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THE GENUS *PTILANTHURA* IN THE WESTERN ATLANTIC: EVIDENCE FOR PRIMARY MALES AND DESCRIPTION OF A NEW SPECIES (ISOPODA: ANTHURIDAE)

Brian Kensley

ABSTRACT

The genus *Ptilanthura* is redefined. The type species, *P. tenuis* is redescribed, with the aid of more than 500 specimens. *Ptilanthura tricarina* Menzies and Frankenburg, 1966, is synonymized with the earlier *P. tenuis* Harger, 1878. Size-frequency distributions indicate the presence of primary and secondary males in this species. A second species of the genus, *P. colpos,* described from the eastern Gulf of Mexico, differs from *P. tenuis* in body proportions, shape of the pleotelson, and in several features of the appendages.

Harger (1878) designated the anthurid genus *Ptilanthura,* based on material from shallow water (intertidal to 36 m) off New England. Although Harger mentioned six separate localities for his material, syntypes from only three of these localities were located in the collections of the National Museum of Natural History (NMNH) in the early 1980s. Harger (1878) illustrated only the cephalon of the female and the male whole animal. The very characteristic tricarinate pleotelson was not shown. Menzies and Frankenberg (1966), dealing with material from deeper water (17–150 m) off Georgia, described the species *Ptilanthura tricarina,* and did not see Harger's syntypic material. Examination of Harger's and Menzies and Frankenberg's type material, as well as about 580 specimens collected by various Minerals Management Service (MMS) surveys, demonstrates that a single species, *Ptilanthura tenuis* (with its junior synonym, *P. tricarina*), occurs on the east coast of the United States from Maine to Florida. A second undescribed species was encountered in samples again from MMS survey material, from the eastern Gulf of Mexico. Plotting the total lengths of males and females of *P. tenuis* has revealed a bimodal distribution for males, suggesting that both primary and secondary males exist in the population. Abbreviations: BLM = Bureau of Land Management; MAFLA = Mississippi-Alabama-Florida Outer Continental Shelf Ecosystem Survey; MMS = Minerals Management Service; NMNH = National Museum of Natural History, Smithsonian Institution; SOFLA = South-West Florida Shelf Ecosystem Survey; sta = station; tl = total length.

SYSTEMATICS

Family Anthuridae
Ptilanthura Harger, 1878

Diagnosis.—Eyes well developed, strongly pigmented. Mandibular palp of single article. Maxilliped lacking endite; palp of single article. Pereiopod 1 subchelate, propodus expanded. Pereiopods 4–7 having roughly rectangular carpi. Pleonites 1–5 fused, pleonite 6 dorsally free. Pleopod 1, exopod operculiform, considerably broader than endopod; latter not forming part of operculum. Pleotelson with 2 basal statocysts; dorsal surface bearing longitudinal ridges.

Ptilanthura tenuis Harger, 1878
Figs. 1–12

Ptilanthura tenuis Harger, 1878: 377; 1879: 62; 1881: 406, figs. 71–74.—Richardson, 1905: 66, figs. 51–53.—Barnard, 1925: 130.—Menzies and Frankenberg, 1966: 32.—Schultz, 1969: 108, fig. 149.—Kussakin, 1982: 20.—Negoescu and Wägele, 1984: 133.

Ptilanthura tricarina Menzies and Frankenberg, 1966: 33, figs. 13, 14A.—Schultz, 1969: 108, fig. 150.—Negoescu and Wägele, 1984: 133.—Kensley and Schotte, 1989: 267.—Kensley, Nelson, and Schotte, 1995: 137.

Type Material.—Syntype, USNM 2948, secondary ♂ 8.3 mm, in sand off Watch Hill, Rhode Island, 33 m, 31 July 1874.—Syntype, USNM 2949, secondary ♂ 8.0 mm, sand and mud in Casco Bay, Maine, 17 m, 4 August 1873.—Syntype, USNM 35950, nonovigerous ♀ 5.2 mm, Vineyard Sound, Massachusetts, in sand at low water, 8 September 1871.

Additional Material.—438 nonovigerous ♀♀, 8 pre-♂♂, 23 ♂♂, 100 manca, from 176 stations off Maine,

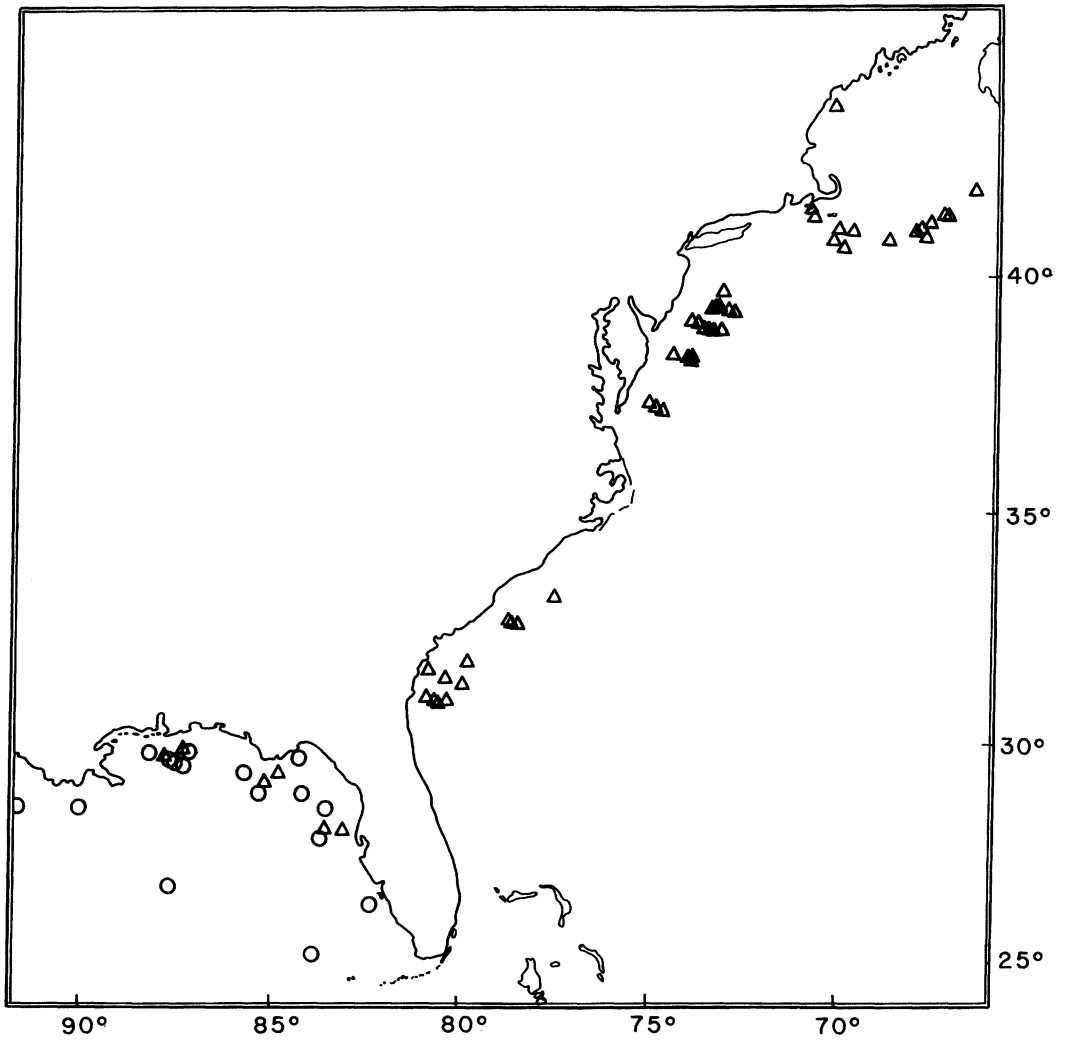


Fig. 1. Geographic distribution of *Ptilanthura tenuis* (triangles) and *Ptilanthura colpos* (circles).

New Jersey, Delaware, Virginia, South Carolina, Georgia, Florida, Alabama (see Fig. 1). The collection data for these 176 stations will be provided in a paper on the distribution and identification of continental shelf anthuridean species of the eastern U.S.A. (Kensley, in press).

Depth Distribution.—The species has been recorded from the intertidal to 253 m, with 74% of samples in the 30–100-m range; 90% of the shallow (intertidal–20 m) samples are from the northern end of its distribution: Maine, New Jersey, Delaware, and Virginia. Only 3% of samples occurred in depths of more than 120 m.

Description.—Nonovigerous female: Cephalon width equal to middorsal length; lateral margins carinate; rostrum low, broadly triangular. Eyes well pigmented, having 12–15 ommatidia. Pereionite 1 lateral margins carinate, anterodorsal margin having broad triangular emargination. Pleon consisting of fused pleonites 1–5, segments indicated by short ventrolateral slits, plus dorsally free pleonite 6. Telson somewhat variable, becoming proportionately broader with increased size, generally 1.5 times longer than greatest width, having rounded longitudinal middorsal carina running entire length, rounded lateral carinae in posterior half, slight notch in lateral margin in posterior half; rounded carina present in posteroventral midline; posterior margin broadly rounded, bearing few setae.

Antennular flagellum of 3 articles, terminal article tiny, bearing 2 aesthetascs. Antennal flagellum of 4 setose articles. Mandible with incisor consisting of single

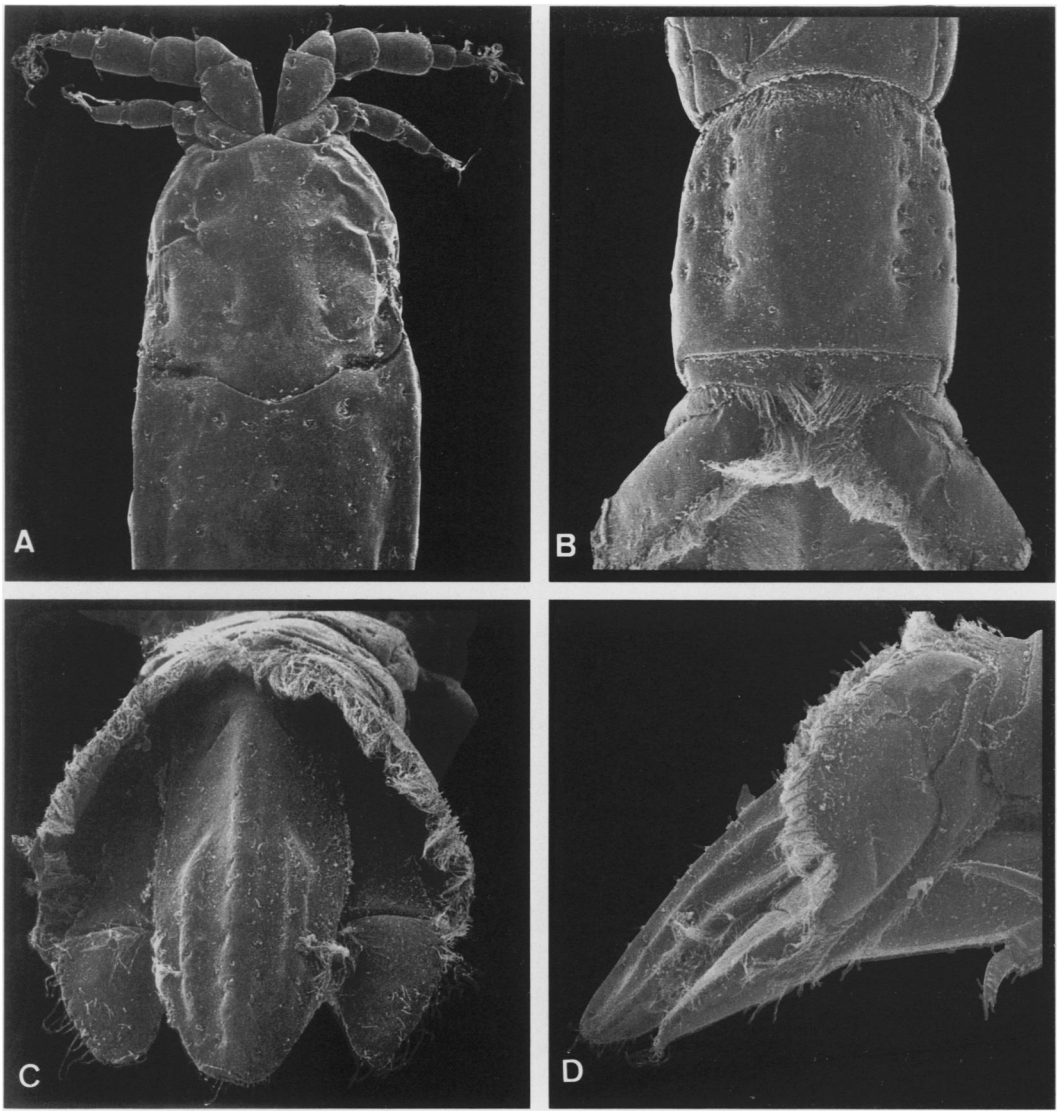


Fig. 2. *Ptilanthura tenuis,* nonovigerous female, 6.3 mm tl. A, cephalon, dorsal view; B, pleon, dorsal view; C, pleotelson and uropods, lateral view; D, pleon, lateral view.

broad cusp plus smaller lateral cusp; lacinia dentata broad, lacking individual teeth (due to wear?); molar short, tapered; palp consisting of single article bearing 2 distal setae. Maxilla having large terminal tooth plus 4 smaller subterminal teeth. Maxilliped with basal article subequal in length and width to single palp article, latter having 3 setae distomesially, 4 setae on distal margin, 3 setae on outer surface. Pereiopod 1, carpus triangular, posterodistally rounded, posterior margin bearing fringed scales; propodus broadly expanded, palm faintly convex, bearing fringed scales plus 5 simple setae, 7 setae on mesial surface near palmar margin; unguis about two-thirds length of rest of dactylus, latter with fringed scales on posterior margin, small squat spine at base of unguis. Pereiopods 2 and 3, propodus twice longer than greatest width, far less expanded than in pereiopod 1, posterior margin faintly concave, bearing fringed scales, squat sensory spine present posterodistally; unguis about one-third length of rest of dactylus, with small spine at base. Pereiopods 4–7 with carpus rough-

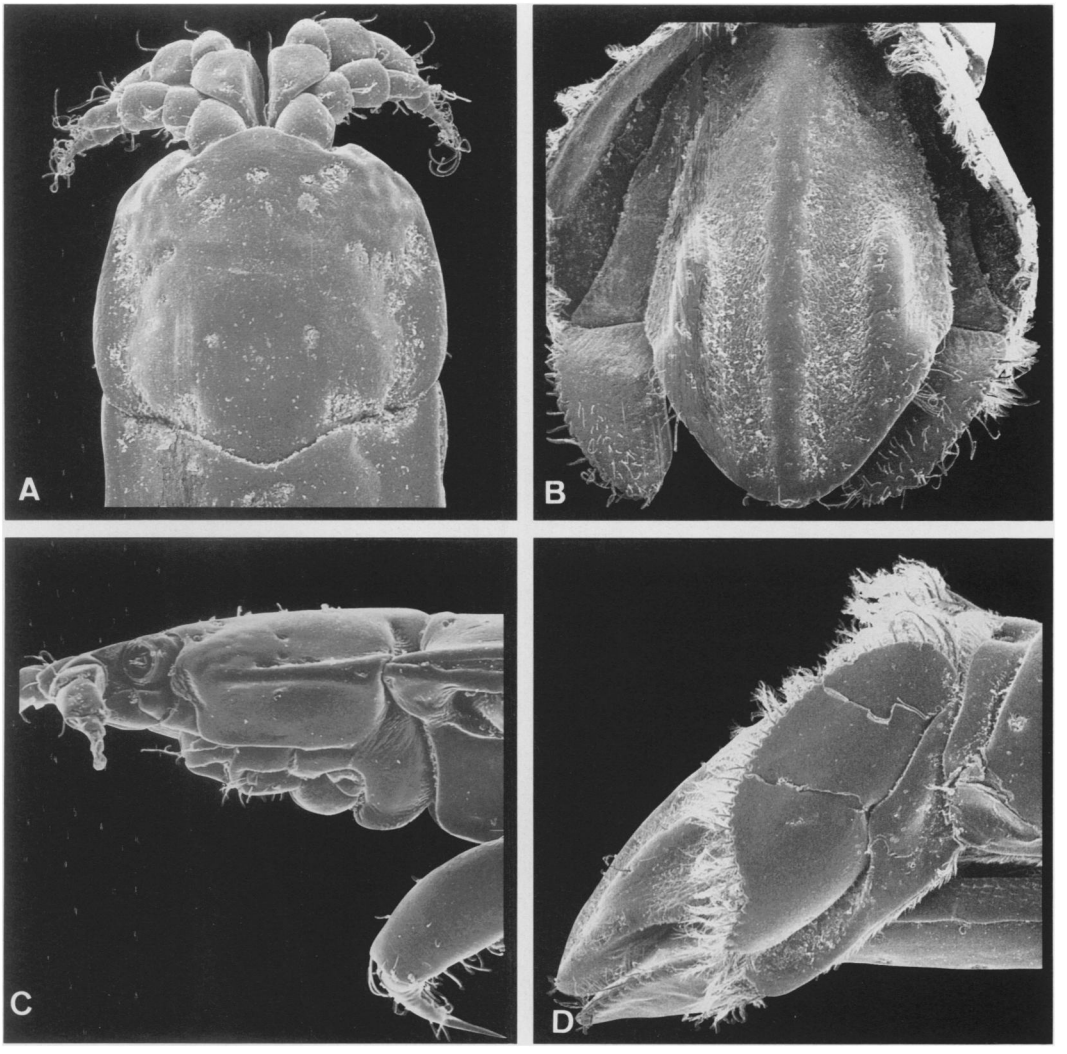


Fig. 3. *Ptilanthura tenuis,* nonovigerous female, 9.0 mm tl. A, cephalon, dorsal view; B, pleotelson and uropods, dorsal view; C, cephalon and anterior pereionite 1, lateral view; D, pleotelson and uropods, lateral view.

ly rectangular, with anterior margin slightly shorter than posterior, latter with squat posterodistal sensory spine; propodus rectangular, almost 3 times longer than wide, with posterodistal sensory spine; unguis about 0.4 times length of rest of dactylus, with small spine at base; posterior margin bearing fringed scales. Pleopod 1, protopod having 6 coupling hooks; endopod 0.4 times width of exopod, falling short of distal apex of exopod, bearing 12 distal plumose marginal setae; exopod operculiform, with numerous plumose marginal setae in distal half. Uropodal exopod bearing short plumose setae along most of margin, proximally rounded, distally pointed, lateral margin sinuous with slight subdistal concavity; endopod longer than greatest width, apex broadly rounded, bearing several marginal setae.

Primary male: Cephalon width equal to middorsal length; eyes well pigmented, consisting of about 15 ommatidia; rostrum low, broadly triangular. Pereionite 1 lateral margins having rounded carina; anterodorsal margin having broad triangular emargination. Pleon consisting of fused pleonites 1–5, segments indicated by short ventrolateral slits, plus dorsally free pleonite 6. Pleotelson about twice longer than wide, pos-

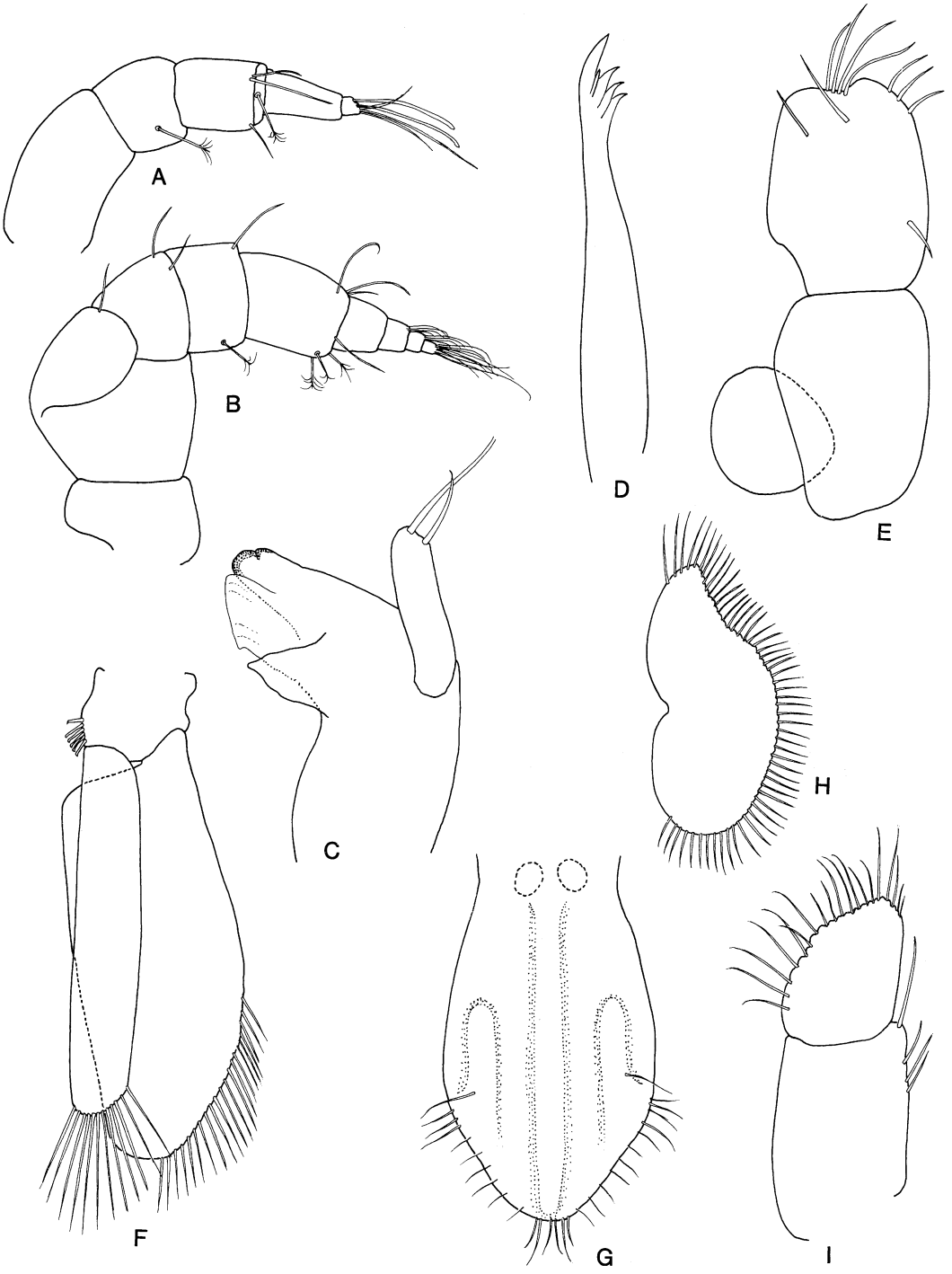
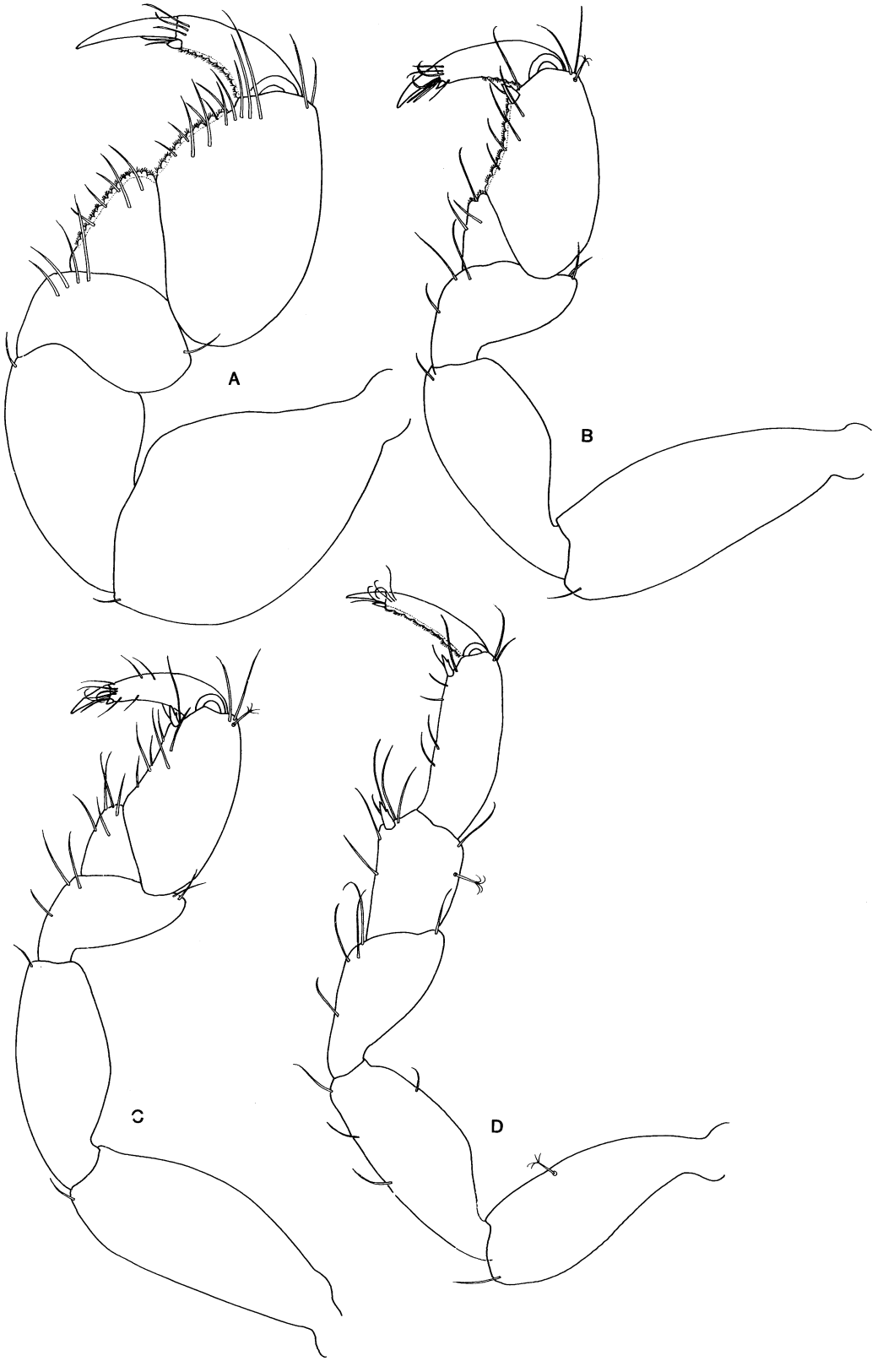


Fig. 4. *Ptilanthura tenuis,* nonovigerous female, 9.0 mm tl. A, antennule; B, antenna; C, mandible; D, maxilla; E, maxilliped; F, pleopod 1 (plumosities of marginal setae not drawn); G, pleotelson; H, uropodal exopod (plumosities of setae not drawn); I, uropodal endopod and basis.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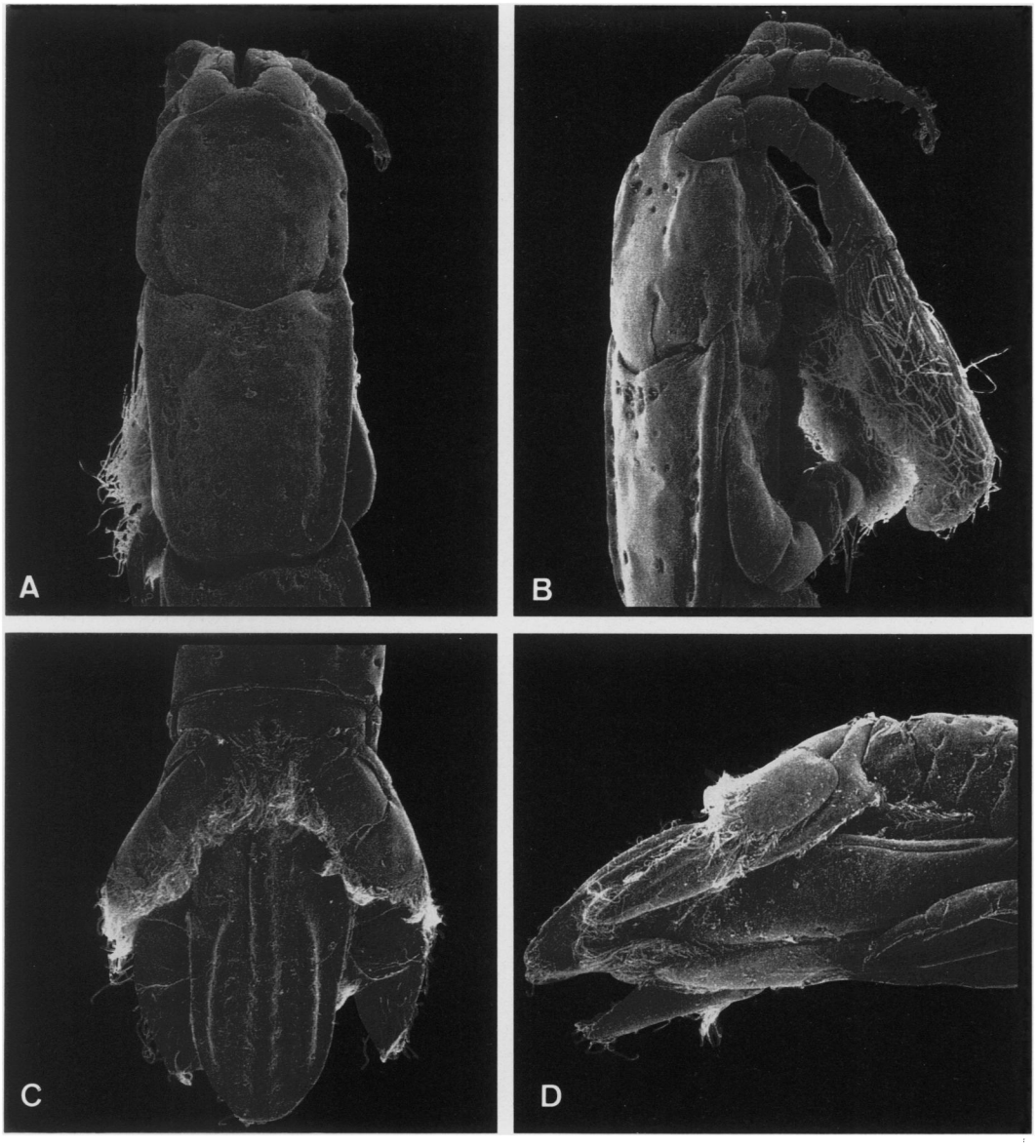

Fig. 6. *Ptilanthura tenuis,* primary male, 5.0 mm tl. A, cephalon and pereionite 1, dorsal view; B, cephalon and pereionite 1, half-lateral view; C, pleotelson and uropods, dorsal view; D, pleon, pleotelson, and uropods, lateral view.

terior margin evenly and broadly rounded; rounded longitudinal middorsal ridge running entire length, rounded lateral ridge in posterior two-thirds; strong midventral longitudinal carina in posterior half.

Antennular flagellum elongate, reaching posteriorly to pereionite 2, consisting of 10 articles, articles 2–9 bearing dense band of elongate aesthetascs. Antennal flagellum consisting of 4 setose articles. Mandibular

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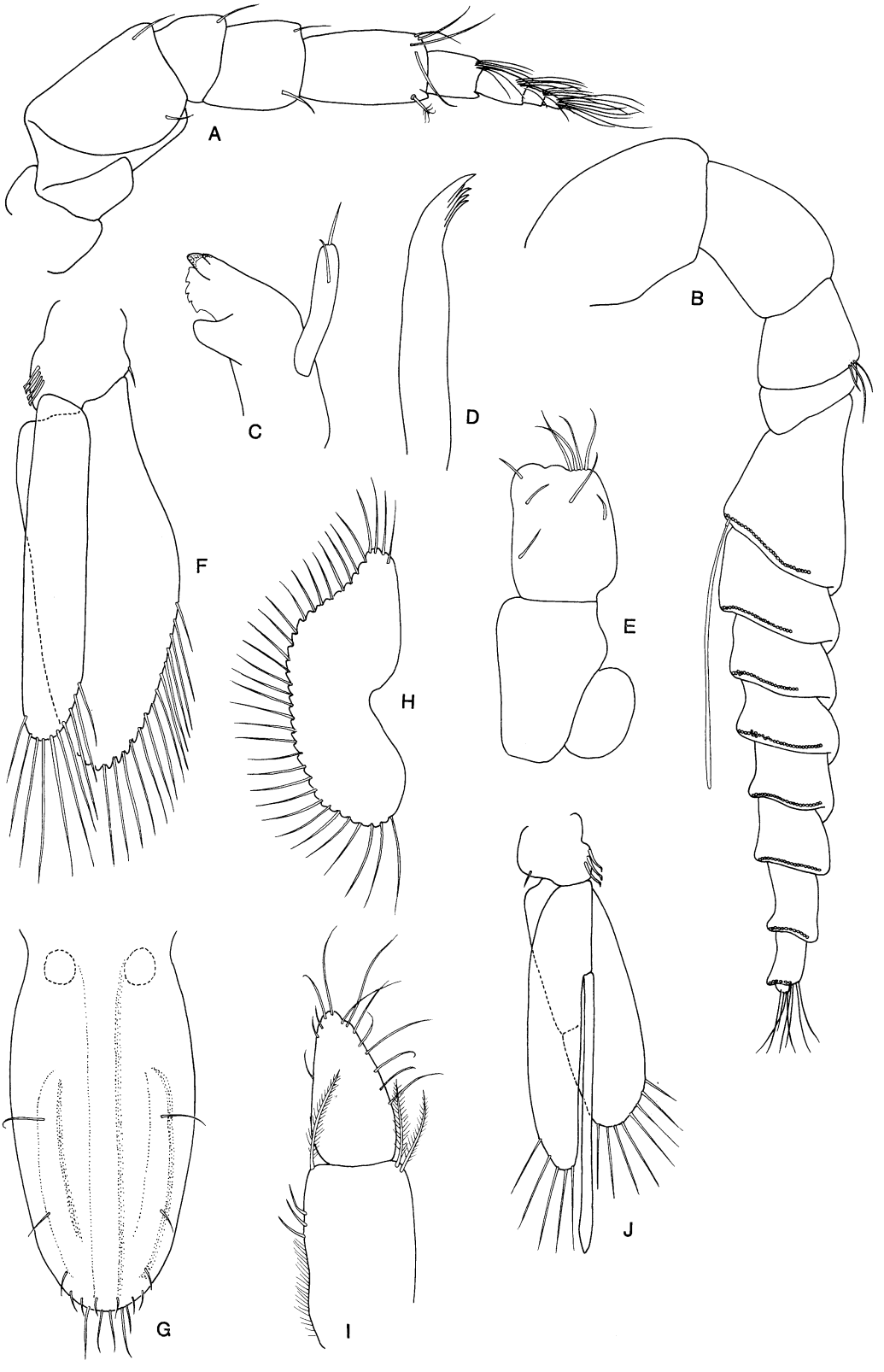
Fig. 5. *Ptilanthura tenuis,* nonovigerous female, 9.0 mm tl. A, pereiopod 1; B pereiopod 2; C, pereiopod 3; D, pereiopod 7.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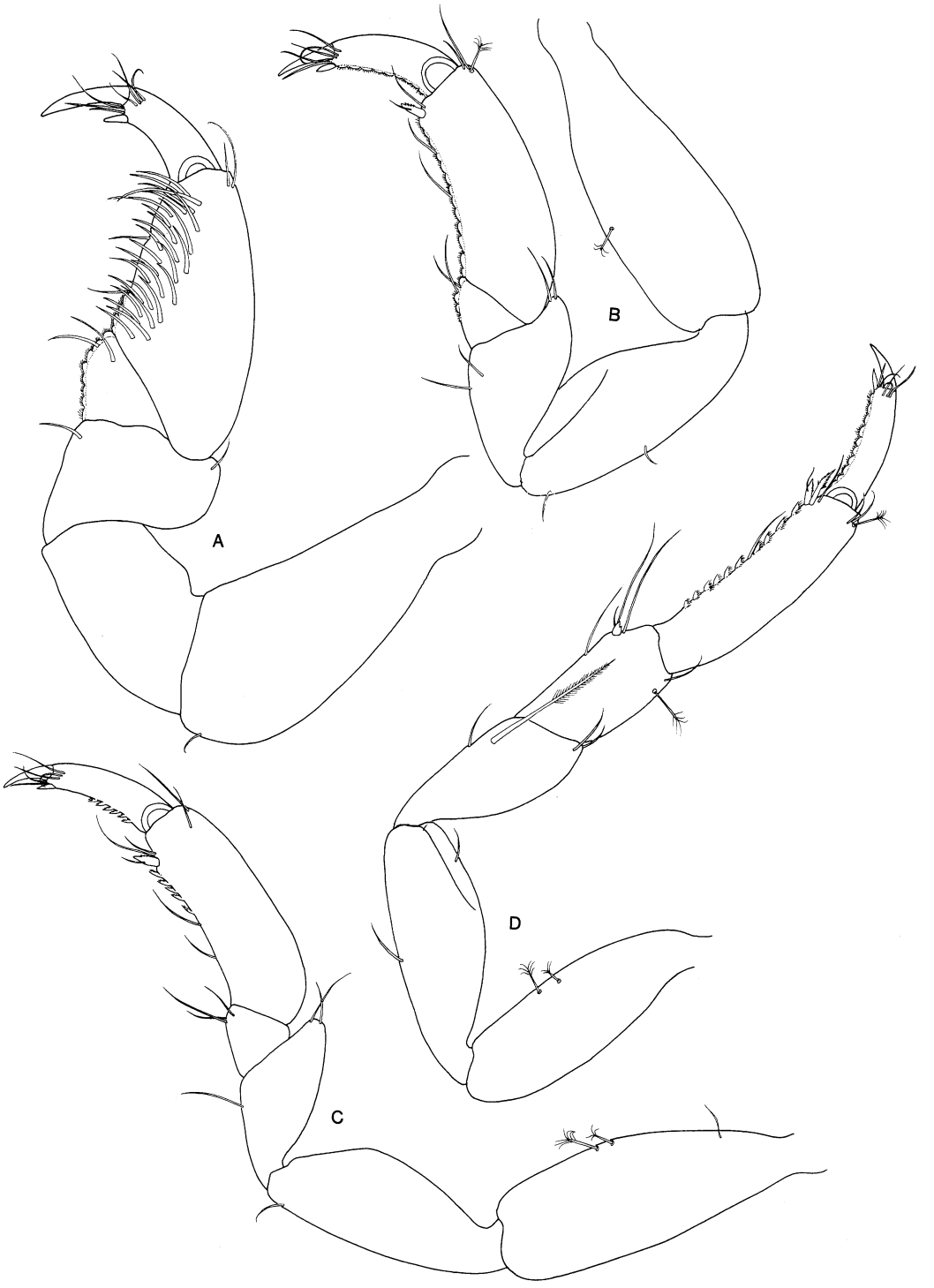

Fig. 8. *Ptilanthura tenuis,* primary male, 5.0 mm tl. A, pereiopod 1; B, pereiopod 2; C, pereiopod 3; D, pereiopod 7.

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Fig. 7. *Ptilanthura tenuis,* primary male, 5.0 mm tl. A, antenna; B, antennule, one aesthetasc drawn; C, mandible; D, maxilla; E, maxilliped; F, pleopod 1 (plumosities of marginal setae not drawn); G, pleotelson; H, uropodal exopod (plumosities of marginal setae not drawn); I, uropodal endopod and basis; J, pleopod 2 (plumosities of marginal setae not drawn).

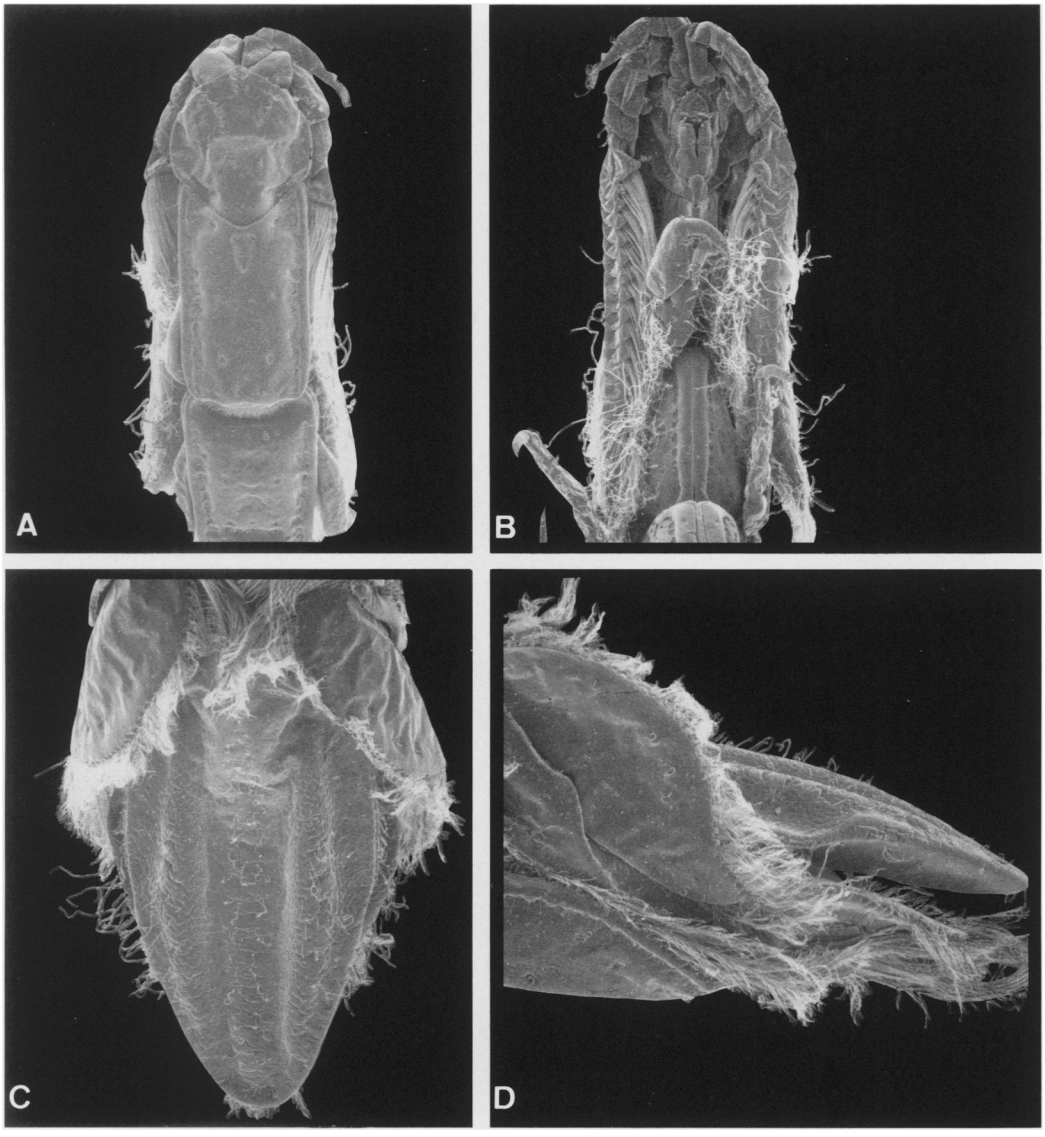

Fig. 9. *Ptilanthura tenuis,* secondary male, 8.1 mm tl. A, cephalon and pereionite 1, dorsal view; B, cephalon and pereionite 1, ventral view; C, pleotelson and uropodal exopods, dorsal view; D, pleotelson and uropods, lateral view.

palp of single article bearing 1 terminal and 1 subterminal seta; incisor of 1 large and 1 small cusp; lamina dentata having 4 serrations; molar distally rounded. Maxilla having 1 strong and 4 smaller distal spines. Maxillipedal palp with 4 laterodistal setae, 5 scattered setae on outer surface. Pereiopod 1, carpus triangular, lacking free anterior margin, bearing fringed scales on posterior surface; propodus somewhat expanded proximally, palm straight, mesial surface bearing dense band of about 30 finely

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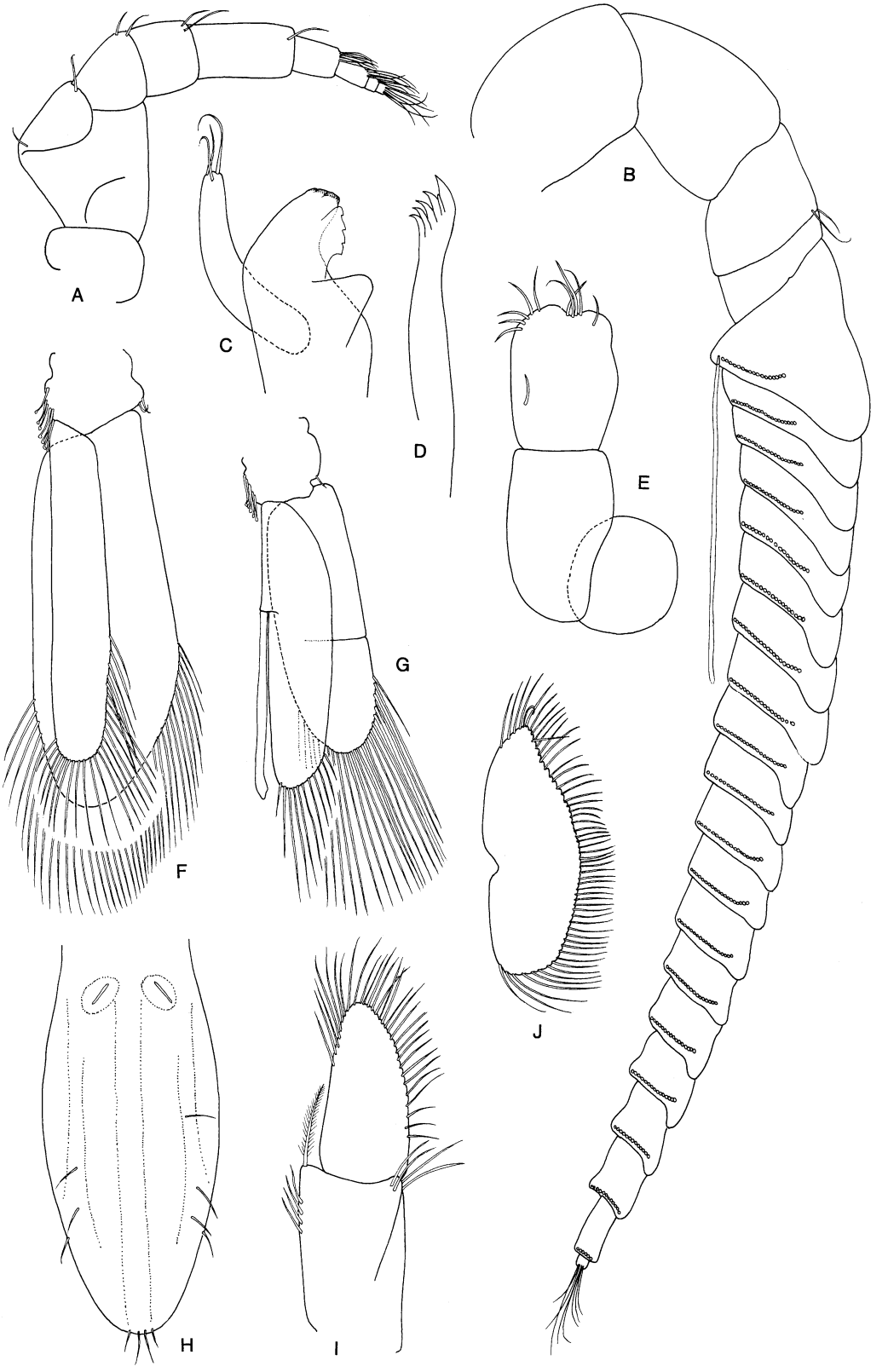
Fig. 10. *Ptilanthura tenuis,* secondary male, 9.8 mm tl. A, antenna; B, antennule, one aesthetasc drawn; C, mandible; D, maxilla; E, maxilliped; F, pleopod 1; G, pleopod 2; H, pleotelson; I, uropodal endopod and basis; J, uropodal exopod.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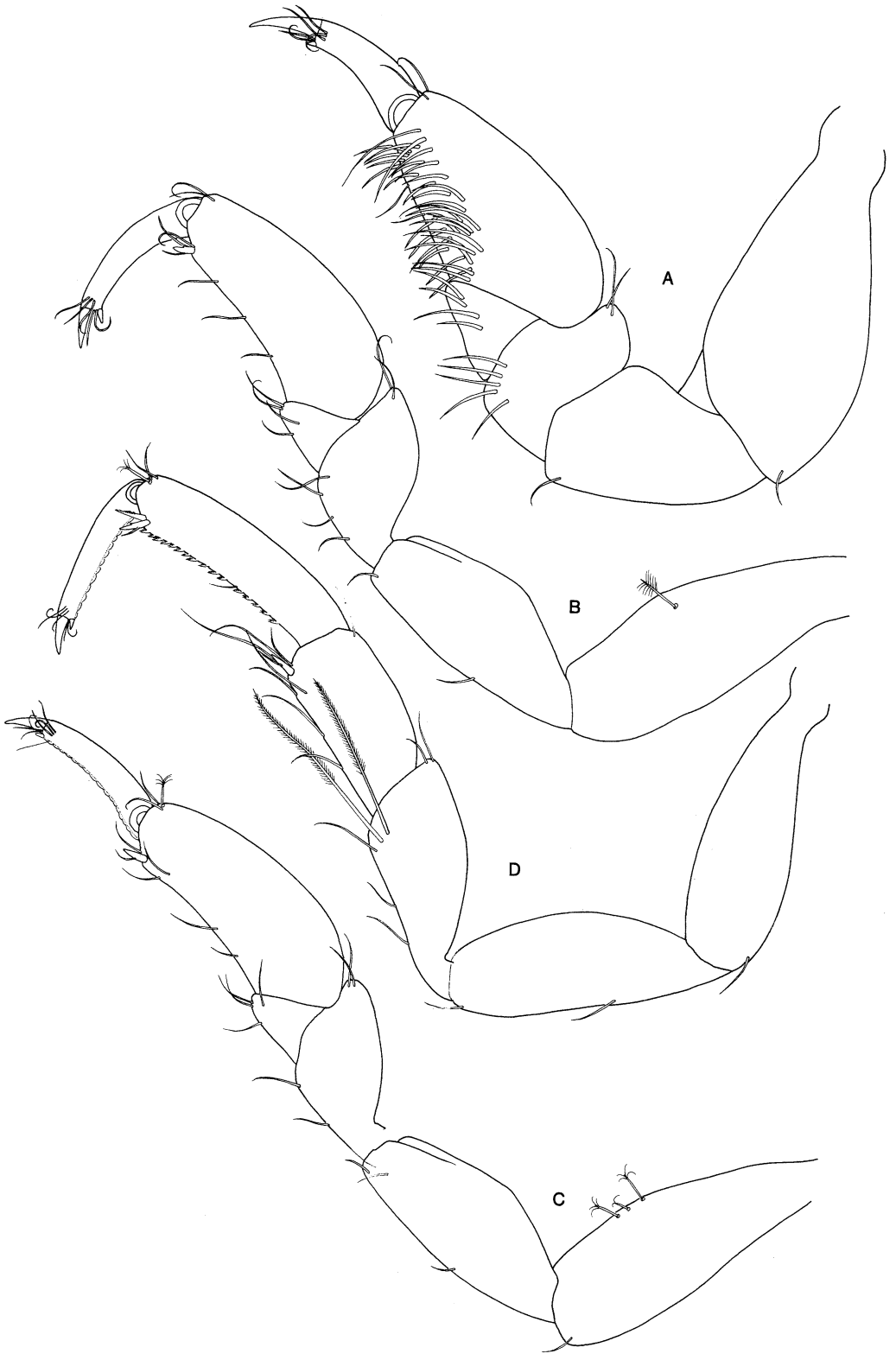

Fig. 11. *Ptilanthura tenuis,* secondary male, 9.8 mm tl. A, pereiopod 1; B, pereiopod 2; C, pereiopod 3; D, pereiopod 7.

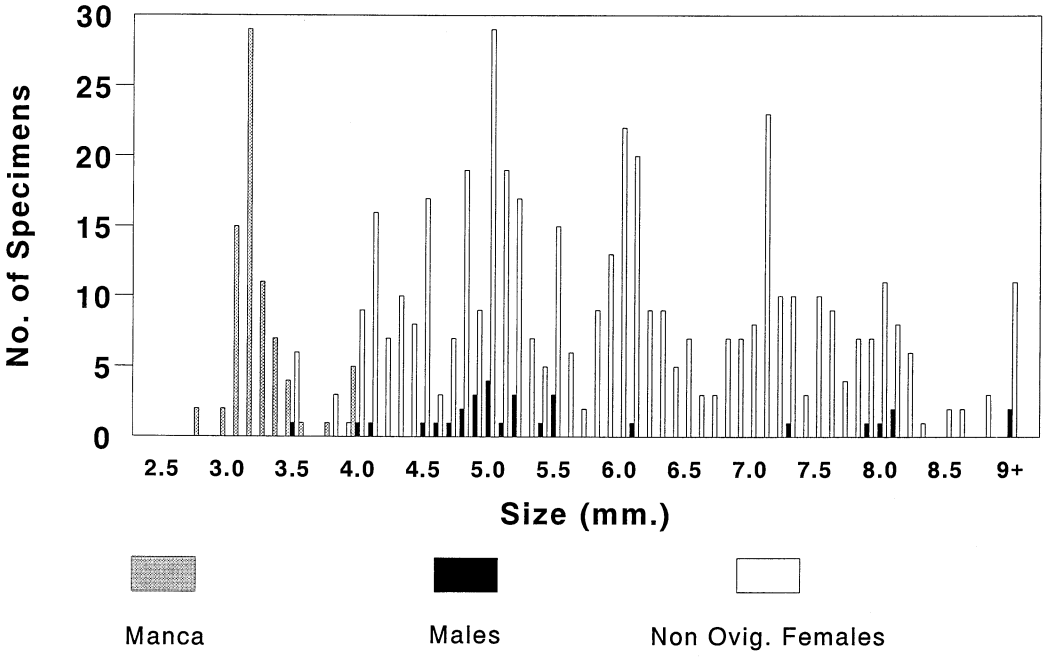

Fig. 12. Size distribution of *Ptilanthura tenuis*.

fringed setae; unguis slightly shorter than rest of dactylus, with strong spine at base. Pereiopod 2, carpus lacking free anterior margin; propodus not expanded, about 2.5 times longer than wide, posterior surface bearing fringed scales, with strong posterodistal dentate sensory spine; unguis half length of rest of dactylus, with spine at base. Pereiopod 3, carpus with short free anterior margin; propodus not expanded, bearing strong posterodistal dentate sensory spine; unguis slightly less than half length of rest of dactylus, with accessory spine at base. Pereiopods 4–7, merus with elongate fringed seta on mesial surface; carpus with anterior margin somewhat shorter than posterior, bearing short dentate sensory spine posterodistally; propodus almost 4 times longer than wide, with fringed scales on posterior surface, bearing 2 dentate sensory spines posterodistally; unguis about 0.4 times length of rest of dactylus, with slender accessory spine at base. Pleopod 1, protopod having 4 coupling hooks; exopod 2.5 times wider than, and slightly longer than endopod; latter with 10 distal plumose marginal setae. Pleopod 2, protopod having 3 coupling hooks; endopod having copulatory stylet articulating at proximal third and reaching well beyond distal margin of ramus, having 5 distal plumose marginal setae; exopod with 8 distal plumose marginal setae. Uropodal endopod length about 1.7 times basal width, tapering to narrowly rounded apex; exopod with sinuous lateral margin having shallow distal emargination, margin bearing numerous plumose setae.

Secondary male: Cephalon width subequal to middorsal length; eyes well pigmented, consisting of about 12 ommatidia; rostrum low, broadly triangular. Pereionites 1 and 2 with lateral margins having rounded carina; anterodorsal margin of pereionite 1 having deep triangular emargination. Integumental pitting of cephalon and pereion more marked than in female. Pleon consisting of fused pleonites 1–5, segments indicated by lateral slits, plus dorsally free pleonite 6. Pleotelson slightly more than twice longer than greatest width, posteriorly tapering to rounded posterior margin; rounded longitudinal middorsal ridge running entire length, rounded lateral ridges less well defined, clearest at midlength; strong midventral longitudinal carina in posterior half.

Antennular flagellum elongate, reaching posteriorly to pereionite 2, consisting of 21 articles, articles 2–20 bearing dense band of elongate aesthetascs. Antennal flagellum

consisting of 4 setose articles. Mandibular palp of single article bearing 3 distal setae; incisor of 3 low cusps; lamina dentata having 4 marginal serrations; molar low, distally rounded. Maxilla having 1 strong and 4 smaller distal spines. Maxillipedal palp having 5 distomesial setae and group of 4 setae on distal margin. Pereiopod 1, merus with 5 stout posterodistal setae; carpus triangular, with 4 setae on posterior surface; propodus proximally somewhat expanded, palm straight, with dense band of about 30 stout setae on mesial surface; unguis slightly more than half length of rest of dactylus, with small accessory spine at base. Pereiopods 2 and 3, carpus triangular, lacking free anterior margin; propodus barely expanded, about 2.5 times longer than greatest width, having few simple setae on palm, single posterodistal sensory spine present; unguis about one-third length of rest of dactylus, with small accessory spine at base. Pereiopods 4–7, merus having 2 elongate fringed setae on distomesial surface; carpus with anterior margin only slightly shorter than posterior, with posterodistal sensory spine; propodus 4 times longer than wide, with 2 posterodistal spines; unguis about one-fourth length of rest of dactylus, with small accessory spine at base. Pleopod 1, protopod bearing 7 coupling hooks; exopod operculiform, slightly longer, and about 2.5 times wider than endopod, having about 40 plumose marginal setae in distal half; endopod having 24 plumose marginal setae distally. Pleopod 2, protopod having 5 coupling hooks; endopod reaching beyond exopod, with copulatory stylet articulating at about proximal one-third, stylet reaching just beyond ramus, latter with 11 plumose marginal setae distally; exopod with incomplete transverse suture in distal half. Uropodal endopod twice longer than basal width, tapering to narrowly rounded apex; exopod about 2.6 times longer than wide, lateral margin with faint distal emargination, bearing numerous marginal setae.

Biology.—Size distribution: From Fig. 12 it can be seen that there are probably two manca size-groups, at about 3.2 mm and 3.9 mm. Nonovigerous females show at least six peaks in size distribution, suggesting molts at about 4.5, 5.0, 6.0, 7.1, 8.0, and 9.0 mm. Extraordinarily, of the 580 specimens examined, none was ovigerous. It is difficult to explain this absence, given that most of the samples were taken with a box core, so even if ovigerous females have a more cryptic infaunal behavior, these should have been collected. A possible explanation of this absence could be a fairly circumscribed reproductive season which is not represented in the collections examined. Of the approximately 580 specimens examined, 438 were nonovigerous females, 23 were primary males (ratio of 1:19), and eight were secondary males (ratio of 1:55).

The size distribution of the males and premales show two peaks, at about 5.0 mm and 8.0 mm. Examination of material from these size ranges shows clear differences in a number of features, suggesting that the 5.0-mm group represents primary males, i.e., animals that develop directly into premales and then males from the manca stage. Assuming that *P. tenuis* is a protogynous hermaphroditic species, as are many anthurideans, the 8.0-mm group probably represents secondary males, i.e., animals that change from ovigerous females into males, probably with 2 molts, since premales of this size-group are present in the material examined.

It has been suggested that primary males are present in *Cyathura carinata* (Krøyer) (see Wägele, 1979: 295) and in *Cyathura polita* (Stimpson) (see Burbanck and Burbanck, 1979: 310). This record for *P. tenuis* appears to be the first for primary and secondary males in an anthurid genus other than *Cyathura.*

Primary males and secondary males that develop from protogynous females are found also in the tanaidacean *Heterotanais oerstedi* (Krøyer) (see Kaestner, 1970: 405; Ramirez, 1965). In this species, only females overwinter. In the spring, some mancas develop directly into males, while secondary males appear after the first brood has been carried by ovigerous females.

The evolutionary advantage to maintaining a regime of primary and secondary males in a protogynous setting is clear: primary males (of which there are more in the population than secondary males) are available to fertilize females as the latter come to sexual maturity. The secondary males are, by definition, larger and more robust animals, even if represented by fewer ani-

Table 1. Morphological differences between primary and secondary males of *Ptilanthura tricarina.*

	Primary male	Secondary male
Size	premale 3.5–5.2 mm male 4.1–5.4 mm	premale 6.1–9.0 mm male 5.5–9.8 mm
Antennular flagellar articles	8 or 9	17–20
Pleotelson	2.4 times longer than wide	2.0 times longer than wide

mals in the population. This larger size and robustness may well ensure that more successful fertilizations occur and, because of their greater mobility, that a greater number of females are fertilized.

Morphological differences between primary and secondary males are summarized in Table 1.

Ptilanthura colpos, new species
Figs. 13–15

Type Material.—Holotype, USNM 253242, nonovigerous ♀ 11.5 mm tl, off Louisiana, BLM summer cruise station 18S N2000 number 7, 26 m, 20 Sep 1978,—Paratypes, USNM 253243, 2 nonovigerous ♀ 7.3 mm, 7.9 mm, off Louisiana, BLM summer cruise station 18S N2000 number 8, 24 m.—Paratypes, USNM 253244, 2 nonovigerous ♀♀ 6.8 mm, 7.7 mm, off Louisiana, BLM summer cruise station 14S N2000 number 8, 27 m, 20 Sep 1978.

Additional Material.—USNM 253245, nonovigerous ♀ 5.1 mm, off Louisiana, cruise 3, station P3 W2000 number 5, 32 m, 29 May 1978.—USNM 253246, nonovigerous ♀ 5.2 mm, off Louisiana, cruise 3, station P3 W2000 number 7, 32 m, 29 May, 1978.—USNM 253247, 2 nonovigerous ♀♀ 5.1 mm, 6.5 mm, off Louisiana, cruise 2, station 14S N500 number 8, 25 m, 20 Sep 1978.—USNM 253248, 2 nonovigerous ♀♀ 5.5 mm, 6.0 mm, off Florida, MAFLA station 2856H, 30 m.—USNM 253249, nonovigerous ♀ 5.1 mm, off Alabama, MAFLA station 2642B, 36 m.—USNM 253250, manca 3.0 mm, off Alabama, MAFLA station 2639F, 32 m.—USNM 253251, nonovigerous ♀ 6.1 mm, off Alabama, MAFLA station 2641J, 37 m.—USNM 253252, nonovigerous ♀ 4.1 mm, off Alabama, MAFLA station 2317 22I, 29 m.—USNM 253253, manca 3.0 mm, off Florida, MAFLA station 2854G, 42 m.—USNM 253254, 2 nonovigerous ♀♀, off Alabama, MAFLA station 2639C, 32 m.—USNM 253255, manca 2.4 mm, off Florida, SOFLA station 24A, 88 m.—USNM 253256, nonovigerous ♀ 3.1 mm, SOFLA station 24C, 88 m.—USNM 253257, nonovigerous ♀ 5.3 mm, off Florida, MAFLA station 2426 31H, 82 m.—USNM 253258, nonovigerous ♀ 5.0 mm, off Florida, MAFLA station 2420I, 14 m.—USNM 253259, nonovigerous ♀ 5.0 mm, off Florida, MAFLA station 2420C, 14 m.—USNM 253260, manca 2.8 mm, off Alabama, station 8G, 32 m.—USNM 253261, 2 manca 2.9 mm, nonovigerous ♀ 3.9 mm, off Alabama, station 2643G, 69 m.—USNM 253262, 2 nonovigerous ♀♀ 4.1 mm, 7.1 mm, off Florida, MAFLA station 2317A, 20 m.—USNM 253263, nonovigerous ♀ 11.2 mm, off Florida, station 2210D, 37 m.—USNM 253264, 2 manca 2.9 mm, off Alabama, station 15J, 37 m.—USNM 253265, nonovigerous ♀ 4.4 mm, off Alabama, station 17F, 69 m.—USNM 253266, manca 2.5 mm, off Florida, station 2102A, 18 m.—USNM 253267, nonovigerous ♀ 4.4 mm, off Florida, MAFLA station 2852 31F, 22 m.

Depth Distribution.—The species has been recorded from 14–88 m, with 87% of samples from the 20–88-m range.

Description.—Nonovigerous female: Cephalon about 1.3 times longer than greatest width; lateral margins with rounded carina; rostrum low, triangular; eyes well pigmented, of about 20 ommatidia. Pereionite 1, anterodorsal margin with broadly rectangular emargination. Pleon consisting of fused pleonites 1–5, segments indicated by short lateral slits, plus dorsally free pleonite 6. Pleotelson almost 2.5 times longer than greatest width in anterior half; highly sclerotized, with strong midventral carina in posterior half, weak middorsal longitudinal carina running entire length, 2 stronger parallel lateral carinae in posterior half; posterior margin broadly rounded to subtruncate, lacking setae.

Antennular flagellum of 3 articles, terminal article tiny, bearing 3 aesthetascs. Antennal flagellum of 4 setose articles. Mandible with incisor consisting of 3 broad cusps; lacinia dentata having 5 serrations; molar distally rounded; palp with 1 terminal and 1 subterminal seta. Maxilla having strong terminal spine plus 4 smaller subterminal spines. Maxilliped with palp article having strong basal notch in lateral margin; mesial margin bearing 7 setae, distal margin with group of 5 distolateral setae. Pereiopod 1, merus with 5 setae on posterior surface; carpus triangular, lacking free anterior margin, with about 6 setae on posterior surface; propodus proximally expanded, palm slightly concave, mesial surface bearing about 20 stout setae; unguis about half length of rest of dactylus, with small accessory spine at base. Pereiopods 2 and 3, carpus triangular; propodus barely expanded, bearing short stout sensory posterodistal

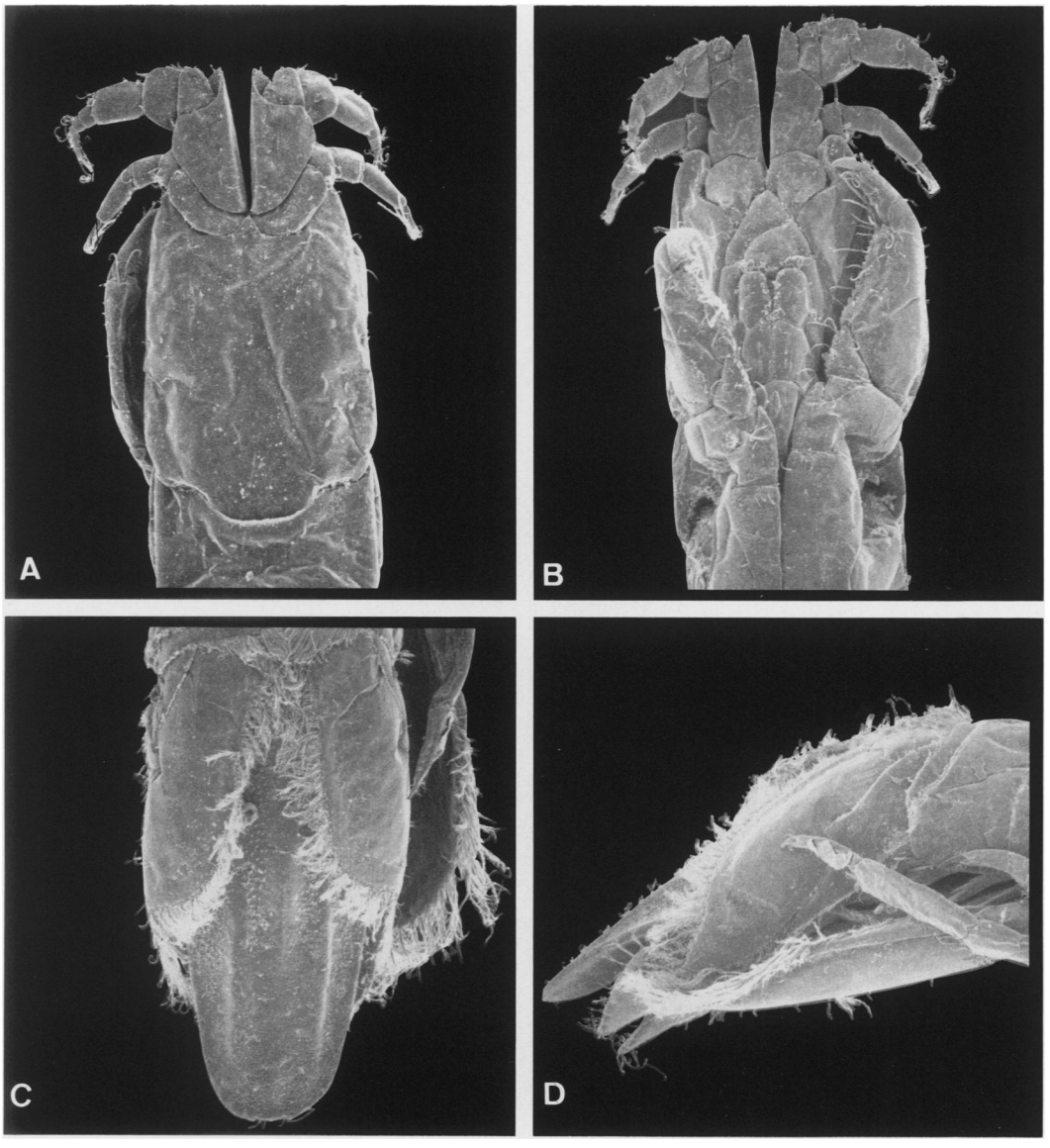

Fig. 13. *Ptilanthura colpos,* nonovigerous female, 7.1 mm tl. A, cephalon, dorsal view; B, cephalon, ventral view; C, pleotelson and uropodal exopods, dorsal view; D, pleotelson and uropods, lateral view.

spine; unguis about two-fifths length of rest of dactylus, with small accessory spine. Pereiopods 4–7, carpus with anterior margin slightly shorter than posterior, with small posterodistal sensory spine; propodus rectangular, with fringed scales on posterior surface, 2 stout posterodistal spines; unguis about one-third length of rest of dactylus, small accessory spine present. Pleopod 1, protopod having 6 coupling hooks on mesial surface; exopod operculiform, widest at about midlength, distally tapering to narrowly rounded apex, distal margin with numerous plumose marginal setae; exopod half width of and slightly shorter than exopod, with about 15 plumose marginal setae distally. Uropodal exopod about 2.6 times longer than greatest width, lateral margin sinuous, with broad distal emargination, proximolateral angle about 90°; bearing numerous marginal setae; endopod about 1.4 times longer

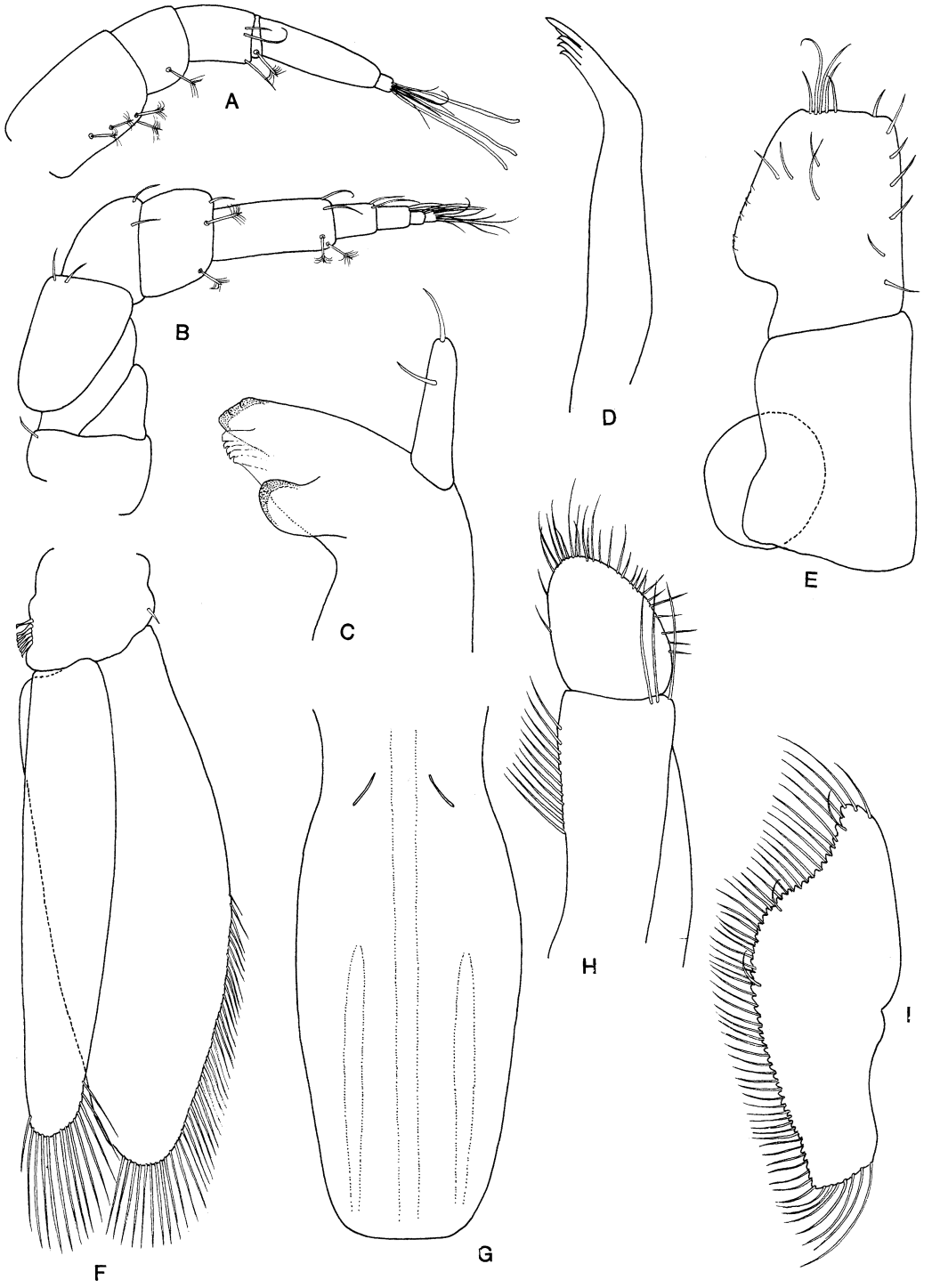

Fig. 14. *Ptilanthura colpos,* nonovigerous female, 11.5 mm tl. A, antennule; B, antenna; C, mandible; D, maxilla; E, maxilliped; F, pleopod 1; G, pleotelson; H, uropodal endopod and basis; I, uropodal exopod.

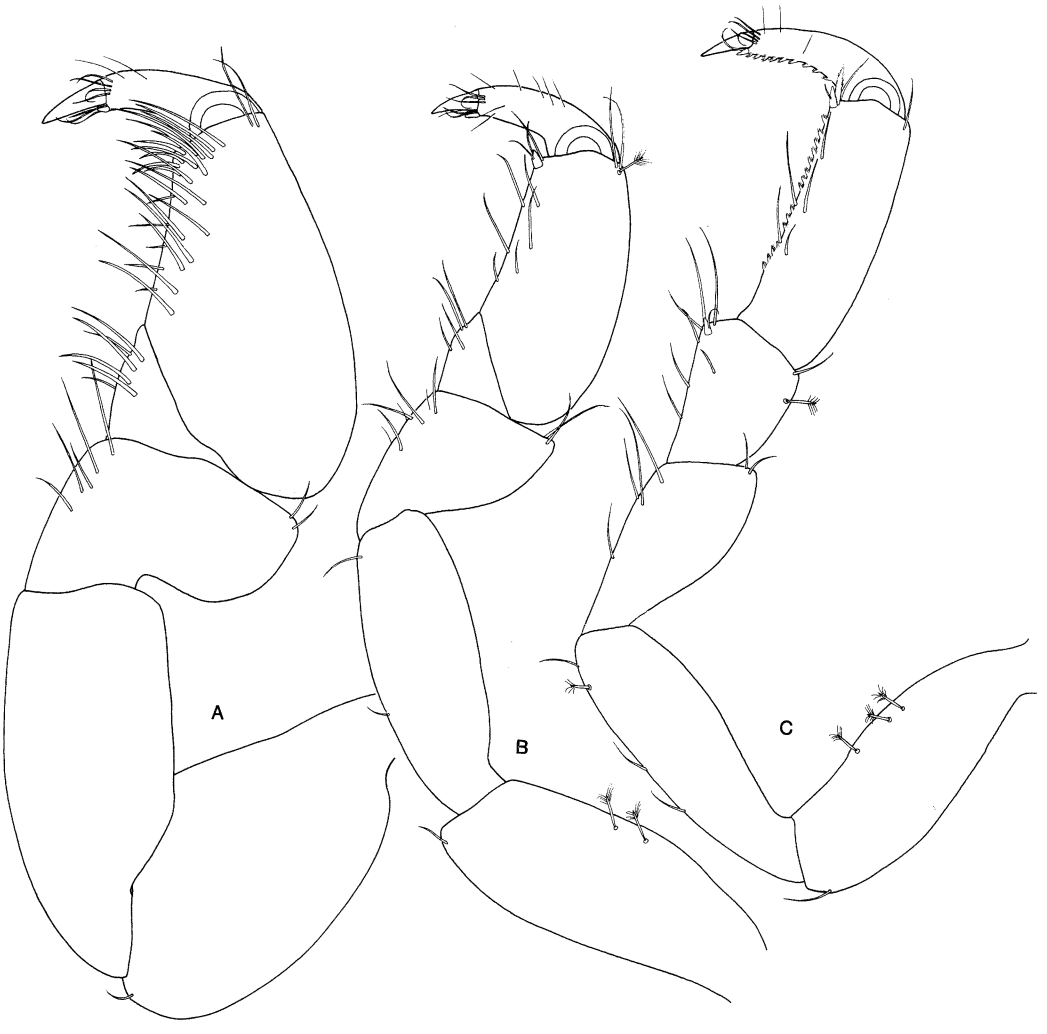

Fig. 15. *Ptilanthura colpos,* nonovigerous female, 11.5 mm tl. A, pereiopod 1; B, pereiopod 2; C, pereiopod 7.

than wide, distally broadly rounded, with numerous marginal setae.

Remarks.—*Ptilanthura colpos* differs in several features from *P. tenuis.* The cephalon is longer than wide, about as long as wide in *P. tenuis.* The emargination of the anterodorsal margin of pereionite 1 is roughly rectangular, broadly triangular in *P. tenuis.* The pleotelson is narrower, about 2.3 times longer than greatest width, the posterior margin is broadly rounded to subtruncate, about 1.8 times longer than wide and posteriorly more narrowly rounded and tapered in *P. tenuis.* Article 2 of the antennular flagellum is proportionately longer. The notch in the lateral margin of the maxillipedal palp is more pronounced. For pereiopod 1, the palmar-mesial surface of the propodus is more setose. Pleopod 1 carries more plumose marginal setae. The uropodal exopod is more elongate, with the proximolateral angle about 90°; the endopod is relatively shorter and more rounded.

Etymology.—The specific name, from the Greek *kolpos,* a gulf, refers to the Gulf of Mexico.

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