

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 corophioid (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 corophioid 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 mediofacial 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 ventrodistal 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 Ncomegamphopidae) 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.

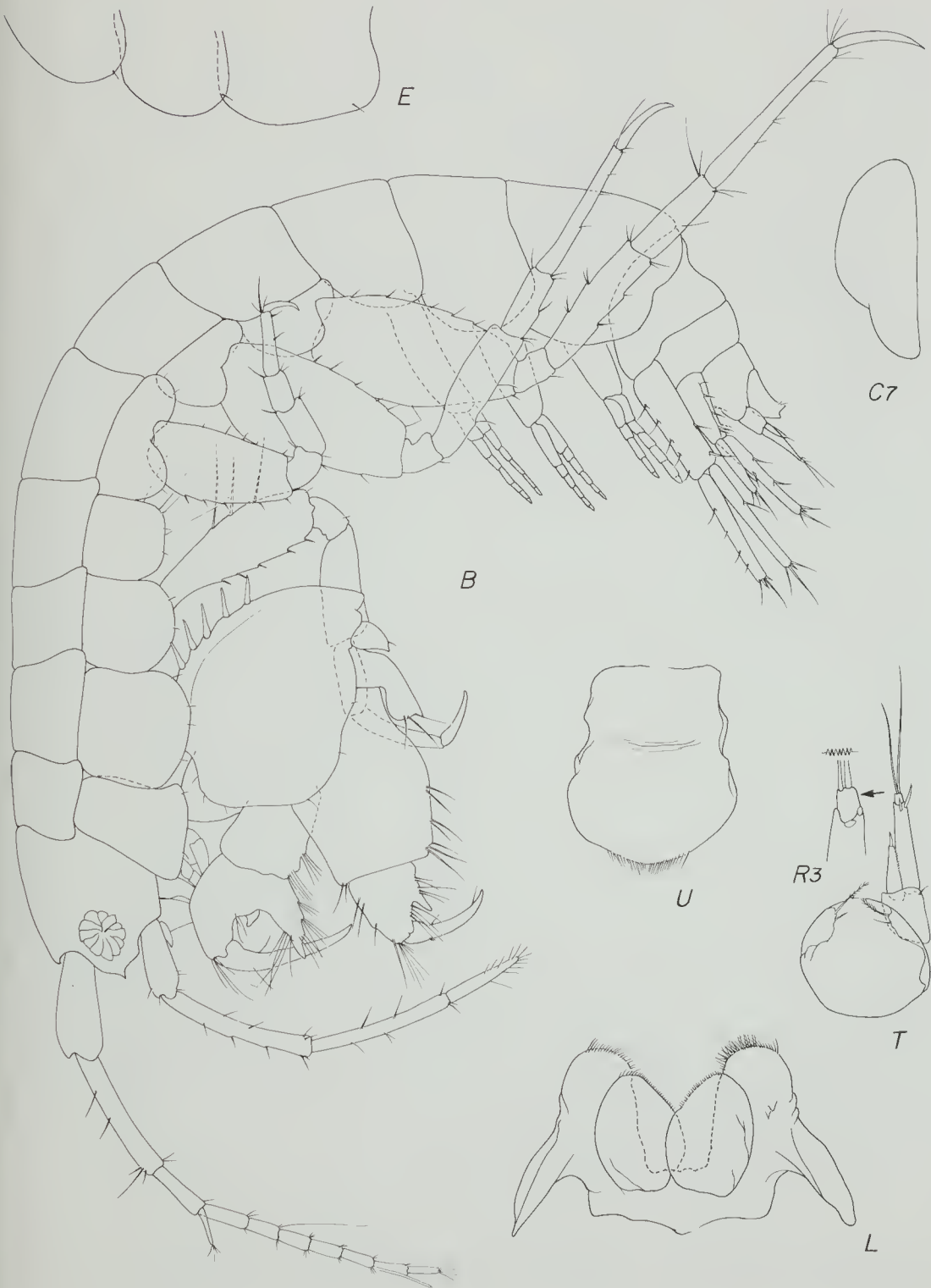
Female: Coxa 2 longer and narrower than in male, with 5 marginal setae; oostegites present on coxae 3–5, thin, elongate, marginally setose, all of similar size.

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

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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; l, 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.



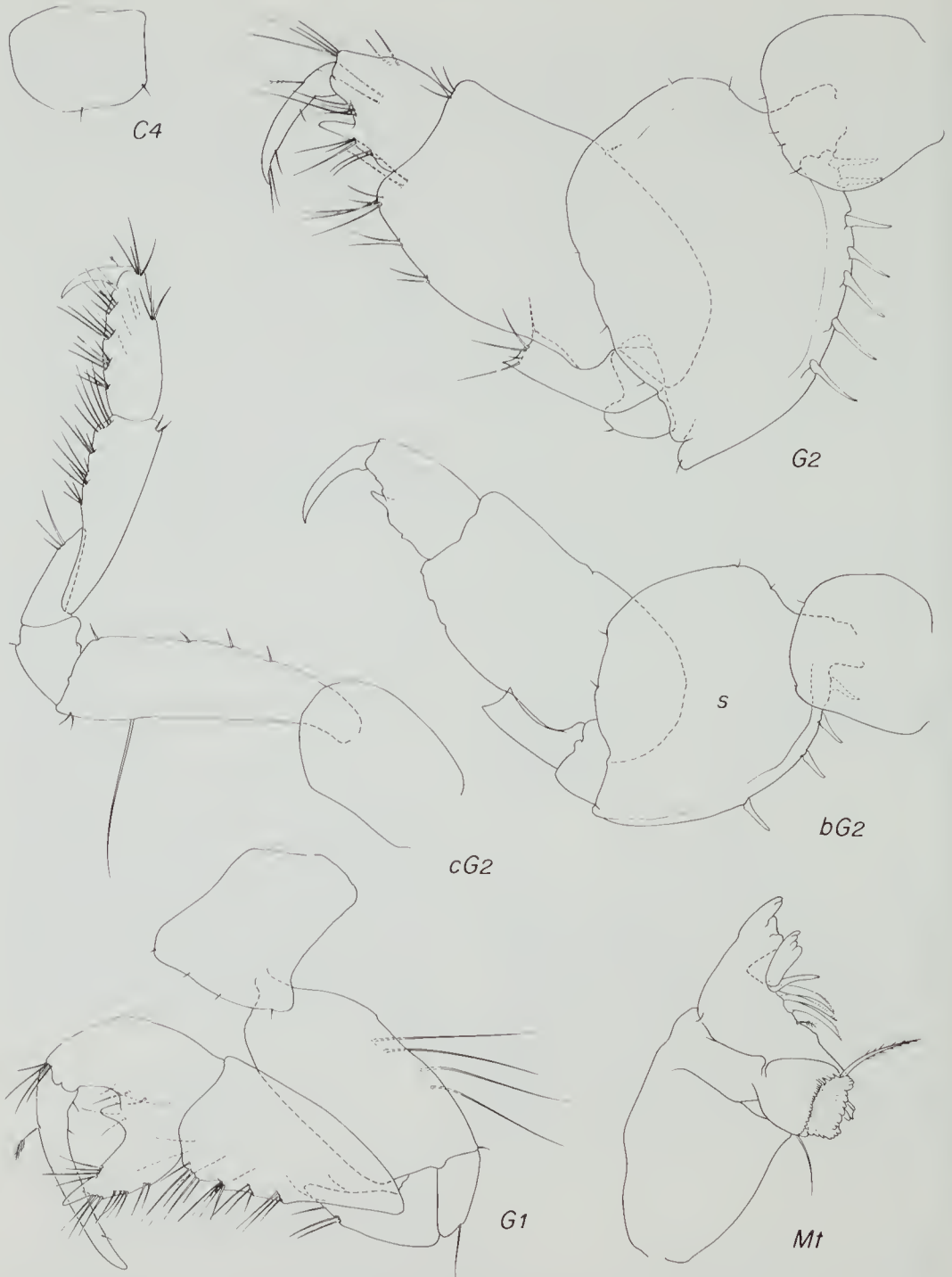


Figure 2. *Wombalano yerang*, unattributed figures = holotype male "a"; b = male "b"; e = female "c".

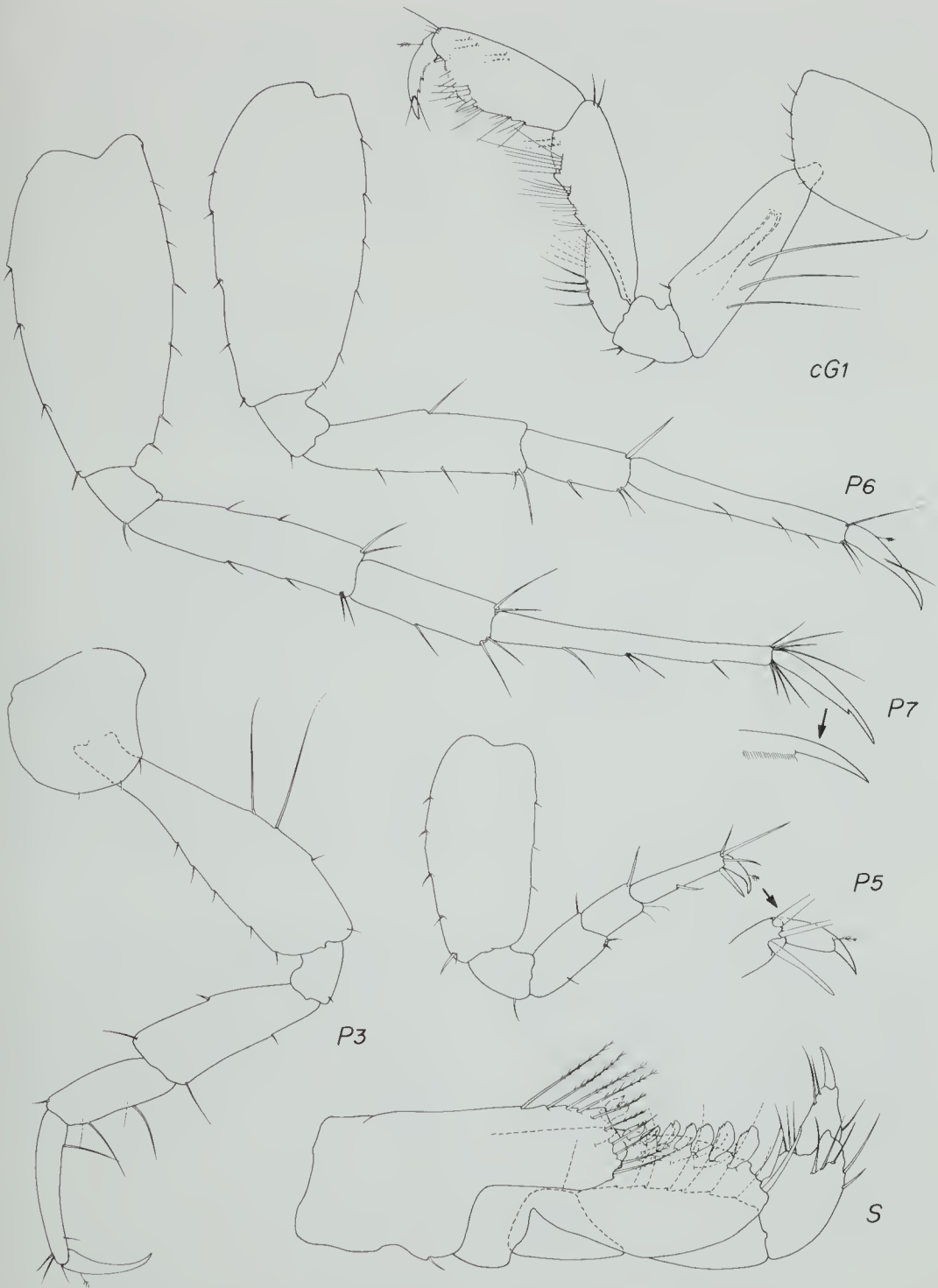


Figure 3. *Wombalano yerang*, unattributed figures = holotype male "a"; e = female "e".

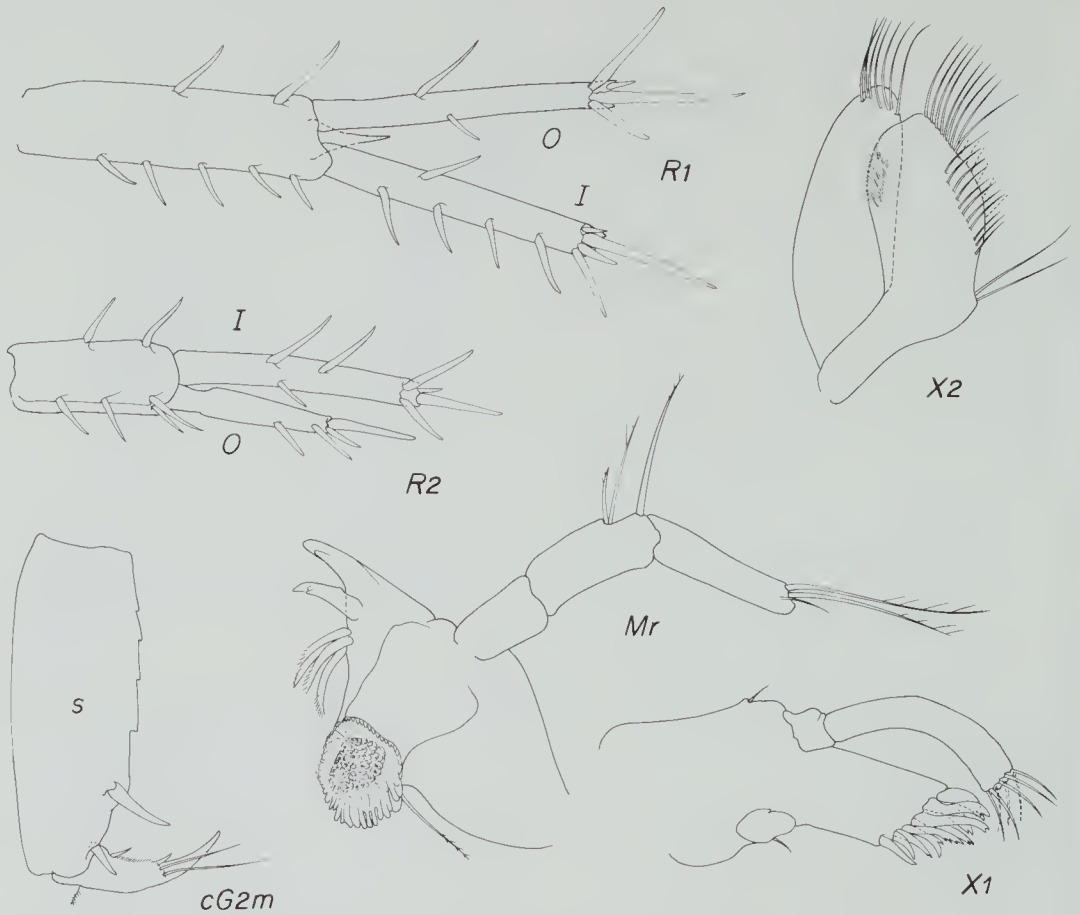


Figure 4. *Wombalano yerang*, unattributed figures = holotype male "a"; c = female "c".

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