

NEW AMPHIPOD CRUSTACEANS FROM THE INDO-WEST PACIFIC (AMATHILLOPSIDAE: EUSIRIDAE: IPHIMEDIIDAE)

J. K. Lowry

Division of Invertebrate Zoology, Australian Museum, 6 College Street, Sydney, NSW 2010, Australia
Email: jimlowry@crustacea.net

A. A. Myers

Department of Zoology and Animal Ecology, National University of Ireland,
Lee Maltings, Prospect Row, Cork, Ireland
Email: alanmyers@crustacea.net

ABSTRACT. – Based on recent collections from the Indo-West Pacific the following new amphipods are described: an amathillopsid, *Jeanjustia pedra*, new genus and new species, from seamounts south of Tasmania; an eusirid, *Oradarea dawa*, new species; and the iphimediids, *Coboldus mberensis*, new species, *Iphimedia caledoniana*, new species, and *I. maitrensis*, new species, from New Caledonia; *I. rachanoi*, new species, and *I. phuketensis*, new species, from Thailand; *I. damawan*, new species, *I. mizegwadan*, new species, and *Curidia ramonae*, new species, from Papua New Guinea; and *Curidia knoxi*, new species, from the New Zealand subantarctic.

KEY WORDS. – Indo-West Pacific, Amphipoda, new taxa, coral reefs, seamounts taxonomy.

INTRODUCTION

In this paper we publish on new taxa from three families of amphipods, the Amathillopsidae, the Eusiridae *sensu lato* and the Iphimediidae. We describe a new genus and species of amathillopsid from Australia, a new species of eusirid from New Caledonia, seven new species of iphimediines from Thailand, Papua New Guinea and New Caledonia and two new ochlesine species, one from Papua New Guinea and one from the New Zealand subantarctic.

The collections which form the basis of this study are as follows: a CSIRO survey of a group of about 70 seamounts south of Tasmania (Koslow & Gowlett-Holmes, 1998); a series of workshops at the Christensen Research Institute (now defunct), Madang Lagoon, Papua New Guinea, between 1991-1994 (Jebb & Lowry, 1995); a workshop at the Centre IRD de Nouméa, New Caledonia in 1995; a workshop at Phuket Marine Biological Center, Thailand in 1998 (Bussarawit & Aungtonya, 2002) and a University of Canterbury expedition to The Snares, New Zealand during 1974.

Jeanjustia pedra new genus, new species, represents only the second genus in the family Amathillopsidae. The eusirid genus *Oradarea* is primarily (twelve species) an Antarctic/subantarctic genus. The previously only known tropical species, *Oradarea shoemakeri* (Pirlot, 1934) was described

from Sulawesi in Indonesia. *Oradarea dawa*, new species, thus represents the second species for the genus outside the Antarctic. The genus *Curidia* was described for *C. debrogania* Thomas, 1983, from the island of Belize in the Caribbean Sea. A second species, *Curidia magellanica* Coleman & Barnard, 1991b, was subsequently described from southern Chile in the Magellanic area of South America. The description of *C. ramonae*, new species, from Madang Lagoon in northern Papua New Guinea and *C. knoxi* from The Snares in the New Zealand subantarctic indicates an extremely disjunct distribution for this genus.

The genus *Coboldus* was previously known from the Mediterranean, the Caribbean and California and with the new species described here from New Caledonia, it also exhibits a disjunct distribution. An undescribed species of *Coboldus* is also known from Australia. Since *Coboldus* differs from *Iphimedia* only in the loss of a maxilla 1 palp article 2 and *Curidia* differs from *Ochlesis* only in the presence of a maxillipedal palp article 1, it is hard to escape the conclusion that neither *Curidia* nor *Coboldus* require separate generic status. *Coboldus* may represent species of *Iphimedia* which have, in various parts of the world, lost a maxilla 1 palp article 2 (see also Just, 1990), while *Curidia* probably represents species of *Ochlesis* which have, in various parts of the world, lost a maxillipedal palp articles 2-4. However, we feel that the most appropriate place to make these changes is in a revision of the relevant genera.

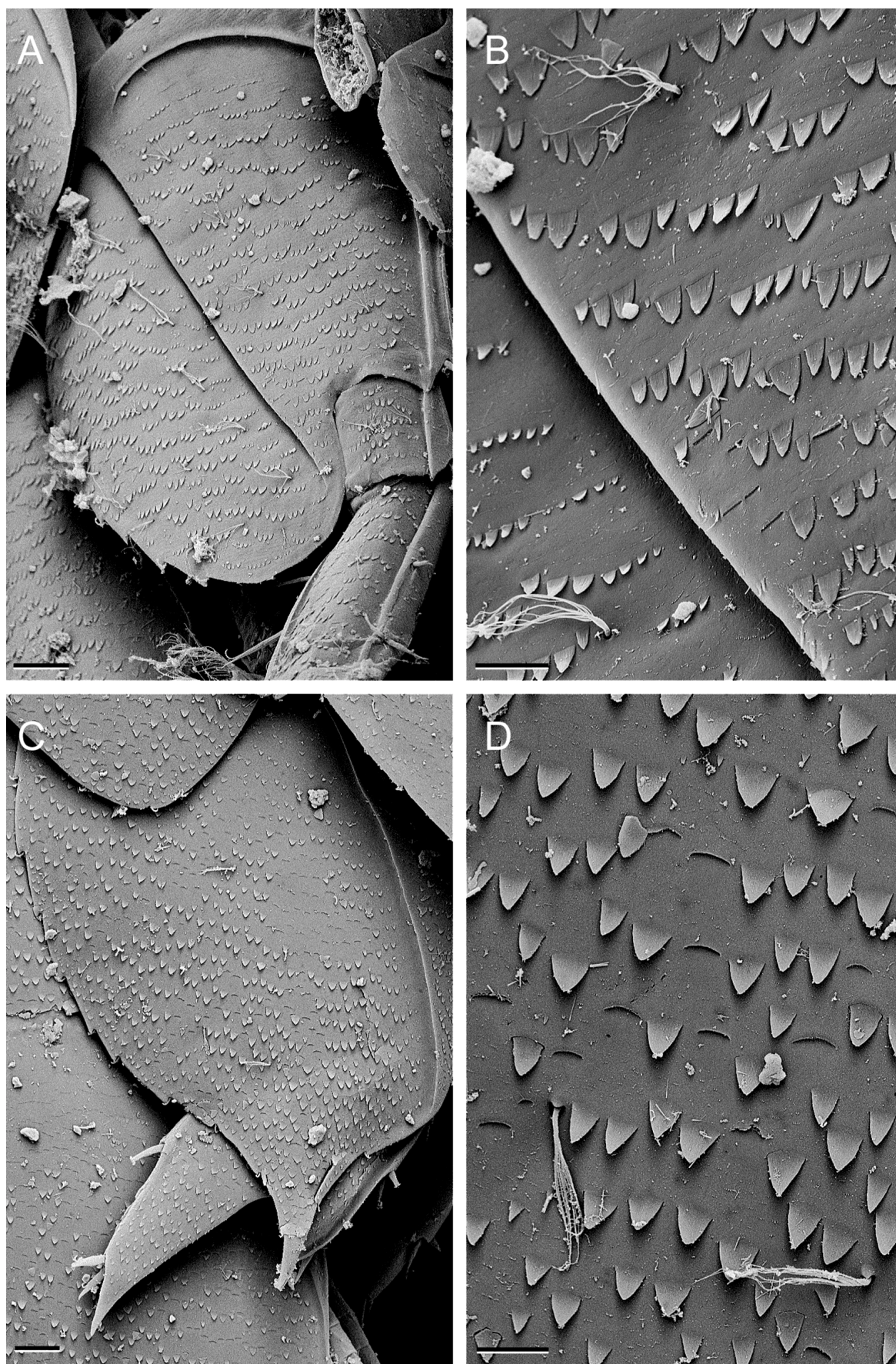


Fig. 1. *Oradarea dawa*, new species, AM P64452: A, Pereopod 7 basis, showing scale patterns, scale bar = 30 μ ; B, Pereopod 7 basis, showing groups of scales with proximal insertion line and sockets where scales are missing, scale bar = 10 μ . *Iphimedia caledoniana*, new species, AM P64453: C, Pereopod 7 basis, showing scale patterns, scale bar = 30 μ ; D, Pereopod 7 basis, close up showing groups of scales with proximal insertion line and sockets where scales are missing, scale bar = 10 μ .

Iphimedia is principally a cool temperate genus with only five of the previously known 54 species occurring in tropical waters (East Africa, Red Sea, Madagascar, and Mauritius with undescribed species in tropical Western Australia). Interestingly, the genus appears to be absent from the Pacific plate. A number of amphipod workers have collected on Pacific plate islands, and three major studies (Barnard, 1970, Myers, 1985, Schellenberg, 1938) have failed to report the genus. It occurs around the Pacific plate margin in southern New Zealand, in New Caledonia, in Japan and in California. The six new species, *Iphimedia caledoniana* new species, *I. damawan* new species, *I. maitrensis* new species, *I. mizegwadan* new species, *I. phuketensis*, new species, and *I. rachanoi*, new species, described here have therefore, more than doubled the known number of tropical species and perhaps demonstrated that the under representation of this genus in the tropics (Pacific plate excepted) is a result of collection bias.

The family level classification of the eusiroid and iphimedioid groups is controversial (Watling & Thurston, 1989; Coleman & Barnard, 1991a; Berge et al. 1999; Bousfield, 1995, 1997; Lowry & Myers, 2000). For example, amathillopsids have been considered as a family group (Pirlot, 1934; Coleman & Barnard, 1991a), a part of the eusirid family group (Barnard & Karaman, 1991), or a subfamily of the Epimeriidae (Lowry & Myers, 2000). Ochlesids have been considered as a family (Stebbing, 1910; Coleman & Barnard, 1991a) or a subfamily of the Iphimediidae (Barnard & Karaman, 1991). In this paper we follow the classification of Barnard & Karaman (1991), which recognises two subfamilies, Iphimediinae and Ochlesinae within the Iphimediidae. Barnard & Karaman (1991), place *Amathillopsis* within the Iphimediinae, but they comment that “*Amathillopsis* is a link to eusirid-calliopiid groups”. We think that amathillopsid genera are intrinsically different from iphimediid genera and we therefore provisionally retain them as a family group, Amathillopsidae, in accordance with Coleman & Barnard (1991a). Bousfield (1997) considered *Oradarea* as a Calliopiidae, but Barnard & Karaman (1991) dismantled the calliopiid concept by using arguments which showed that the main defining character state, the entire telson, was homoplasious. Barnard & Karaman (1991) implied that some species of *Oradarea* may link to iphimediids because of their “incipient acuminate coxae”. Concerning the iphimedioid relationships we concur, and the presence of distinctive elongate scales in all of the *Iphimedia* species described here and in a number of Mediterranean species of *Iphimedia* (Ruffo & Schiecke, 1979) and most species of *Oradarea* (including *O. dawa*) and *Djerboa* (Thurston, 1974) appears to be a synapomorphy strengthening this argument.

Scales. Watling (1989) discussed scales which are non-articulated cuticular extensions with a wide base in relation to their length. Halcrow & Bousfield (1987) illustrated a range of cuticular structures among selected amphipod families. Thurston (1974) described a particular type of “elongate integumental” scale as a prominent feature of all *Oradarea* species except *O. novaezealandiae* Thomson and

O. shoemakeri Pirlot. They had previously been noted in *Oradarea* by K. H. Barnard (1932). Scanning electron micrographs of similar scales, in *Iphimedia minuta* Sars, *I. brachygnatha* Ruffo & Schiecke and *I. serratipes* Ruffo & Schiecke, were published by Ruffo & Schiecke (1979).

In this study we observed scales on *Oradarea dawa*, new species, and all species of *Coboldus* and *Iphimedia*. Examples of scales on the basis of pereopod 7 are shown for *O. dawa*, new species, and *I. caledoniana*, new species (Fig. 1). These scales occur over most of the head, Body and appendages in both species. They are broad at the base and taper to an acute or subacute point. Parallel striae run the length of the scales in both species. Where scales are missing a socket is clearly visible. The socket is straight in *O. dawa* and slightly concave in *I. caledoniana*. The function of scales is not known.

METHODS

The descriptive text is generated from a DELTA database (Dallwitz et al., 1993 onwards; Dallwitz et al., 1998) to iphimediid species. For areas of the Madang Lagoon, Papua New Guinea, traditional place names have been used. For English equivalents see Jebb & Lowry (1995). Material used in this study is held in the Australian Museum, Sydney, Australia (AM) and the Zoological Museum, University of Copenhagen, Denmark (ZMUC). The following abbreviations are used on the plates: A, antenna; E, epistome and upper lip; EP, epimeron; G, gnathopod; H, head; MD, mandible; MP, maxilliped; MX, maxilla; P, Pereopod; T, telson; U, uropod; UR, urosomite; l, left; r, right.

SYSTEMATICS

AMATHILLOPSIDAE

Jeanjustia, new genus

Type species. – *Jeanjustia pedra*, new genus, new species.

Diagnosis. – With the characters of the only known species.

Remarks. – *Jeanjustia* is similar to, but differs from, *Amathillopsis*, in the simple gnathopods 1 and 2.

Species Composition. – *Jeanjustia pedra*, new species.

Etymology. – Named for Jean Just in recognition of his outstanding contribution to amphipod systematics.

Jeanjustia pedra, new species (Figs. 2-4)

Material examined. – Holotype – female, 5.4 mm, AM P64442, 94.5 km south south-east of Southeast Cape, V Seamount, 1400 to 1650 m, SSO1/97, stn 69(v).

Type locality. – V Seamount, 44°24.0'S 147°09.0'E – 147°10.8'E, Southern Ocean.

Description. – **Head** laterocephalic lobe triangular and subacute; subocular margin without notch; eyes lacking. Antenna 1 peduncle more than three times as long as head; peduncular article 2 without sharp spines; accessory flagellum present, with 1 article. Mandible incisor broad, toothed, laminate; accessory setal row present; molar well developed, triturating; palp inserted distally, article 3 exceptionally elongate. Labium outer lobes not notched; inner lobes present; mandibular processes short, subacute distally. Maxilla 1 inner plate broad, subrectangular, with apical setal row; palp not flabellate, well developed, 2-articulate, article 1 short. Maxilla 2 inner plate without oblique setal row. Maxilliped palp elongate, raptorial; palp with 4 well-developed articles; article 2 not produced.

Pereon. Body without robust setae, without spines, without carina, with single, pereonal and pleonal mid-dorsal processes. Gnathopod 1 similar in shape to gnathopod 2, similar in length to gnathopod 2; simple, not flagellate; coxa directed ventrally, tapering and pointed; ischium short; carpus not lobate; propodus narrow, rectilinear. Gnathopod 2 simple; coxa similar in length to coxa 1, tapering, blunt ventrally; ischium short; carpus medium in length; not lobate along

posterior margin of propodus; propodus narrow, rectilinear. Pereopods 3–7 merus without posteroventral lobe. Pereopod 3 coxa tapering, blunt ventrally. Pereopods 4–5 coxae not forming ventral crescentic curve. Pereopod 4 coxa with 1 ventral point. Pereopod 5 coxa without ventral points. Pereopod 6 coxa without ventral points.

Pleon. Epimeron 3 with 1 spine on posterior margin; posteroventral corner produced into a short spine. Urosomite 1 elongate, more than 3 x length of urosomite 2. Telson entire, with 2 robust setae.

Remarks. – Currently the genus *Jeanjustia* is monotypic. *Jeanjustia pedra* differs from all species of *Amathillopsis*, in the simple gnathopods 1 and 2.

Distribution. – Pedra Seamount, Southern Ocean.

Habitat. – The seamount habitat, where not destroyed by fishermen trawling for the deep water “commercial” fish species such as Orange Roughy, *Hoplostethus atlanticus* (Koslow et al., 2001), is dominated by the hard coral *Solenosmilia variabilis*, but includes other macroinvertebrates such as gorgonian and antipatharian corals, hydroids, sponges, ophiuroids and seastars.

Etymology. – Named for Main Pedra Seamount, near the type locality.

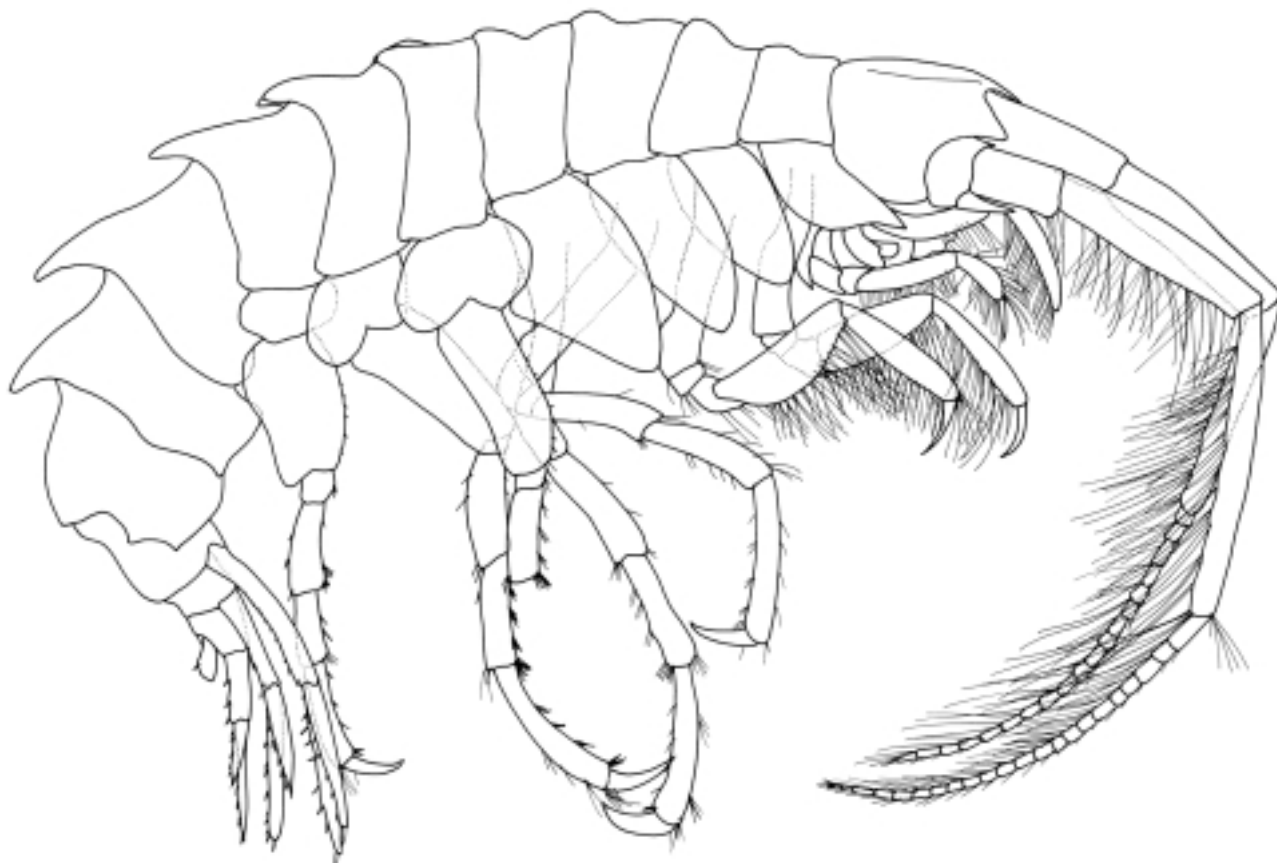


Fig. 2. *Jeanjustia pedra*, new genus, new species, female, 5.4 mm, AM P64442; 94.5 km south south-east of Southeast Cape, V Seamount.

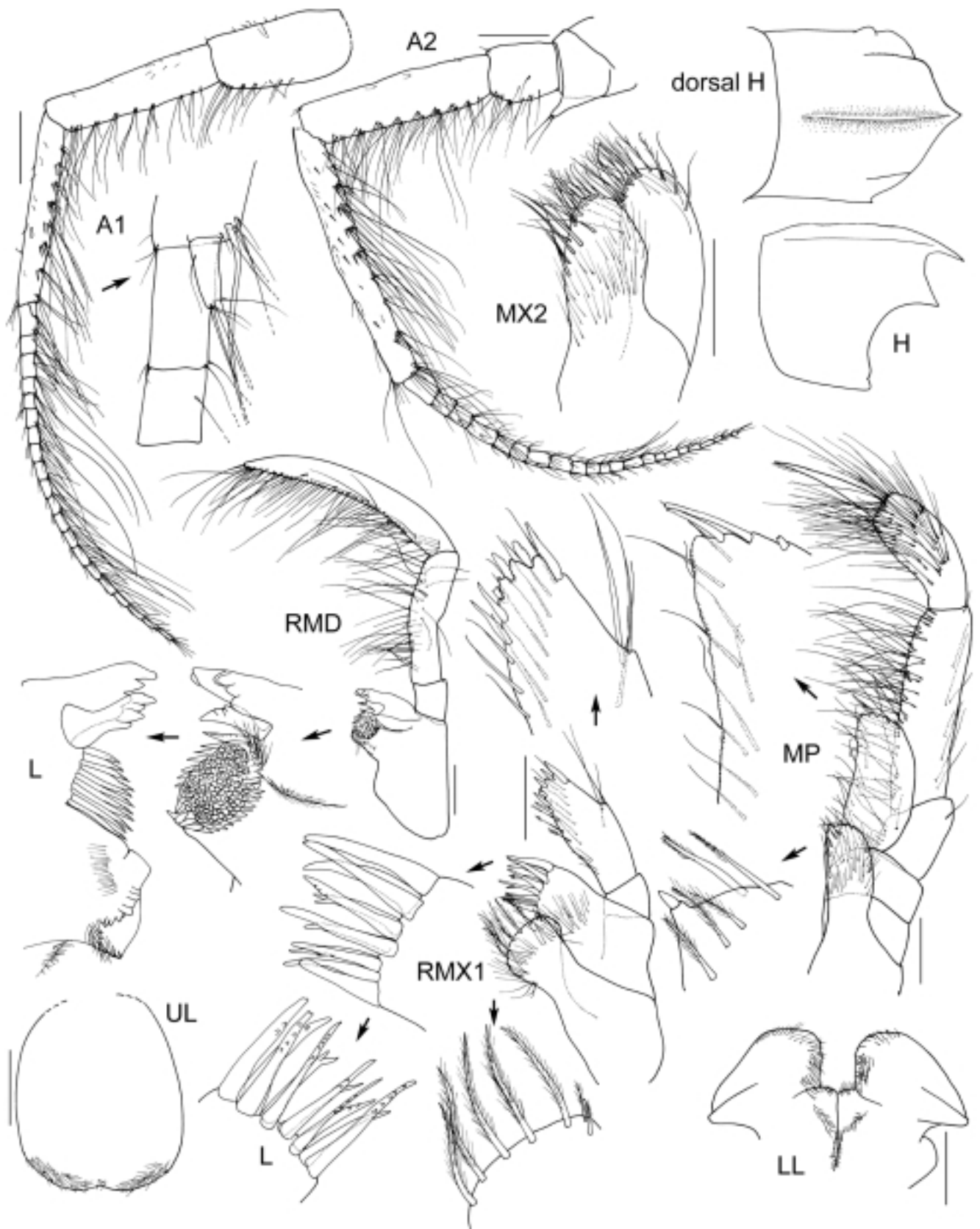


Fig. 3. *Jeanjustia perda*, new genus, new species, female, 5.4 mm, AM P64442; 94.5 km south south-east of Southeast Cape, V Seamount. Scale bar = 0.2 mm; antennae = 0.5 mm.

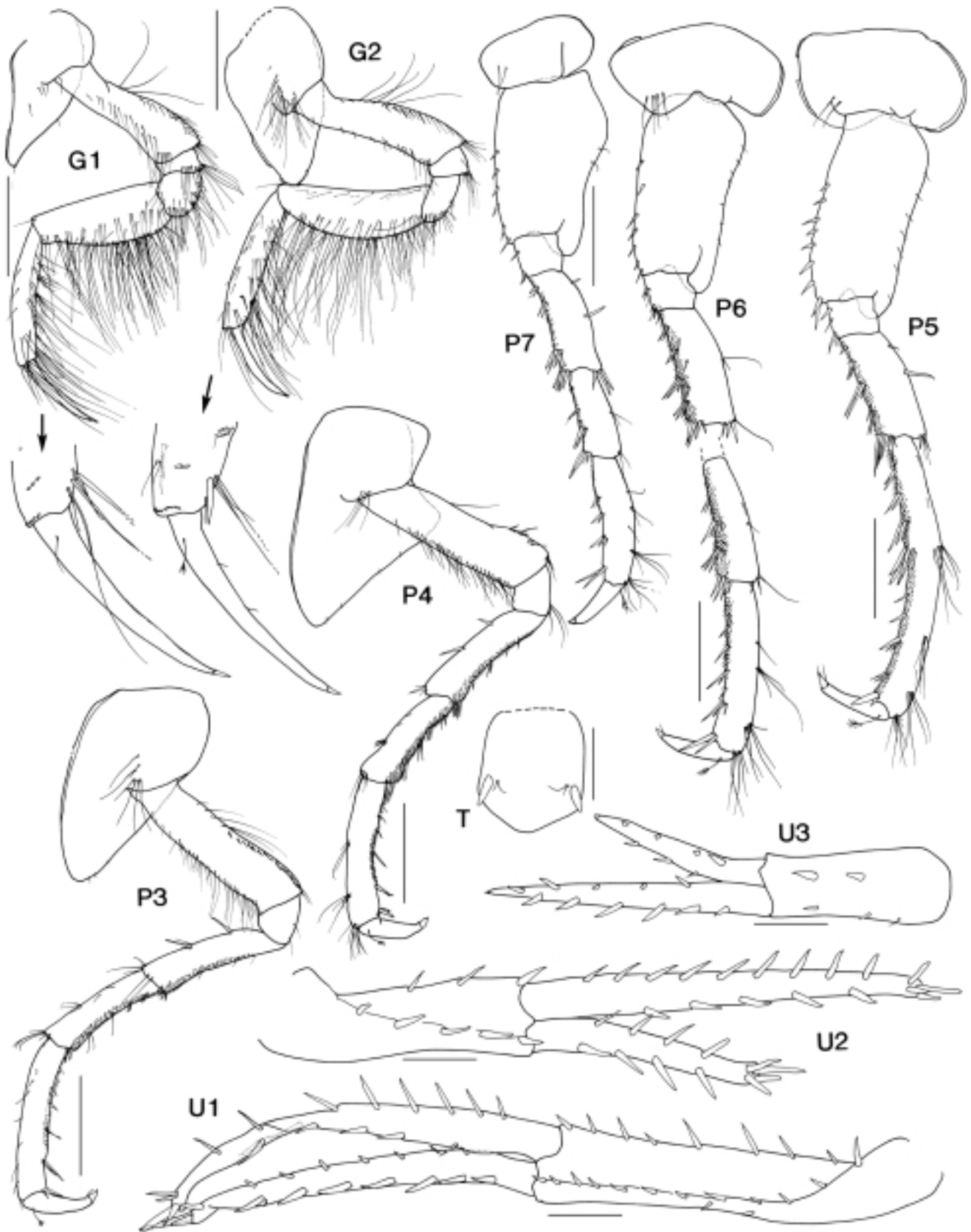


Fig. 4. *Jeanjustia perda*, new genus, new species, female, 5.4 mm, AM P64442; 94.5 km south south-east of Southeast Cape, V Seamount. Scale bar = 0.5mm; uropods, Telson = 0.2mm.

EUSIRIDAE

Oradarea dawa, new species

(Figs. 1, 5-8)

Material examined. – Holotype – female, 1.5 mm, AM P46998, off Îlot Maitre, New Caledonia, 22°19.61'S 166°24.07'E, *Padina*-type alga, 10.5 m, ORSTOM divers, coll. Georges Bargibant, 14 Nov.1995, stn NCL-98.

Paratypes – sex unknown, 8 specimens, same station data; 4 specimens, AM P48370, Thio, New Caledonia, *Halimeda* from fringing reef, 1 m, coll. A. A. Myers, 20 Nov.1995, stn NCL-215; 10 specimens AM P46997, off Îlot Maitre, New Caledonia, 22°19.61'S 166°24.07'E, *Amansia*, 10.5 m, ORSTOM divers, coll. Georges Bargibant, 14 Nov.1995, stn NCL-96; 3 specimens AM P46993, off Îlot Maitre, New Caledonia, 22°19.61'S 166°24.07'E, coralline algal "reef", 10.5 m, ORSTOM divers, coll. Georges Bargibant, 14 Nov.1995, stn NCL-99; 1 specimen AM P46991, off Îlot Maitre, New Caledonia, 22°19.35'S 166°25.85'E, large hard coral block and coarse sand, some algae, 21 m, coll. J. K. Lowry, 10 Nov.1995, stn NCL-64; 1 specimen, AM P46999, Baie de St. Marie, New Caledonia, 22°18.05'S 166°28.13'E, thick coral rubble, 13 m, coll. J. K. Lowry, 29 Nov.1995, stn NCL-209; 1 specimen AM P46975, off Îlot Maitre, New Caledonia, 22°20.57'S 166°25.43'E, red alga, 20 m, coll. I. Takeuchi, 7 Nov.1995, stn NCL-38; 10 specimens AM P46994, off Îlot Maitre, New Caledonia, 22°19.61'S 166°24.07'E, *Amansia glomerata*, 10.5 m, coll. J. K. Lowry, 14 Nov.1995, stn NCL-94.

Type locality. – Off Îlot Maitre, New Caledonia.

Description. – **Head** laterocephalic lobes truncated, ventrolateral margin without spine; eye of medium size. Body without robust setae, without spines, without carina, with single, pleonites 1-2 with mid-dorsal processes; integumental scales present. Antenna 1 peduncle about as long as head; peduncular article 2 without sharp spines; accessory flagellum present, with 1 article. Mandible incisor transverse, broad, toothed, laminate; accessory setal row present; molar well developed, triturating; palp inserted medially, article 3 not exceptionally elongate. Labium outer lobes entire; inner lobes absent; mandibular processes long, subround distally. Maxilla 1 inner plate triangular, with setae along medial margin; palp not flabellate, well developed, 2-articulate, article 1 long. Maxilla 2 inner plate with oblique setal row. Maxilliped palp of moderate length, not strongly raptorial; palp 4-articulate, article 4 reduced; article 2 not produced.

Pereon. Gnathopod 1 dissimilar to gnathopod 2, shorter to gnathopod 2, subchelate, not flagellate; coxa directed ventrally, ventrally truncated; ischium elongate; carpus not lobate; propodus subrectangular. Gnathopod 2 subchelate; coxa similar in length to coxa 1, ventrally truncated; ischium elongate; carpus long; not lobate along posterior margin of propodus; propodus narrow, rectilinear. Pereopods 3–7 merus posteroventral lobe slightly projecting along carpus. Pereopod 3 coxa ventrally truncated. Pereopods 4–5 coxae not forming ventral crescentic curve. Pereopods 4-6 coxa without ventral points.

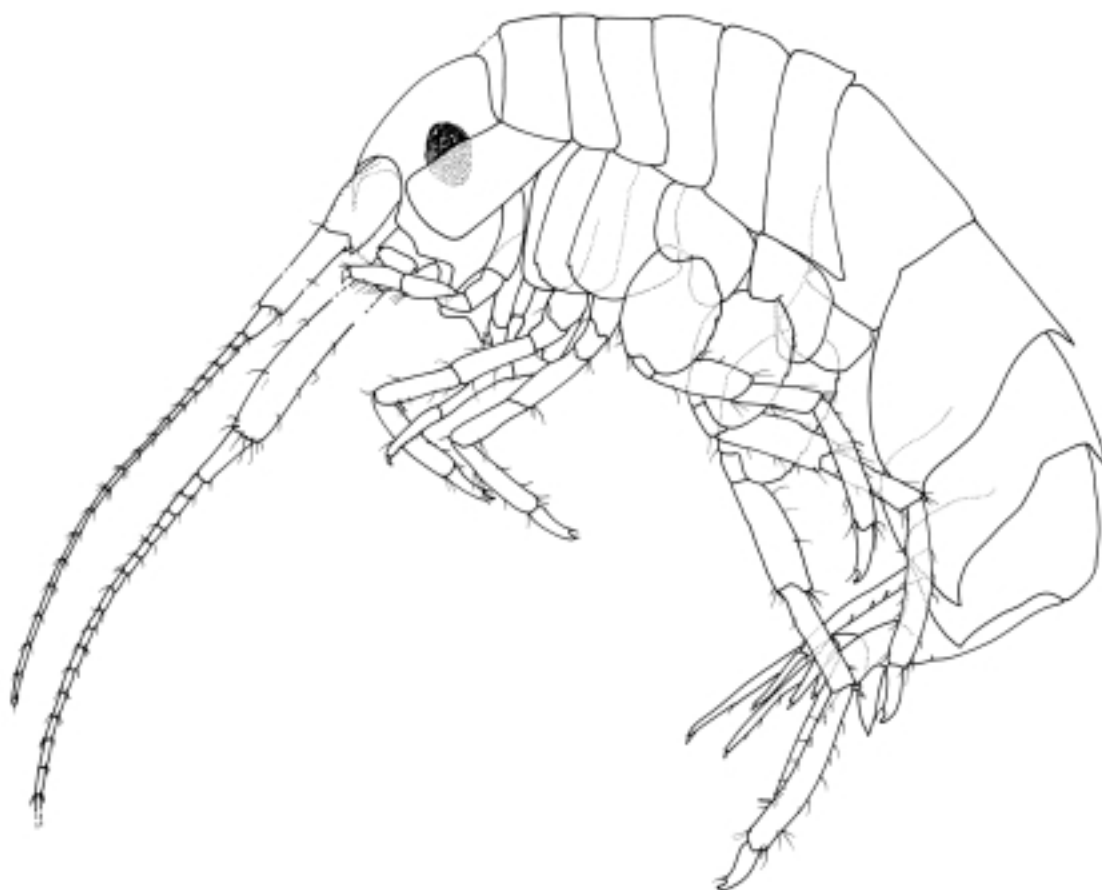


Fig. 5. *Oradarea dawa*, new species, female, 1.5 mm, AM P46998; off Îlot Maitre, South-east Lagoon, New Caledonia.

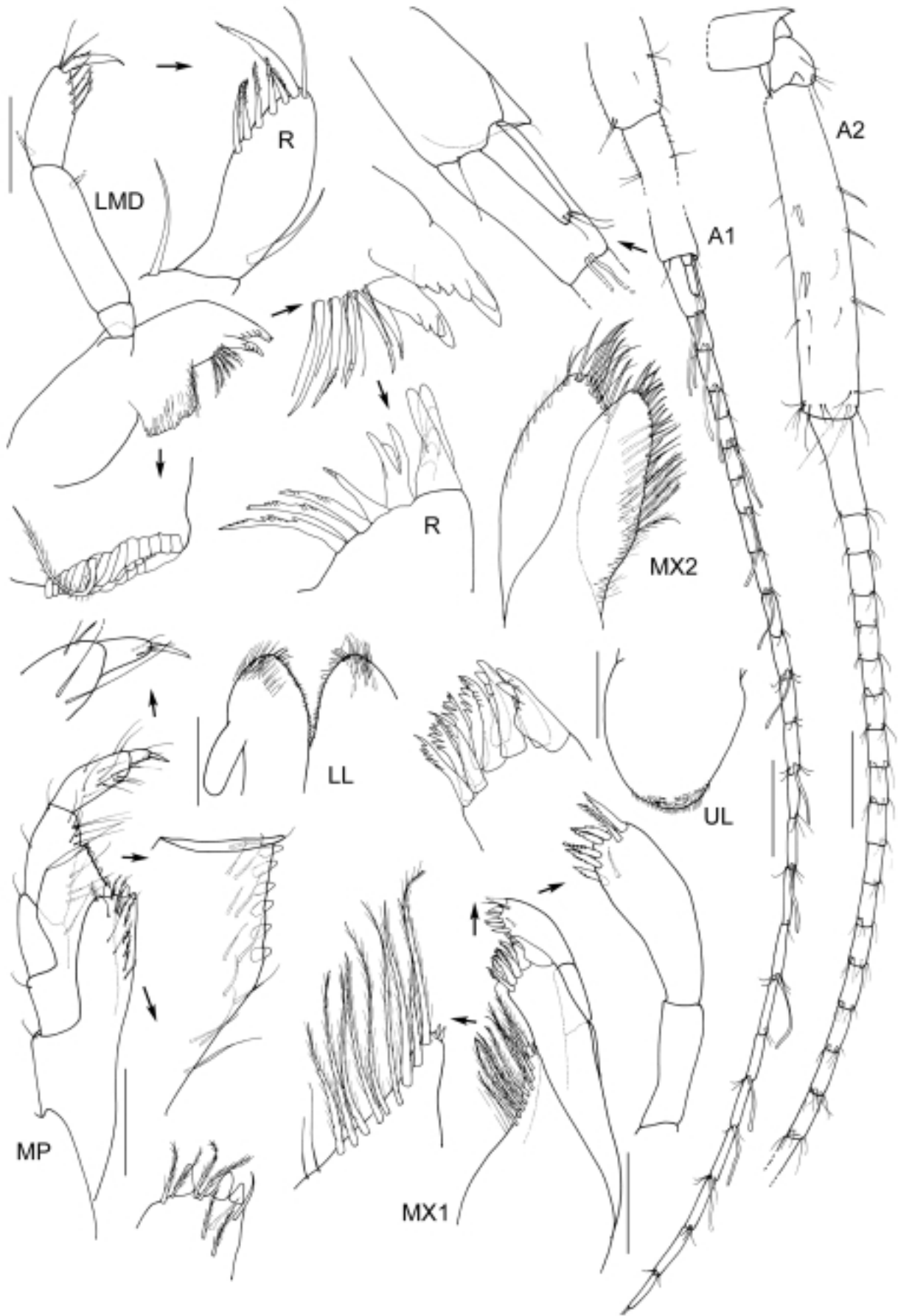


Fig. 6. *Oradarea dawa*, new species, female, 1.5 mm, AM P46998; off Îlot Maitre, South-east Lagoon, New Caledonia. Scale bar = 0.1mm.

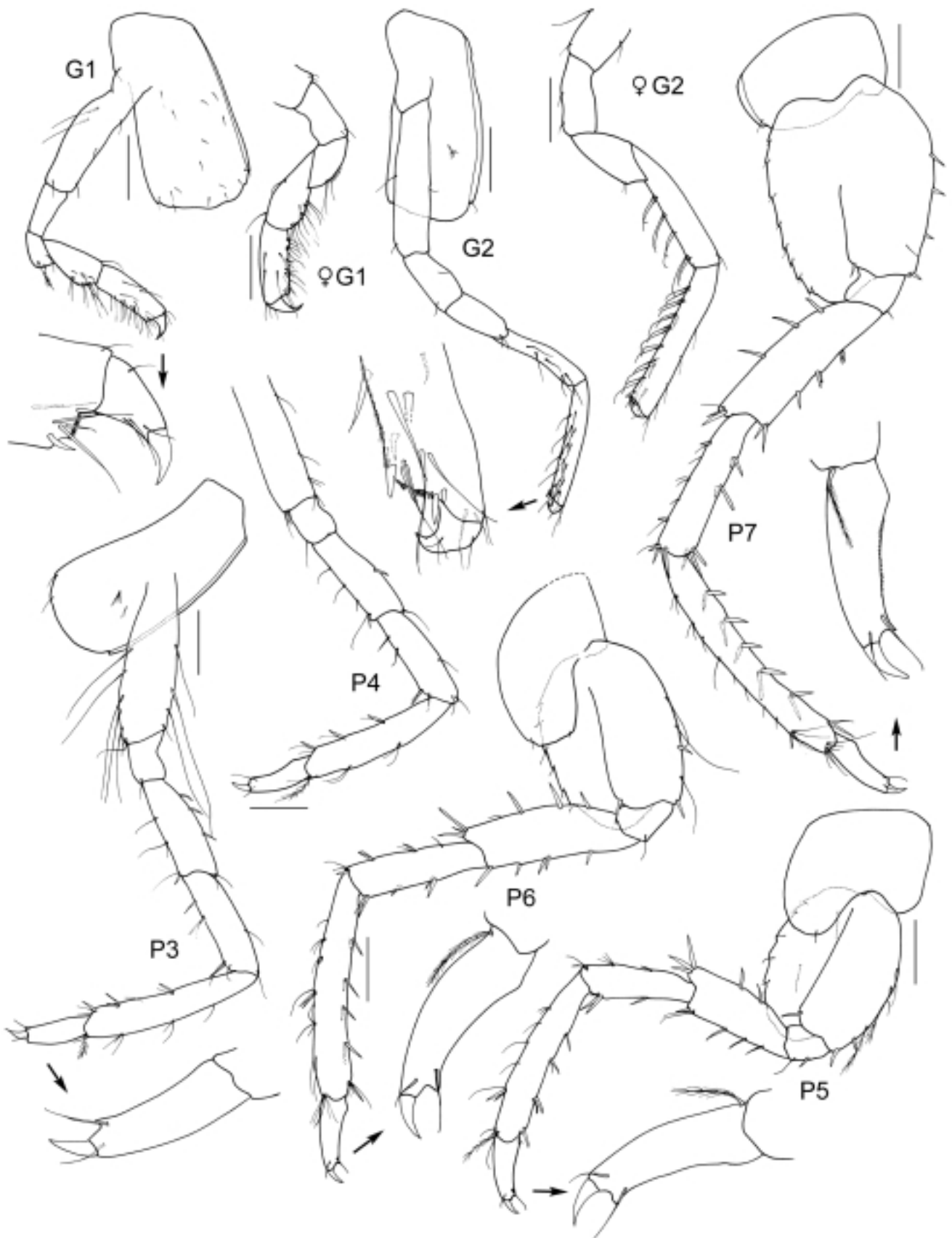


Fig. 7. *Oradarea dawa*, new species, female, 1.5 mm, AM P46998; off Îlot Maitre, South-east Lagoon, New Caledonia. Scale bar = 0.1mm.

Pleon. Epimeron 3 without spines along posterior margin; posteroventral corner subquadrate. Telson emarginate, truncated, longer than broad, margins tapering distally, without dorsal robust setae.

Remarks. – *Oradarea dawa* does not appear to be very closely related to its nearest tropical congener, *O. shoemakeri* Pirlot from Sulawesi. That species has a very long article 1 of antenna 1, strong lateral carinae on pleonites 1-3 and epimeron three with two teeth. In having pleonites 1-2 with dorsal tooth and pereonite 7 non-dentate, *O. dawa* is most similar to *O. bidentata* and *O. ocellata* from the Antarctic. It differs from *O. bidentata* in its truncated head lobes, in the short article 1 of antenna 1, and in its distally truncated telson. It differs from *O. ocellata* in the much broader basis of pereopods 5-7, which also have a more serrated posterior margin, and in the strong acute posteroventral tooth on epimera 1-3. Both *O. bidentata* (11 mm) and *O. ocellata* (17 mm) are much larger than *O. dawa*.

Distribution. – New Caledonia.

Etymology. Named for the French research vessel *Dawa*, from which this species was collected.

IPHIMEDIIDAE

IPHIMEDIINAE

Coboldus mberensis, new species

(Figs. 9-11)

Material examined. – Holotype – sex unknown, 4.8 mm, AM P46996, Grand Recif, Mhere, New Caledonia, 22°19.9'S 166°13.24'E, coral rubble on steep slope, 12 to 25 m, coll. J. K. Lowry, 21 Nov.1995, stn NCL-154.

Paratype – sex unknown, same station data.

Type locality. – Mbere, Grand Recif, South-east Lagoon, New Caledonia.

Description. – **Head** laterocephalic margin without spine, ventrolateral corner narrowly rounded. Antenna 1 peduncular article 1 with anterodistal spines, without posteroventral spine; peduncular article 2 without posterodorsal spine, without posteroventral spine; accessory flagellum absent. Maxilla 1 palp reduced, shorter than outer plate, 1-articulate.

Pereon. Pereonite 1 enlarged. Gnathopod 1 coxa small, ventrally subacute, ventral margins smooth. Gnathopod 2 coxa small, ventrally truncated, ventral margins smooth.

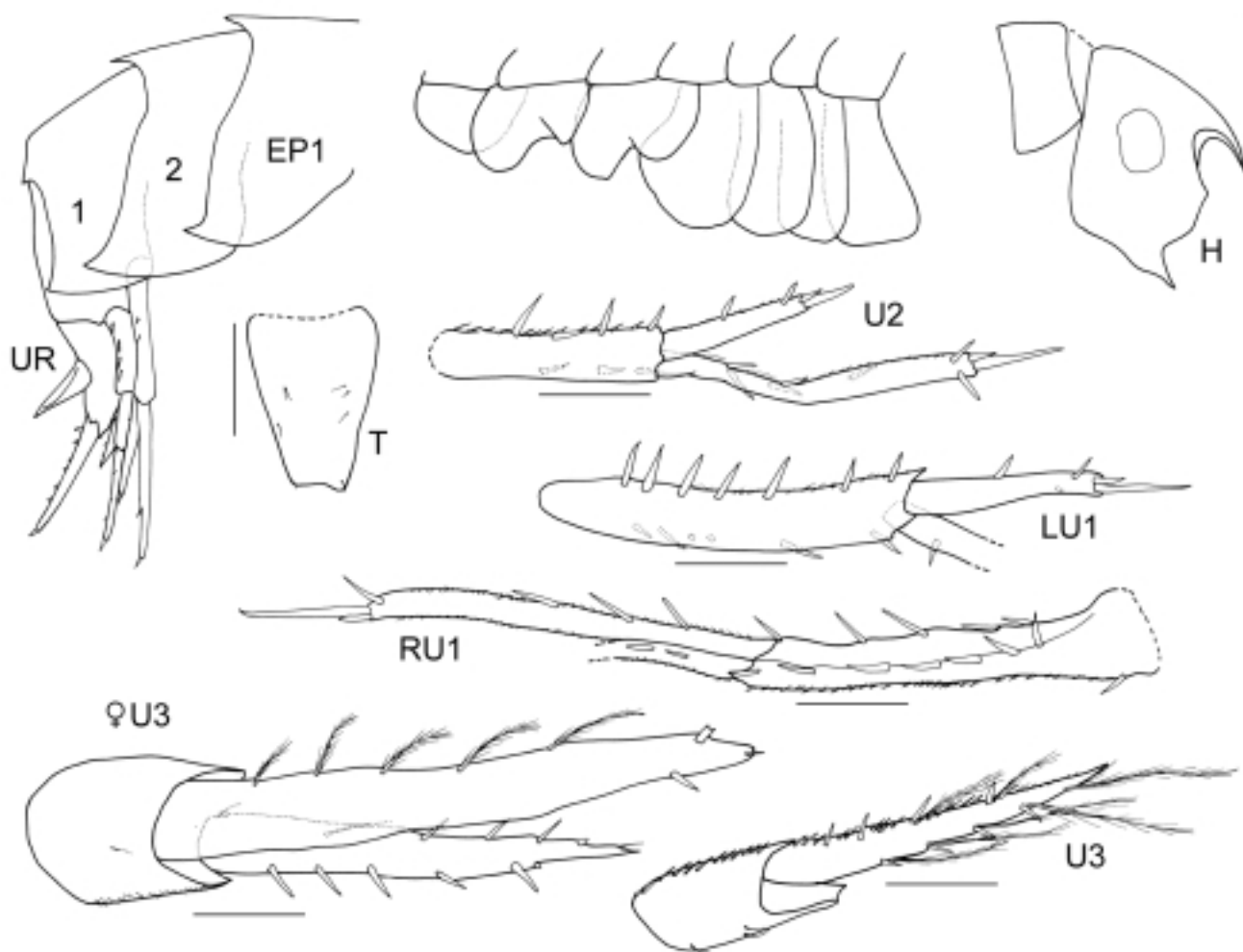


Fig. 8. *Oradarea dawa*, new species, female, 1.5 mm, AM P46998; off Îlot Maitre, South-east Lagoon, New Caledonia. Scale bar = 0.1mm.

Pereopod 3 coxa posteroventrally subacute, ventral margins smooth. Pereopod 4 coxa ventral margins smooth. Pereopod 5 coxa posteroventral corner broadly rounded; basis posterodorsal corner with spine, posterior margin without spines, smooth, posteroventral corner rounded; merus posterodistal lobe as long as or longer than carpus. Pereopod 6 coxa posteroventral corner subquadrate; basis posterodorsal corner with spine, posterior margin without spines, smooth, posteroventral corner without spines, rounded; merus posteroventral lobe produced about halfway along carpus, or as long as or longer than carpus. Pereopod 7 coxa subquadrate; basis posterodorsal corner rounded, posterior margin without spines, smooth, posteroventral corner with small spine; merus posteroventral lobe produced about halfway along carpus, or as long as or longer than carpus. Pereonite 7 without mid-dorsal carina, dorsodistal margin not produced, without spines.

Pleon. Pleonite 1 without mid-dorsal carina, dorsodistal margin strongly produced, shield-like, without spines. Pleonite 2 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 large spines. Pleonite 3 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 straight spines. Epimeron 1 posterior margin without mid-lateral spines, posteroventral corner subquadrate. Epimeron 2 posterior margin with 1 mid-lateral blunt spine, posteroventral corner produced into a blunt spine. Epimeron 3 posterior margin with 1

ventrolateral, straight, smooth spine, posteroventral corner produced into a blunt, smooth spine. Telson notched, slightly longer than broad, parallel sided, with pair of dorsodistal fine setae.

Remarks. – This species is unusual among iphimedioids in having pereonite 7 dorsal margin without carina or spines. No other known iphimedioid species has the character combination of a huge single shield-like dorsal spine on pleonite 1 and an untoothed dorsum on pereonite 7.

Distribution. – New Caledonia.

Etymology. – Named for Mbere, the type locality.

***Iphimedia caledoniana*, new species**

(Figs. 1, 12-14)

Material examined. – Holotype – sex unknown, 6.1 mm, AM P46979, off Îlot Maitre, New Caledonia, 22°20.57'S 166°25.43'E, purple sponge, 20 m, coll. ORSTOM divers, 7 Nov.1995, stn NCL-39.

Paratypes – 1 specimen, AM P47000, off Îlot Maitre, New Caledonia, 22°20.57'S 166°25.43'E, living with *Halimeda incrassata*, 20 m, coll. ORSTOM divers, 7 Nov.1995, stn NCL-39; 4 specimens AM P46980 off Recif To, Passe de Boulari, New Caledonia, 22°30.15'S 166°26.43'E, stones encrusted with

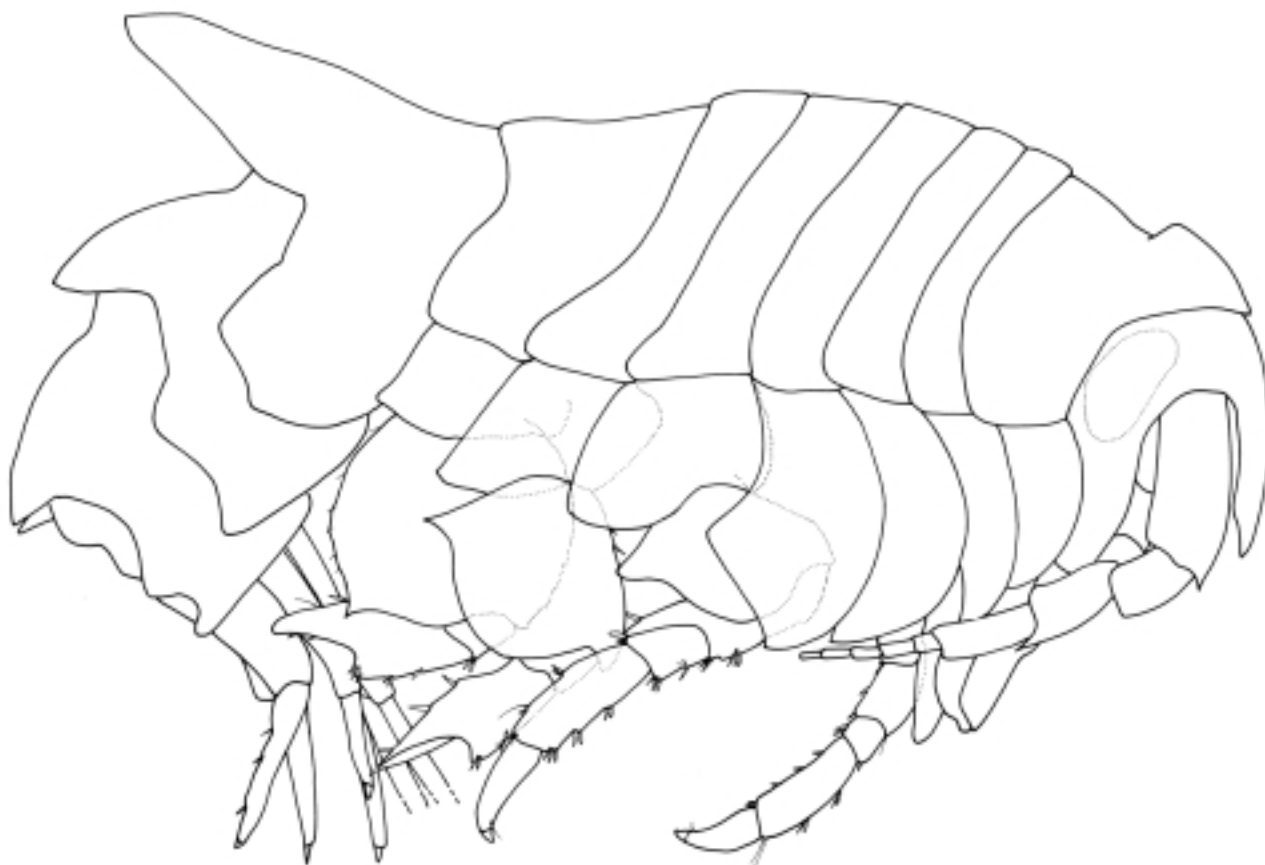


Fig. 9. *Coboldus mberensis*, new species, unknown sex, 4.8 mm, AM P46996, Grand Recif, Mbere, New Caledonia.

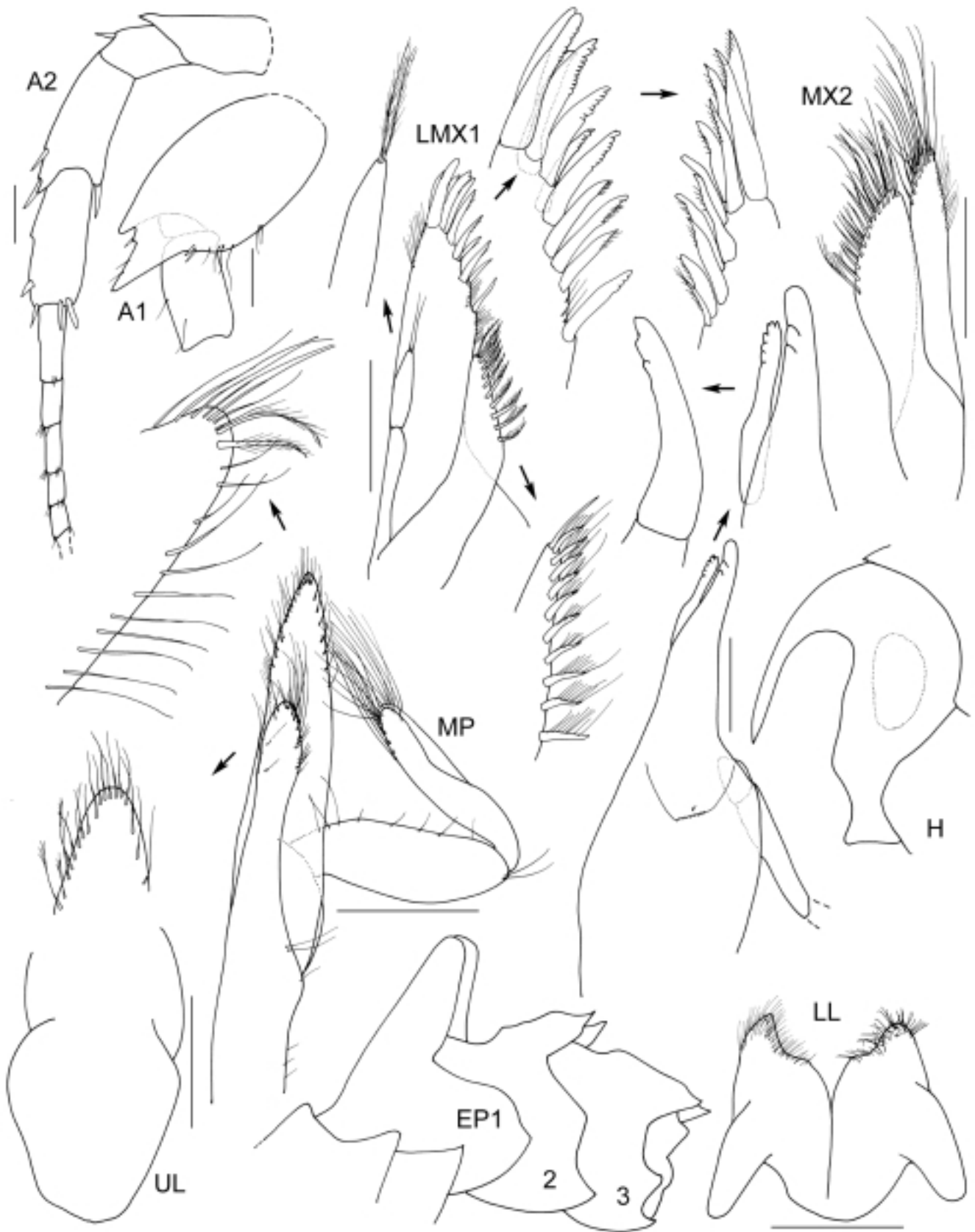


Fig. 10. *Coboldus mberensis*, new species, unknown sex, 4.8 mm, AM P46996, Grand Recif, Mberé, New Caledonia. Scale bar = 0.2 mm.

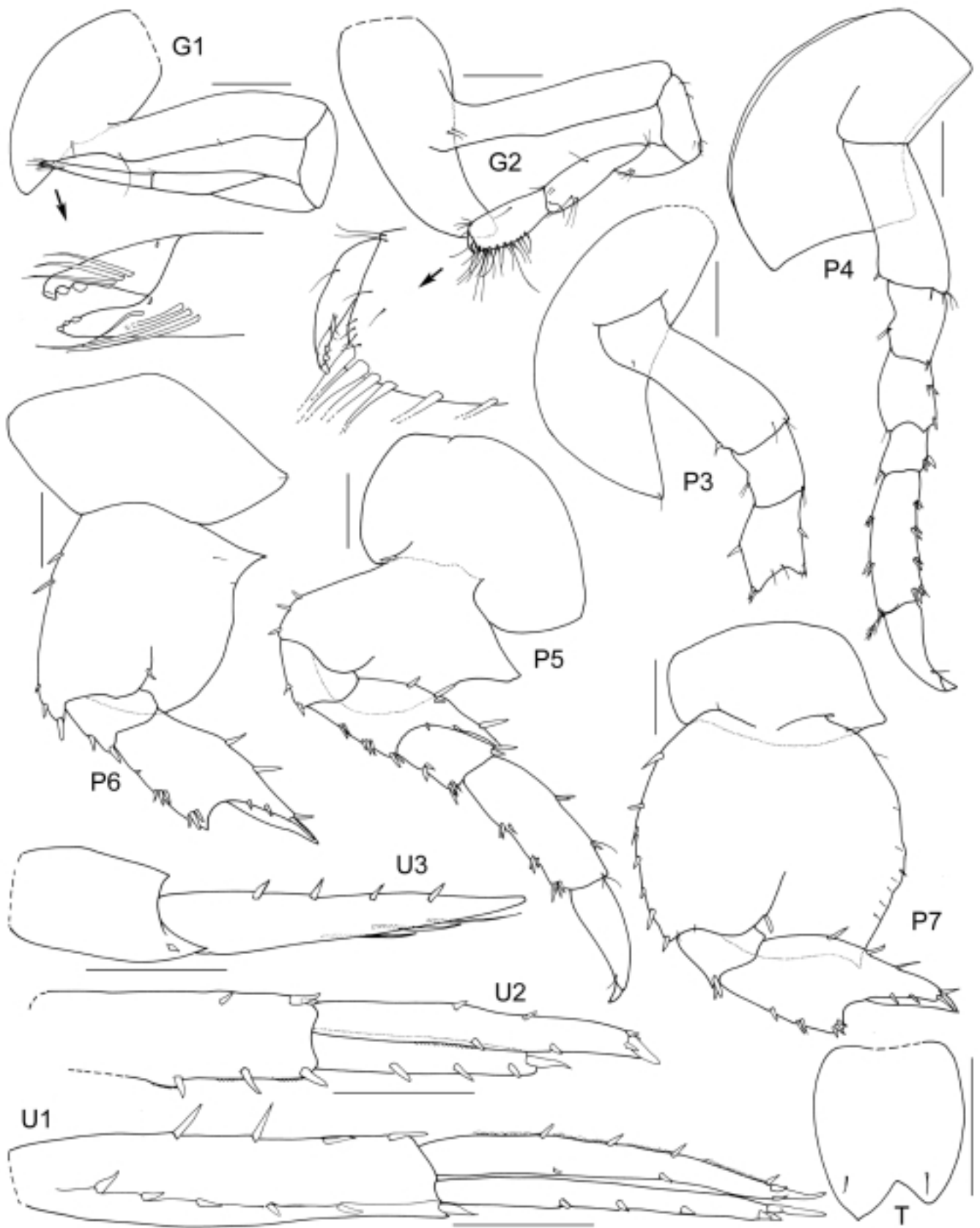


Fig. 11. *Coboldus mberensis*, new species, unknown sex, 4.8 mm, AM P46996, Grand Recif, Mberé, New Caledonia. Scale bar = 0.2mm.

Lithothamnion, 30 m, coll. ORSTOM divers, 8 Nov.1995; 1 specimen AM P46983 off Îlot Maitre, New Caledonia, 22°20.57'S 166°25.43'E, dead coral, 20 m, coll. ORSTOM divers, 7 Nov.1995; 1 specimen, AM P46985, off Recif To, Passe de Boulari, New Caledonia, 22°30.15'S 166°26.43'E, stones encrusted with *Lithothamnion*, 30 m, coll. ORSTOM divers, 8 Nov.1995; 1 specimen, AM P46989, Between Ile Ngé and Sèche Croissant, New Caledonia, 22°19.41'S 166°20.89'E, *Iodyctium buchneri* (purple bryozoan) 20 m, coll. ORSTOM divers, 9 Nov.1995; 1 specimen, AM P46990, between Ile Ngé and Sèche Croissant, New Caledonia, 22°19.41'S 166°20.89'E, *Caulerpa* sp., 20 m, coll. ORSTOM divers, 9 Nov.1995; 1 specimen, AM P47000, off Îlot Maitre, New Caledonia, 22°20.57'S 166°25.43'E, purple sponge, 20 m, coll. ORSTOM divers, 7 Nov.1995, stn NCL-39.

Type locality. – Îlot Maitre, South-east Lagoon, New Caledonia.

Description. – **Head** laterocephalic margin with rounded spine, ventrolateral corner an acute spine; eyes reniform. Antenna 1 peduncular article 1 with posterodorsal spines, without posteroventral spine; peduncular article 2 with posterodorsal spine, with a posteroventral spine; accessory flagellum absent. Maxilla 1 palp well developed, about as long as or longer than outer plate, 2-articulate.

Pereon. Pereonite 1 enlarged, slightly produced over head. Gnathopod 1-2 coxa small, ventrally truncated, ventral margins smooth. Pereopod 3 coxa ventrally truncated,

posteroventrally subacute, ventral margins smooth. Pereopod 4 coxa ventral margins smooth. Pereopod 5 coxa posteroventral corner broadly rounded; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner rounded; merus posteroventral lobe produced about halfway along carpus. Pereopod 6 coxa posteroventral corner subquadrate; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner with small spine; merus posteroventral lobe produced about halfway along carpus. Pereopod 7 coxa with posteroventral spine; basis posterodorsal corner rounded, posterior margin without spines, weakly serrate, posteroventral corner rounded; merus posteroventral lobe produced about halfway along carpus. Pereonite 7 without mid-dorsal carina, dorsodistal margin with 2 large spines, without posteroventral spine.

Pleon. Pleonite 1 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 large spines. Pleonite 2 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 large spines. Pleonite 3 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 straight spines. Epimeron 1 posterior margin without mid-lateral spines; posteroventral corner produced into a spine. Epimeron 2 posterior margin without mid-lateral spines, posteroventral corner produced into a spine. Epimeron 3 posterior margin with 1 ventrolateral, recurved, smooth spine, posteroventral corner

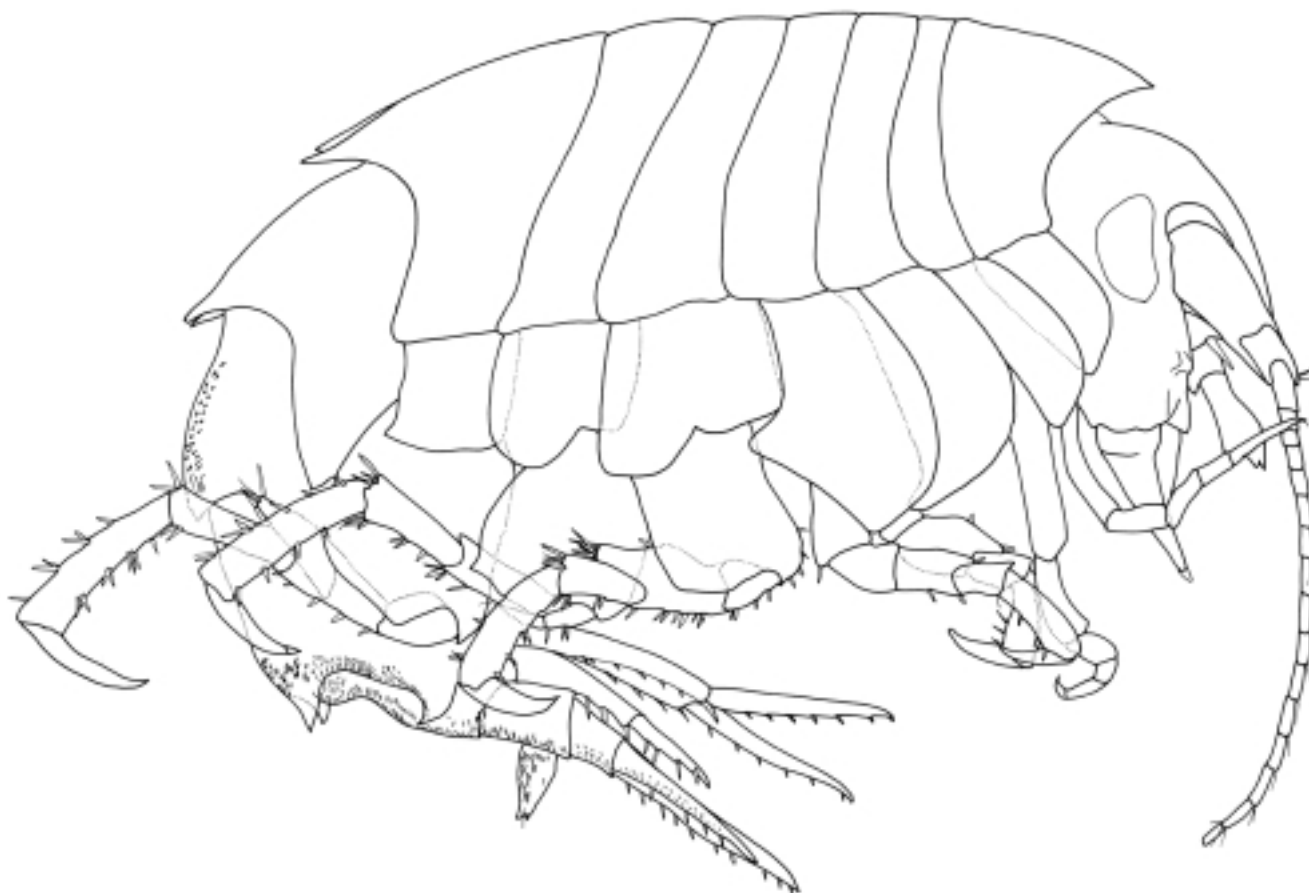


Fig. 12. *Iphimedia caledoniana*, new species, unknown sex, 6.1 mm, AM P46979, off Îlot Maitre, New Caledonia.

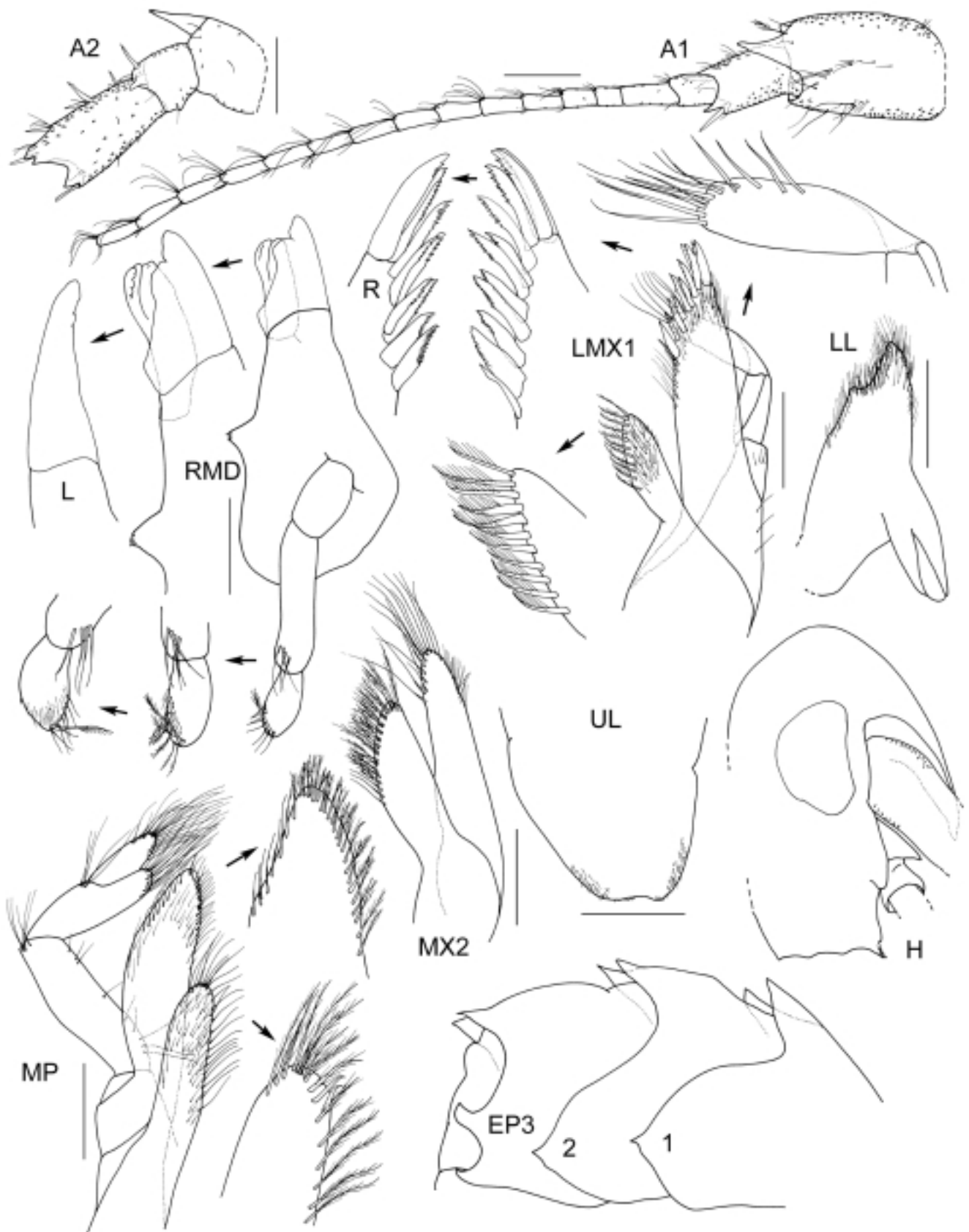


Fig. 13. *Iphimedia caledoniana*, new species, unknown sex, 6.1 mm, AM P46979, off Ilôt Maitre, New Caledonia. Scale bar = 0.2mm.

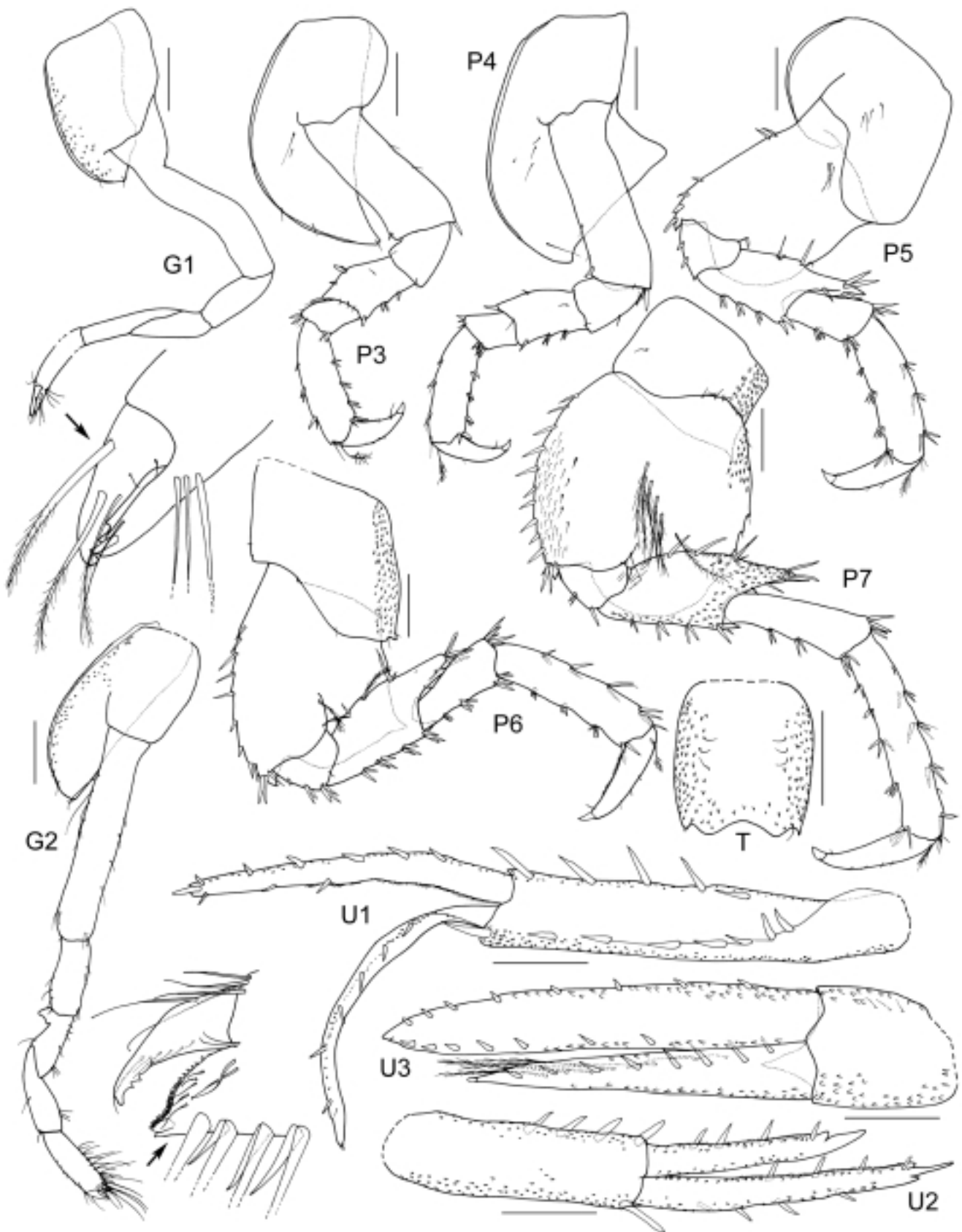


Fig. 14. *Iphimedia caledoniana*, new species, unknown sex, 6.1 mm, AM P46979, off Îlot Maitre, New Caledonia. Scale bar = 0.2mm.

produced into a smooth spine. Telson emarginate, slightly longer than broad, parallel sided, with 2 distolateral spines and a pair of distal fine setae.

Remarks. – This species can be distinguished from all other described world species of *Iphimedia* by the following combination of characters: eyes reniform, pereonite 1 enlarged and slightly produced over head, pereopod 7 basis posteroventral corner rounded and pereonite 7 with two dorsal spines.

Distribution. – New Caledonia.

Etymology. – Named for New Caledonia, the area where this species lives.

***Iphimedia damawan*, new species**
(Figs. 15-17)

Material examined. – Holotype – ovigerous female, 3.6 mm, AM P64443, Dam Awan, 5°09.27'S 145°49.86'E, Madang Lagoon, Papua New Guinea, coral rubble including dead *Acropora*, 30 and 15 m, coll. J. D. Thomas, 17 Apr.1991, stn JDT/PNG-72h.

Paratypes – 2 specimens AM P64450, same data as above; 3 specimens AM P64451, barrier reef near Wongad Island, 5°08.11'S 145°49.53'E, rubble encrusted dead *Acropora* plates, also some pieces from caves and overhangs, 36 m and 21 m, coll. J. D. Thomas, 22 Feb.1990, stn JDT/PNG-59c.

Type locality. – Dam Awan, 5°09.27'S 145°49.86'E, Madang Lagoon, Papua New Guinea.

Description. – **Head** laterocephalic margin without spine, ventrolateral corner an acute spine; eyes ovate. Antenna 1 peduncular article 1 with posterodorsal spines, without posteroventral spine; peduncular article 2 with small posterodorsal spine, without posteroventral spine. Maxilla 1 palp reduced, shorter than outer plate, 2-articulate.

Pereon. Gnathopod 1 coxa small, ventrally truncated, ventral margins smooth. Gnathopod 2 coxa small, ventrally truncated, ventral margins smooth. Pereopod 3 coxa posteroventrally subacute, ventral margins smooth. Pereopod 4 coxa ventral margins smooth. Pereopod 5 coxa posteroventral corner broadly rounded; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner rounded; merus posteroventral lobe as long as or longer than carpus. Pereopod 6 coxa posteroventral corner subquadrate; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner with 2 small spines; merus posteroventral lobe as long as or longer than carpus. Pereopod 7 coxa subquadrate; basis posterodorsal corner subquadrate, posterior margin without spines, strongly serrate, posteroventral corner with small spine; merus posteroventral lobe produced about halfway along carpus. Pereonite 7 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 small posterior spines.

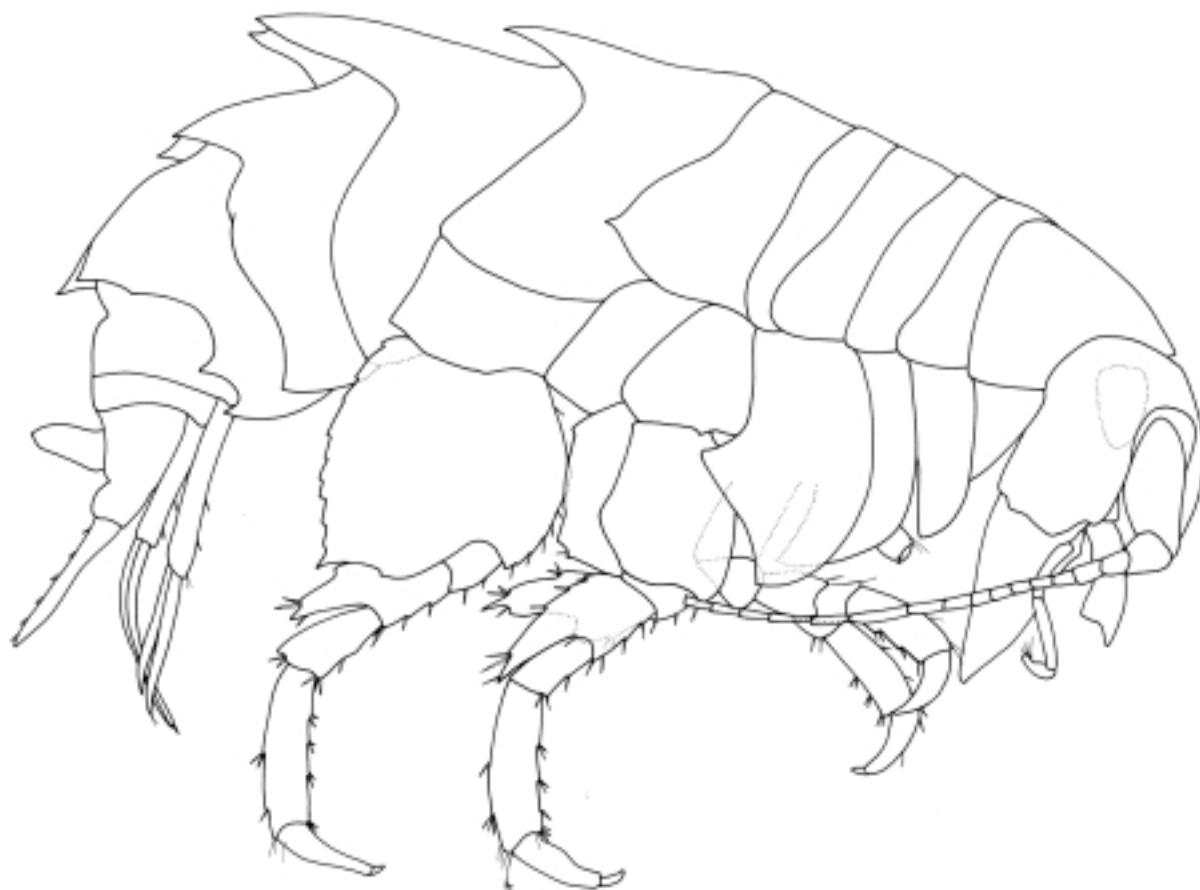


Fig.15. *Iphimedia damawan*, new species, ovigerous female, 3.6 mm, AM P64443, Dam Awan, Madang Lagoon, Papua New Guinea.

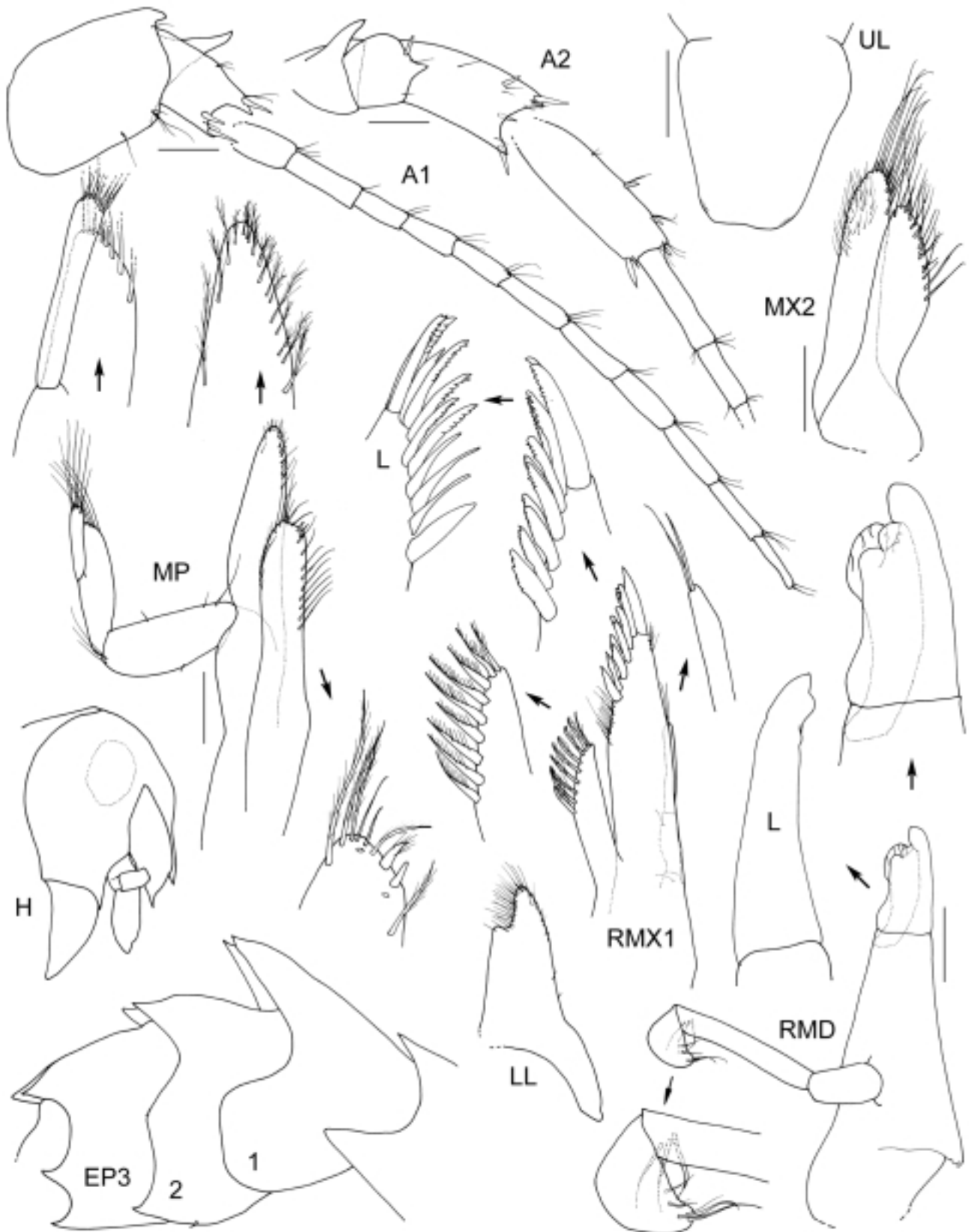


Fig.16. *Iphimedia damawan*, new species, ovigerous female, 3.6 mm, AM P64443, Dam Awan, Madang Lagoon, Papua New Guinea. Scale bar = 0.1mm.

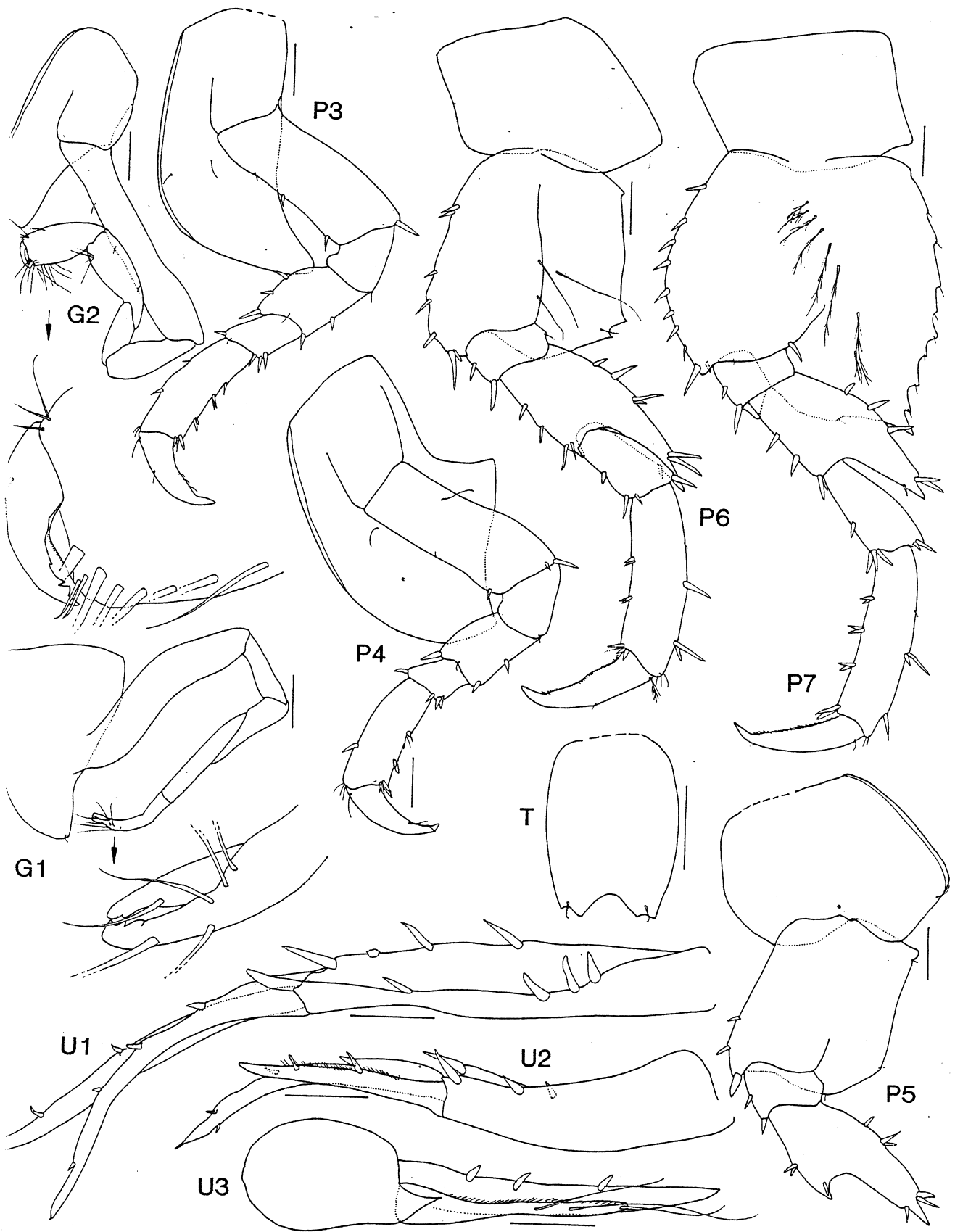


Fig.17. *Iphimedia damawan*, new species, ovigerous female, 3.6 mm, AM P64443, Dam Awan, Madang Lagoon, Papua New Guinea. Scale bar = 0.1mm.

Pleon. Pleonite 1 without mid-dorsal carina, dorsodistal margin strongly produced, shield-like, with 2 large spines. Pleonite 2 with a broadly rounded low mid-dorsal carina, dorsodistal margin not produced, with 2 large spines. Pleonite 3 without mid-dorsal carina, dorsodistal margin not produced, with 2 straight spines. Epimeron 1 posterior margin without mid-lateral spines; posteroventral corner rounded. Epimeron 2 posterior margin without mid-lateral spines, posteroventral corner produced into a spine. Epimeron 3 posterior margin with 1 ventrolateral, recurved, smooth spine, posteroventral corner produced into a, smooth spine. Telson notched, slightly longer than broad, parallel sided, with pair of distal fine setae.

Remarks. – The posteroventral corner of pereopod 6 basis is unique among the described species of *Iphimedia* in having two small spines. In addition the combination of a subquadrate posterodorsal corner on the basis of pereopod 6 and a strongly produced, shield-like dorsodistal margin on pleonite 1 further distinguishes this species from all others.

Distribution. – Papua New Guinea.

Etymology. – Named for Dam Awan, the type locality.

***Iphimedia maitrensis*, new species**

(Figs. 18-20)

Material examined. – Holotype – sex unknown, 3.6 mm, AM P46983, off Îlot Maitre, New Caledonia, 22°20.57'S 166°25.43'E, dead coral, 20 m, coll. ORSTOM divers, 7 Nov.1995, stn NCL-40.

Type locality. – Îlot Maitre, South-east Lagoon, New Caledonia.

Description. – **Head** laterocephalic margin with sharp spine, ventrolateral corner notched. Antenna 1 peduncular article 1 with posterodorsal spines, without posteroventral spine; peduncular article 2 without posterodorsal spine, without posteroventral spine; accessory flagellum absent. Maxilla 1 palp reduced, shorter than outer plate, 2-articulate.

Pereon. Pereonite 1 enlarged. Gnathopod 1 coxa small, ventrally truncated, ventral margins smooth. Gnathopod 2 coxa small, ventrally truncated, ventral margins smooth. Pereopod 3 coxa ventrally truncated or ventrally rounded, ventral margins smooth. Pereopod 4 coxa ventral margins smooth. Pereopod 5 coxa posteroventral corner subquadrate; basis posterodorsal corner rounded, posterior margin without spines, weakly serrate, posteroventral corner subquadrate; merus posteroventral lobe not or very slightly produced along carpus. Pereopod 6 coxa posteroventral corner rounded; basis posterodorsal corner rounded, posterior margin without spines, weakly serrate, posteroventral corner subquadrate; merus posteroventral lobe not produced. Pereopod 7 coxa with posteroventral spine, or subquadrate; basis posterodorsal corner rounded, posterior margin without spines, weakly serrate or strongly serrate, posteroventral corner grossly excised, bounded by 2 large spines. Pereonite 7 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 large spines, without posteroventral spine.

Pleon. Pleonites 1-3 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 large spines. Epimeron 1 posterior margin without mid-lateral spines; posteroventral corner subquadrate or rounded. Epimeron 2

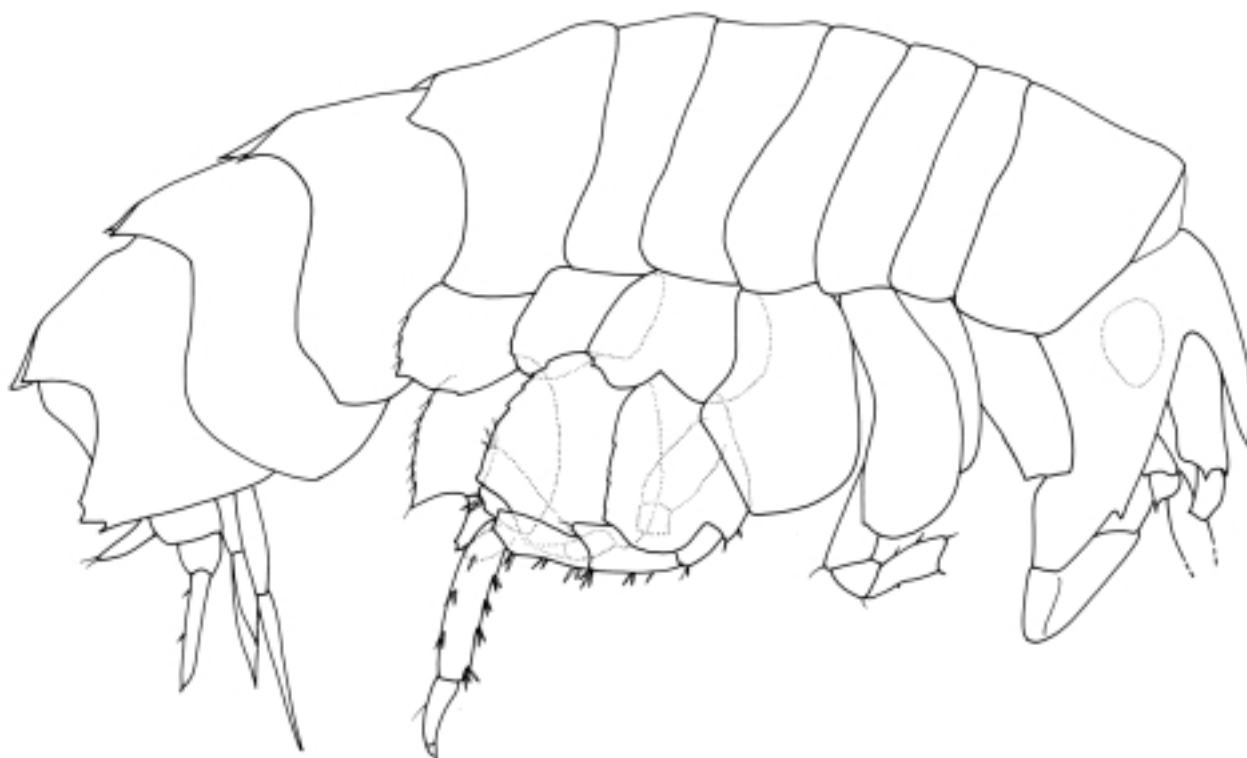


Fig. 18. *Iphimedia maitrensis*, new species, unknown sex, 3.6 mm, AM P46983, off Îlot Maitre, New Caledonia.

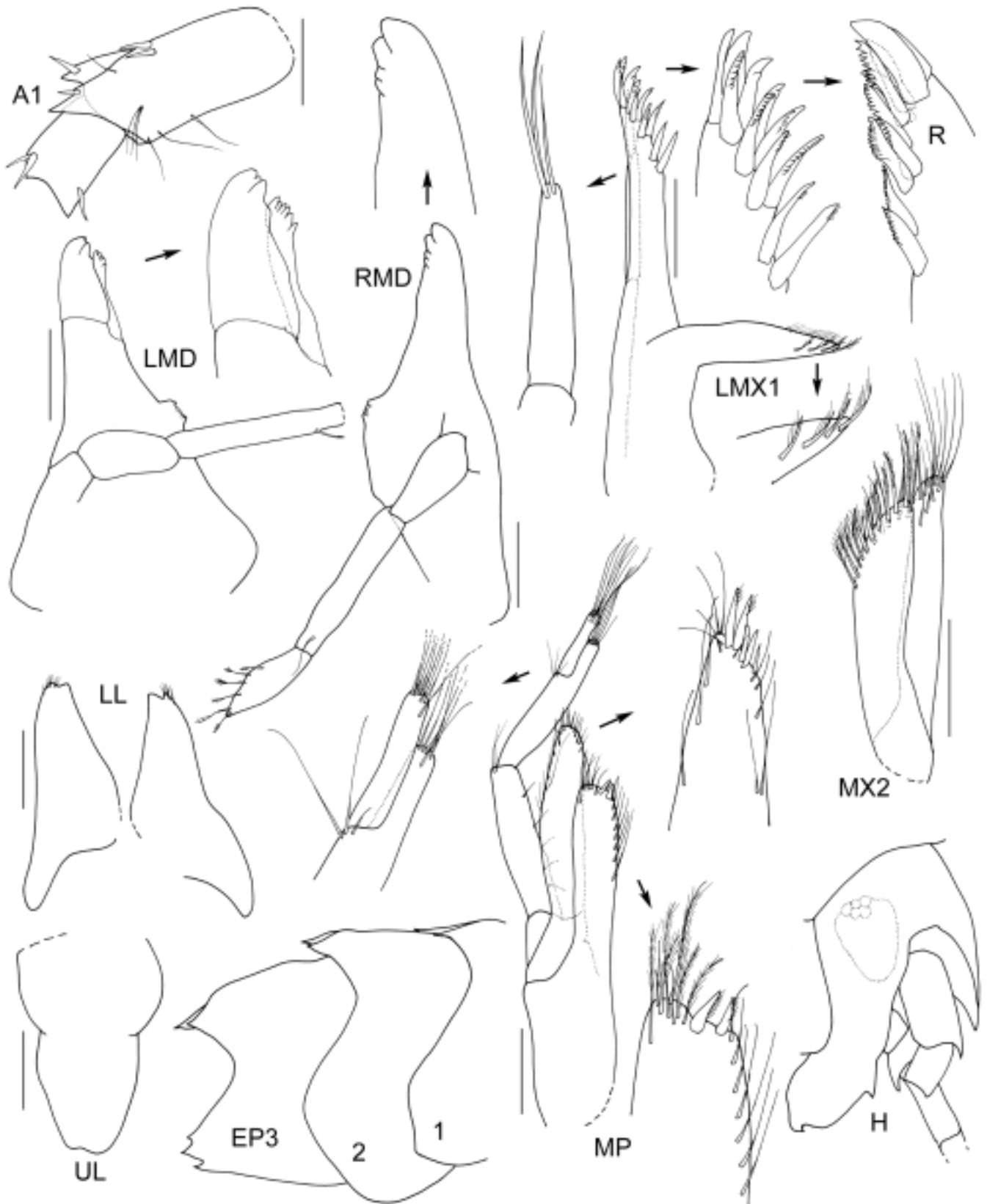


Fig. 19. *Iphimedia maitrensis*, new species, unknown sex, 3.6 mm, AM P46983, off Ilôt Maitre, New Caledonia. Scale bar = 0.1mm.

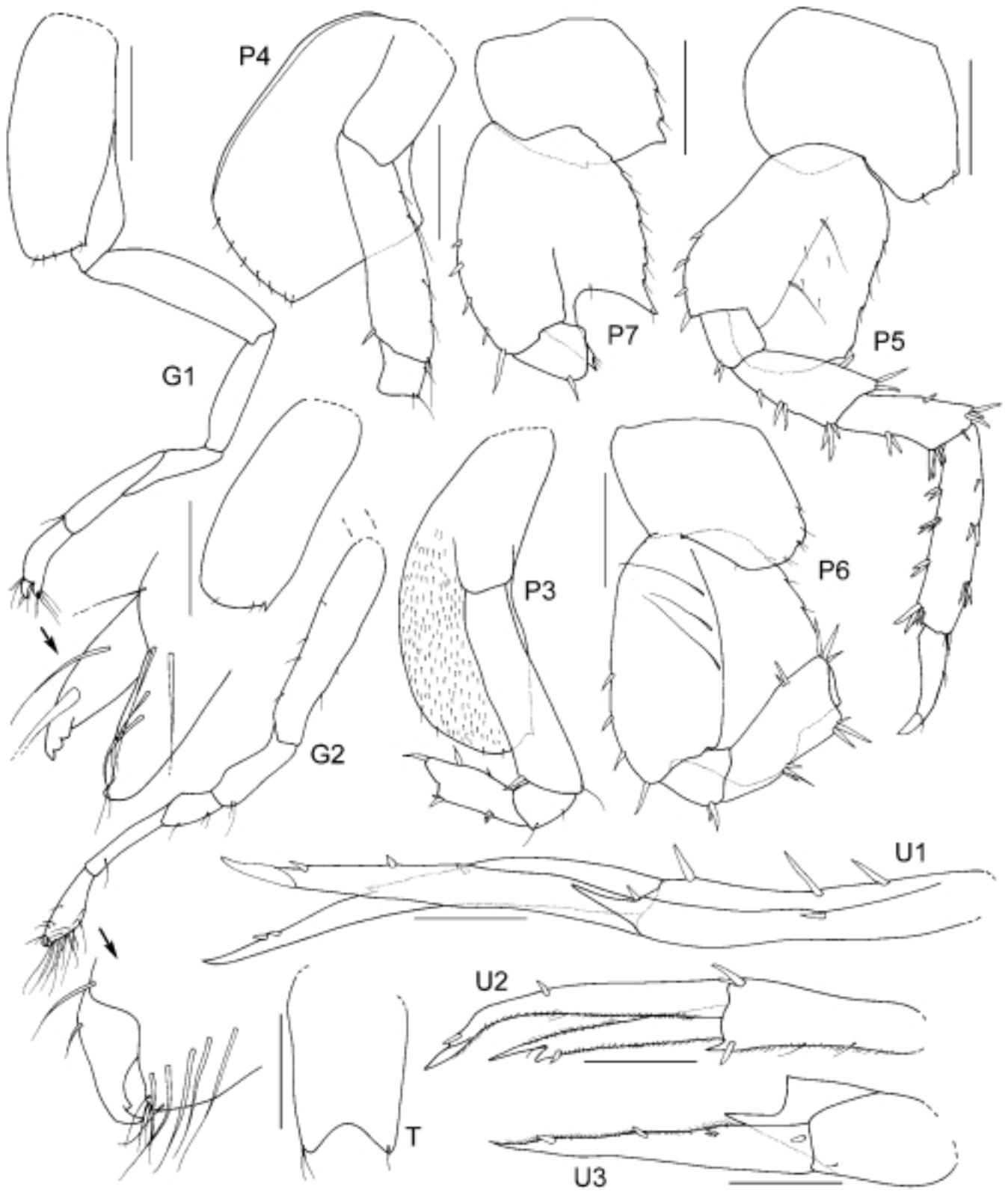


Fig. 20. *Iphimedia maitrensis*, new species, unknown sex, 3.6 mm, AM P46983, off Îlot Maitre, New Caledonia. Scale bar = 0.2 mm, uropods; telson = 0.1mm.

posterior margin without mid-lateral spines, posteroventral corner rounded. Epimeron 3 posterior margin without lateral spines, posteroventral corner serrate, notched. Telson notched, longer than broad, parallel sided, with pair of dorsodistal fine setae.

Remarks. – This species can be distinguished from all other described world species of *Iphimedia* by the following combination of characters: coxa 5 posteroventral corner subquadrate, pereonite 7 dorsodistal margin with 2 large spines and epimeron 3 posteroventral corner serrate.

Distribution. – New Caledonia.

Etymology. – Named for Îlot Maitre, the type locality.

***Iphimedia mizegwadan*, new species**
(Figs. 21-23)

Material examined. – Holotype – sex not known, 4.2 mm, AM P64444, Mizegwadan reef, 5°09.57'S 145°39.46'E, Madang Lagoon, Papua New Guinea, rubble, 3–4 m, coll. J. D. Thomas, 16 Feb.1990 stn JDT/PNG 48f.

Paratypes – 1 specimen, AM P64445, Mizegwadan Reef, 5°08.31'S 145°49.36'E, rubble, 12–15 m, coll. J. D. Thomas, 28 Jan.1990, stn JDT/PNG 25c; 1 specimen, AM P64446, Mizegwadan reef, 5°09.57'S 145°39.46'E, Madang Lagoon, Papua New Guinea, rubble, 3–4 m, coll. J. D. Thomas, 16 Feb.1990 stn JDT/PNG 48f; 1 specimen, AM P64447, gully in south entrance of Dam Awan, 5°09.27'S 145°49.86'E, rubble and sediment, J. D. Thomas, 22 Feb.1990, stn JDT/PNG 57l; 1 specimen, AM P64448, western margin of Guzem reef, 5°09.35'E 145°48.43'E, rubble, mainly

encrusted *Acropora* rubble, 2 m, coll. J. D. Thomas, 16 Apr.1991, stn JDT/PNG 71f.

Type locality. – Mizegwadan reef, 5°09.57'S 145°39.46'E, Madang Lagoon, Papua New Guinea.

Description. – **Head** laterocephalic margin without spine, ventrolateral corner an acute spine; eyes ovate. Antenna 1 peduncular article 1 with posterodorsal spines, without posteroventral spine; peduncular article 2 with posterodorsal spine, without posteroventral spine. Maxilla 1 palp well developed, about as long or longer than outer plate, 2-articulate.

Pereon. Pereonite 1 enlarged. Gnathopod 1 coxa small, ventrally truncated, ventral margins smooth. Gnathopod 2 coxa small, ventrally acute, ventral margins smooth. Pereopod 3 coxa posteroventrally subacute, ventral margins smooth. Pereopod 4 coxa ventral margins smooth. Pereopod 5 coxa posteroventral corner broadly rounded; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner rounded; merus posteroventral lobe as long as or longer than carpus. Pereopod 6 coxa posteroventral corner subquadrate; basis posterodorsal corner with spine, posterior margin without spines, smooth, posteroventral corner without spines, rounded; merus posteroventral lobe longer than carpus. Pereopod 7 coxa with posteroventral spine; basis posterodorsal corner rounded, posterior margin with 4 spines, weakly serrate, posteroventral corner with small spine; merus posteroventral lobe longer than carpus. Pereonite 7 without mid-dorsal carina, dorsodistal margin with two small spines.

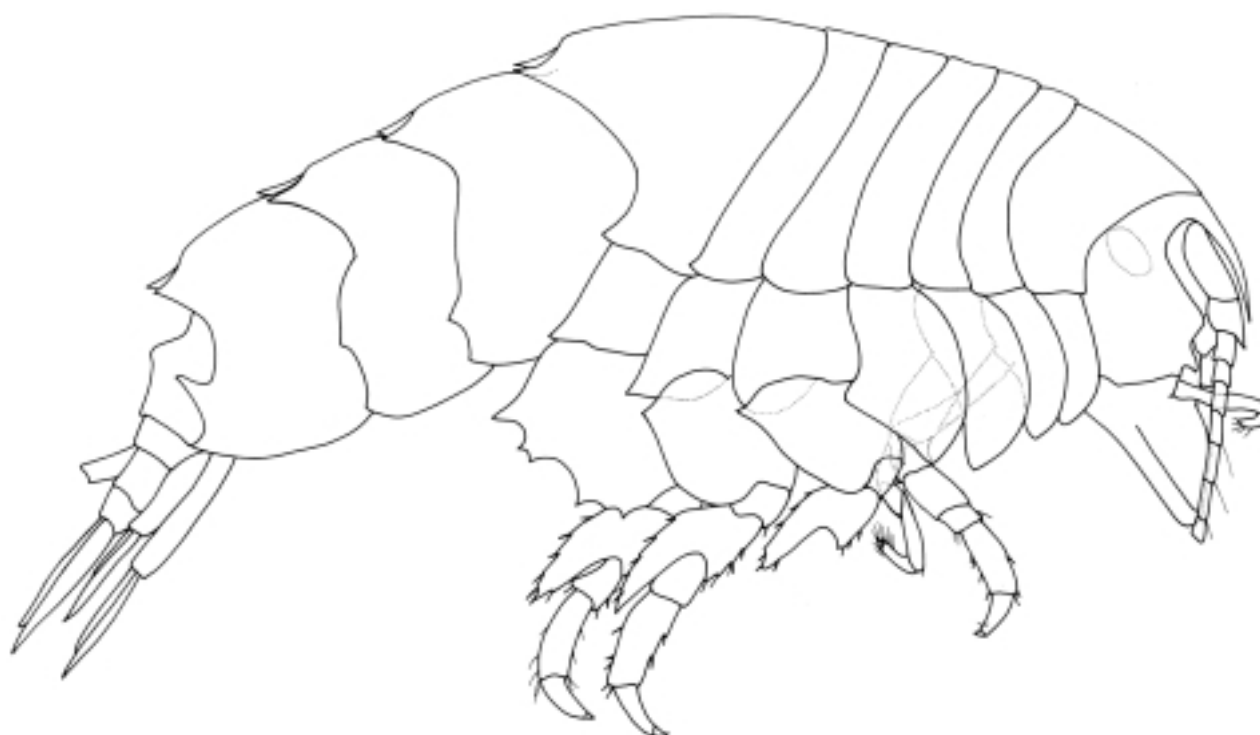


Fig. 21. *Iphimedia mizegwadan*, new species, unknown sex, 4.2 mm, AM P64444, Mizegwadan reef, Madang Lagoon, Papua New Guinea.

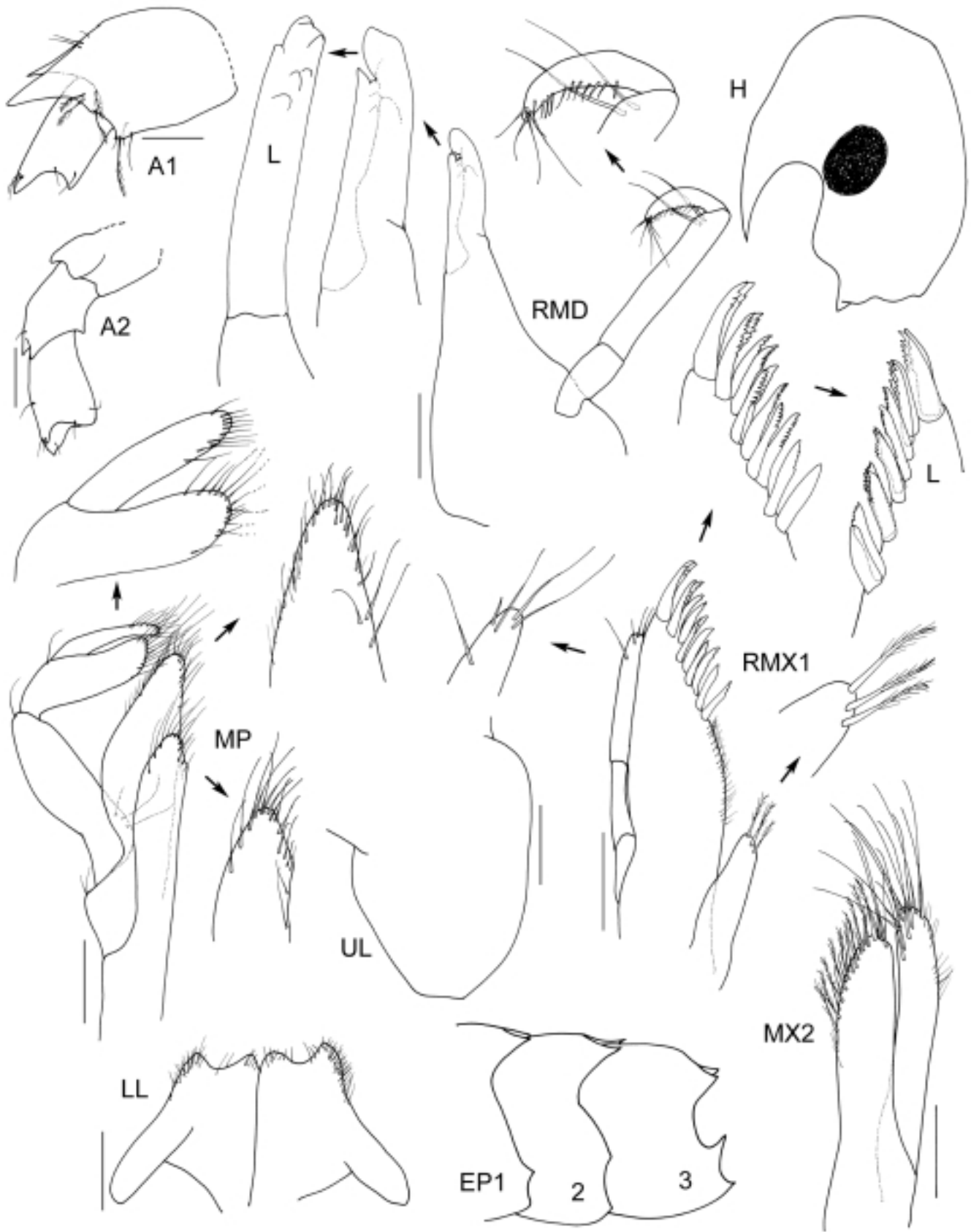


Fig. 22. *Iphimedia mizegwadan*, new species, unknown sex, 4.2 mm, AM P64444, Mizegwadan reef, Madang Lagoon, Papua New Guinea. Scale bar = 0.1mm.

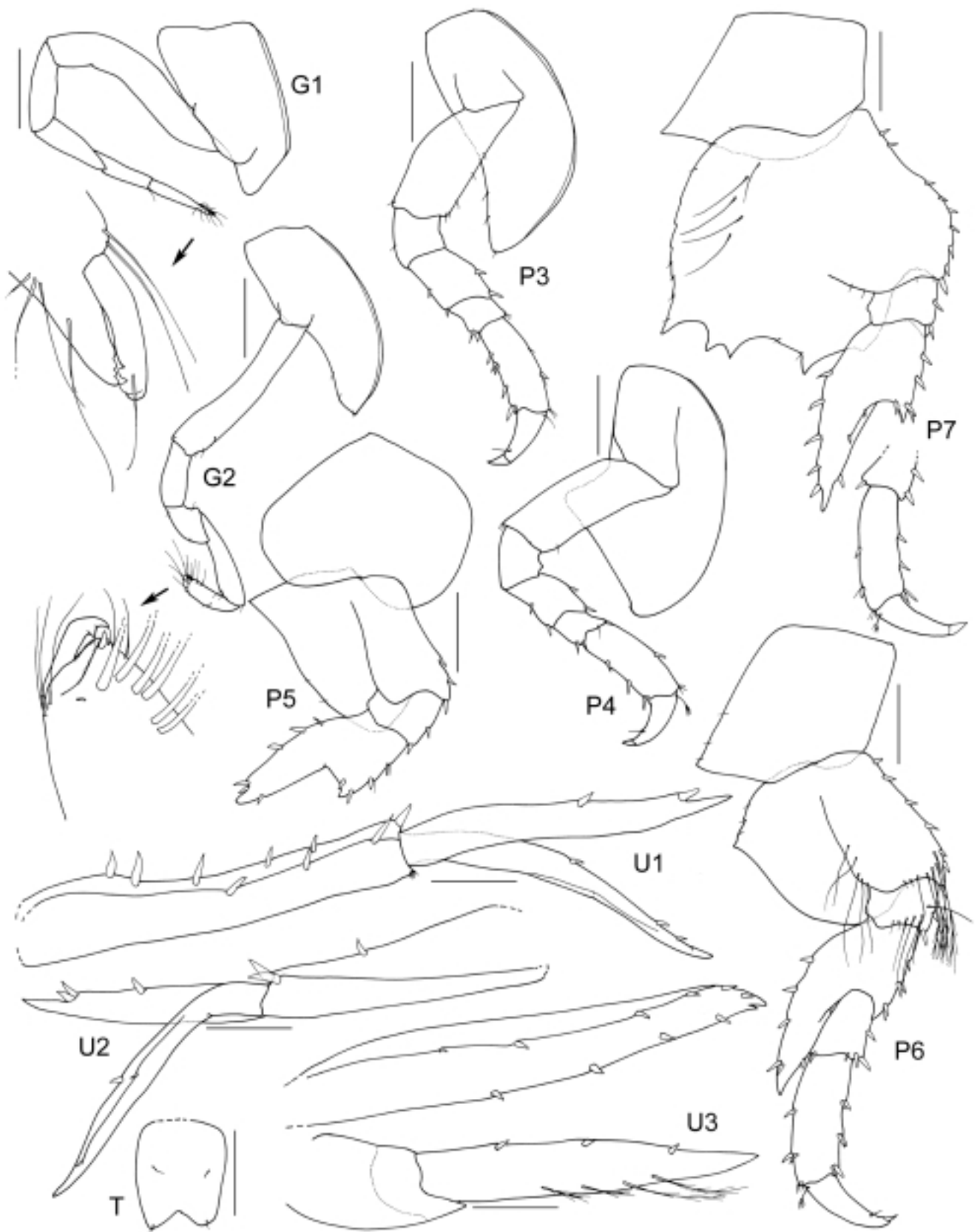


Fig. 23. *Iphimedia mizegwadan*, new species, unknown sex, 4.2 mm, AM P64444, Mizegwadan reef, Madang Lagoon, Papua New Guinea. Scale bar = 0.2mm, uropods; telson 0.1mm.

Pleon. Pleonite 1 without mid-dorsal carina, dorsodistal margin not produced, with 2 small spines. Pleonite 2 without mid-dorsal carina, dorsodistal margin not produced, with 2 small spines. Pleonite 3 without mid-dorsal carina, dorsodistal margin not produced, with 2 straight spines. Epimeron 1 posterior margin with 1 mid-lateral spine; posteroventral corner rounded. Epimeron 2 posterior margin with 1 mid-lateral spine, posteroventral corner rounded. Epimeron 3 posterior margin with 1 ventrolateral, straight, smooth spine, posteroventral corner produced into a small, smooth spine. Telson notched, slightly longer than broad, parallel sided, with pair of dorsodistal fine setae.

Remarks. – The ornamentation of the pereopod 7 basis is unique among the described species of *Iphimedia*. The unproduced dorsodistal margin of pereonite 7 is also found in few other species.

Distribution. – Papua New Guinea.

Etymology. – Named for Mizegwadan reef, the type locality.

***Iphimedia phuketensis*, new species**

(Figs. 24-26)

Material examined. – Holotype, sex not known, 3.8 mm, ZMUC CRU-2157, 98°18'N 7°29'E, Ko Racha Noi (south-eastern end of northern Island), Phuket, Thailand, 12 m, coral, coll. N.L. Bruce, 30 Nov.1995, NLB D9/1.

Type locality. – Phuket Island, Thailand (Andaman Sea).

Description. – **Head** laterocephalic margin with rounded spine, ventrolateral corner a subacute, but reduced, spine; eyes ovate. Antenna 1 peduncular article 1 with anterodistal spines; peduncular article 2 with small posterodorsal spine and small posteroventral spine; accessory flagellum absent. Maxilla 1 palp 2-articulate.

Pereon. Pereonite 1 enlarged, slightly produced over head. Gnathopod 1 coxa small, ventrally acute, ventral margins smooth. Gnathopod 2 coxa small, posteroventrally acute, ventral margins smooth. Pereopod 3 coxa posteroventrally acute, ventral margins smooth. Pereopod 4 coxa ventral margins smooth. Pereopod 5 coxa posteroventral corner broadly rounded; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner rounded. Pereopod 6 coxa posteroventral corner rounded; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner with small spine. Pereopod 7 coxa subquadrate; basis posterodorsal corner subquadrate, posterior margin without spines, distally serrate, posteroventral corner with large spine. Pereonite 7 without mid-dorsal carina, dorsodistal margin slightly produced, with 2 large spines, without posteroventral spine.

Pleon. Pleonites 1-3 without mid-dorsal carina, dorsodistal margin slightly to strongly produced, with 2 large spines.

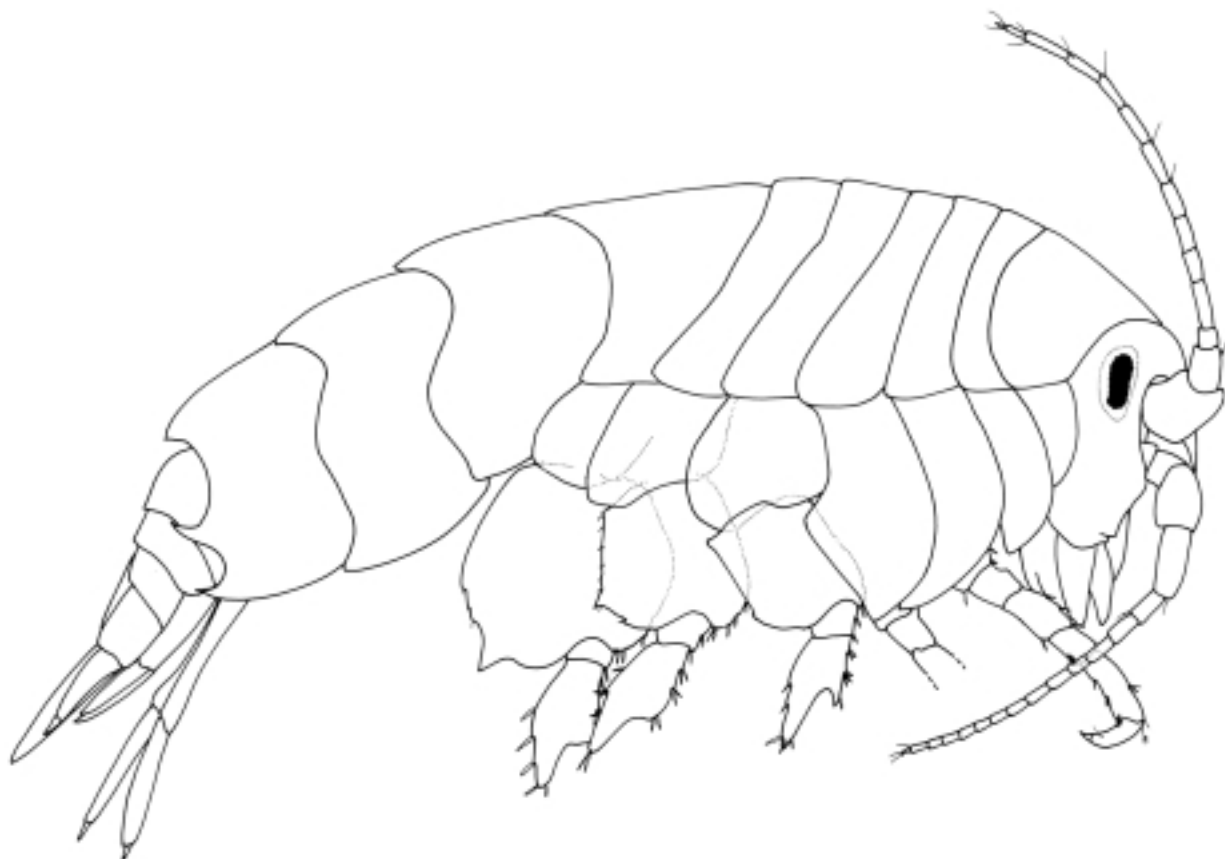


Fig. 24. *Iphimedia phuketensis*, new species, unknown sex, 3.8 mm, ZMUC CRU-2157, Phuket Island, Thailand.

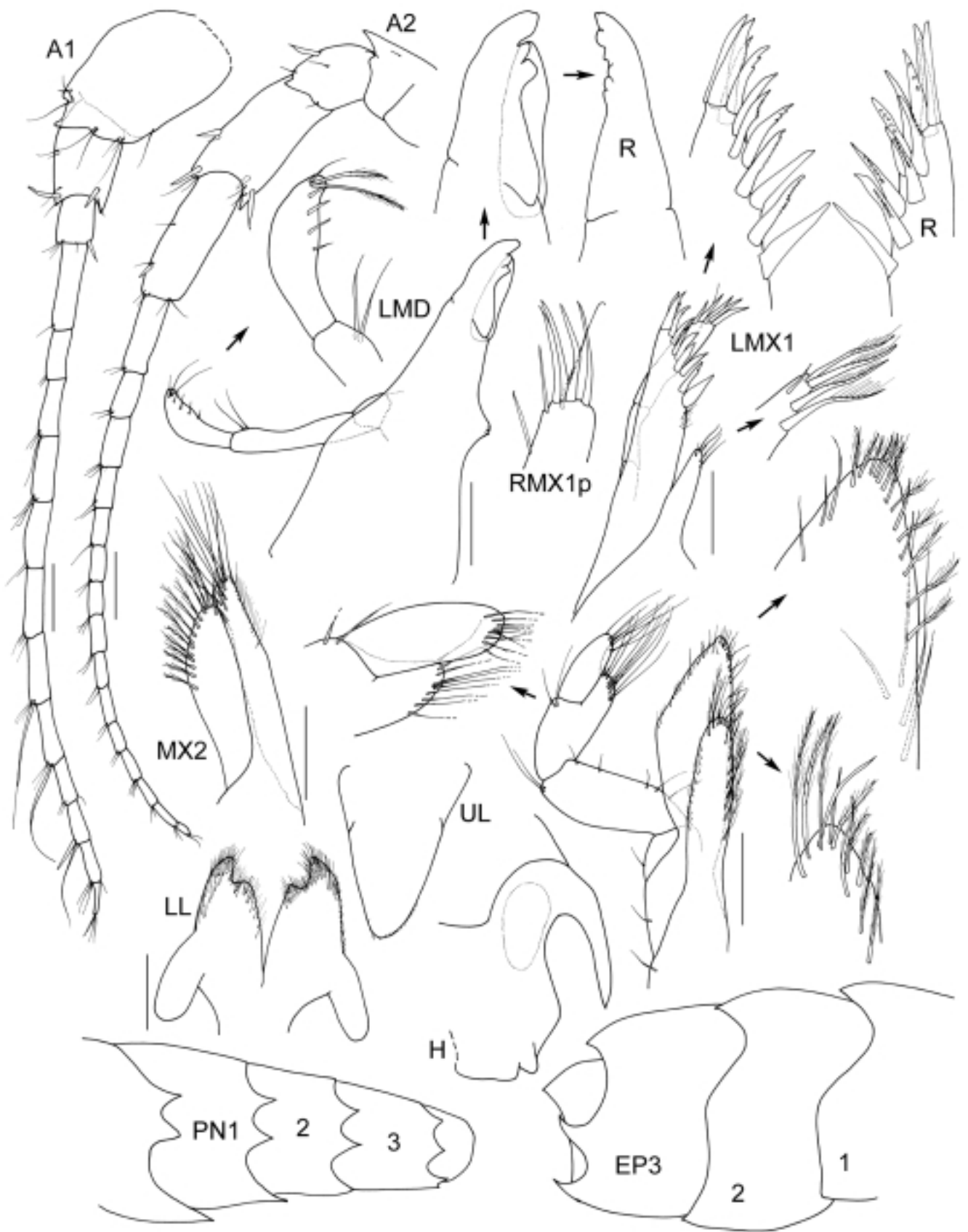


Fig. 25. *Iphimedia phuketensis*, new species, unknown sex, 3.8 mm, ZMUC CRU-2157, Phuket Island, Thailand. Scale bar = 0.1mm.

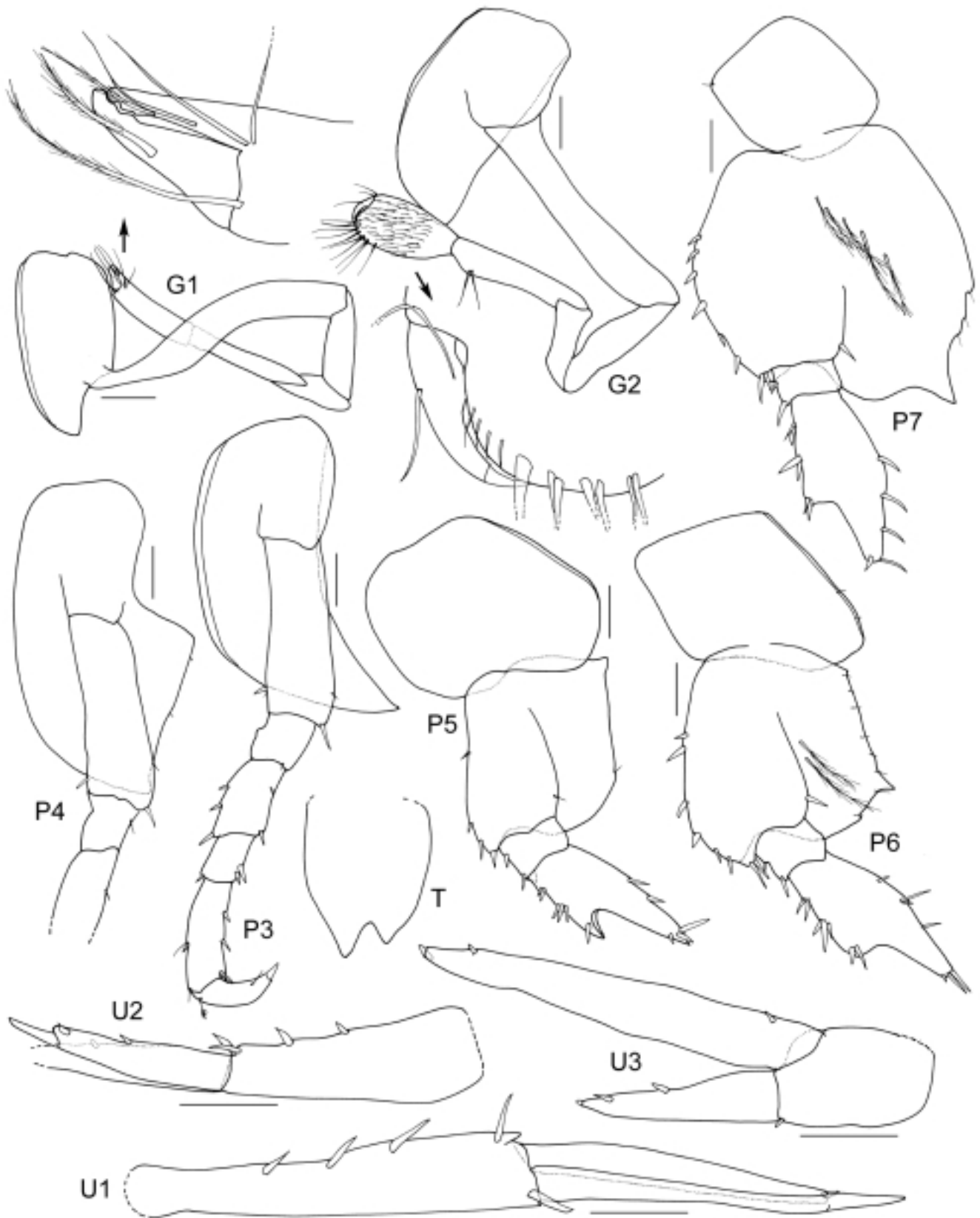


Fig. 26. *Iphimedia phuketensis*, new species, unknown sex, 3.8 mm, ZMUC CRU-2157, Phuket Island, Thailand. Scale bar = 0.1mm.

Epimeron 1 posterior margin without mid-lateral spines; posteroventral corner subquadrate. Epimeron 2 posterior margin without mid-lateral spines, posteroventral corner produced into a spine. Epimeron 3 posterior margin with 1 ventrolateral, recurved, smooth spine, posteroventral corner produced into a, smooth spine. Telson notched, slightly longer than broad, margins tapering distally.

Remarks. – This species can be distinguished from all other described world species of *Iphimedia* by the following combination of characters: head ventrolateral corner with a small subacute spine, pereopod 6 coxa posteroventral corner subquadrate, pereopod 7 coxa posterior margin smooth and pereonite 7 with 2 dorsodistal spines.

Distribution. – Phuket Island, Thailand (Andaman Sea).

Etymology. – Named for Phuket Island, the area where this species lives.

***Iphimedia rachanoi*, new species**
(Figs. 27-29)

Material examined. – Holotype, sex not known, 5.4 mm, ZMUC CRU-2155, 98°18'N 7°22'E, Ko Racha Noi (south-eastern corner)

Phuket, Thailand, 18 m coral rock, N.L. Bruce, 30 Nov.1995, NLB D8/3.

Type locality. – Phuket Island, Thailand (Andaman Sea).

Description. – **Head** laterocephalic margin with rounded spine, ventrolateral corner a recurved spine; eyes ovate. Antenna 1 peduncular article 1 with posterodorsal and posteroventral spines; peduncular article 2 with posterodorsal spine and with small posteroventral spine; accessory flagellum absent. Maxilla 1 palp 2-articulate.

Pereon. Pereonite 1 enlarged, slightly produced over head. Gnathopod 1 coxa small, ventrally truncated, ventral margins smooth. Gnathopod 2 coxa small, ventrally truncated and posteroventrally subacute, ventral margins smooth. Pereopod 3 coxa ventrally truncated and posteroventrally acute, ventral margins smooth. Pereopod 4 coxa ventral margins smooth. Pereopod 5 coxa posteroventral corner broadly rounded; basis posterodorsal corner subquadrate, posterior margin without spines, smooth, posteroventral corner rounded; merus posteroventral lobe longer than carpus. Pereopod 6 coxa posteroventral corner subquadrate; basis posterodorsal corner with small spine, posterior margin without spines, smooth, posteroventral corner without spines, rounded; merus posteroventral lobe longer than carpus. Pereopod 7

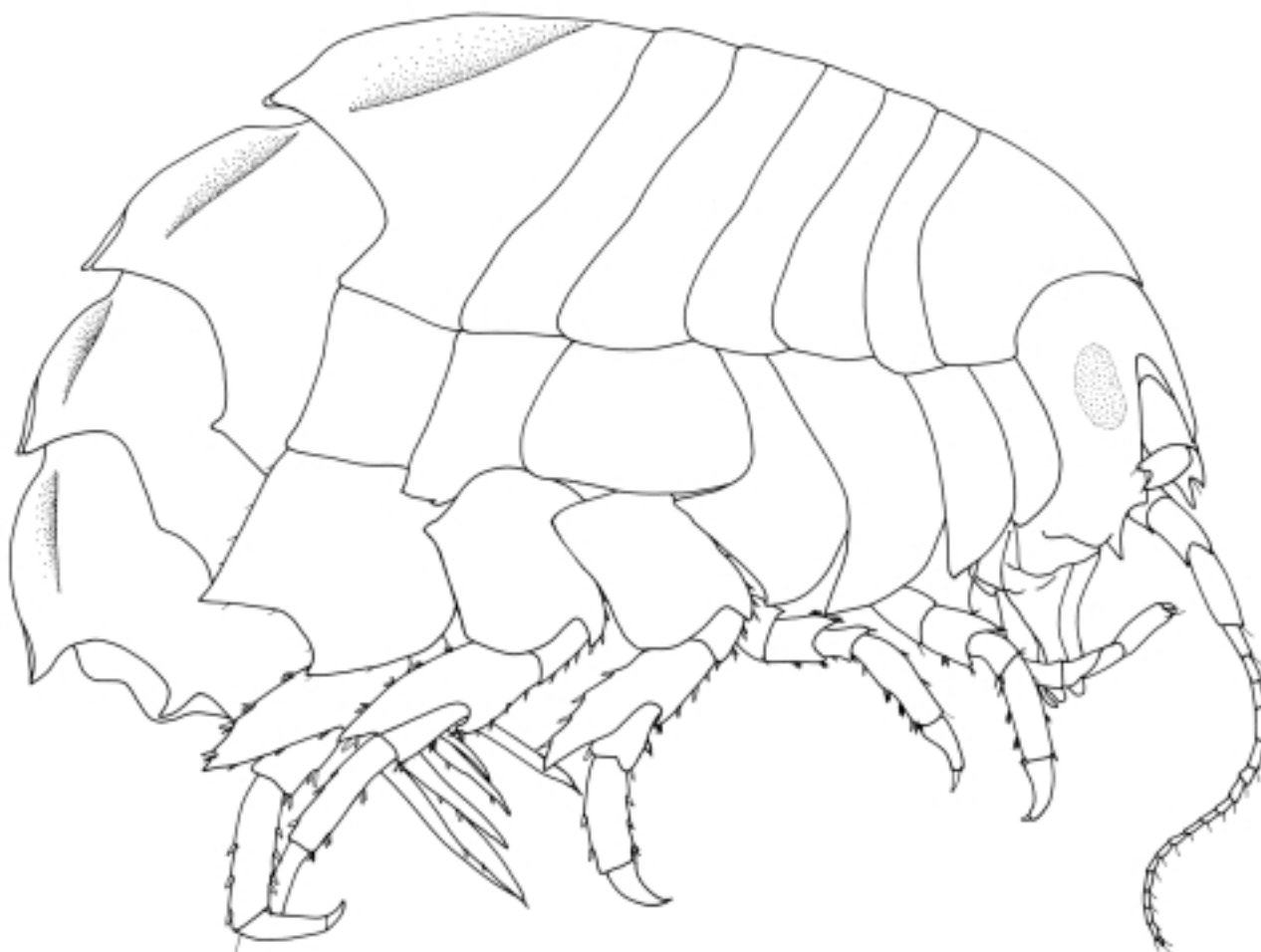


Fig. 27. *Iphimedia rachanoi*, new species, unknown sex, 5.4 mm, ZMUC CRU-2155, Phuket Island, Thailand.

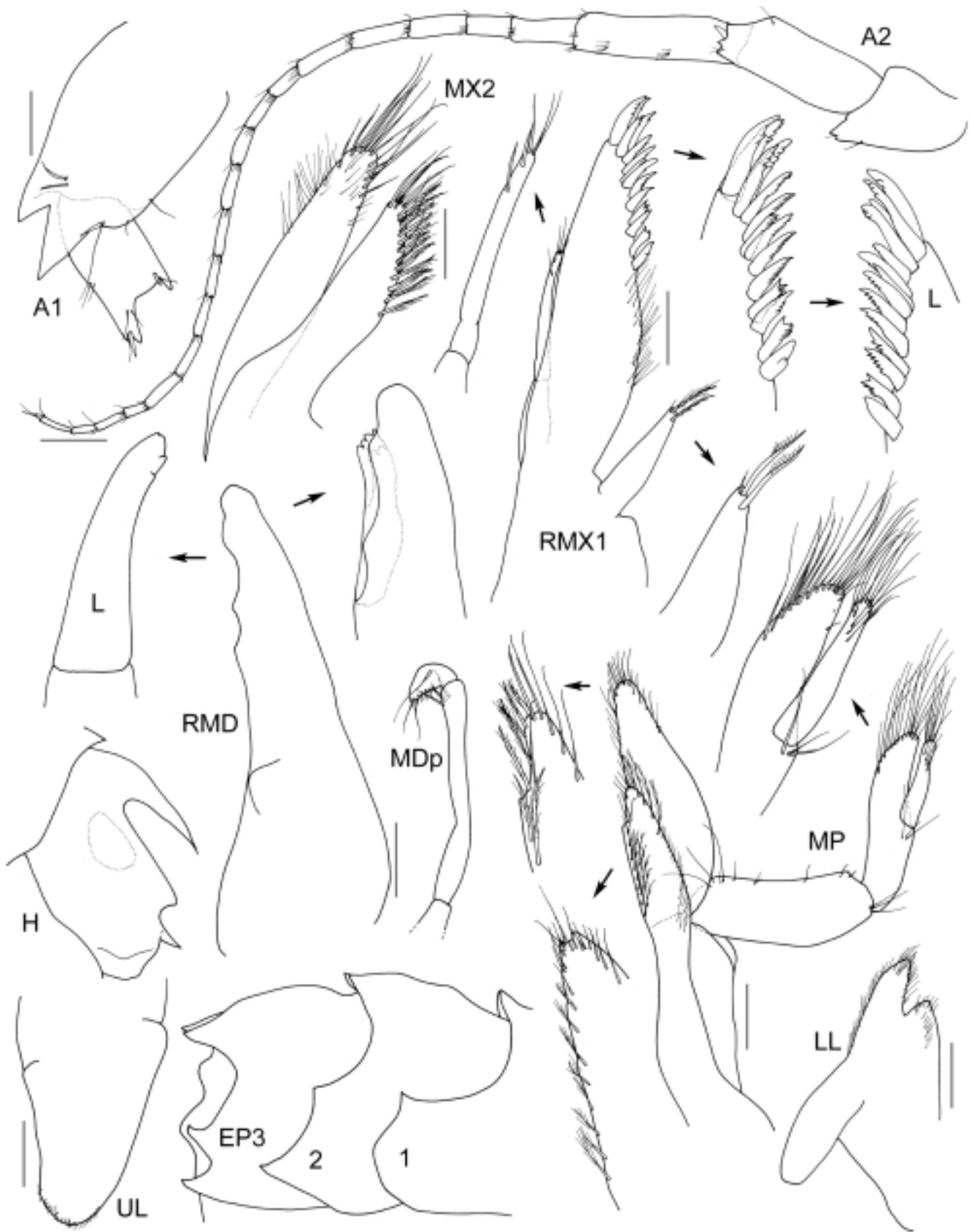


Fig. 28. *Iphimedia rachanoi*, new species, unknown sex, 5.4 mm, ZMUC CRU-2155, Phuket Island, Thailand. Scale bar = 0.2mm, mouthparts = 0.1mm.

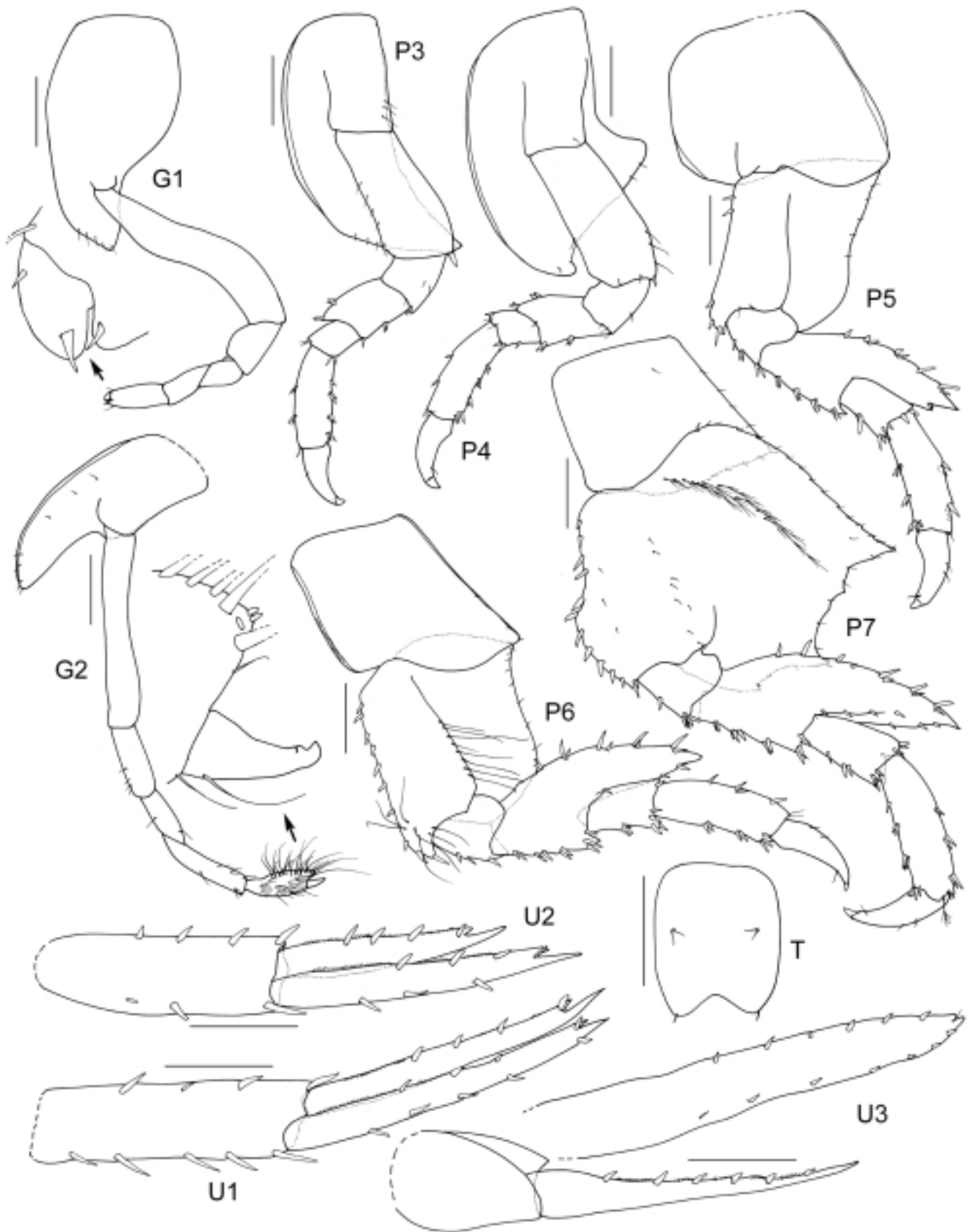


Fig. 29. *Iphimedia rachanoi*, new species, unknown sex, 5.4 mm, ZMUC CRU-2155, Phuket Island, Thailand. Scale bar = 0.1mm.

coxa subquadrate; basis posterodorsal corner rounded, posterior margin with 3 spines (middle spine small), weakly serrate, posteroventral corner with small spine; merus posteroventral lobe longer than carpus. Pereonite 7 with 1 broadly rounded low mid-dorsal carina, dorsodistal margin slightly produced, with 2 large spines, without posteroventral spine.

Pleon. Pleonite 1 with a broadly rounded low mid-dorsal carina, dorsodistal margin slightly produced, with 2 large spines. Pleonite 2 with a broadly rounded low mid-dorsal carina, dorsodistal margin slightly produced, with 2 large spines. Pleonite 3 with a broadly rounded low mid-dorsal carina, dorsodistal margin slightly produced, with 2 straight spines. Epimeron 1 posterior margin with 1 mid-lateral spine; posteroventral corner rounded. Epimeron 2 posterior margin with 1 mid-lateral spine, posteroventral corner produced into a spine. Epimeron 3 posterior margin with 1 ventrolateral, recurved, smooth spine, posteroventral corner produced into a smooth spine. Telson notched, slightly longer than broad, parallel sided, with pair of dorsodistal fine setae.

Remarks. – This species can be distinguished from all other described world species of *Iphimedia* by the following combination of characters: head ventrolateral corner with a recurved spine, pereopod 7 basis posterior margin with 3 spines and pereonite 7 with a broadly rounded, low, mid-dorsal carina.

Distribution. – Phuket Island, Thailand (Andaman Sea).

Etymology. – Named for Ko Racha Noi, the type locality.

OCHLESINAE

Curidia Thomas, 1983

Remarks. – This is the first record of the genus *Curidia* from the Indo-West Pacific. Previously it was known from the Caribbean Sea and southern South America. These new records from southern New Zealand and northern Papua New Guinea indicate that the genus is a widespread member of the Ochlesinae.

Curidia knoxi, new species (Figs. 30, 31)

Material examined. – Holotype – female (ovigerous), 3.7 mm, AM P54120, west side of Main Island, 48°07'S 166°38'E, The Snares, New Zealand subantarctic, bryozoans and sponges on lobster pot, 146 m, coll. C.E. Holmes and D.S. Horning on FV *President Kennedy*, 26 Nov.1974.

Paratypes – 2 females (ovigerous), AM P54121; 1 female (ovigerous), AM P54122; 3 females (ovigerous), AM P54123; all material collected from the type locality.

Type locality. – West side of Main Island, 48°07'S 166°38'E, The Snares, New Zealand subantarctic, bryozoans and sponges on lobster pot, 146 m.

Description. – **Head** laterocephalic margin with an acute spine, ventrolateral corner narrowly rounded; eyes round or ovate. Antenna 1 peduncular article 1, distoventral spine, as long as peduncular article 2; peduncular article 2 short, about 1.1 x as long as broad, distoventral spine, much longer than peduncular article 3. Antenna 2 peduncular article 4 with distoventral spine reaching about half way along article 5; article 5 with short distoventral spine. Mandible molar reduced. Maxilla 1 palp reduced, 1-articulate, with a long apical seta. Maxilliped palp present, with 1 article, with a long apical seta.

Pereon. Body with sharply raised pereon carina forming a dorsal keel, without spines or lateral plaques, pleon with very small mid-dorsal processes. Pereonite 1 enlarged, produced over head. Gnathopod 1 coxa straight, ventrally rounded. Gnathopod 2 coxa ventrally rounded; carpus weakly lobate posterodistally along propodus. Pereopod 3 coxa long, ventrally rounded. Pereopod 4 coxa short, ventrally rounded. Pereopod 6 coxa posteroventral corner subquadrate. Pereonite 7 with a small apically acute dorsodistal spine.

Pleon. Pleonite 1 with a small apically subquadrate dorsodistal carina. Pleonite 2 with a small apically rounded dorsodistal carina. Pleonite 3 with a narrow apically rounded mid-dorsal carina. Epimeron 1 posteroventral corner rounded. Epimeron 2 posteroventral corner rounded. Epimeron 3 posterior margin excavate, posteroventral corner produced into a curved spine. Telson apically acute.

Remarks. – *Curidia knoxi* differs from the other three *Curidia* species in the short distoventral spine on antenna 2 peduncular article 4, which is only half length of article 5, whereas it is two thirds the length or longer than article 5 in the other species. Both *C. magellanica* and *C. debrogiana* also have a very long distoventral spine on antenna 2 peduncular article 5, whereas it is absent or rudimentary in *C. knoxi* and *C. ramonae*.

Distribution. – New Zealand subantarctic.

Etymology. – Named for Professor George Knox, in recognition of his contribution to the biogeography of this area.

Curidia ramonae, new species (Figs. 32-34)

Material examined. – Holotype - sex not known, 1.0 mm. AM P64449; Dam Awan, Papua New Guinea, 5°09.27'S 145°49.86'E, coral rubble, dead encrusted *Acropora*, 15 to 30 m, coll. J. D. Thomas, 17 Apr.1991, stn JDTPNG-72a.

Type locality. – Dam Awan, Madang Lagoon, Papua New Guinea.

Description. – **Head** laterocephalic margin acute, long, ventrolateral corner narrowly rounded; eyes round. Antenna 1 peduncular article 1, distoventral spine as long as peduncular article 2; peduncular article 2 short, about 0.9 x

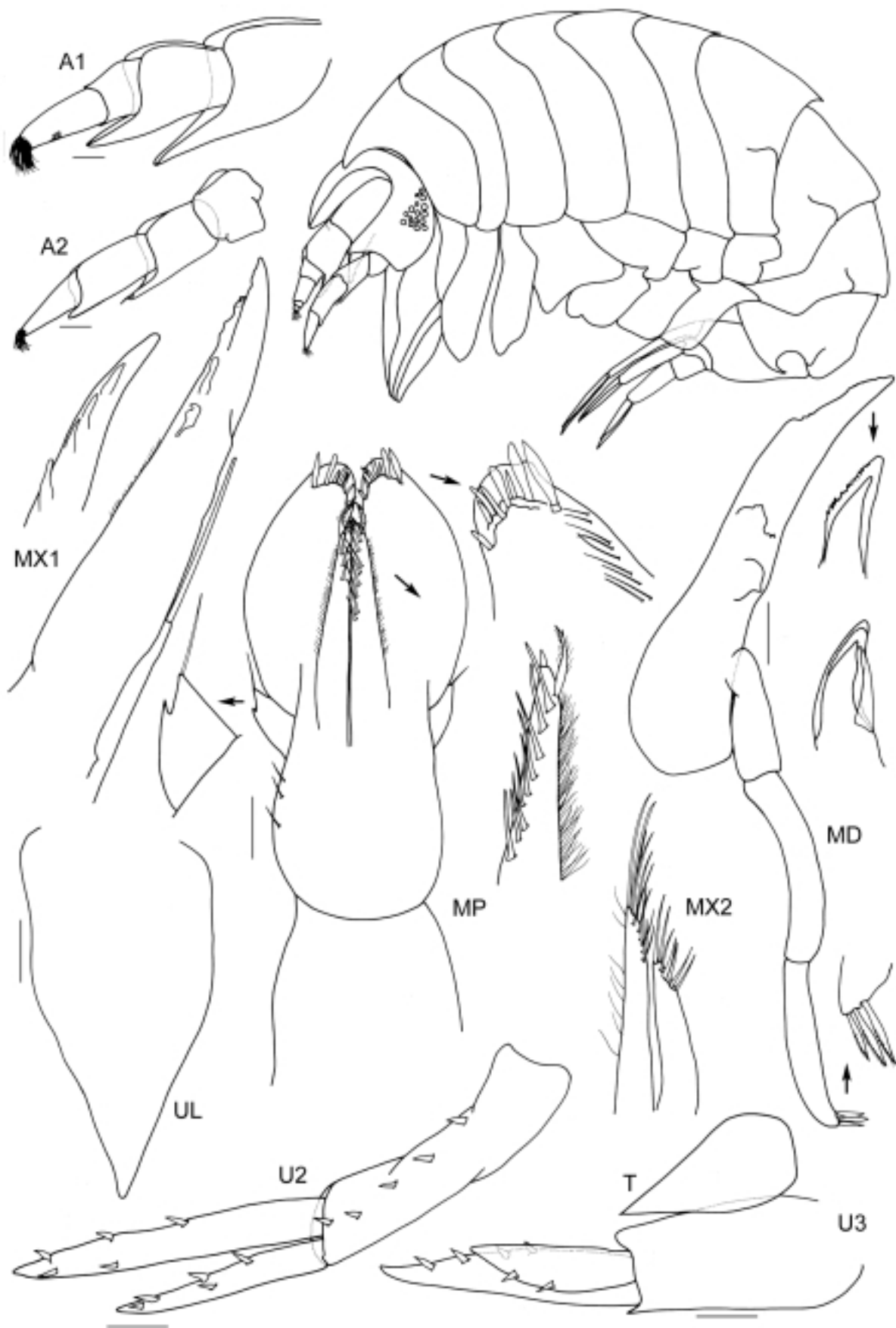


Fig. 30. *Curidia knoxi*, new species, female, 3.7 mm, AM P54120, The Snares, New Zealand. Scale bar = 0.1mm.

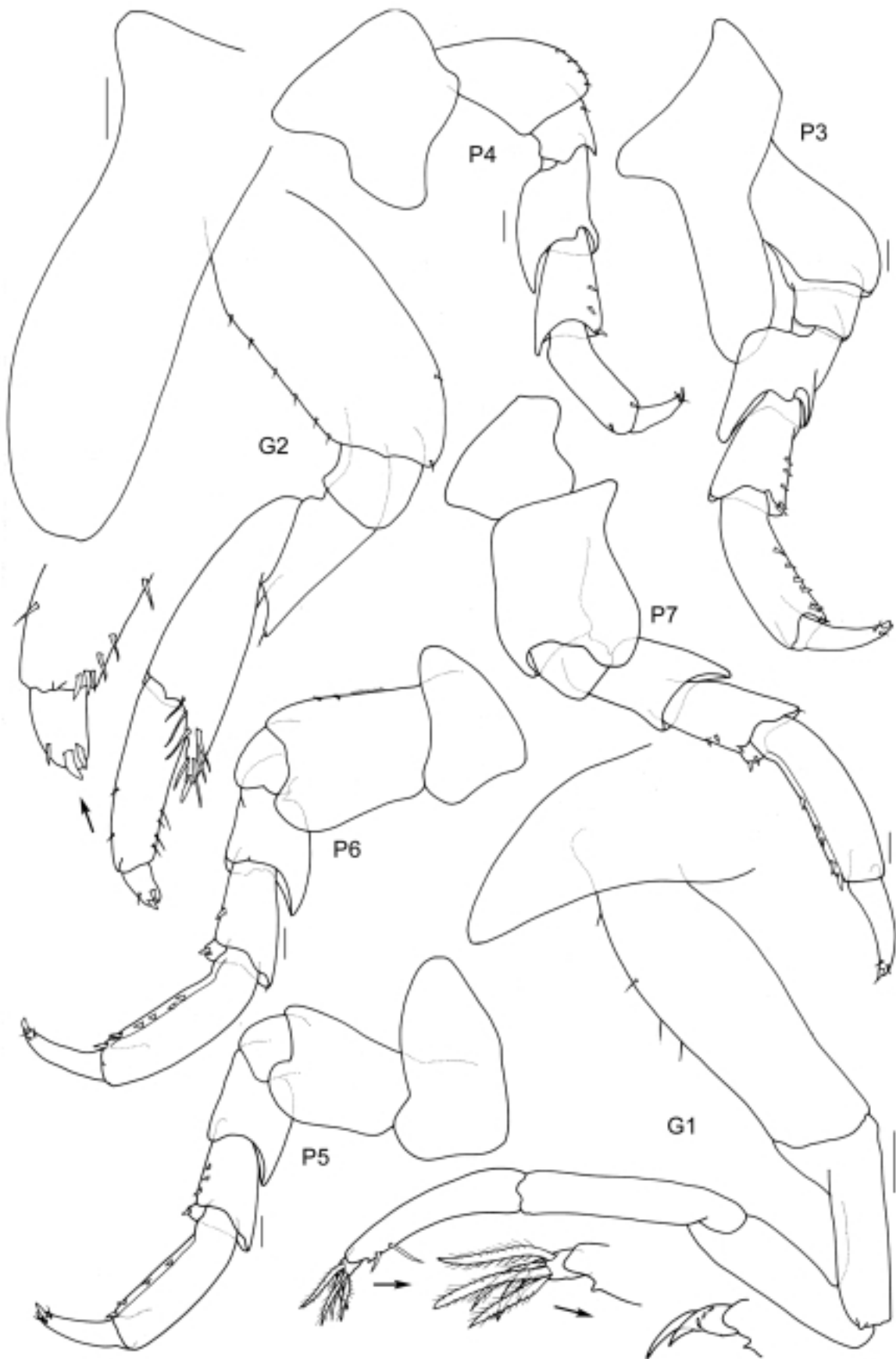


Fig. 31. *Curidia knoxi*, new species, female, 3.7 mm, AM P54120, The Snares, New Zealand. Scale bar = 0.1mm.

as long as broad, distoventral spine longer than peduncular article 3. Antenna 2 peduncular article 4 with distoventral spine reaching about two thirds along article 5; article 5 without significant distoventral spine. Mandible molar reduced, triturating. Maxilla 1 palp reduced, 1-articulate, with a long apical seta. Maxilliped palp present, with 1 article, with a short apical seta.

Pereon. Body with sharply raised pereonal carina forming a dorsal keel, without spines or lateral plaques. Pereonite 1 enlarged, produced over head. Gnathopod 1 coxa straight, ventrally truncated. Gnathopod 2 coxa ventrally rounded; carpus strongly lobate posterodistally along propodus. Pereopod 3 coxa ventrally rounded. Pereopod 5 coxa not anteriorly produced, anterior margin truncated, straight, posteroventral corner broadly rounded. Pereopod 6 coxa posteroventral corner broadly rounded. Pereonite 7 with a small apically acute dorsodistal spine.

Pleon. Pleonite 1 with a small apically subquadrate dorsodistal carina. Pleonite 2 with a small apically rounded dorsodistal carina. Pleonite 3 with a narrow apically rounded mid-dorsal carina. Epimeron 1 posteroventral corner subquadrate. Epimeron 2 posterior margin with 1 midlateral spine, posteroventral corner subquadrate. Epimeron 3 posterior margin excavate, posteroventral corner produced into a curved spine. Telson apically acute.

Remarks. – This species can be distinguished from the other three species of *Curidia* by the following combination of characters: well developed and acute posterodorsal spine on pereonite 7 and uropod 3 with subequal rami. It also differs from both *C. magellanica* and *C. debrogania* in having a rudimentary distoventral spine on antenna 2 peduncular article 5.

Distribution. – Papua New Guinea.

Etymology. – Named for Ramona Kent, good friend and diving partner during the summer of 1994 at Madang.

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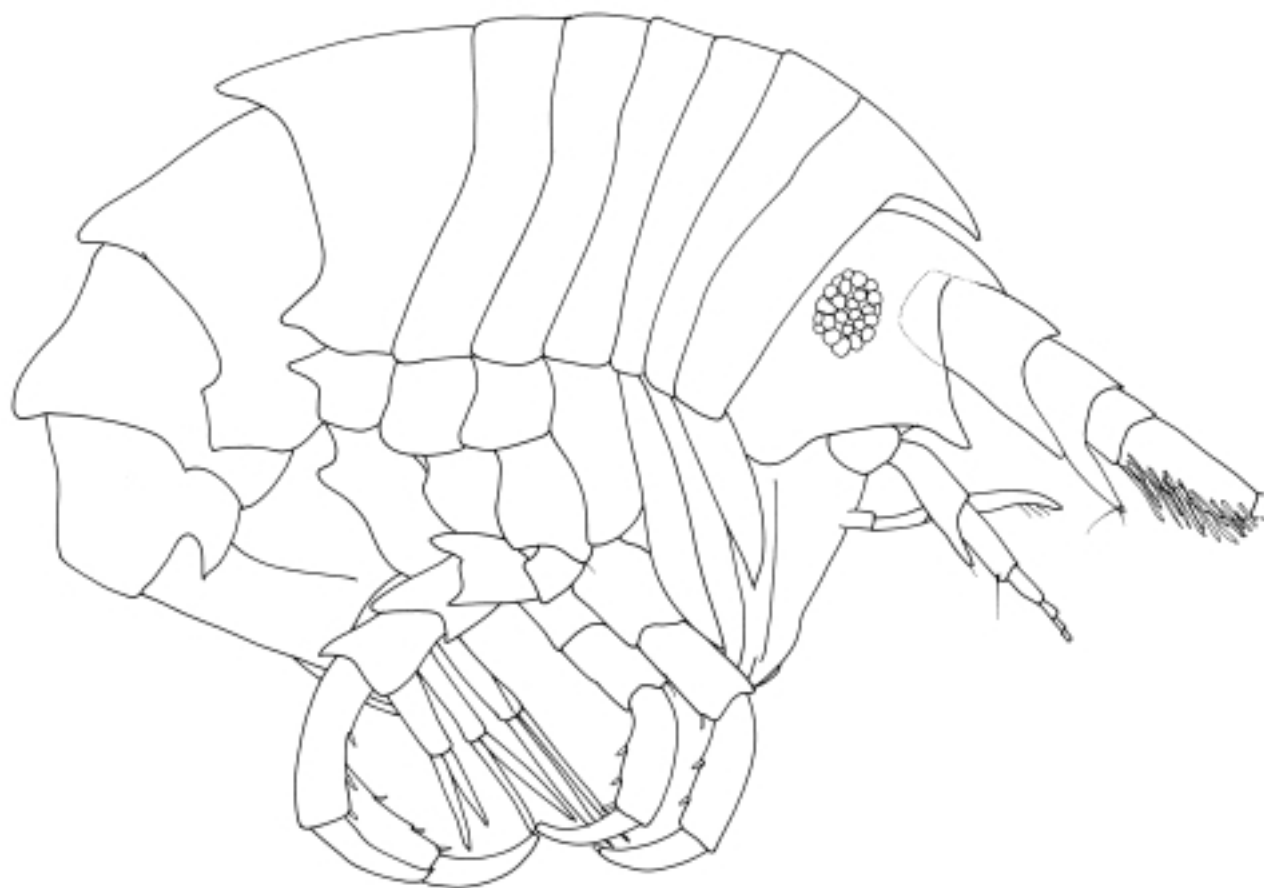


Fig. 32. *Curidia ramonae*, new species, unknown sex, 1.0 mm, AM P64449, Dam Awan, Papua New Guinea.

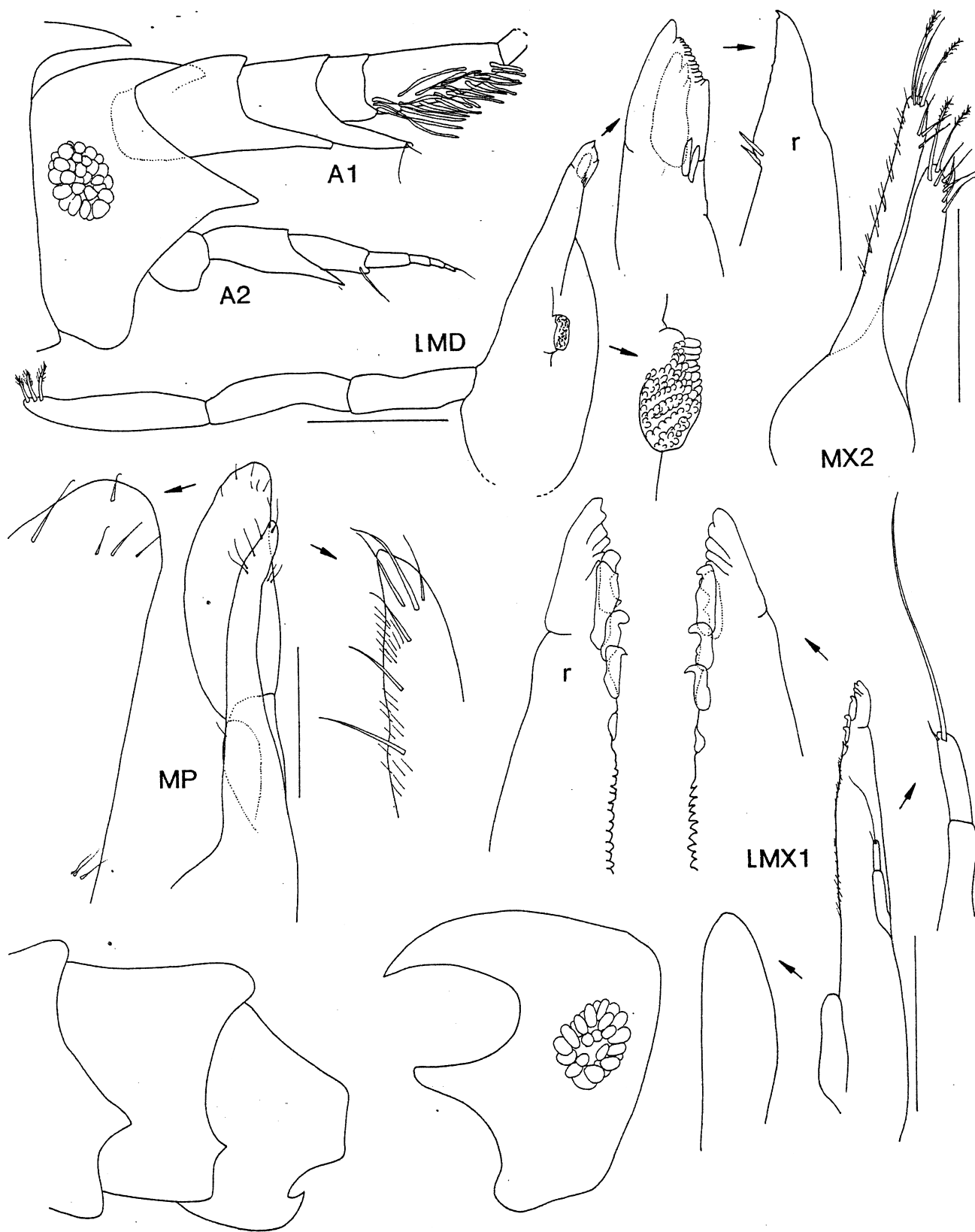


Fig. 33. *Curidia ramonae*, new species, unknown sex, 1.0mm, AM P64449, Dam Awan, Papua New Guinea. Scale bar = 0.1mm.

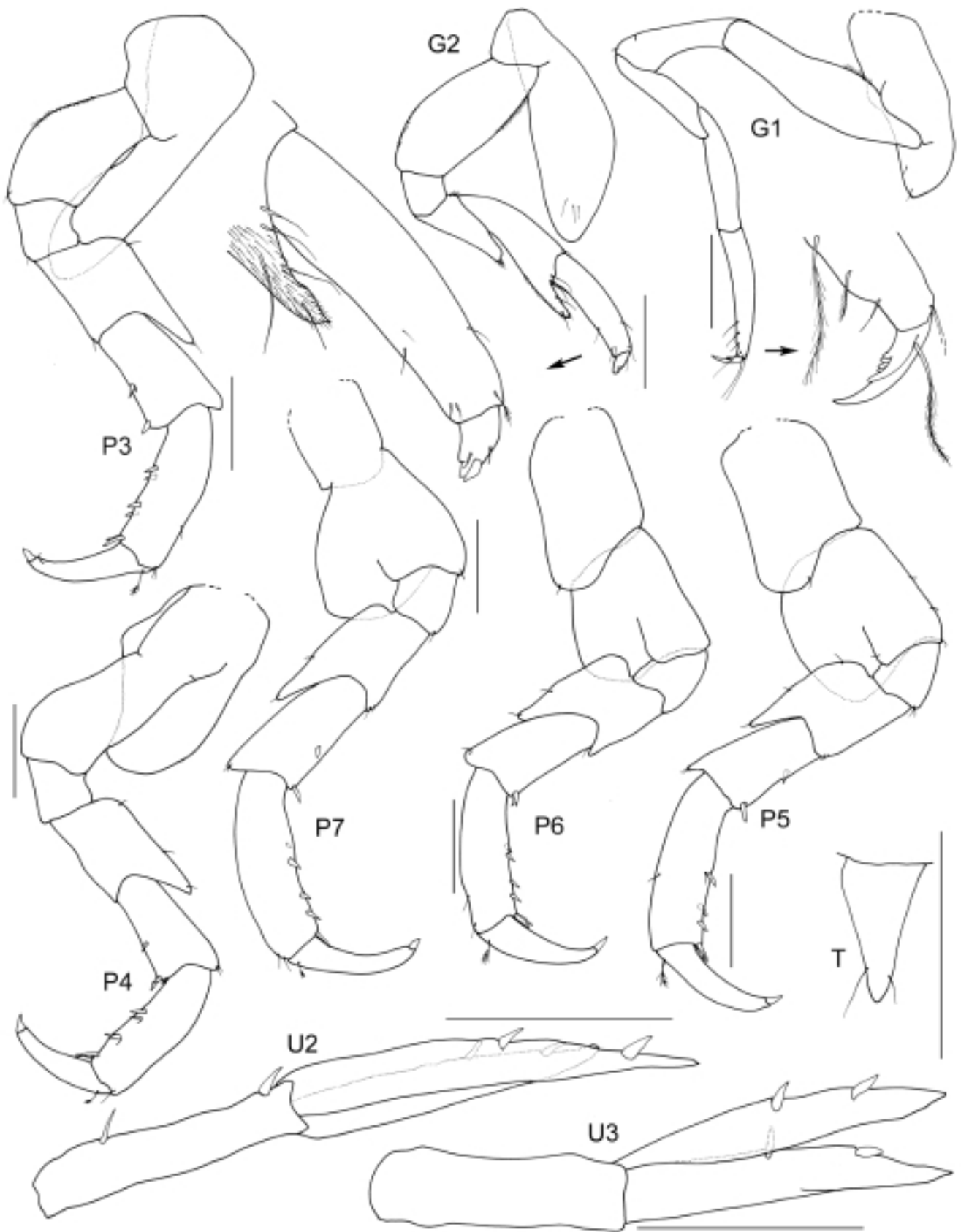


Fig. 34. *Curidia ramonae*, new species, unknown sex, 1.0mm, AM P64449, Dam Awan, Papua New Guinea. Scale bar = 0.1mm.

Peart who did the illustrations and Roger Springthorpe (Australian Museum, Sydney, New South Wales) made the plates.

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