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WOMBALANO YERANG, NEW GENUS AND SPECIES OF COROPHOID (CRUSTACEA, AMPHIPODA) FROM THE GREAT BARRIER REEF, AUSTRALIA

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Abstract

Thomas, J.D. and Barnard, J.L., 1991. *Wombalano yerang*, new genus and species of corophoid (Crustacea, Amphipoda) from the Great Barrier Reef, Australia. *Memoirs of the Museum of Victoria* 52: 319-324.

Wombalano is characterized by having a interlocked basket of large spines on the bases of male gnathopod 2; these bases are curved inward to afford the interlocking capability.

This genus differs from *Lemboides* Stebbing in the even more shortened inner ramus of uropod 3, in the simple mandibular palp, the fused articles of the flagellum on antenna 2, and the immense basket-shovel formed of spines on article 2 of male gnathopod 2.

Introduction

Wombalano yerang is a new corophoid similar to *Lemboides* Stebbing. It was found on a shallow reef flat at Orpheus Island on the Great Barrier Reef. The male is characterized by the formation of a large basket of interlocked spines on the bases of gnathopod 2. The bases are enlarged, flattened and curved inward to form a hollow with the concavity facing forward. We assume the basket is used to gather food. *Wombalano yerang* was found on fine carbonate sands interspersed with fine algal strands.

Corophiidae Dana

***Wombalano* gen. nov.**

Diagnosis. Body subcylindrical but weakly compressed laterally, smooth, urosomites free, urosomite 1 ordinary. Rostrum short, ocular lobes of medium size, sharp; antennal sinus moderate. Eyes medium.

Antennae short, of about equal length, both slender, though article 1 of antenna 1 slightly thickened; peduncular article 3 of antenna 1 shorter than article 1, article 2 longest, accessory flagellum 2-articulate. Antenna 2 peduncular article 3 short, articles 4 and 5 subequal, flagellum short, essentially uniarticulate (one main article tipped with 2 tiny apical articles).

Epistome unproduced anteriorly. Labrum subrounded, entire. Mandible normal, palp moderate, slender, article 3 linear, as long as 2, poorly setose. Labium with entire outer lobes, with well developed inner lobes, mandibular lobes long, pointed. Inner plate of maxilla 1 small, short, with 1 medial seta, outer plate with

10 spines, palp 2-articulate. Plates of maxilla 2 rather broad, inner plate with medifacial row of setae. Inner plate of maxilliped without distal spines except for ventromedial locking spine (not shown in figure), outer plate normal, reaching apex of palp article 2, with spines on medial margin, palp with 4 articles, article 2 long, article 3 lobed, article 4 medium, with short nail and setae.

Coxae of medium size, short, weakly contiguous, anterior members of slightly diverse sizes and shapes, coxa 1 weakly expanded apically, not produced forward, coxa 4 not longer than coxa 1, not lobed, coxa 5 nearly as long as 4, coxa 7 smaller than anterior coxae.

Male gnathopods 1-2 different, large, gnathopod 2 apically narrower but basally broader than gnathopod 1, both subchelate, with thick articles, not densely setose, carpi of both elongate but thick, propodus of gnathopod 1 short, very broad, strongly chelate, of gnathopod 2 narrow, weakly chelate, second articles of gnathopod 2 immense, curving inward towards each other, forming interlocked scoop-basket by giant spines on dorsoposterior margin.

Pereopods 3-4 normal, similar, with weakly expanded article 2, article 4 scarcely dilated, dactyls of medium length. Pereopods 5-7 similar to each other, progressively longer, with weakly expanded unlobed article 2, pereopod 5 much shorter than pereopod 7, dactyl of pereopods 5-7 curved, of medium length.

Minute sternal process present on pereonite 1. Coxal gills present on pereopods 3-6 only. Pleopods ordinary. Epimeron 3 not bisinuate.

Uropods 1-2 biramous, normal, rami of uro-

pod 2 slightly unequal, longer than peduncle, peduncle of uropod 1 with ventrodorsal process, that of uropod 2 absent. Uropod 3 of medium length, biramous, outer ramus moderately long, obtuse distally, with small article 2, peduncle expanded, shorter than outer ramus, inner ramus shortened, tapering and with single apical spine. Telson entire, short, broader than long, ovate, with 2 unequal medium apical setae on each side.

Female. Coxae not greatly different from male, coxa 2 especially longer. Gnathopods small, gnathopod 1 slightly larger than 2, 1 subchelate, 2 almost simple, article 5 long, linear, unlobed, dactyl ordinary, unlobed on both gnathopods 1–2. Oostegites narrow, present on coxae 3–5.

Type species. *Wombalano yerang* sp. nov.

Etymology. Wombalano, Aboriginal, beautiful, masculine, noun not Latinized; yerang, Aboriginal, thicket, in reference to the spine basket on gnathopod 2, noun in apposition, not Latinized.

Relationship. This genus differs from *Lemboides* Stebbing, 1895 (see Myers and Lyons, 1987) in the even more shortened inner ramus of uropod 3, in the simple mandibular palp, fused articles of the flagellum on antenna 2, and the immense basket-shovel formed of spines on article 2 of male gnathopod 2.

It differs from *Lemboides caecus* Ledoyer (1982) (said by Myers and Lyons, 1987 to be removed to a genus in Neomegamphopidae) in the much larger male gnathopods with their basket, the simple article 3 of the mandibular palp and the short inner ramus of uropod 3.

It differs from *Aorchoides* Ledoyer (1972) in the immensely enlarged male gnathopods with their basket, the feeble article 3 of the mandibular palp, the more uneven rami of uropod 3 and the fused articles of the flagellum on antenna 2.

Wombalano yerang sp. nov.

Figures 1–4

Material examined. 2 males, 1 female, 1 unsexed and

unmeasured specimen (to preserve one unmanipulated, therefore undamaged, specimen).

Holotype: Orpheus Island, Great Barrier Reef, 4 m, in sediment sample from reef flat in front of Orpheus Island Research Station, at boat mooring area, gray carbonate sand with fine algal strands on surface, J.D. Thomas, 12 Feb 1989 (stn JDT OPH-4A), Museum of Victoria (NMV) J20493 (male "a", 2.93 mm).

Paratypes: Type locality, USNM 253542 (male "b", 2.63 mm); USNM 253541 (female "c", 3.25 mm; and one other unsexed and unmeasured specimen).

Description. Second article of male gnathopod 2 huge, bowing inward, dorsoposterior edges abutting, their spines interlocking, thus forming huge shovel-basket or nest, articles 5–7 flexed inward, first gnathopods contained within this nest; our illustrations showing gnathopod 2 flattened and unflexed.

Gills on coxae 3–6 long, thin sacs, those on coxae 5–6 slightly shortened. Pereonite 1 with small nipple-like sternal process.

Pleopods ordinary, dimensions as follows: length ratios of peduncle, outer and inner rami for pleopod 1 = 50:45:53, pleopod 2 = 55:39:49, pleopod 3 = 50:35:43, number of articles on outer and inner rami of pleopods 1, 2, 3 = 7–9, 7–8, 6–9.

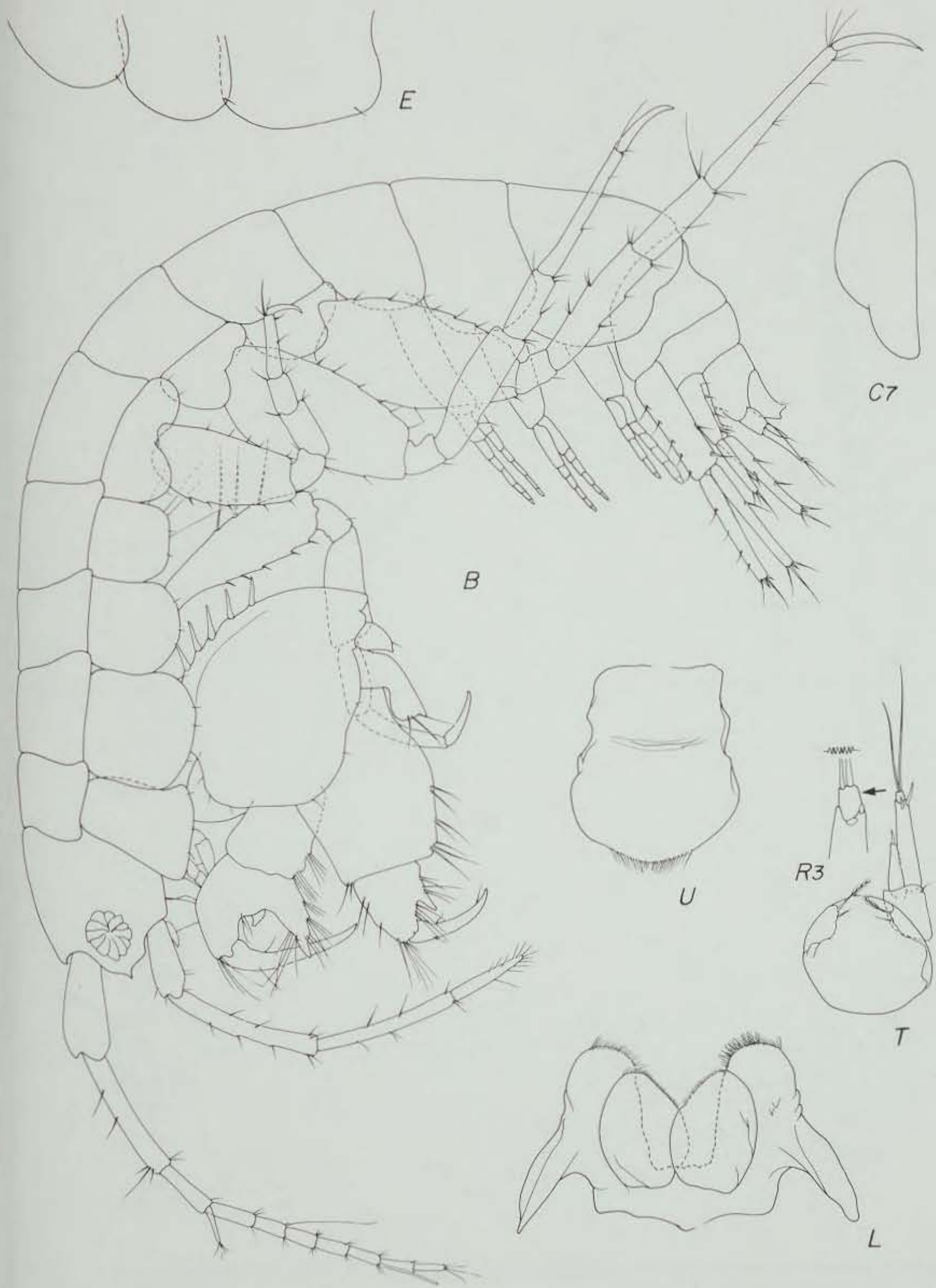
Female: Coxa 2 longer and narrower than in male, with 5 marginal setae; oostegites present on coxae 3–5, thin, elongate, marginally setose, all of similar size.

Distribution. Orpheus Island, Great Barrier Reef, Australia, 4 m.

Acknowledgements

We thank the National Geographic Society for funds through grant 3723-87 to the first author to collect this material; and Jan Clark of Smithsonian Institution who was supported in the field by the Research Opportunities Fund of the Smithsonian Institution. The laboratory work was supported by NSF Grants BSR-8515186 and BSR-8915688 to the first author; and Smithsonian's "Amphipod Grant" to the second author. We thank Geoff Charles of the Orpheus Island Research Station for his assistance. Linda Lutz of Vicksburg, Mississippi, inked our drawings.

Figure 1. *Wombalano yerang*, unattributed figures = holotype male "a"; b = male "b"; c = female "c". Capital letters in figures refer to parts; lower case letters to left of capital letters refer to specimens and to the right refer to adjectives as described below; unattributed specimens lack lower case letters to left of capital letters: B, body; C, coxa; E, epimera; G, gnathopod; I, inner plate or ramus; L, labium; M, mandible; O, outer plate or ramus; P, pereopod; R, uropod; S, maxilliped; T, telson; U, upper lip; X, maxilla; m = medial; r, right; s, setae removed; t, left.



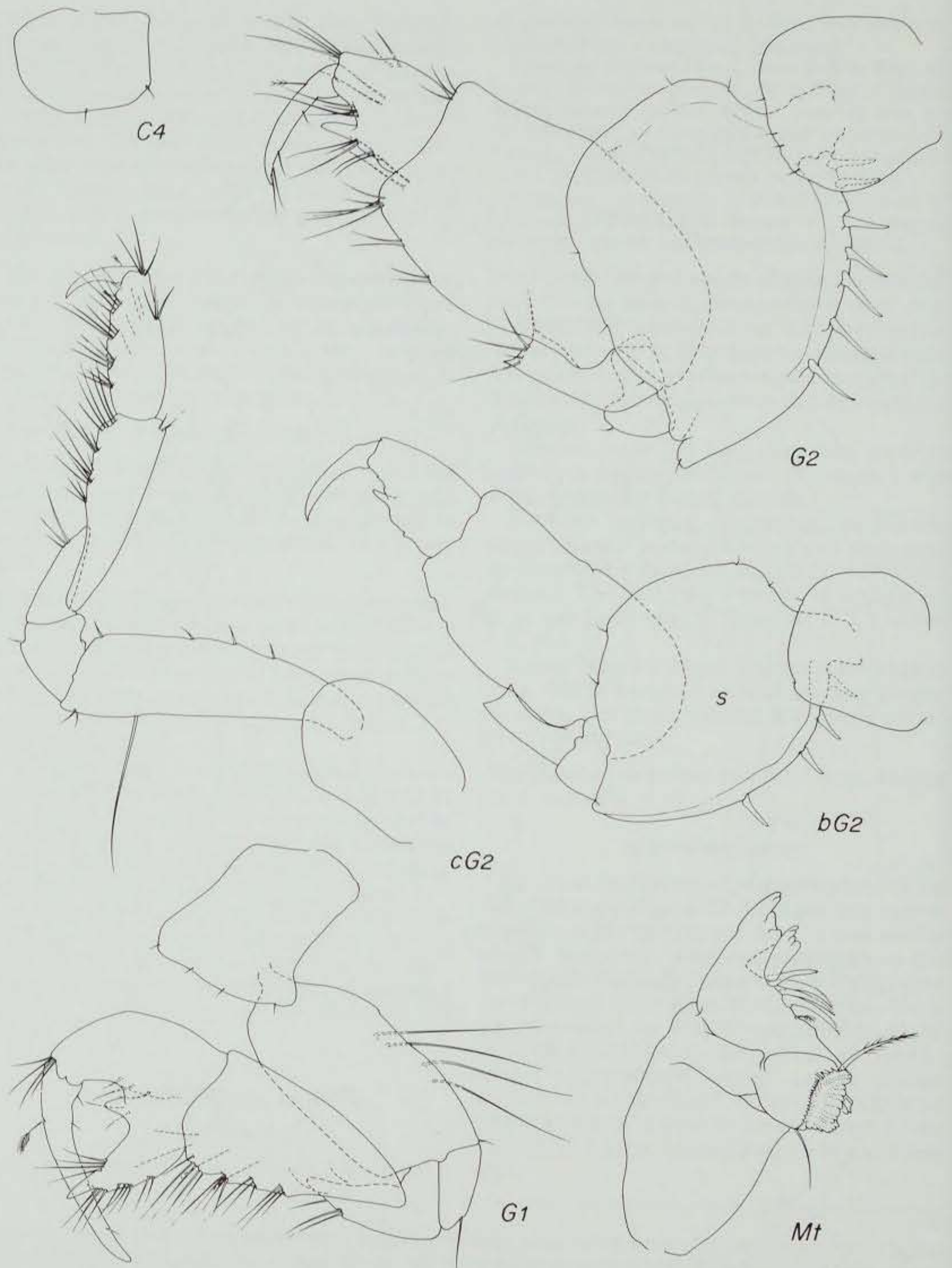


Figure 2. *Wombalano yerang*, unattributed figures = holotype male "a"; b = male "b"; c = female "c".

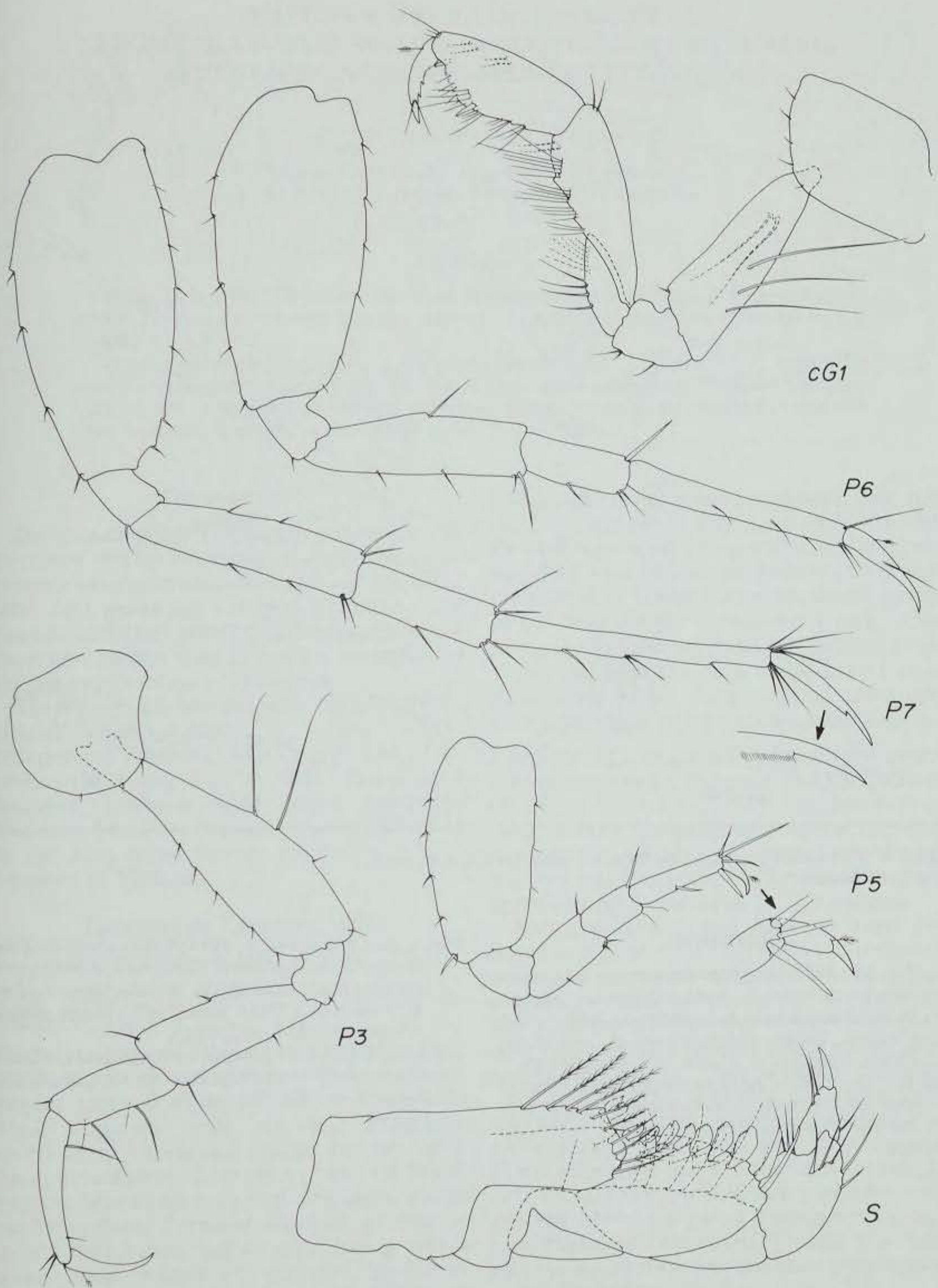


Figure 3. *Wombalano yerang*, unattributed figures = holotype male "a"; c = female "c".

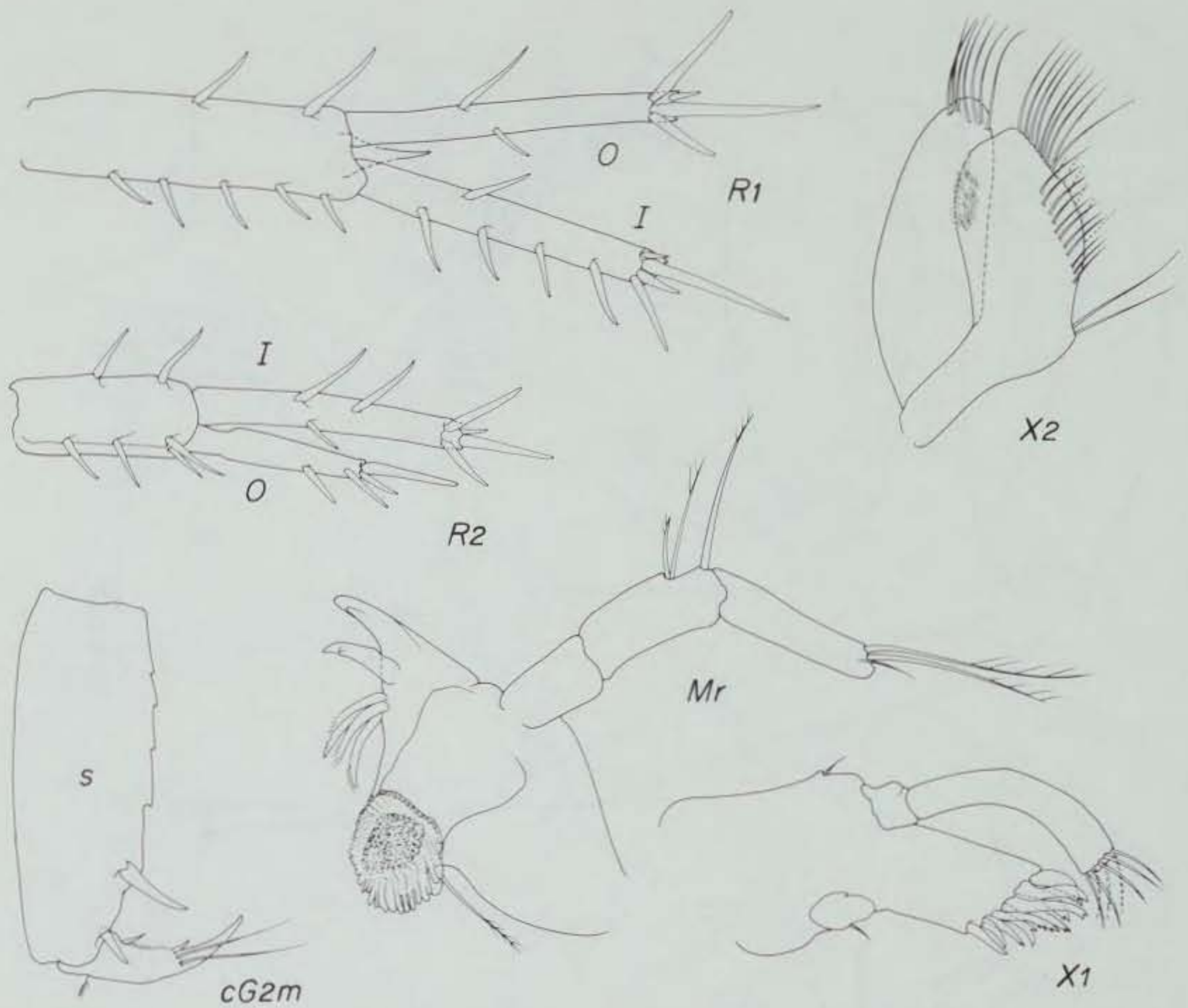


Figure 4. *Wombalano yerang*, unattributed figures = holotype male "a"; c = female "c".

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THREE NEW SPECIES OF *TENAGOMYSIS*
FROM THE COASTAL WATERS OF SOUTH-EASTERN TASMANIA
(CRUSTACEA: MYSIDAE: MYSINAE: LEPTOMYSINI)

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Abstract

Fenton, G.E., 1991. Three new species of *Tenagomysis* from the coastal waters of south-eastern Tasmania (Crustacea: Mysidae: Mysinae: Leptomysini). *Memoirs of the Museum of Victoria* 52: 325-335.

Tenagomysis australis sp. nov., *T. tasmaniae* sp. nov. and *T. bruniensis* sp. nov. from coastal south-eastern Tasmania are the first records of the genus from Tasmania and Australia. A key to differentiate them is presented. *Tenagomysis aseta*, previously described from Australia, is placed in the related genus *Australomysis*.

Introduction

During a study of Tasmanian coastal mysids three new species belonging to the genus *Tenagomysis* have been identified and are described here. This genus has not been recorded from Tasmanian waters before and the description of these new species is an important extension to the geographic range of the genus.

The following abbreviations are used for institutions where material is lodged: NMV, Museum of Victoria, Melbourne; TM, Tasmanian Museum, Hobart; QM, Queensland Museum, Brisbane; SAM, South Australian Museum, Adelaide. The abbreviation BSS refers to the Bass Strait Survey conducted by the Museum of Victoria.

***Tenagomysis* Thomson, 1900**

Tenagomysis Thomson, 1900: 483-484.

Type species. Tenagomysis novaezealandiae Thomson, 1900.

Diagnosis. Carapace short, exposing at least last pereonite, produced anteriorly into moderate frontal plate. Eyes well developed, pigment black. Antennal scale narrowly lanceolate, setose along lateral and medial borders; with distal articulation. Labrum without spiniform process. Mandibles with well-developed masticatory surface. Terminal segment of maxilla longer than broad, armed with strong spines along distal margin of endopod; setiferous endites and exopod. Carpo-propodus of thoracic endopods 3-8 subdivided into 2-14 subsegments. Pleopods of female rudimentary. Male pleopods well-developed, pleopod 1 with endo-

pod uniarticulate, exopod multiarticulate; pleopods 2-5 biramous, both rami multiarticulate. Exopod of pleopod 4 longer than endopod with modified setae on antepenultimate and penultimate articles. Telson triangular, lateral margins armed with spines throughout length, apical cleft armed with small closely-set spines and pair of plumose setae. Uropods: endopod with spines along inner margin; both endopod and exopod with setae along lateral and medial margins.

Remarks. This diagnosis combines the generic diagnoses given by Thomson (1900), Tattersall (1918, 1923) and Ii (1964), together with the modifications necessary after separation of two genera, *Iimysis* Nouvel, 1966 and *Nouvelia* Bacescu and Vasilescu, 1973, erected to accept species formerly included in *Tenagomysis*.

Although *Iimysis* and *Nouvelia* were diagnosed to reduce variability within *Tenagomysis* all three need extensive revision since most species descriptions, particularly of *Tenagomysis*, are incomplete. This needs to be carried out in conjunction with a revision of the closely allied genera *Doxomysis*, *Australomysis* Tattersall, 1927 and *Afromysis* Zimmer, 1916 with particular attention being given to the structure of the mouthparts, thoracic legs and male pleopods. For example, the shape of the terminal segment of the maxilla largely determines whether a species belongs in the genus *Tenagomysis* (longer than broad) or *Doxomysis* (broader than long) and yet this feature has not been described for many *Tenagomysis* species.

Iimysis is distinguished from *Tenagomysis* by the presence of a spinous process on the labrum and a 4-segmented tarsus (composed of 1 carpus,

2 propodal segments and 1 dactylus). *Iimysis* comprises two species formerly belonging to *Tenagomysis*: *I. orientalis* (Ii, 1937) and *I. atlantica* (Nouvel, 1942). *Nouvelia* is distinguished by the presence of a hiatus in the spination of the lateral margins of the telson and a 3-segmented tarsus (separate carpus, propodus and dactylus).

Nouvelia contains two former species of *Tenagomysis*: *N. natalensis* (Tattersall, 1952) and *N. nigeriensis* (Tattersall, 1957), and one previously in *Doxomysis* Hansen, *N. valdiviae* (Illig, 1906). Bacescu and Vasilescu (1973) also suggested that *T. similis*, a New Zealand species, may also belong to *Nouvelia* although the lateral margins of the telson have spines throughout their length. In 1975 Bacescu described a new species from Africa giving it only a subgeneric status, *Tenagomysis (Nouvelia) tanzaniana*. This species is however an unusual addition to either genus since it has a spine on the labrum, which is a diagnostic feature of the genus *Iimysis*. Therefore the status of this species needs to be reviewed.

Prior to the present study the genus *Tenagomysis* comprised nine species from New Zealand

and (a key for their identification is given by Tattersall, 1923) and *Tenagomysis (Nouvelia) tanzaniana* (discussed above) (Mauchline, 1980). In 1982 Bacescu and Udrescu described a new species, *T. aseta* from Queensland, Australia. The status of this species is revised here. The three new *Tenagomysis* species described here substantially increases the number of species known in the genus and provides an important extension to the geographic range of the genus.

The new species are easily distinguished from all other members of *Tenagomysis* by the presence of barbed spines on the terminal endopod of the maxilla. This feature has not been noted in other species but this may simply be due to the fact that the maxilla of many of the species in the genus has not been described, in spite of its taxonomic importance. In addition, it is worth noting that the penultimate article of the fourth male pleopod of the new species is very long in relation to the antepenultimate article. This has been noted in some but not all of the *Tenagomysis* species for which the fourth male pleopod has been described.

Key to the Australian species of *Tenagomysis*

1. Carpo-propodus of endopod of pereopod subdivided into 5 articles. Antennal scale very long, 15 times as long as broad *T. australis* sp. nov.
- Carpo-propodus of endopod of pereopod subdivided into 3 articles. Antennal scale less than 10 times as long as broad 2
2. Lateral margins of telson with spines on distal half elongated. Exopod of male pleopod 4 of 9 articles. Carpo-propodus of endopod of pereopod with transverse articulations *T. bruniensis* sp. nov.
- Lateral margins of telson with spines of uniform size. Exopod of male pleopod 4 of 7 articles. Carpo-propodus of endopod of pereopod with an oblique and transverse articulations *T. tasmaniae* sp. nov.

Tenagomysis australis sp. nov.

Figures 1-9

Material examined. Holotype: One Tree Point, Bruny Island, Tasmania (43°07'S, 147°23'E), 3 m, R. Holmes and G. Fenton, 15 Nov 1982, TM G2806 (male, 12.3 mm long).

Paratypes: collection details as for holotype, TM G2807 (5 females, 5 males).

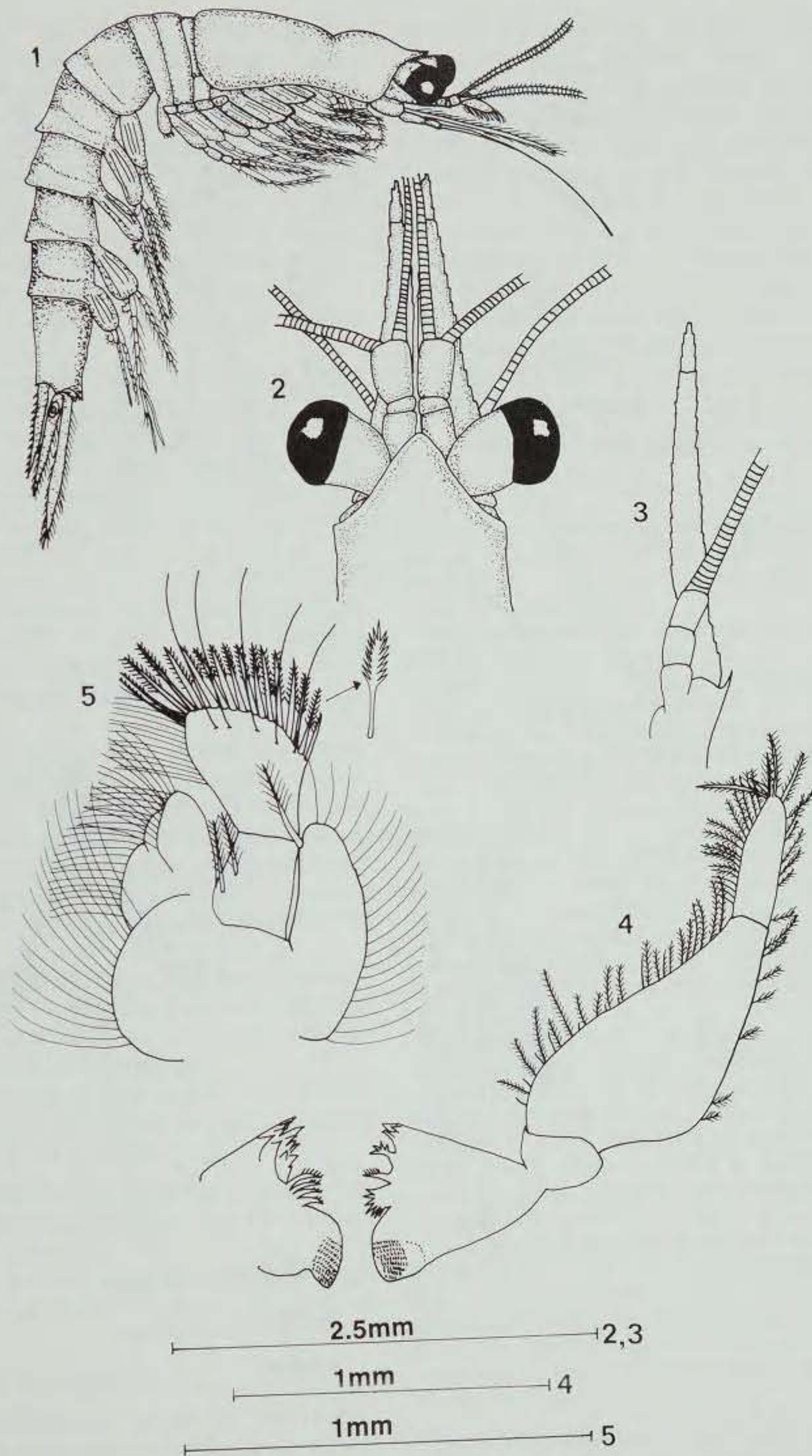
Other material. Tasmania. Granville Harbour, West Coast, R. Holmes, 14 Jan 1983, TM G3407. Hope Beach, South Arm, 43°03'S, 147°25'E, R. Mawbey, R. Holmes, G. Fenton, 12 Dec 1984, TM G3408. Variety Bay, Bruny Island, D. Cropp, 7 Mar 1983, 3 m, TM G3409.

Bass Strait. 39°33'S, 144°21'E, 27 m, fine sand, epibenthic sled (stn BSS-108), NMV J5444. 40°31'S,

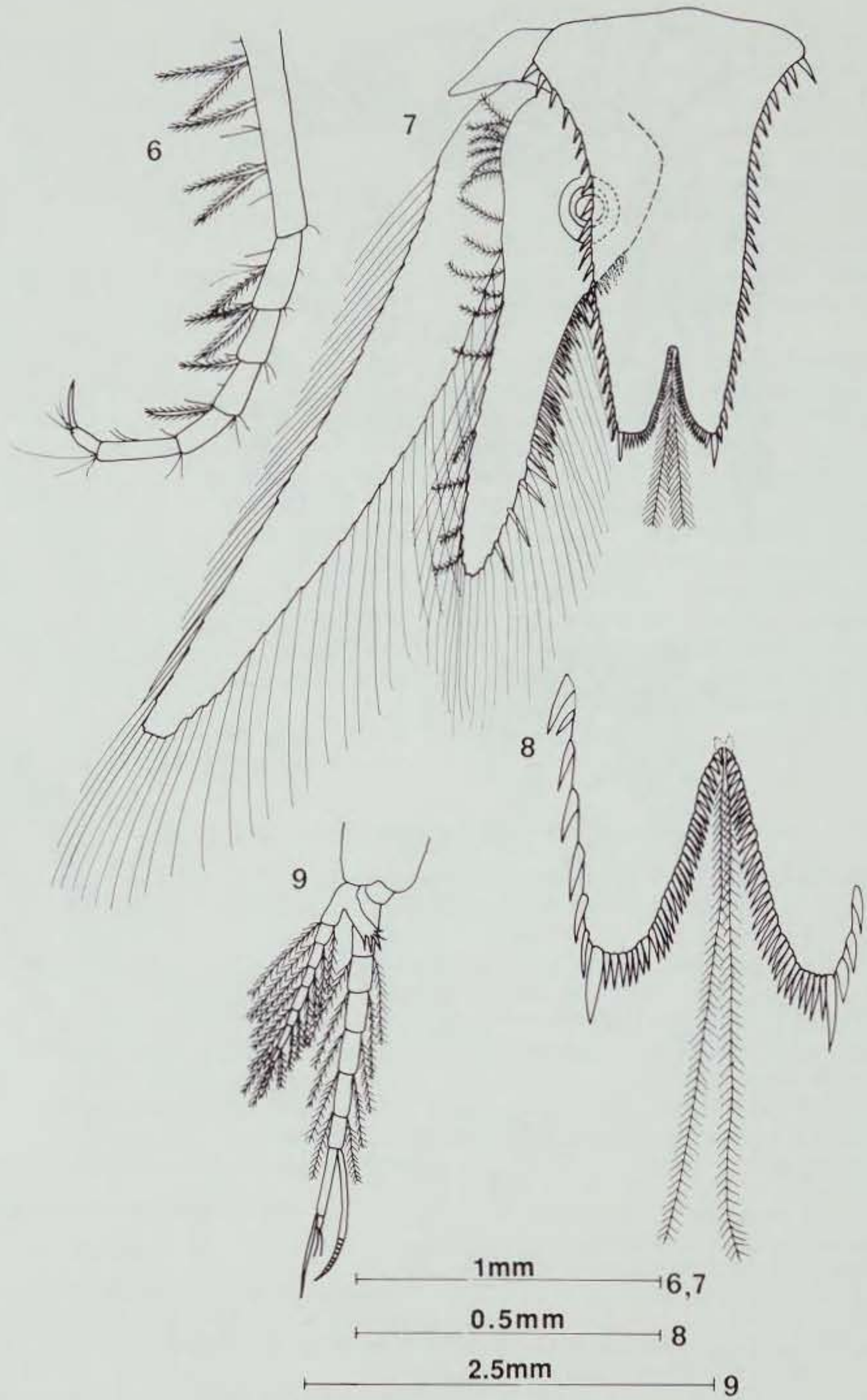
145°17'E, 40 m, sand, epibenthic sled (stn BSS-111), NMV J5403. 37°50'S, 148°40'E, 26 m, medium sand, epibenthic sled (stn BSS-208), NMV J9522. 38°15'S, 147°22'E, 16 m, clean sand with limestone reef outcrops, epibenthic sled (stn BSS-212), NMV J9510.

South Australia. Whiting ground off Outer Harbour, sand and weed, 6 m, SAM TC3985.

Description. (Description of male holotype with female characters from paratypes). Carapace short, leaving last 2 pereonites exposed; produced in front into acute rostrum extending almost to end of article 1 of antennular peduncle; anterolateral edges rounded (Fig. 1). Eyes elongate extending to article 3 of antennular peduncle (Fig. 2). Cornea black, occupying



Figures 1-5. *Tenagomysis australis* sp. nov. Holotype, adult male, 12.3 mm in length: 1, lateral view; 3, antennal scale; 4, mandibles and mandibular palp; 5, maxilla.
 Adult female (paratype): 2, anterior region.



Figures 6–9. *Tenagomysis australis* sp. nov. Holotype, adult male, 12.3 mm in length: 6, carpo-propodus of endopod of pereopod 3; 7, telson and uropods; 8, apical cleft of telson; 9, male pleopod 4.

slightly less than half in dorsal view. Antennal scale narrow, 15 times as long as broad; lateral and medial borders setose (Fig. 3); twice as long as antennular peduncle.

Labrum rounded, no spiniform process present. Mandibles with well-developed masticatory surface (Fig. 4). Distal article of maxilla bears approximately 15 strong barbed spines; setiferous endites and exopod normal (Fig. 5).

Carpo-propodus of endopod of pereopods 3–8 subdivided into 5 articles, terminating in long slender nail (Fig. 6).

Telson subtriangular, twice as long as basal width; cleft occupying approximately one-quarter of total telson length (Fig. 7). Lateral borders of telson with at least 20 spines; each apical lobe bearing 1 large spine; cleft lined with approximately 30 spines and 2 long plumose setae at base of cleft (Fig. 8).

Uropods: endopod slightly longer than telson; 45 stout spines bordering inner edge, extending from statocyst nearly to apex (Fig. 7). Exopod approximately 1.75 times as long as telson. Both endopod and exopod setose along lateral and medial borders.

Male pleopods: Pleopod 1 uniramous, pleopods 2–5 biramous. Pleopod 4 elongate, extending backwards to distal end of telson, exopod long and modified, of 8 articles; article 6 bearing 1 strong seta, article 7 more than twice as long as article 6, bearing similar but smaller seta; article 8 small, terminating with 2 smaller curved setae (Fig. 9).

Female brood pouch of 3 pairs of lamellae.

Pigmentation of body: Dark brown–black in life, but fading in formalin leaving distinct pigmented areas between pleonites.

Body fairly robust. Adult length: 11–18 mm, measured from the tip of the rostrum to the end of the exopod of the uropod.

Ecology. This species has been the subject of an ecological and feeding study at One Tree Point, Bruny Island (Fenton, 1985). It has been recorded from several sites in Tasmania, Bass Strait and from at Outer Harbour, South Australia.

Etymology. For Australia.

Remarks. *Tenagomysis australis* is distinguished from all other species in the genus by the long antennal scales. Only *T. chiltoni* W.M. Tattersall, 1923 and *T. novaezealandiae* Thomson, 1900 also have very long antennal scales (twice the length of the antennular peduncle). However, both these species have an acute spine

on each anterolateral margin of the carapace (Tattersall, 1923; Hodge, 1964), whereas in *T. australis* this margin is rounded. In addition, the carpo-propodus of the endopod of pereopods 3–8 is of 5 articles in *T. australis* and only 3 and 4 in *T. novaezealandiae* and *T. chiltoni* respectively. *T. chiltoni* is further distinguished by the presence of a prominent spine on the outer margin of the mandible beyond the base of the palp.

T. brunensis sp. nov., described below, also has very long antennal scales but the armature of the telson, number of articles forming the pereopods and exopod of pleopod 4 clearly distinguish the two species.

Tenagomysis tasmaniae sp. nov.

Figures 10–18

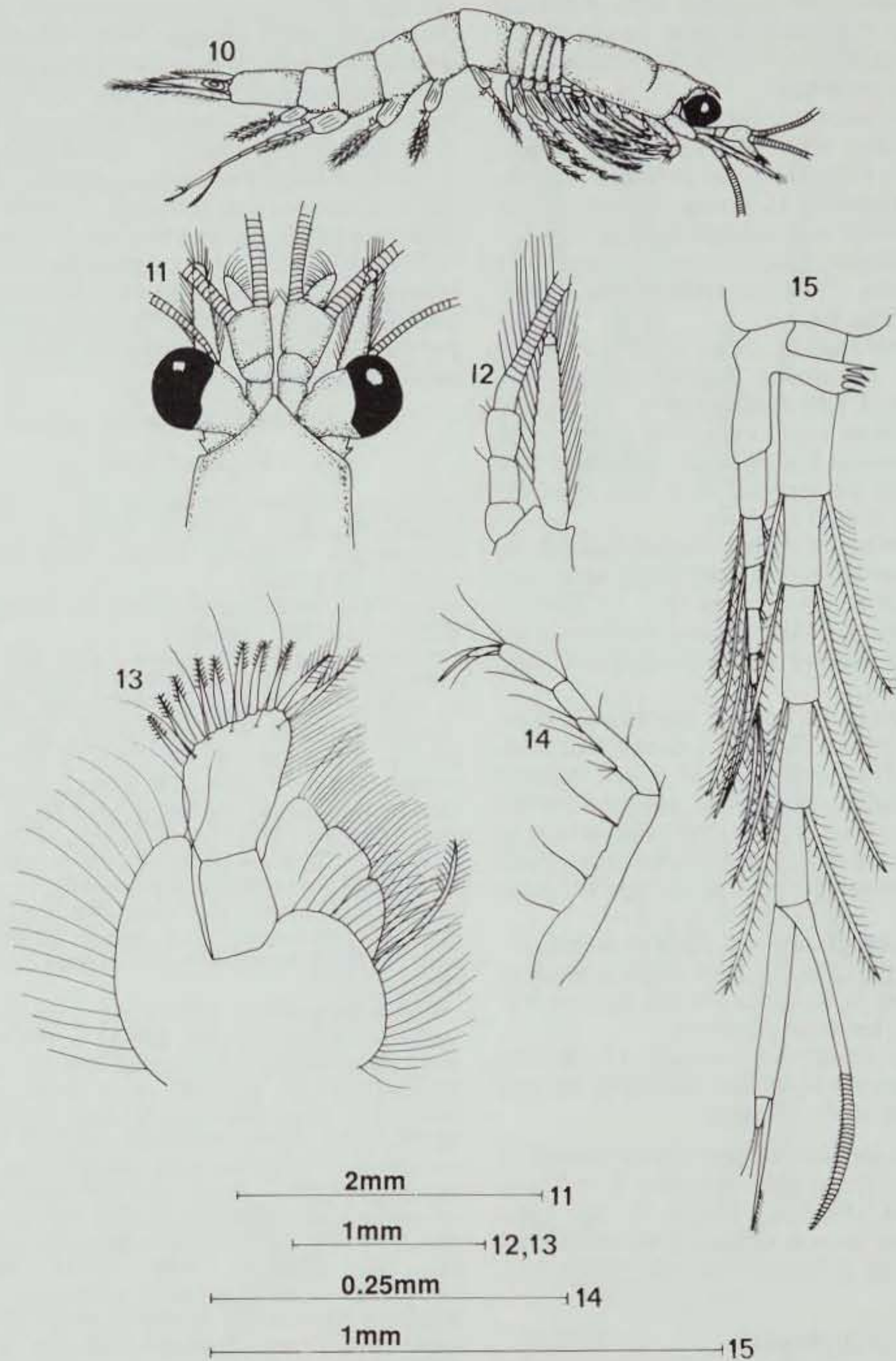
Material examined. Holotype: One Tree Point, Bruny Island, Tasmania (43°07'S, 147°23'E), 3 m, R. Mawbey and G. Fenton, 15 Nov 1982, TM G2808 (male, 9.3 mm long).

Paratypes: collection details as for holotype, TM G2809 (5 females, 5 males).

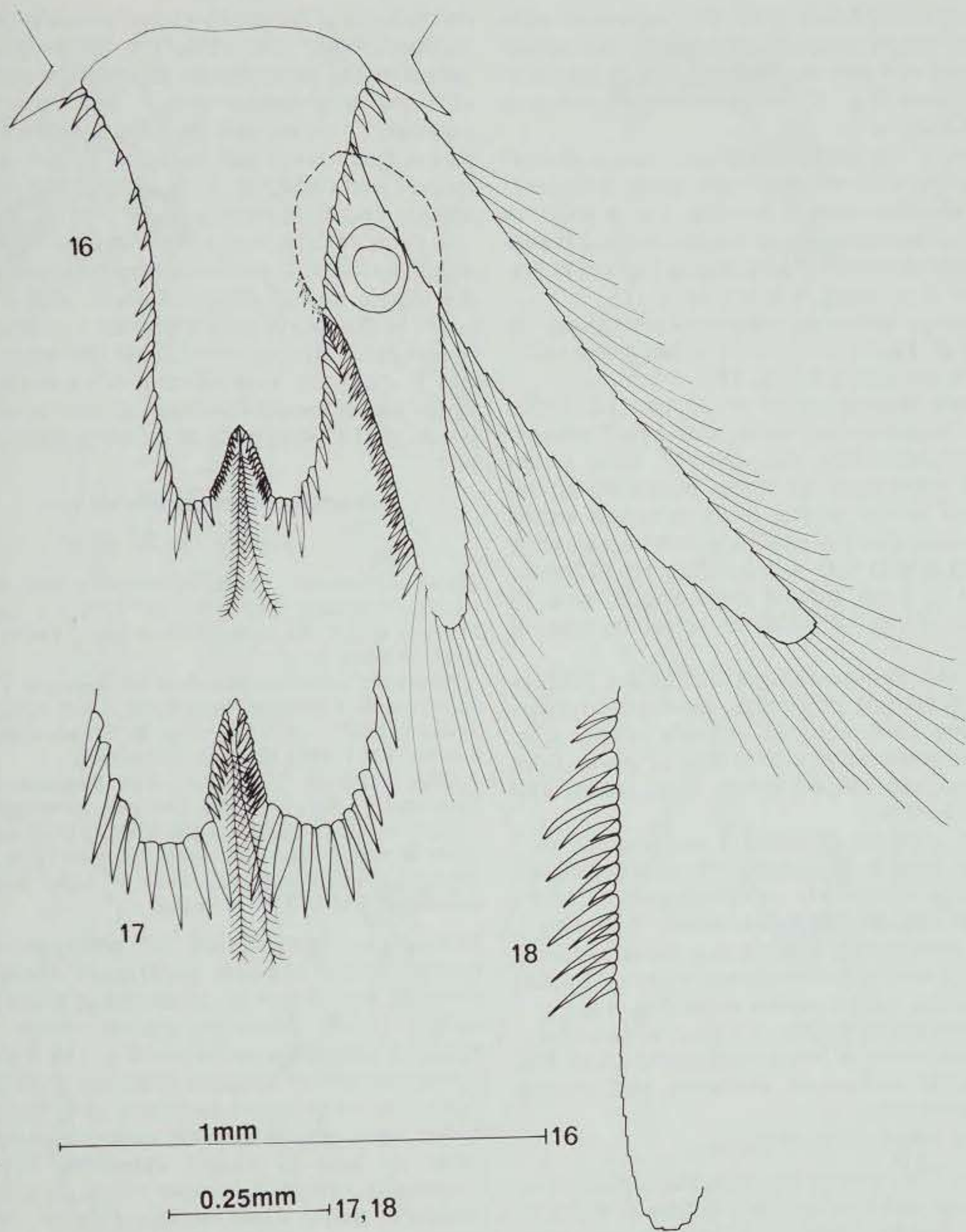
Other material. Tasmania: Partridge Island, D'Entrecasteaux Channel, 29 Nov 1983, R. Mawbey, R. Holmes and G. Fenton, TM G3410. Blow-hole, Tasman Peninsula, 27 Nov 1983, R. Mawbey, TM G3411. Greenhead, 28 Nov 1983, R. Mawbey, R. Holmes and G. Fenton, TM G3412. Sandspit Pt, Schouten Island, 11 Feb 1983, R. Mawbey, R. Holmes and G. Fenton, TM G3413. Tin Pot Pt, 22 Nov 1983, R. Mawbey, R. Holmes and G. Fenton, TM G3414. Spring Beach near Orford, 9 June 1977, 20 m, sandy bottom, A.J. Dartnall, Van Veen Grab, TM G 3334 (1 male). Little Swanport, sandy bottom off entrance, 8 June 1977, A.J. Dartnall, Van Veen Grab, TM G3333 (1 juv.).

Bass Strait: 40°40'S, 145°15'E, 32 m, medium shelly sand, epibenthic sled (stn BSS-115), NMV J5442. 39°48.6'S, 146°18.8'E, 82 m, shell bryozoa mud, epibenthic sled (stn BSS-158, NMV J5412. 39°46'S, 148°18.8'E, 80 m, shell bryozoa mud, (stn BSS-159), NMV J5417, J5446. 40°43.8'S, 148°37.2'E, 67 m, muddy very fine bryozoa shell, Smith-McIntyre Grab (stn BSS-164, NMV J5379. 40°13.8'S, 148°39.6'E, 60 m, muddy sand, epibenthic sled (stn BSS-165), NMV J5394. 39°49'S, 143°24'E, 56 m, fine sand, epibenthic sled (stn BSS-184), NMV J5411. 39°08.3'S, 144°43.9'E, 66 m, sandy shell, epibenthic sled (stn BSS-201), NMV J5404. 39°00.2'S, 144°33.9'E, 74 m, sandy shell, Smith-McIntyre Grab (stn BSS-202), NMV J5449.

Description. (Description of male holotype with female characters from paratypes). Carapace short leaving last 3 pereonites exposed; front margin produced into short acute rostrum (Fig. 10). Anterolateral margins of carapace rounded. Eyes extending to article 1 of antennular ped-



Figures 10–15. *Tenagomysis tasmaniae* sp. nov. Holotype, adult male, 9.3 mm in length: 10, lateral view; 11, dorsal view of anterior; 12, antennal scale; 13, maxilla; 14, carpo-propodus of endopod of pereopod 3; 15, male pleopod 4.



Figures 16–18. *Tenagomysis tasmaniae* sp. nov. Holotype, adult male, 9.3 mm in length: 16, telson and uropods; 18, arrangement at spines on inner margin of endopod of uropod.
 Female paratype: 17, apex of telson.

uncle. Cornea black (Fig. 11). Antennal scale approximately 5 times as long as broad, setose all round and only slightly longer than antennular peduncle (Fig. 12). Male antennular peduncle with hirsute lobe.

Labrum rounded, spiniform process absent. Mandibles with well-developed masticatory surface. Maxillule simple bearing 3 long setae on proximal endite amongst smaller setae. Maxilla with approximately 8 large barbed spines at distal end of terminal endopod (Fig. 13).

Carpo-propodus of endopod of pereopods 3–8 subdivided into 3 articles by 2 transverse and 1 oblique articulation (Fig. 14).

Telson subtriangular in shape, 1.5 times longer than its basal width, apical cleft occupying approximately one-sixth of total telson length, more than 20 spines bordering lateral edges of telson. Apical lobes of telson armed with 1 long and 3–4 smaller spines in male (Fig. 16), but armed with 4–6 equal spines in female (Fig. 17). Each side of cleft armed with 10 smaller spines; 2 plumose setae at base of cleft.

Uropods: endopod longer than telson; 40 stout spines bordering inside edge, arranged in triplets extending from statocyst virtually to apex (Fig. 18). Exopod nearly twice as long as telson. Both endopod and exopod setose along lateral and medial borders.

Male pleopods: Pleopod 1 with exopod of 7 articles, pairs 2–5 biramous. Pleopod 4 elongate, extending posteriorly to distal end of telson; exopod long, of 7 articles, article 5 bearing 1 strong seta; article 6 twice as long as article 5, bearing a similar but smaller seta; article 7 small terminating with 2 simple setae (Fig. 15).

Female brood pouch of 3 pairs of lamellae.

Pigmentation of body: confined to small dots on ventral surface of abdomen, still present when preserved.

Adult length: 7–11 mm.

Ecology. This species has been the subject of an ecological and feeding study at One Tree Point, Bruny Island (Fenton, 1985). It has been recorded from several sites in Tasmania and from Bass Strait.

Etymology. For Tasmania.

Remarks. *Tenagomysis tasmaniae* can be distinguished from other species in the genus by the presence of an oblique articulation separating the carpus from the propodus. However, *T. tasmaniae* is allied to *T. novaezealandiae*, *T. macropsis* W.M. Tattersall, 1923, *T. robusta* W.M. Tattersall, 1923 and *T. bruniensis* sp. nov.

on the basis of the number of articles forming the carpo-propodus. Nevertheless, the presence of spines on the anterolateral edges of the carapace of *T. novaezealandiae* and *T. macropsis* easily separate *T. tasmaniae* from these species. The robust body form and subequal length of the exopod and endopod of the uropod separate *T. robusta* and *T. tasmaniae*.

T. bruniensis sp. nov. (described below) is distinguished from *T. tasmaniae* by the armature of the telson, size of antennal scales and articulation of the fourth male pleopod. *T. tasmaniae* is also easily distinguished from the larger species *T. australis*, with which it often co-occurs, by the size of the antennal scales, and the articulation of the pereopods and fourth male pleopod.

Tenagomysis bruniensis sp. nov.

Figures 19–26

Material examined. Holotype: Moorina Bay, Bruny Island, Tasmania (43°14'S, 147°23'E), 3 m, R. Mawbey and R. Holmes, 30 June 1981, TM G3320 (male, 9.6 mm long).

Paratypes: collection details as for holotype, TM G 3321 (1 male, 1 female); Hope Beach, South Arm, Tasmania (43°03'S, 147°25'E), 3 m, R. Mawbey and G. Fenton, TM G3322 (5 males, 2 females).

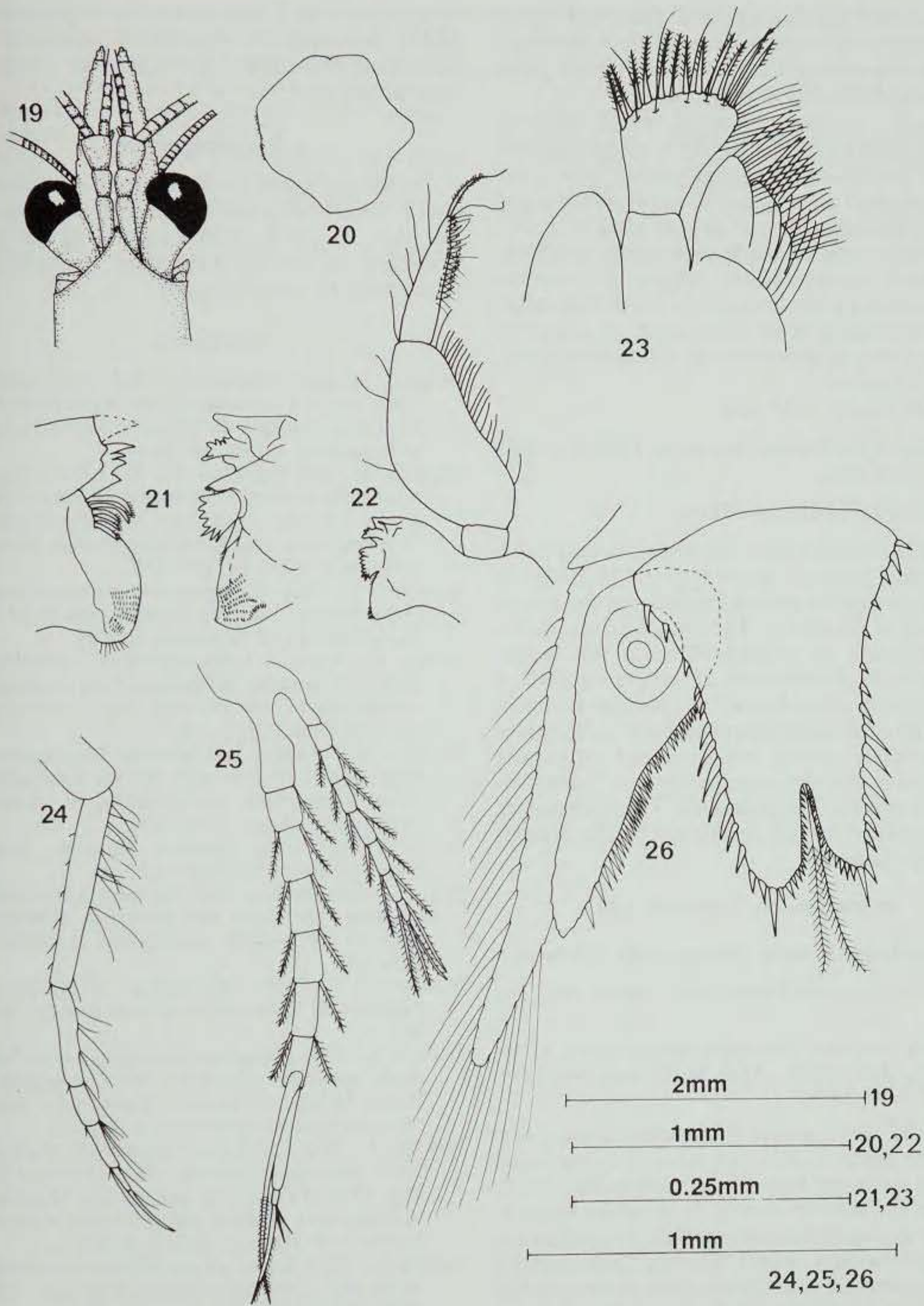
Other material. Tasmania: Little Swanport Bay, East coast, 16 Nov 1978, A.J. Dartnall, surface plankton haul at night with moonlight, TM G 3335 (1 male). Little Swanport Bay, East coast, 16 Nov 1978, A.J. Dartnall, surface plankton haul at night without moonlight, TM G 3336 (1 male).

Description. (Description of holotype with female characters from paratypes). Carapace exposing last pereonite; produced in front into acute rostrum, extending approximately half length of antennular peduncle (Fig. 19). Anterolateral margins of carapace rounded. Eyes elongated, cornea occupies one-third of eyestalk in dorsal view. Antennal scale approximately 10 times as long as broad; extending beyond antennular peduncle, almost twice as long as peduncle; with small terminal joint. Male appendage bears brush of setae.

Labrum rounded, spiniform process absent (Fig. 20). Mandible with well-developed masticatory surface (Figs 21, 22). Maxilla with 12 barbed spines and 5 elongated setae on distal end of terminal endopod (Fig. 23).

Carpo-propodus of endopod of pereopods 3–8 subdivided into 3 articles, dactylus terminating in long slender nail (Fig. 24).

Male pleopods: Pleopod 1 uniramous, pleopods 2–5 biramous. Pleopod 4 (Fig. 25) elongated, exopod almost twice as long as endopod.



Figures 19–26. *Tenagomysis bruniensis* sp. nov. Adult female paratype: 19, anterior region. Holotype, male, 9.6 mm: 20, labrum; 21, mandibles; 22, mandible with mandibular palp; 23, maxilla; 24, carpo-propodus of endopod of pereopod 3; 25, male pleopod 4; 26, telson and uropods.

Exopod of 9 articles; article 7 bearing 1 strong seta; article 8 twice as long as article 7, bearing 1 similar but smaller seta; article 9 bearing 2 simple setae. Endopod of 8 articles.

Telson 1.5 times as long as broad, approximately same length as pleonite 6; spines on lower half of lateral edges unusually long. Each apical lobe bearing 1 large spine; 18 small spines lining cleft; 2 plumose setae at base of cleft (Fig. 26).

Uropods: exopod nearly twice length of telson. Endopod three-quarters length of exopod, approximately 40 stout spines bordering inside edge, extending from near apex to statocyst. Exopod and endopod setose along lateral and medial borders.

Adult length: 9–11 mm.

Ecology. This species has been recorded only from Tasmania.

Etymology. For Bruny Island.

Remarks. *Tenagomysis brunensis* is easily distinguished from all other members of the genus by the elongated spines present on the lateral margins of the telson. The long antennal scales and number of articles forming the carpopodus of the endopod of the pereopods 3–8 are similar to those found in *T. novaezealandiae*. However, the anterolateral edges of the carapace of the latter species are produced into acute spines, whereas they are rounded in *T. brunensis*. The species *T. australis* and *T. tasmaniae* are distinguished from *T. brunensis* for the reasons already discussed.

Australomysis Tattersall, 1927

Australomysis aeta (Băcescu and Udrescu)

Tenagomysis aeta Băcescu and Udrescu, 1982: 89–91.

Material examined. Holotype, Middle Banks, Moreton Bay, Queensland, 105 m, sandy mud, Sep 1973, QM W11248 (male).

Remarks. This species is excluded from *Tenagomysis* since it does not have plumose setae arising from the base of the cleft of the telson (hence the specific name). It is more correctly placed in *Australomysis* in which these setae are characteristically absent. Băcescu (pers. comm.) is in agreement with the decision to remove the species to *Australomysis*. As to whether *T. aeta* should be considered a distinct species of *Australomysis* is more difficult. It is clearly closely allied to, if not synonymous with, *A. incisa* (G.O. Sars, 1885). The facts that the holotype of *T. aeta* is in very poor condition and that both

descriptions of *A. incisa* are incomplete (Sars, 1885; Tattersall, 1927) make it impossible to determine the status of *T. aeta* in the genus *Australomysis*.

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