

Fig. 21. *Microarcturus similis* (Barnard) A. Male, dorsal view. B. Female, dorsal view. C. Mandible. D. Maxilla 1. E. Maxilla 2. F. Antennule. G. Antenna. H. Uropodal rami. Scale = 5 mm.

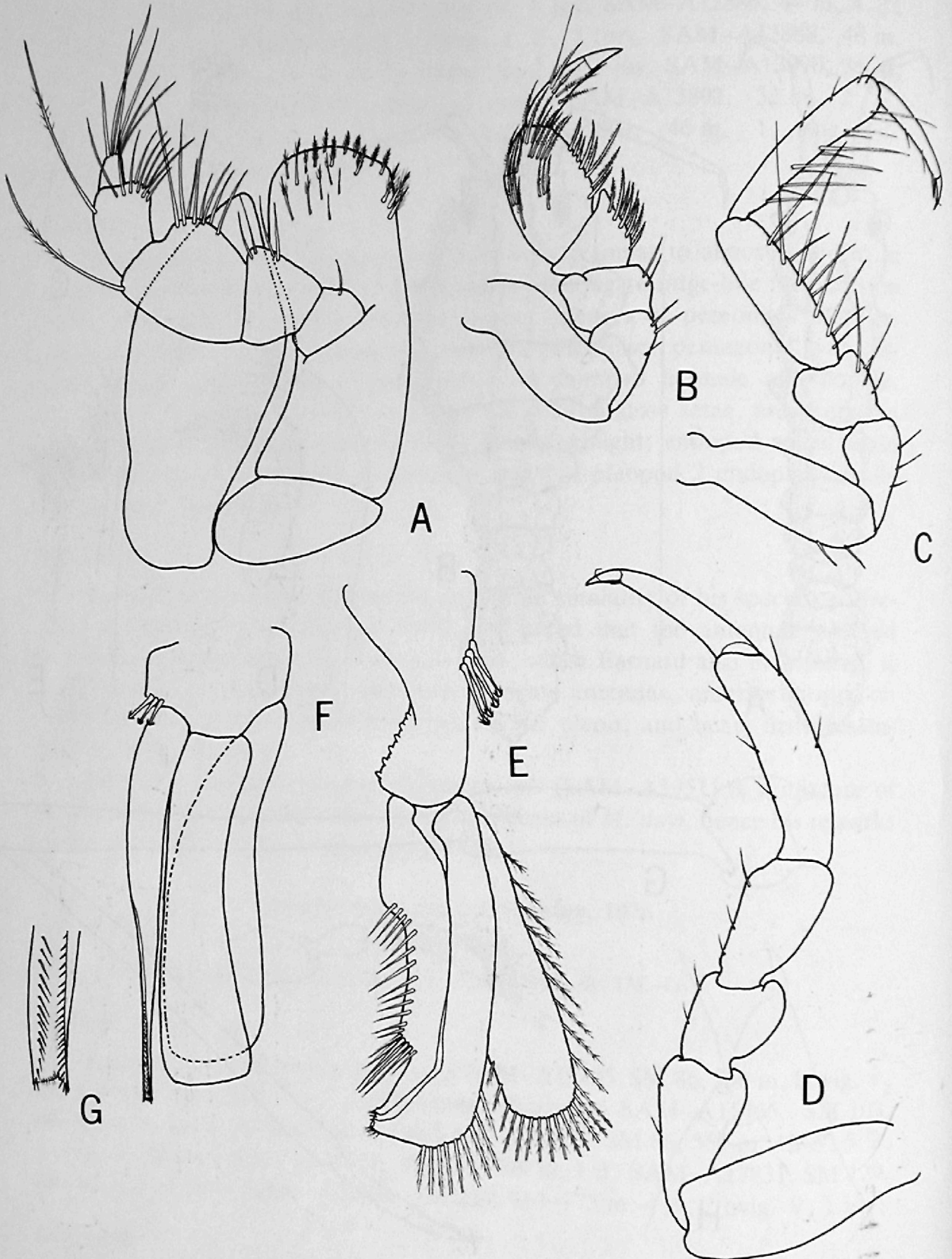


Fig. 22. *Microarcturus similis* (Barnard) A. Maxilliped. B. Pereopod 1. C. Pereopod 2. D. Pereopod 7. E. Pleopod 1 male. F. Pleopod 2 male. G. Apex of copulatory stylet.

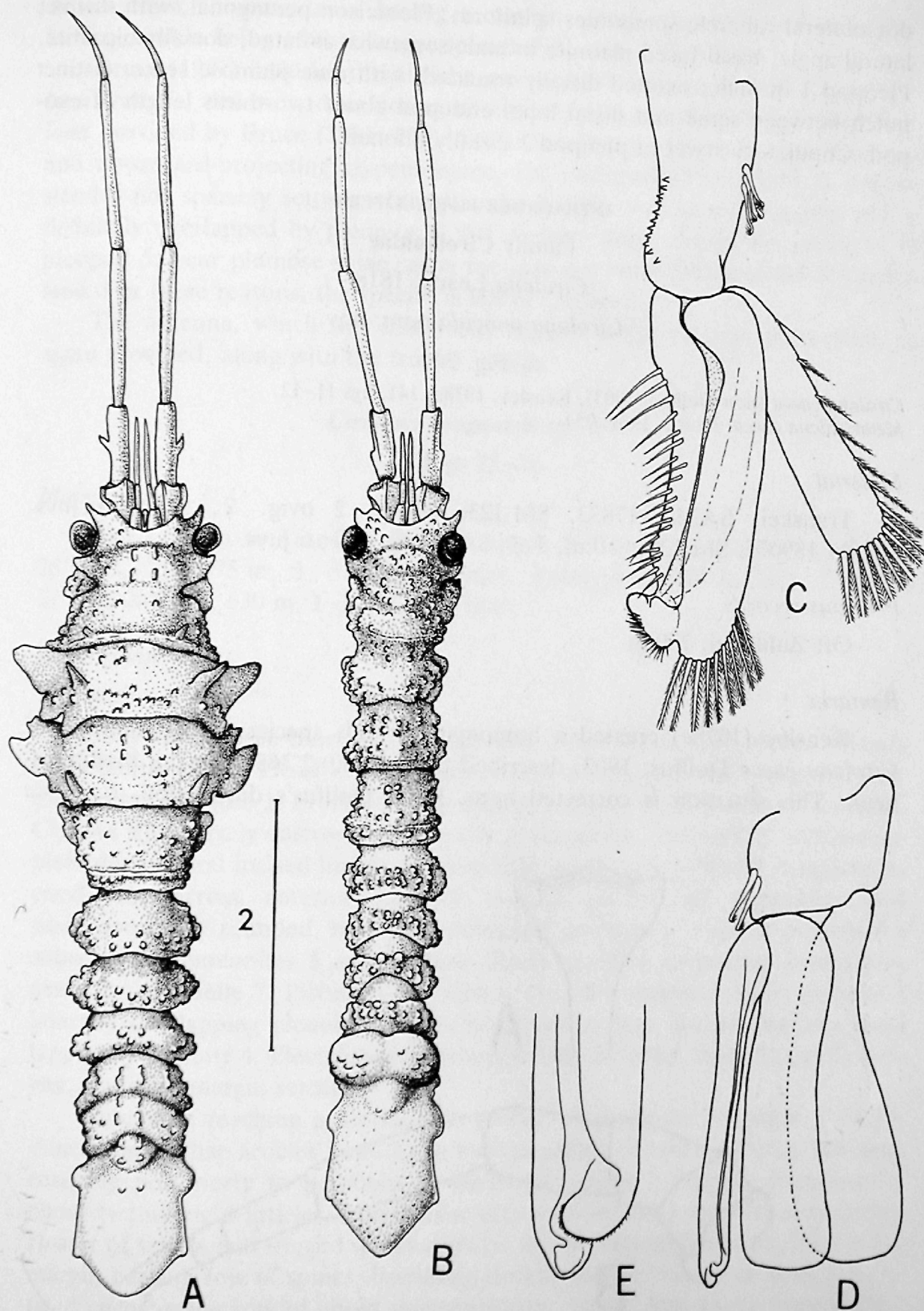


Fig. 23. *Microarcturus youngi* Kensley A. Female, dorsal view. B. Male, dorsal view. C. Pleopod 1 male. D. Pleopod 2 male. E. Apex of copulatory stylet. Scale = 2 mm.

dorsolateral tubercle sometimes spiniform. Pleotelson pentagonal, with distinct lateral angle; basal fused pleonite in male somewhat inflated, dorsally bipartite. Pleopod 1 in male, exopod distally rounded, with nine plumose setae, distinct notch between setae and distal lobe; endopod about two-thirds length of exopod. Copulatory stylet of pleopod 2 distally bilobed.

INFRAORDER FLABELLIFERA

Family Cirolanidae

Cirolana Leach, 1818

Cirolana anocula nom. nov.

Fig. 24

Cirolana caeca (non Dollfus, 1903), Kensley, 1978a: 141, figs 11–12.

Metacirolana caeca: Bruce, 1981: 954.

Material

Transkei. SAM-A17833, SM 123, 690 m, 2 ovig. ♀, 3 ♀, 3 juvs.
USNM 189075, SM 129, 850 m, 5 ♂, 5 ovig. ♀, 3 ♀, 6 juvs.

Previous records

Off Zululand, 750 m.

Remarks

Kensley (1978a) created a homonym for this species, being unaware of *Cirolana caeca* Dollfus, 1903, described from 1 200–2 368 m in the Mediterranean. This situation is corrected here. From Dollfus's description, *C. caeca*

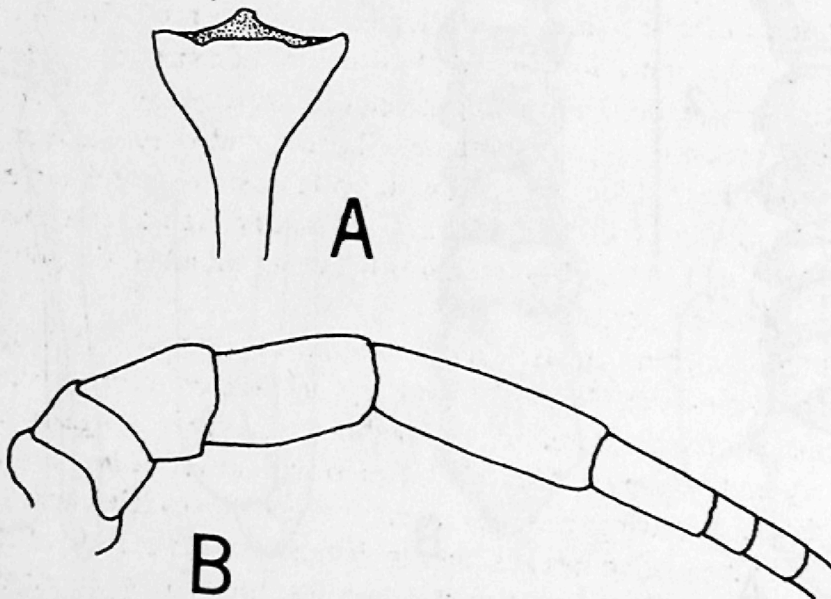


Fig. 24. *Cirolana anocula* nom. nov. A. Frontal lamina. B. Peduncle of antenna.

differs from *C. anocula* in having a narrow, longitudinally grooved frontal lamina, and in being a much larger species (TL ovig. ♀ 9,0 mm).

Bruce (1981) includes the present species in the genus *Metacirolana*. *Cirolana anocula*, however, does not agree entirely with the diagnosis of *Metacirolana* provided by Bruce (1981: 950). While the distally divergent frontal lamina and downward-projecting clypeus agree, the endopod of maxilla 1 is neither slender nor sparsely setose, while pleonite 5 lacks free lateral margins and is definitely overlapped by pleonite 4. All pleonite rami, except the endopod of pleopod 5, bear plumose setae, as is the case for both *Cirolana* and *Metacirolana*. For these reasons, the species is left in *Cirolana*.

The antenna, which was incorrectly figured in the original description, is again provided, along with the frontal lamina.

Cirolana bougaardti sp. nov.

Figs 25–26

Material

East London to Transkei area. Holotype SAM–A17834, SM 226, 32°28'S 28°58'E, 710–775 m, 1 ♂, TL 17,0 mm. Paratype SAM–A17835, SM 162, 32°55'S 28°31'E, 630 m, 1 ♂, TL 11,0 mm.

Description

Male

Body about three times longer than wide, dorsally strongly convex. Integument faintly pitted. Head with anterior margin evenly rounded, posteriorly immersed in pereonite 1. Frontal lamina basally narrow, distally dilated, rounded. Clypeus transversely narrowly rectangular. Eyes absent. Pereonite 1 with incomplete dorsolateral incised line in anterior half; pereonites 2–7 with complete incised line across anterior half of dorsum. Coxae of pereonites 2–4 posteroventrally rounded, becoming produced posteriorly; coxa of pereonite 5 subacute, of pereonites 6 and 7 acute. Short rounded submedian penial processes on pereonite 7. Pleonites 1–3 with acute posteroventral angle, pleonite 3 laterally overlapping pleonite 4; pleonite 5 lacking free lateral margins, overlapped by pleonite 4. Pleotelson posteriorly evenly rounded, dorsally gently convex, posterior margin setose.

Antennule reaching posteriorly to middle of pereonite 1; article 3 of peduncle longer than articles 1 and 2 together; flagellum of twelve articles. Antenna reaching posteriorly to pereonite 3; peduncle article 5 longest; flagellum of about twenty-eight articles. Mandibular palp with article 2 longest, armed with cluster of simple and fringed spines distally; article 3 strongly curved, with inner margin bearing row of spines, becoming distally longer; incisor of three sclerotized cusps; spine row of about thirteen spines; molar with about twenty-eight teeth. Maxilla 1, outer ramus with twelve distal spines, inner ramus with three stout plumose setae. Maxilla 2, inner ramus with numerous simple and fringed

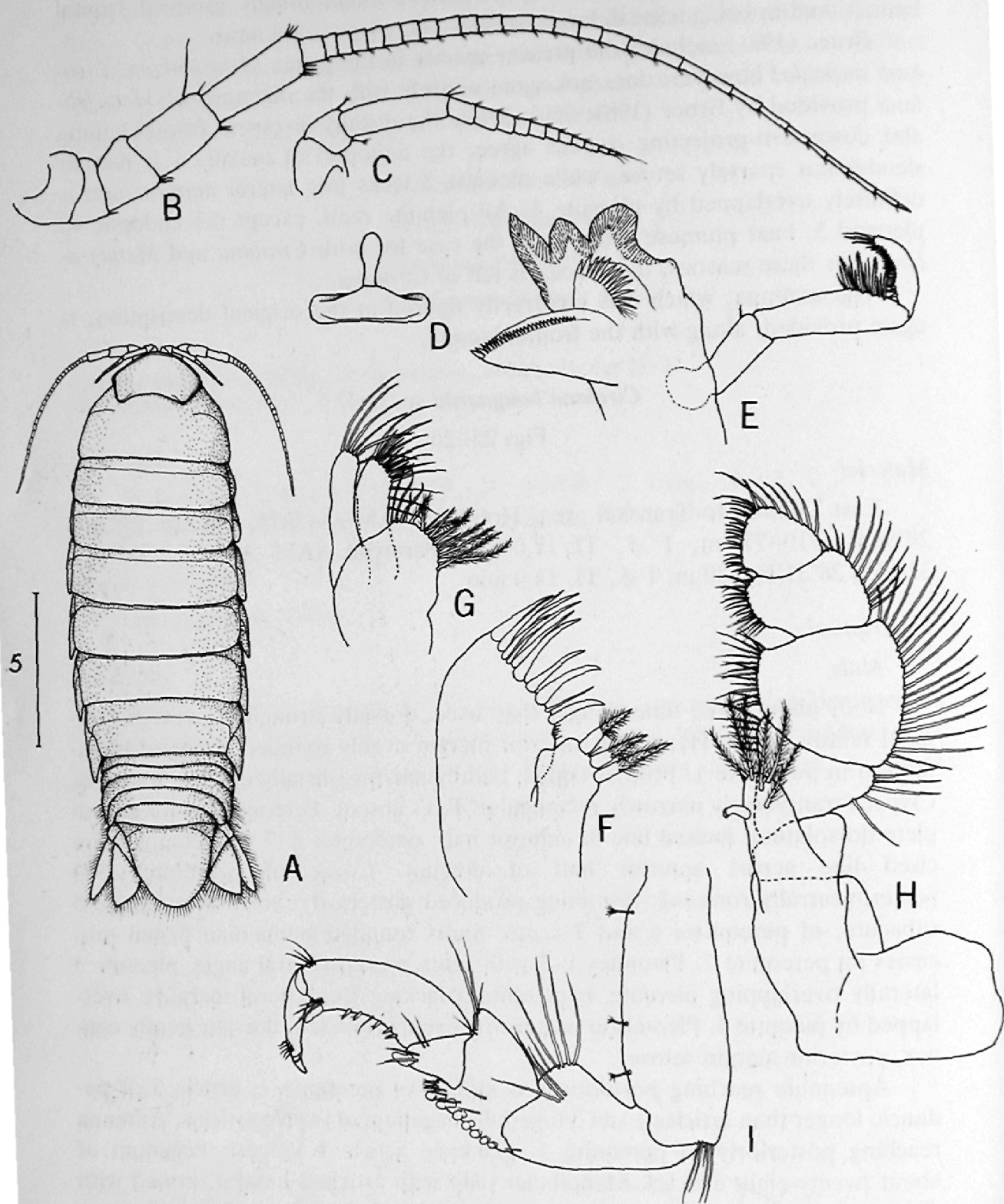


Fig. 25. *Cirolana bougaardti* sp. nov. A. Holotype male, dorsal view. B. Antenna. C. Antennule. D. Frontal lamina and clypeus. E. Mandible. F. Maxilla 1. G. Maxilla 2. H. Maxilliped. I. Pereopod 1. Scale = 5 mm.

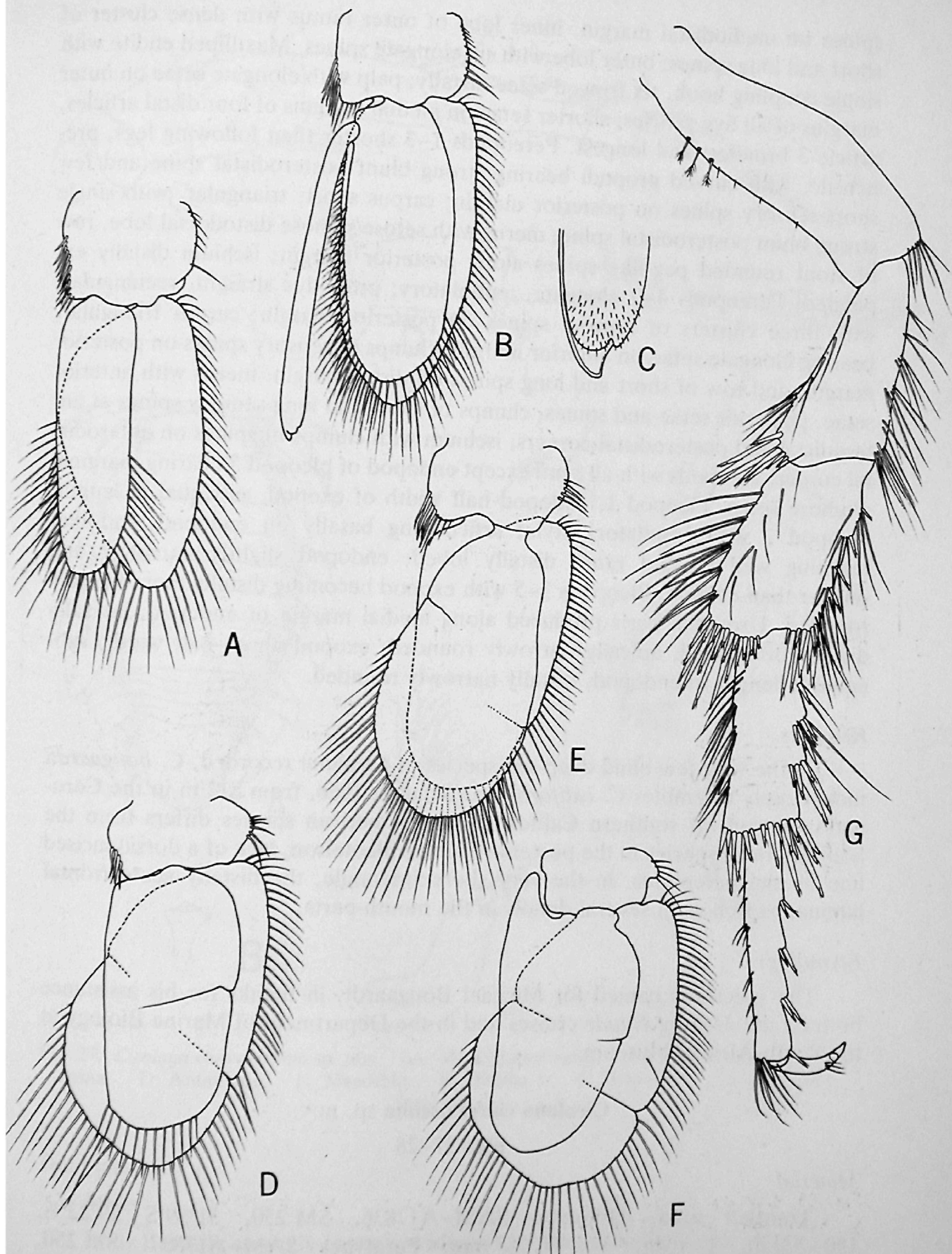


Fig. 26. *Cirolana bougaardti* sp. nov. A. Pleopod 1. B. Pleopod 2 male. C. Apex of copulatory stylet. D. Pleopod 3. E. Pleopod 4. F. Pleopod 5. G. Pereopod 7.

spines on mediodistal margin; inner lobe of outer ramus with dense cluster of short and long spines; outer lobe with six elongate spines. Maxilliped endite with single coupling hook, six fringed setae distally; palp with elongate setae on outer margins of all five articles; shorter setae on medial margins of four distal articles, article 3 broadest and longest. Pereopods 1–3 shorter than following legs, prehensile, with curved propodi bearing strong blunt posterodistal spine and few short sensory spines on posterior margin; carpus short, triangular, with single strong blunt posterodistal spine; merus with setose/spinose distodorsal lobe, row of stout rounded peg-like spines along posterior margin; ischium distally expanded. Pereopods 4–7 elongate, ambulatory; propodus straight, rectangular, with three clusters of sensory spines on posterior margin; carpus triangular, bearing elongate setae on anterior margin, clumps of sensory spines on posterior margin, and row of short and long spines on distal margin; merus with anterior setae, posterior setae and spines, clumps of short and long sensory spines at anterodistal and posterodistal corners; ischium with clumps of spines on anterodistal corner. Pleopods with all rami except endopod of pleopod 5 bearing marginal plumose setae. Pleopod 1, endopod half width of exopod, subequal in length. Pleopod 2 with copulatory stylet articulating basally on endopod, rod-like, reaching well beyond rami, distally lobed; endopod slightly narrower and shorter than exopod. Pleopods 3–5 with exopod becoming distally more broadly rounded. Uropodal basis produced along medial margin of endopod; laterally distally broadened, apically narrowly rounded; exopod about half width, subequal in length to endopod, distally narrowly rounded.

Remarks

Of the very few blind deep-sea species of *Cirolana* recorded, *C. bougaardti* most closely resembles *C. californiensis* Schultz, 1966, from 812 m in the Coronado Canyon off southern California. The American species differs from the South African species in the posteriorly acute pleotelson, lack of a dorsal incised line on the pereonites, in the very short antennule, the distally acute frontal lamina, as well as in several details in the mouth-parts.

Etymology

The species is named for Michael Bougaardt, in thanks for his assistance both on the *Meiring Naude* cruises and in the Department of Marine Biology at the South African Museum.

***Cirolana convexissima* sp. nov.**

Figs 27–28

Material

Transkei area. Holotype SAM-A17836, SM 250, 31°59'S 29°22'E, 150–200 m, 1 ovig. ♀, TL 3,3 mm. Paratypes SAM-A17837, SM 250, 150–200 m, 1 ♂, TL 2,6 mm, 4 juvs. Paratypes USNM 189076, SM 250, 150–200 m, 1 ♂, TL 2,6 mm, 1 ovig. ♀, TL 3,3 mm, 3 juvs.

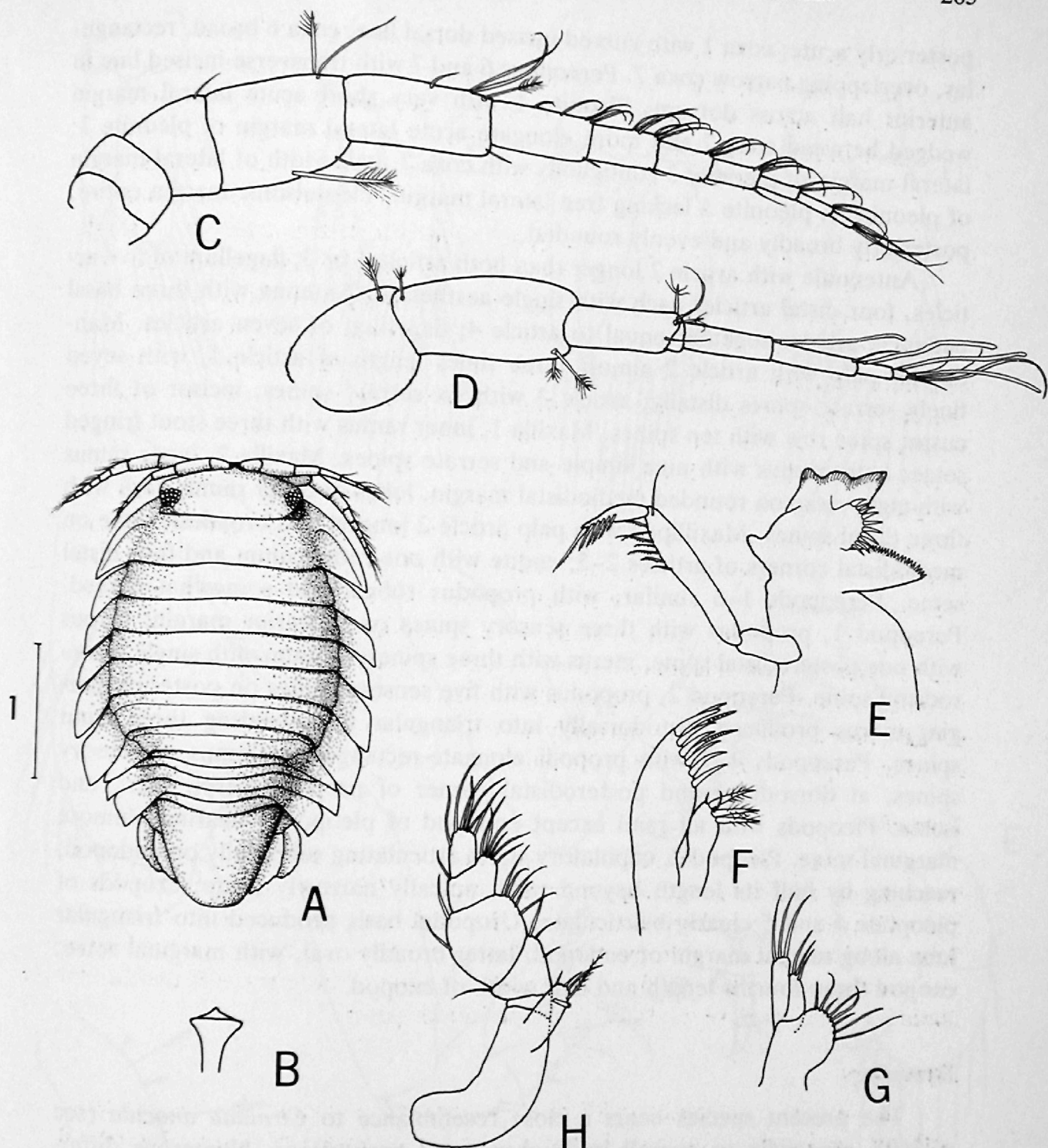


Fig. 27. *Cirolana convexissima* sp. nov. A. Male, dorsal view. B. Frontal lamina. C. Antenna. D. Antennule. E. Mandible. F. Maxilla 1. G. Maxilla 2. H. Maxilliped. Scale = 1 mm.

Description

Male

Body dorsally strongly convex, widest at pereonite 5. Head with tiny rostral point, only partially immersed in pereonite 1; with relatively well-pigmented eyes. Frontal lamina distally dilated, basally narrow. Coxae of pereonites