 mm, Pangaimotu Island.

FAMILY AMPITHOIDAE

Cymadusa pilipes (Ledoyer) n. comb.

Paradusa bilobata pilipes Ledoyer, 1984: 26, fig. 11.
Cymadusa lunata Myers, 1985c: 33, figs 22–23.

Remarks. Myers (1985c) figured and described this species from Fiji, under the name *Cymadusa lunata,* but concurrently, Ledoyer (1984) described the species from New Caledonia as a new subspecies of *Paradusa bilobata* Ruffo. The distinctive characters detailed by Ledoyer seem sufficient to warrant specific rank for this taxon, the name of which by priority must be *C. pilipes* (Ledoyer). Ruffo erected the genus *Paradusa* for a taxon with enlarged gnathopods 1 and 2 in the male, mandible palp with cylindrical articles and accessory flagellum with a single article. Conlon (1982) retained the genus *Paradusa,* and in her key to the genera of Ampithoidae,

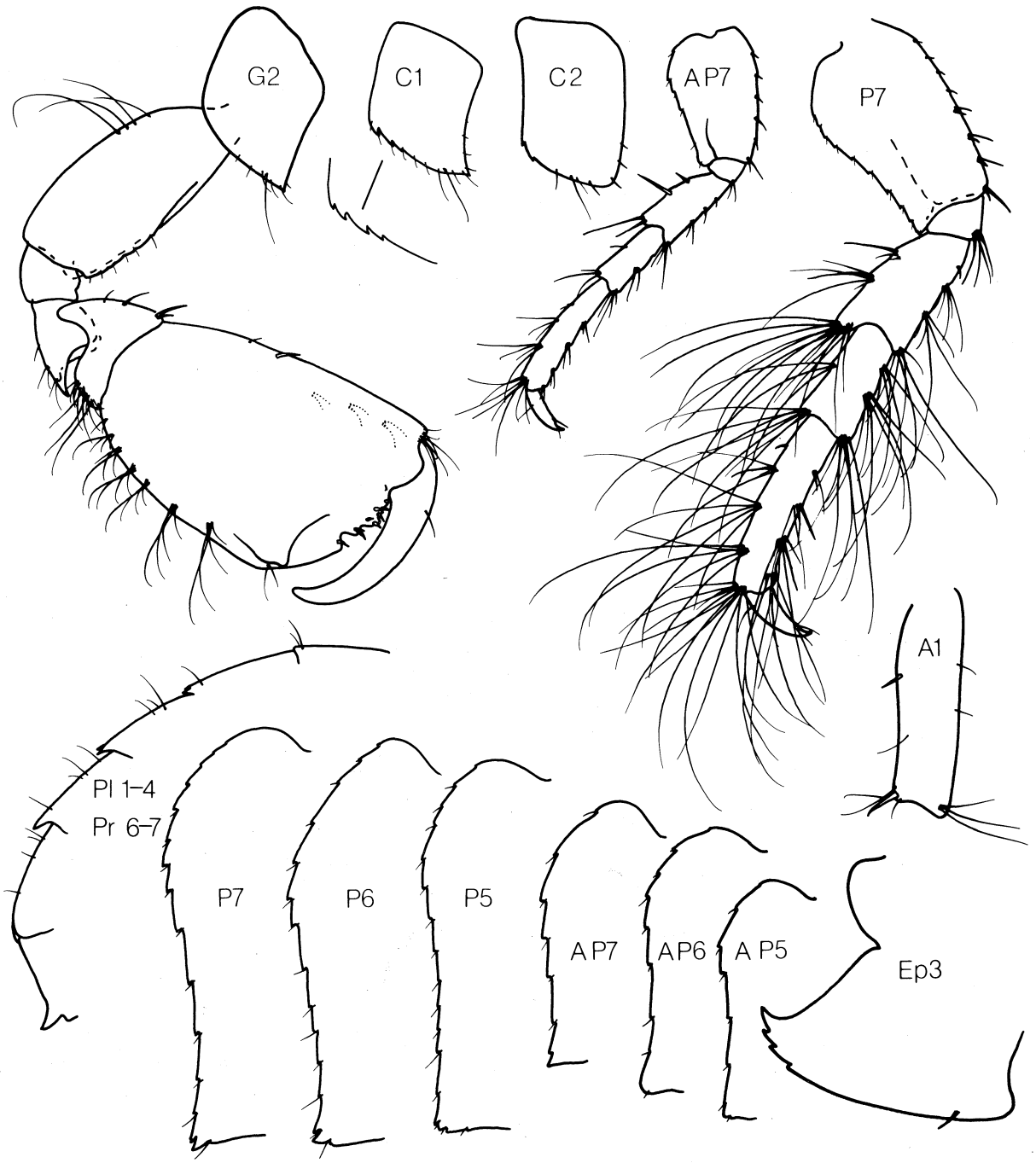

Fig. 9. *Parelasmopus suensis* (Haswell), ♂ 10.0 mm; **A,** ♂ 6.0 mm, Nukualofa.

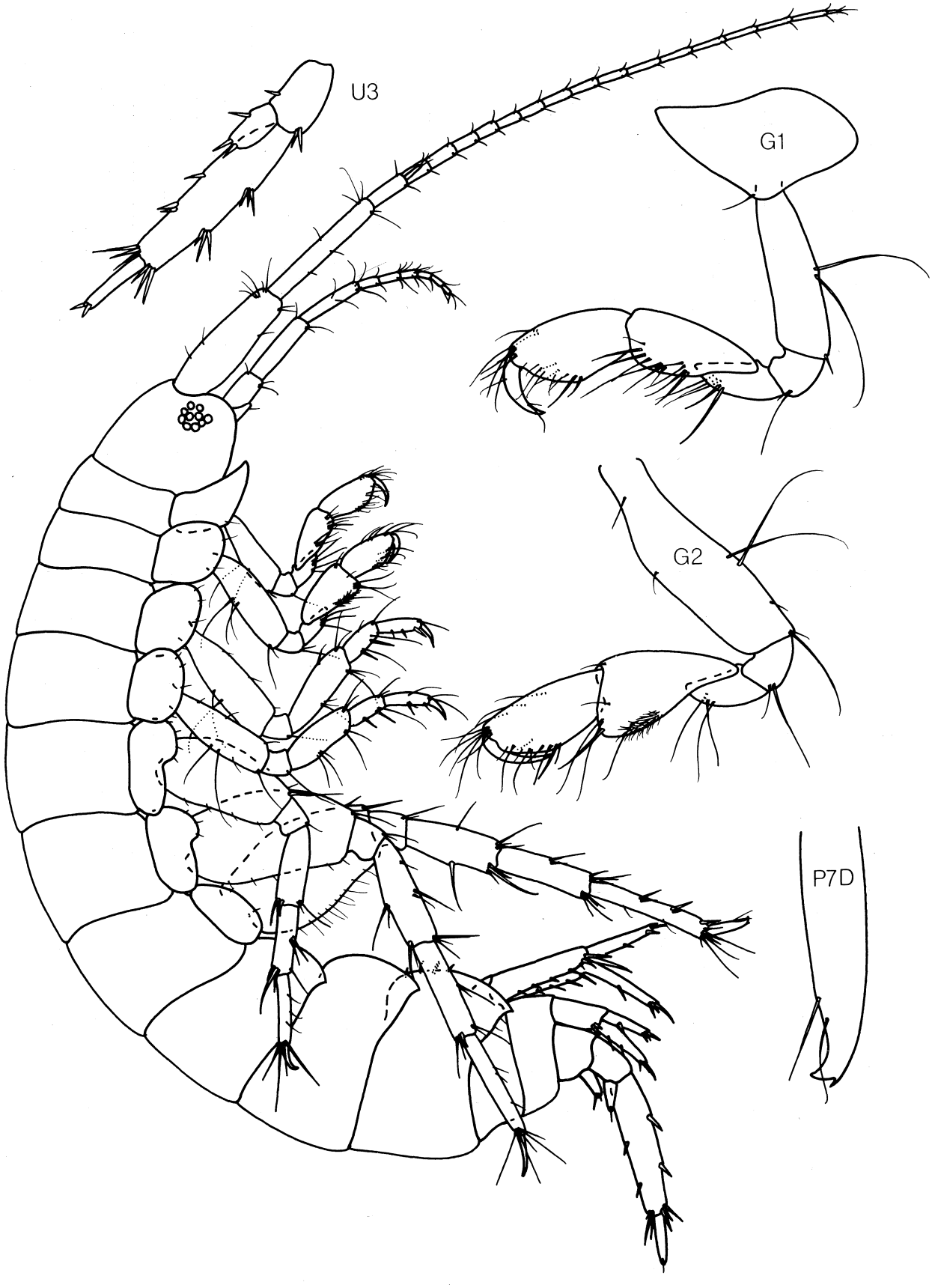

Fig. 10. *Eriopisella seychellensis* (Chevreux), ♀ 3.5 mm, Pangaimotu Island.

employed the same characters as those used by Ruffo (1969) in distinguishing *Paradusa* from *Cymadusa*. The reduction of one ramus of a biramus appendage is a phenomenon which is repeated again and again throughout the Crustacea. There is no reason to assume that the reduction of the accessory flagellum is a synapomorphy in Amphipoda. In any case, some species of *Cymadusa,* e.g. *C. brevidactyla,* also have an accessory flagellum composed of a single article. The mandibular palp article 3 of *C. pilipes* is not cylindrical but spatulate and the setae are not restricted to the tip as they are in the type species of *Paradusa, P. bilobata.* Indeed, the mandibular palp of C. pilipes does not differ from many *Cymadusa* species. Thus only the dual enlargement of the male gnathopods 1 and 2 remains as a distinguishing feature between *Cymadusa* and *Paradusa.* Secondary enlargement of one pair of gnathopoda, to obscure a primary axial gradient, occurs quite often within corophioid genera and is a poor character upon which to base a genus. Female gnathopoda are generally plesiomorphic, lacking the complex secondary sexual modifications of males, and are good phylogenetic indicators. The female gnathopods of *C. pilipes* scarcely differ from those of *C. brevidactyla.* Detailed studies of mouthparts are needed to clarify the relationships of ampithoid taxa, but at this stage there seems no valid basis for separating *C. pilipes* from its apparent congeners in *Cymadusa.*

FAMILY AORIDAE

Genus *Globosolembos* Myers

Eight species are currently known in the genus *Globosolembos* and, as pointed out by Myers (1985a), the identification of the species is difficult. Females are particularly difficult and in some cases cannot yet be separated. To aid in the identification of males in this species complex, a key to the species worldwide is given here.

Key to Male *Globosolembos* of the World

1. Gnathopod 1, palm defined by an acute tooth and a spine. ..... *G. ruffoi*

——Gnathopod 1, palm defined by a spine only or a spine and a rounded prominence or an excavation. 2

2. Mandibular palp article 3 longer than 2, posterior margin of article 3 concave. 3

——Mandibular palp article 3 shorter than 2, posterior margin of article 3 convex. ..... *G. tiafaui*

3. Gnathopod 1, palm with deep excavation. ..... *G. excavatus*

——Gnathapod 1, palm lacking deep excavation. 4

4. Gnathopod 1, palm evenly continuous with posterior margin. ..... *G. francanni*

——Gnathopod 1, palm distinguishable from posterior margin. 5

5. Gnathopod 1, palm sinuous with short convex portion and longer weakly concave portion. 6

——Gnathopod 1, palm evenly convex except for short concave portion adjacent to rounded defining hump. ..... *G. ovatus*

6. Sternal processes weak, rounded, epimeron 2 without long marginal setae. .. *G. indicus*

——Sternal processes strongly produced, elongate on segments 2–3, epimeron 2 with long pectinate marginal setae. 7

7. Gnathopod 1, propodus one and a half times length of carpus. ..... *G. leapakahi*

——Gnathopod 1, propodus twice length of carpus. ..... *G. smithi*

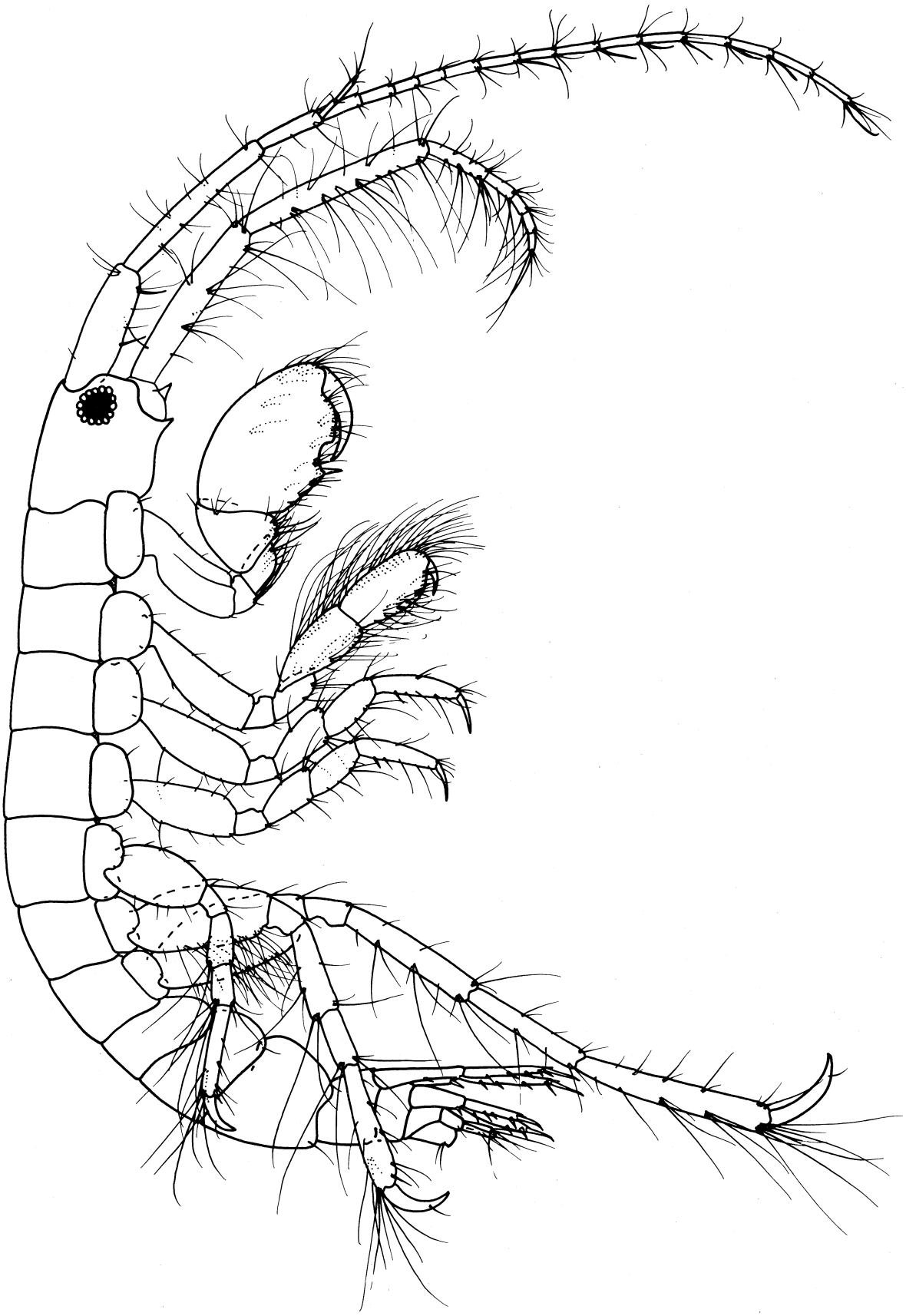

Fig. 11. *Globosolembos excavatus* Myers, ♂ 5.5 mm, Nukualofa.

Globosolembos excavatus Myers

Figs 11–12

Lembos excavatus Myers, 1975: 32, figs 76–82.—Ledoyer, 1982: 218, figs 104–105 (in part).

Lembos processifer.—Ledoyer, 1984: 35 (in part), fig. 16 ("forme 2").

Lembos (Globosolembos) excavatus Myers, 1985a: 363, fig. 234.

Remarks. Ledoyer (1984) has recently figured material from New Caledonia under the name *L. processifer* (Pirlot). He describes two forms under this name. Form 1 is distinctive and may indeed be *L. processifer*. The other, form 2, however, appears to be referable to *G. excavatus*.

Distribution. East Africa, Madagascar, N.E. Australia, New Caledonia, Tonga.

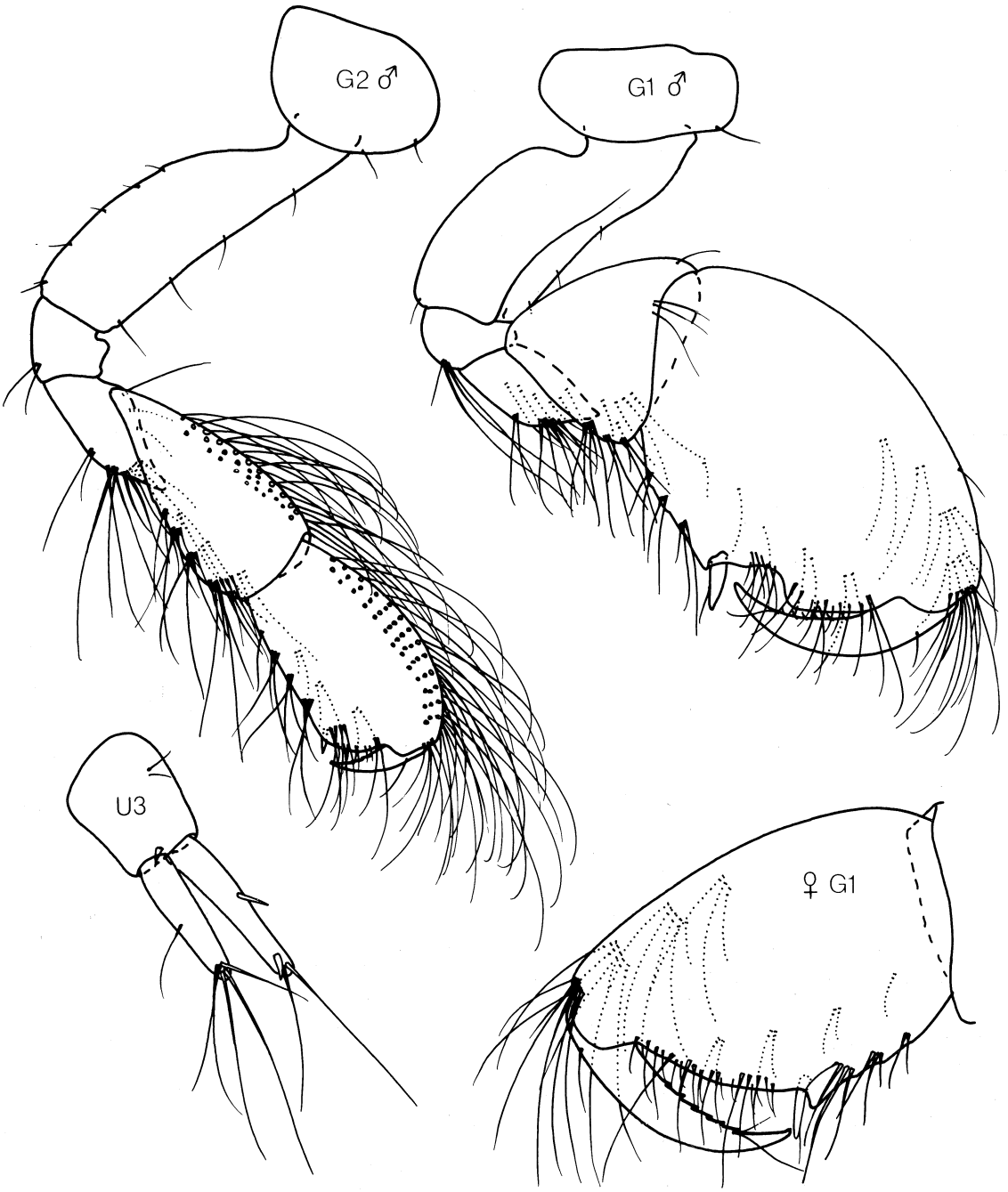

Fig. 12 *Globosolembos excavatus* Myers, ♂ 5.5 mm, ♀ 5.0 mm, Nukualofa.

Table 1. Annotated list of species recorded from Tonga.

Species	Locality	Tonga Habitat	Material ♂	♀	Imm	Distribution
AMPHILOCHIDAE						
Amphilochus menehune Barnard, 1970	Nukualofa	Coral debris in lagoon		1		C
Gitanopsis tai Myers, 1985 c	Nukualofa	*Sargassum* sp. in lagoon		1		C
LEUCOTHOIDAE						
Leucothoe hyhelia Barnard, 1965	Nukualofa	Coral debris in lagoon		1		D
	Utulau	Coral debris and living *Acropora* sp.in lagoon	2	1		
Leucothoella bannwarthi Schellenberg, 1928	Pangaimotu Is.	*Amphiroa* sp. inner reef	1			C
ANAMIXIDAE						
Paranamixis madagascarensis Ledoyer, 1967 *Paranamixis* form	Pangaimotu Is.	*Amphiroa* sp. inner reef	2			C
	Utulau	Coral debris and living *Acropora* sp. in lagoon	1			
Leucothoides form	Pangaimotu Is.	*Amphiroa* sp. inner reef		3		
	Nukualofa	*Sargassum* sp. in lagoon		1		
	Utulau	Mixed red algae on rock terrace		1		
HYALIDAE						
Hyale chevreuxi Barnard, 1916	Utulau	Mixed red algae on rock terrace	54	50		C
		Mixed red algae in lagoon	48	38		
		Mixed red/green algae in tide pool	2	2		
		Coral debris and living *Acropora* sp. in lagoon		1		
H. galateae distorta Myers, 1985c	Utulau	Mixed red algae on rock terrace	13	13		C
Lelehua malevua Myers, 1985c	Utulau	Mixed red algae on rock terrace	69	26		C
		Coral debris and living *Acropora* sp.	4	8		
		Mixed red algae in lagoon	148	32		
		Mixed red/green algae in tide pool	5	4		
EOPHLIANTIDAE						
Bircenna dronga Myers, 1985c	Utulau	Coral debris and living *Acropora* sp. in lagoon		1		C
		Mixed red/green algae in tide pool		1		
LYSIANASSIDAE						
Parawaldeckia mua n. sp.	Pangaimotu Is.	*Amphiroa* sp. inner reef		1		D
DEXAMINIDAE						
Paradexamine rewa Myers, 1985c	Pangaimotu Is.	*Heterozostera* sp. in lagoon		5		C
		Amphiroa sp. inner reef	5	12	61	
	Nukualofa	*Sargassum* sp. in lagoon	5	24		
		Coral debris in lagoon		1		
MELITIDAE						
Elasmopus alalo n. sp.	Utulau	Mixed red algae on rock terrace	26	42		D
	Utulau	Mixed red algae in lagoon	10	11		
		Mixed red/green algae in tide pool	1			

Species	Locality	Tonga Habitat	Material ♂	♀	Imm	Distribution
E. gracilis Schellenberg, 1938	Utulau	Mixed red algae on rock terrace	8	9		D
		Mixed red algae in lagoon	10	18		
		Mixed red/green algae in tide pool	11	13		
E. lapu Myers, 1985c	Utulau	Mixed red algae on rock terrace	7	10		C
		Coral debris and living *Acropora* sp. in lagoon	6	7		
		Mixed red algae in lagoon	3	1		
E. molokai Barnard, 1970	Pangaimotu Is.	*Amphiroa* sp. inner reef	2	1		C
	Nukualofa	Coral debris in lagoon	2	2		
E. spinidactylus Chevreux	Utulau	Mixed red algae on rock terrace	7	39		C
Parelasmopus suensis (Haswell, 1880)	Pangaimotu Is.	*Amphiroa* sp. inner reef	5	12	6	C
	Nukualofa	Coral debris in lagoon	5	9		
		Sargassum sp. in lagoon		2		
Mallacoota nananui Myers, 1985c	Pangaimotu Is.	*Amphiroa* sp. inner reef	4	6		C
Maera pacifica Schellenberg, 1938	Pangaimotu Is.	*Amphiroa* sp. inner reef		1		C
	Utulau	Mixed red algae on rock terrace	3	7		
		Coral debris and living *Acropora* sp. in lagoon	1			
		Mixed red algae in lagoon		1		
M. serrata Schellenberg, 1938	Pangaimotu Is.	*Heterozostera* sp. in lagoon	1			C
	Nukualofa	Coral debris in lagoon	3			
	Utulau	Mixed red algae on rock terrace		1		
Eriopisella seychellensis (Chevreux, 1901)	*Pangaimotu Is.*	*Heterozostera* sp. in lagoon		1		D
AMPITHOIDAE						
Paragrubia vorax Chevreux, 1901	Utulau	Mixed red algae on rock terrace	10	16		C
		Coral debris in lagoon	2	3		
		Mixed red algae in lagoon	4	14		
Cymadusa pilipes (Ledoyer, 1984)	Pangaimotu Is.	*Heterozostera* sp. in lagoon	1	2		C
	Nukualofa	*Sargassum* sp. in lagoon	3	5		
		Coral debris in lagoon	5	6		
C. brevidactyla (Chevreux, 1907)	Pangaimotu Is.	*Heterozostera* sp. in lagoon		1		C
	Utulau	Mixed red algae on rock terrace	1	3		
		Coral debris and living *Acropora* sp. in lagoon		1		
		Mixed red algae in lagoon	4	8		
Pleonexes kaneohe navosa Myers, 1985c	Utulau	Mixed red algae on rock terrace	3	11		C
		Mixed red algae in lagoon	8	13		
P. kulafi Barnard, 1965	Nukualofa	*Sargassum* sp. in lagoon	1	3		C

Species	Locality	Tonga Habitat	Material ♂	♀	Imm	Distribution
Ampithoe kava Myers, 1985c	Nukualofa	*Sargassum* sp. in lagoon	5	17		C
ISAEIDAE						
Gammaropsis digitata (Schellenberg, 1938)	Pangaimotu Is.	*Heterozostera* sp. in lagoon		2		C
		Amphiroa sp. inner reef		4		
	Nukualofa	Coral debris in lagoon		1		
	Utulau	Mixed red algae on rock terrace	12	11		
		Mixed red algae in lagoon	2	2		
AORIDAE						
Lembos aequimanus Schellenberg, 1938	Pangaimotu Is.	*Heterozostera* sp. in lagoon	9	11	5	B
	Nukualofa	*Sargassum* sp. in lagoon	2	2		
		Coral debris in lagoon	2	2		
L. dentischium taparum Myers, 1985b	Pangaimotu Is.	*Amphiroa* sp. inner reef	8	13		B
	Nukualofa	Coral debris in lagoon	3	3		
	Utulau	Mixed red algae on rock terrace		1		
L. saloteae Myers, 1985b	Pangaimotu Is.	*Amphiroa* sp. inner reef	3	4		B
	Utualau	Mixed red algae on rock terrace		1		
Globosolembos excavatus Myers, 1985a	Nukualofa	Coral debris and *Sargassum* in lagoon	8	10		A

See A: Myers, 1985a B: Myers, 1985b C: Myers, 1985c D: Present paper.

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