

***Braga amapaensis* n. sp. (Isopoda: Cymothoidae) a mouth cavity
parasite of the Amazonian fish, *Acestrorhynchus guyanensis*
MENEZES, with a redefinition of the genus *Braga***

by

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Abstract

Braga amapaensis n. sp. (Isopoda, Cymothoidae) is described from the mouth cavity of the fish, *Acestrorhynchus guyanensis* MENEZES taken in the Brazilian state of Amapá. The new species is characterized as having: a non-immersed truncate cephalon which is dorsally concave; antennal bases that are far apart; subrectangular mandibles; a short pleon; elongate pereopods and multilaminar pleopods. The new form appears to be host specific and is smaller than the other known species of *Braga*. The genus *Braga* is redefined.

Keywords: Isopod, cymothoid, fish parasite, Amazon, Brazil.

Resumo

Braga amapaensis n. sp. (Isopoda, Cymothoidae) é descrita da cavidade bucal de um peixe, *Acestrorhynchus guyanensis* MENEZES, procedente do estado brasileiro de Amapá. A nova espécie caracteriza-se por ter: um cefalão truncado, dorsalmente concavo e que não é metido no primeiro perionito; bases das antenas que são bem separadas; mandíbulas semi-quadradas; um pleon curto; pereópodos cumpridos e pleópodos multilaminados. A forma nova parece ser bastante específica quanto ao hospedeiro e também é menor que as outras espécies de *Braga*. O género *Braga* é redefinido.

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Parasitic isopods of the family Cymothoidae occur largely on inshore marine fishes and are more common in the warmer oceans of the world. There are no such parasites known from freshwater fish of either North America or Europe. Only four freshwater cymothoids are known from Africa but there are at least 23 species on South American freshwater fish (THATCHER 1991).

The genus *Braga* currently contains four species, namely: *B. cichlae* SCHIÖDTE & MEINERT, 1881; *B. fluviatilis* RICHARDSON, 1911; *B. nasuta* SCHIÖDTE & MEINERT, 1881; and *B. patagonica* SCHIÖDTE & MEINERT, 1884, according to LEMOS DE CASTRO (1959), LEMOS DE CASTRO & LOYOLA E. SILVA (1985) and TRILLES (1973). These species are among the commonest cymothoids found in South America and are apparently restricted in their distribution to habitats within the eastern drainage (THUN & BRUSCA 1980). Additionally, the name *B. bachmanni* was proposed by SADLER (1972) for specimens from loricariid catfish of Argentina. Since the latter author did not give any description of the mouthparts, pereopods or pleopods, it is not possible to know if his specimens belong to *Braga*. THATCHER (1995) pointed out the multilaminar nature of the pleopods of the species of *Braga*. This observation is used herein to redefine the genus.

Systematic Section
Isopoda
Cymothoidae
***Braga* SCHIÖDTE & MEINERT, 1881**

Generic diagnosis: Female: Body about two times longer than wide; dorsum convex; symmetrical. Cephalon not immersed in first pereonite; front margin obtuse, truncate or acute; antennal bases well separated. Pereonite 1 two to three times longer than 7; 5 and 6 shorter than 2-5; coxae compact, not extending beyond respective pereonites. Mouthparts: Mandibles subrectangular, lacking incisors; maxillae bilobed, with two recurved spines on each lobe. Pleon slightly immersed in pereonite 7; pleonites produced laterally. Pereopods long; 7th pair frequently longer than others. Uropods short; endopod shorter than exopod. Pleopods multilaminar: pleopod 1 of two lamellae; 2 of four and 3-5 of three lamellae each. Pleotelson shield-like, not keeled.

Male: similar to female but smaller and less convex dorsally; appendix masculinum more slender.

Habitat: over tongue or in branquial chamber of South American freshwater fish.

Type species: *Braga nasuta* SCHIÖDTE & MEINERT, 1881.

***Braga amapaensis* n. sp. (Figs. 1-25)**

Host: *Acestrorhynchus guyanensis* MENEZES. (Characidae)

Site: Mouth of host, over tongue.

Locality: Capivara Falls, Upper Araguari River, Amapá State, Brazil.

Holotype ♀: Crustacean Collection, Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, AM, Brazil. (INPA-CR-648) cols. M. JÉGU & C. MAGALHÃES.

Paratypes (4 ♀♀ & 4 ♂♂): Crustacean Collection INPA (INPA-CR-649 a-h).

Etymology: The species name is in reference to Amapá State where the specimens were collected.

Species diagnosis (based on 4 ♂♂ & 4 ♀♀; measurements in Table 1). Female (Figs. 1-3, 7): body nearly twice as long as wide, widest at level of pereonites 5 or 6, pereon convex, highest at pereonites 3 or 4; body yellowish-tan, with tiny black melanophores. Cephalon not immersed in pereon, pointed forward

(not bent downward), front margin truncate. Antennae and antennules (Figs. 8, 9) subequal in length; antennules slightly compressed, composed of 7 articles; antennae subcylindrical, of 7 articles.

Mouthparts (Figs. 4-6, 10, 18-19); Mandibles (Fig. 10) subrectangular, palp short; maxillae (Fig. 4) bilobed with two terminal recurved spines on each lobe; maxillules (Fig. 5) with three terminal and two subterminal recurved spines; labium (Fig. 6) with lobes attached to mandibles.

Pereonites (Fig. 7): first nearly twice length of 2-4, which are subequal; 5-7 of decreasing length; coxae compact, mostly fused to pereonites, not projecting beyond posterior margins of respective pereonites.

Pereopods (Figs. 11-17): 1-5 subequal in size, 6-7 much longer; dactyls largest on pereopods 5-6, smallest on 1 and 7.

Pleon (Fig. 7) short, only slightly narrower than pereon; pleonites laterally produced; pleotelson wider than long, shield-shaped; pleopods (Figs. 20-24) multilaminar; first is bilaminar, 2 is quadrilaminar and 3-5 are trilaminar. Uropod (Fig. 25) with tapered exopod and rounded endopod, about half the length of exopod.

Male: similar to female but smaller; appendix masculinum present on pleopod 2.

Discussion

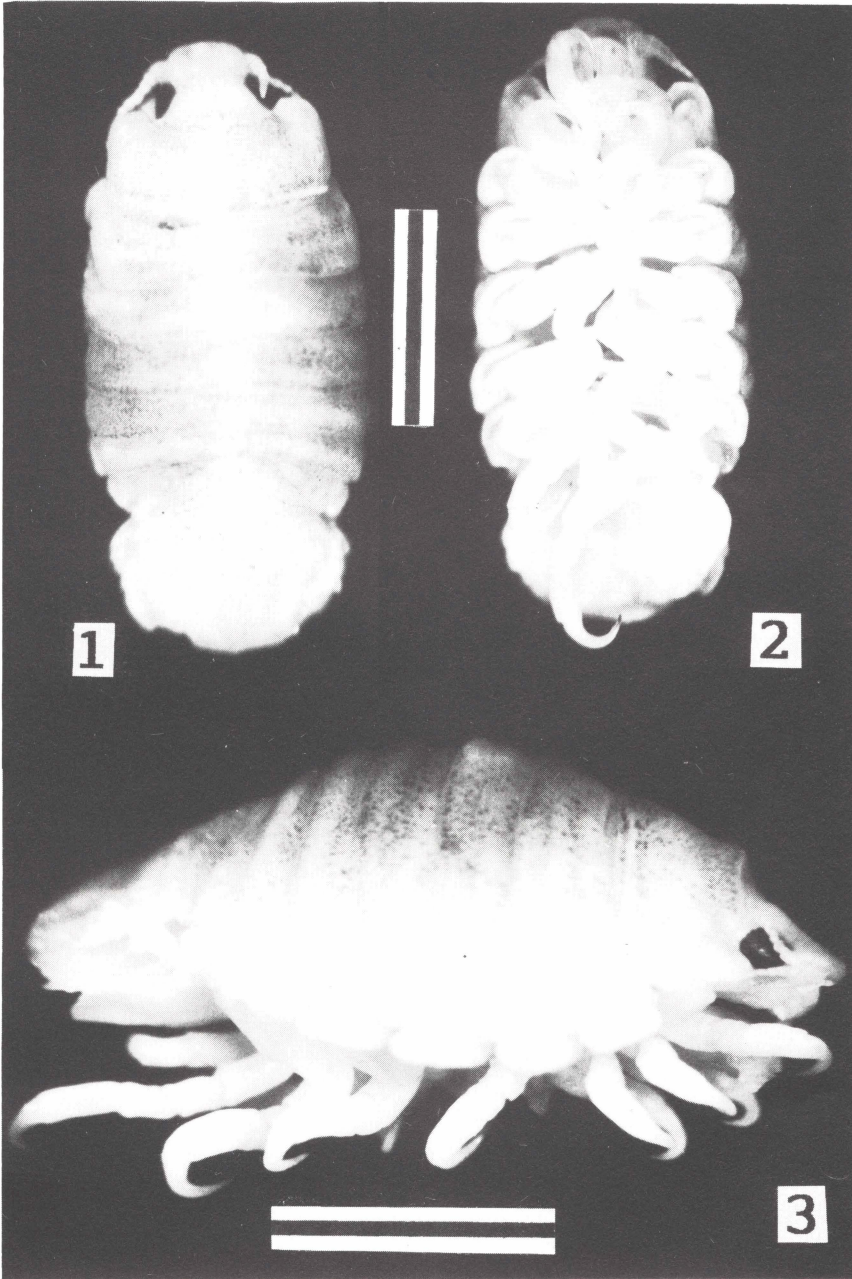
Braga amapaensis n. sp. differs from the other species in the genus by having: small size; a truncate cephalon that is concave dorsally; a short pleon; long pereopods (the 7th pair extend to beyond the posterior border of the pleotelson) and a different host and geographic distribution.

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Table 1: Measurements (mm) of 4 ♂♂ and 4 ♀♀ of: *Braga amapaensis* n. sp.

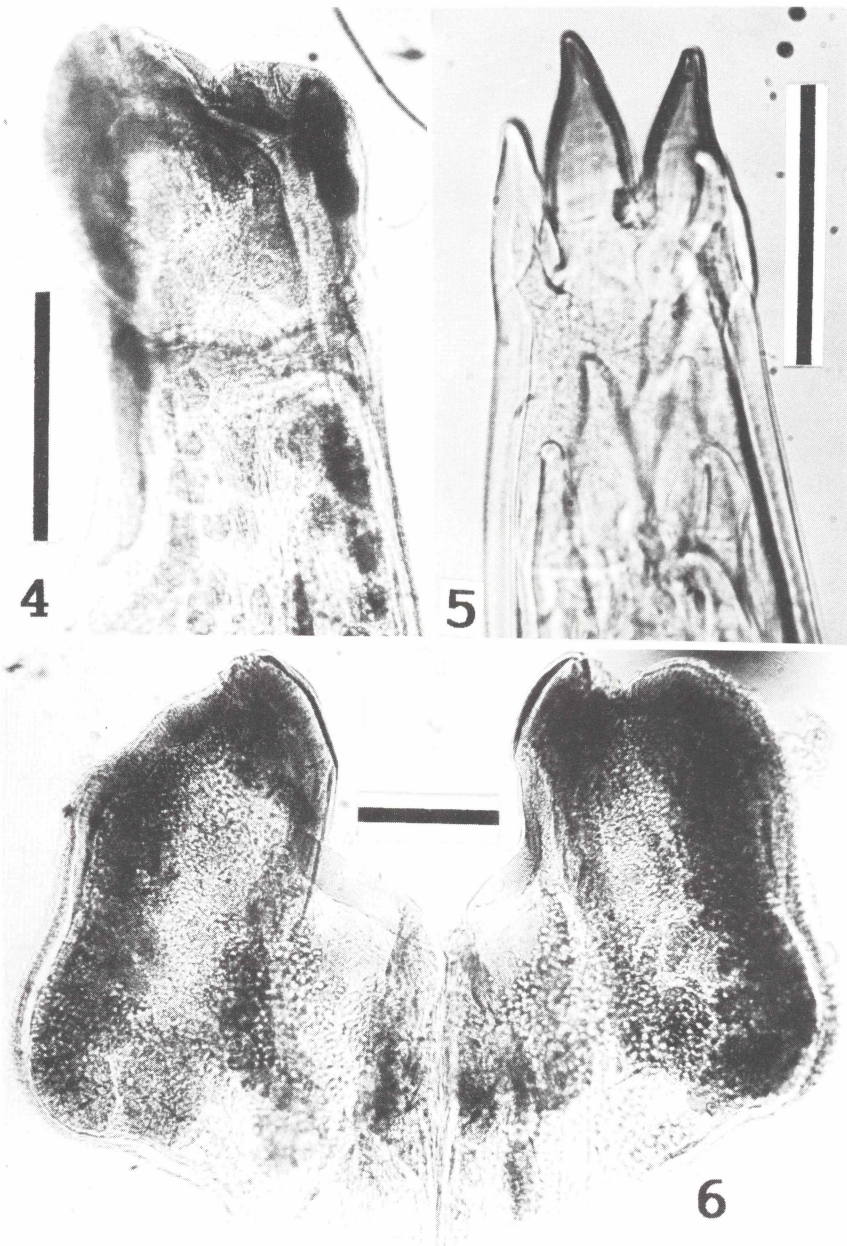
Body Width	Sex	Body Length	Pleotelson Width	Pleotelson Length
3	♂♂	8	4.5	2
4		10	5	2
3		10.5	5	2
3.5		13	5	2.5
5	♀♀	12	6	3
5		14	5	3
4.5		15	7	2.5
5.5		18	8	3



Figs. 1-3:

Braga amapaensis n. sp. (♀).

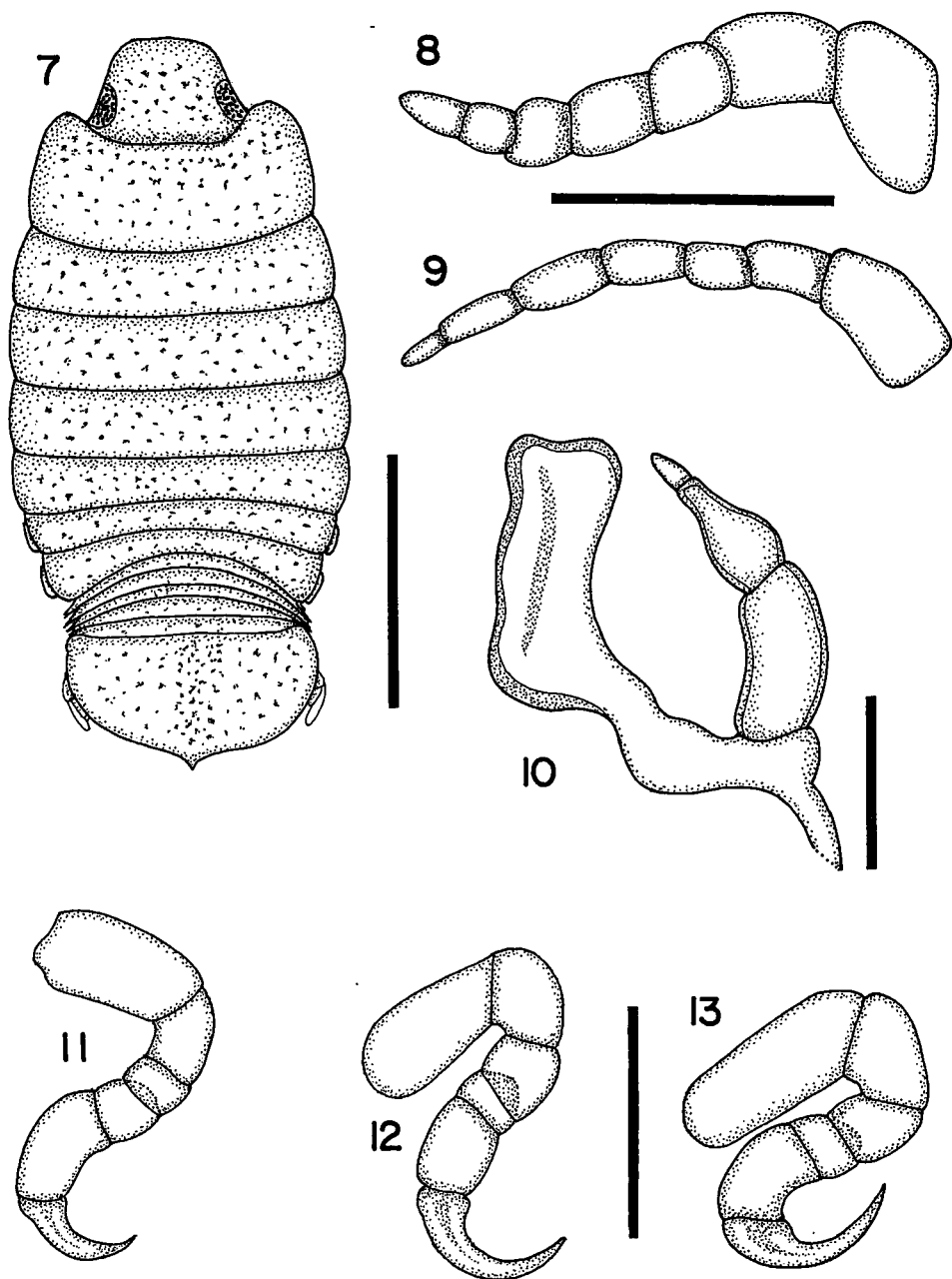
1: Dorsal. 2: Ventral. 3: Lateral. Bars = 5 mm.



Figs. 4-6:

Braga amapaensis n. sp. (♀).

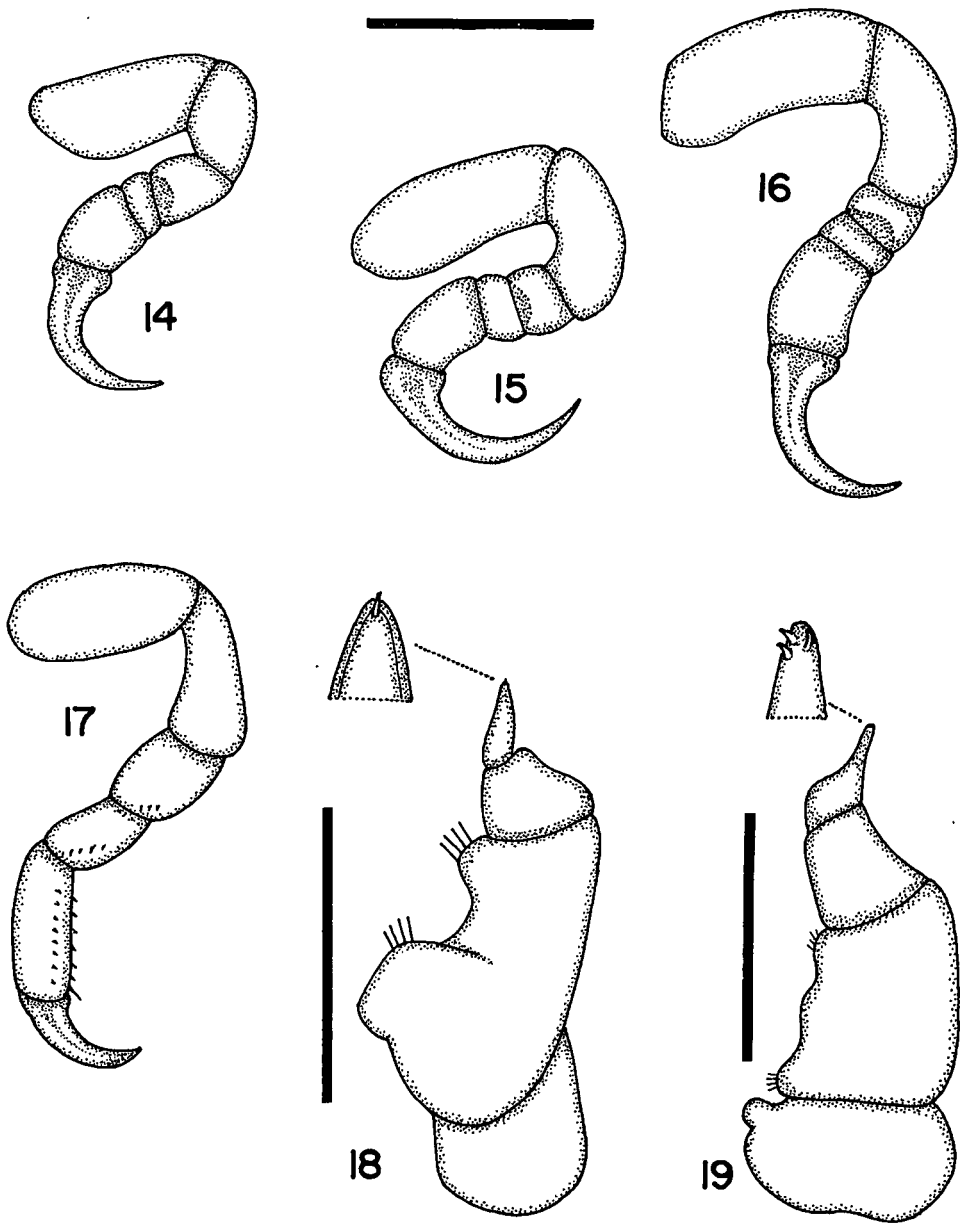
4: Maxilla; scale = 500 μ . 5: Maxillule; scale = 100 μ . 6: Labium; scale = 200 μ .



Figs. 7-13:

Braga amapaensis n. sp. (♀).

7: Dorsal; scale = 5 mm. 8: Antennule. 9: Antenna; scale for 8 and 9 = 1 mm. 10: Mandible and palp; scale = 500 μ . 11: Pereopod 1. 12: Pereopod 2. 13: Pereopod 3; scales for 11-13 = 2 mm.

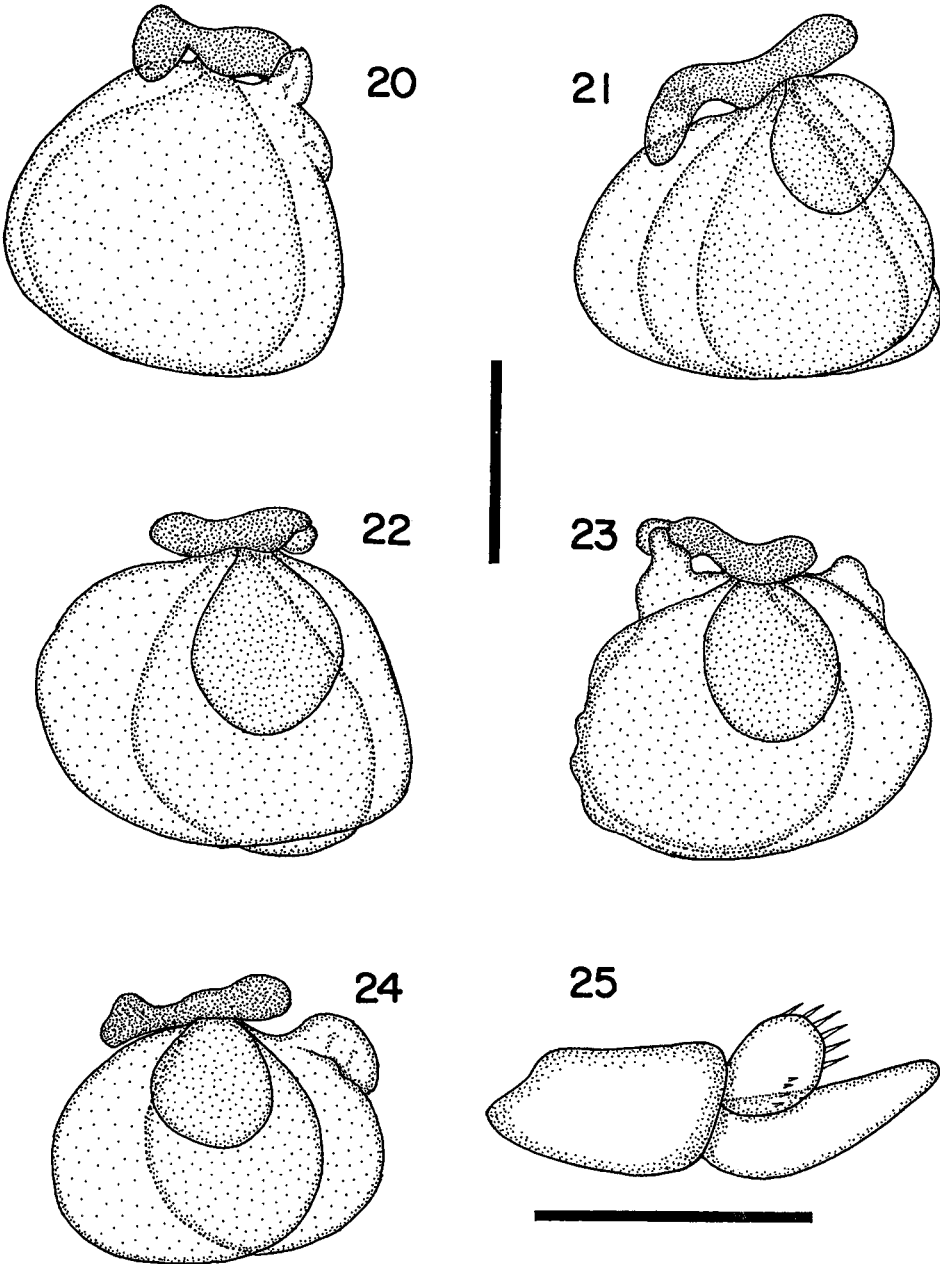


Figs. 14-19:

Braga amapaensis n. sp.

14-17: Pereopods 4-7 (♀); scale = 2 mm. 18: Maxilliped (♀); scale = 2 mm.

19: Maxilliped (♂); scale = 1 mm.



Figs. 20-25:

Braga amapaensis n. sp.

20-24: Pleopods 1-5 (♀); scale = 2 mm. 25: Uropod (♂); scale = 1 mm.

