

margins; meri with strong elongate spine on anterodistal angle. Pleopod 1, rami with outer distal margins evenly rounded, bearing row of short setae, inner apices subacute. Uropods with inner ramus slightly longer and narrower than outer, both rami tipped with elongate setae.

Female

Pereopod 1, dactylus with row of short serrate spines on cutting edge; propodus with strong posterodistal serrate spine, palm with eleven slender fringed spines. Operculum with short apical notch.

Remarks

Of the eight southern African species of *Stenetrium* having well-pigmented reniform eyes, *S. perestrelloi* most closely resembles *S. esquartum* Schultz, 1982a, known from False Bay to the East London area. Schultz's species has a very similar rostrum and palmar armature on pereopod 1 ♂, but a more elongate propodus, serrate lateral margins of the pleon, pleopod 1 ♂ is distally truncate-rounded, the antennular flagellum has more articles, while the inner lobe of maxillipedal palp article 3 is not as broadly rounded.

Stenetrium crassimanus Barnard, 1914, is similar to the present species in the broadly setose pereopod 1 of the male, but has three equally strong palmar teeth (see Kensley 1978e, fig. 65F), and a triangular rostrum, unlike *S. perestrelloi* which has large and small palmar teeth and a roughly pentagonal rostrum.

Etymology

The species is named after Manoel de Mesquita Perestrello, a sixteenth-century Portuguese explorer who mapped the east coast of South Africa. (K. H. Barnard previously named four species of *Stenetrium* after Portuguese explorers.)

Family Janiridae

Ianisera Kensley, 1976

Ianisera expansa sp. nov.

Figs 33–34

Material

Holotype SAM-A17841, SM 129, 30°53'S 30°31'E, 850 m, 1 ♂, TL 3,2 mm; allotype, 1 ovig. ♀, TL 3,1 mm. Paratypes SAM-A17842, SM 123, 30°33'S 30°48'E, 690 m, 2 ♂, 2 ♀. Paratypes SAM-A17843, SM 103, 28°31'S 32°34'E, 680 m, 4 ♀. Paratypes SAM-A17844, SM 86, 27°59'S 32°40'E, 550 m, 1 ovig. ♀, 2 ♀. Paratypes SAM-A17845, SM 129, 850 m, 3 ♂, 3 ovig. ♀, 3 ♀. Paratypes SAM-A17846, SM 185, 33°39'S 27°11'E, 90 m, 1 ♀, 3 juvs. Paratypes USNM 189079, SM 226, 32°28'S 28°58'E, 710–775 m, 3 ♂, 1 ovig. ♀, 2 ♀.

*Description**Male*

Body strongly dorsoventrally flattened, parallel-sided, three times longer than wide, widest at pereonite 6. Head with poorly pigmented dorsolateral eyespots, lacking ommatidia; frontal margin medially very gently convex; lateral margins convex, finely serrate. Pereonites with lateral margins faintly serrate, serrations becoming obsolete posteriorly in adult specimens; pereonites 2 and 3 laterally bilobed. Pleon of single segment, wider than long, lateral margins finely serrate, posterior margin evenly rounded between uropodal bases. Antennule reaching to base of antennal peduncle article 5, with broad flattened basal article, five distal articles; single aesthetasc on terminal and subterminal article. Antenna (broken in most specimens) with three proximal peduncle articles together shorter than article 4; article 2 with short accessory scale; article 5 one and two-thirds length of article 4; flagellum longer than peduncle, of about thirty articles. Mandibular palp with basal article longer than article 2, latter with three strong serrate spines in distal half; article 3 strongly curved, with seven proximal simple spines and row of distal spines increasing in length to longest terminal spine; incisor of four indurate cusps; lacinia mobilis stout, bearing four or five serrations; four fringed spines in spine row; molar stout, with distally truncate grinding surface. Maxilla 1, inner ramus with two fringed setae and several finer setules; outer ramus with eight serrate spines. Maxilla 2, inner ramus one and one-half times wider than lobes of outer ramus, bearing several simple and fringed setae on mediodistal margin; lobes of outer ramus each bearing three elongate fringed setae. Maxilliped with articles 2 and 3 of palp expanded; endite with several fringed and simple spines distally, short single spine at mediodistal angle, two coupling hooks on medial margin. Pereopods all biunguiculate; pereopod 1 shorter than following legs; few short sensory spines on posterior margins of propodi and carpi. Pleopod 1 basally broad, rami fused for three-fourths of length, distally with semicircular marginally setose median area, and triangular spinose lateral lobe. Pleopod 2, inner ramus distally greatly produced into fine whip-like structure; outer ramus with setose shoulder in distal half of lateral margin. Pleopod 3, inner ramus with three stout plumose setae; outer ramus of two articles, both setose on outer margins. Uropod with stout basis, inner ramus slightly wider and almost one-fourth longer than outer, both rami tipped with fine setae.

Ovigerous female

Overall proportions and appendages as in male. Operculum subcircular, with marginal fringe of setae on distal third.

Remarks

Given the uncertain status of many of the nominal janirid genera, placing of the present species must be tentative. The general body form and the appendages suggest an affinity with the *Janira-Neojaera-Ianiropsis-Janilirata* group

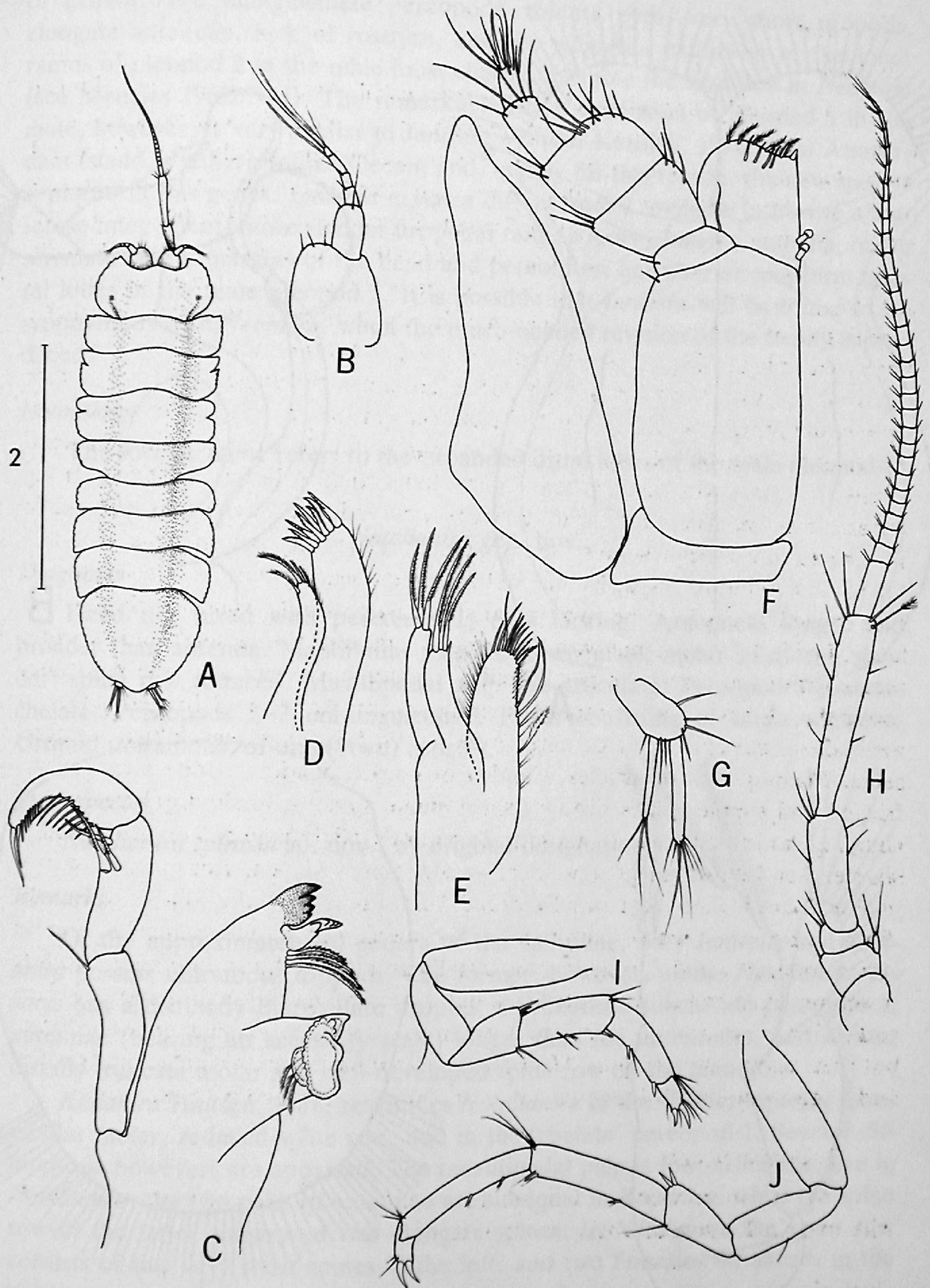


Fig. 33. *Ianisera expansa* sp. nov. A. Male, dorsal view. B. Antennule. C. Mandible. D. Maxilla 1. E. Maxilla 2. F. Maxilliped. G. Uropod. H. Antenna. I. Pereopod 1. J. Pereopod 7. Scale = 2 mm.

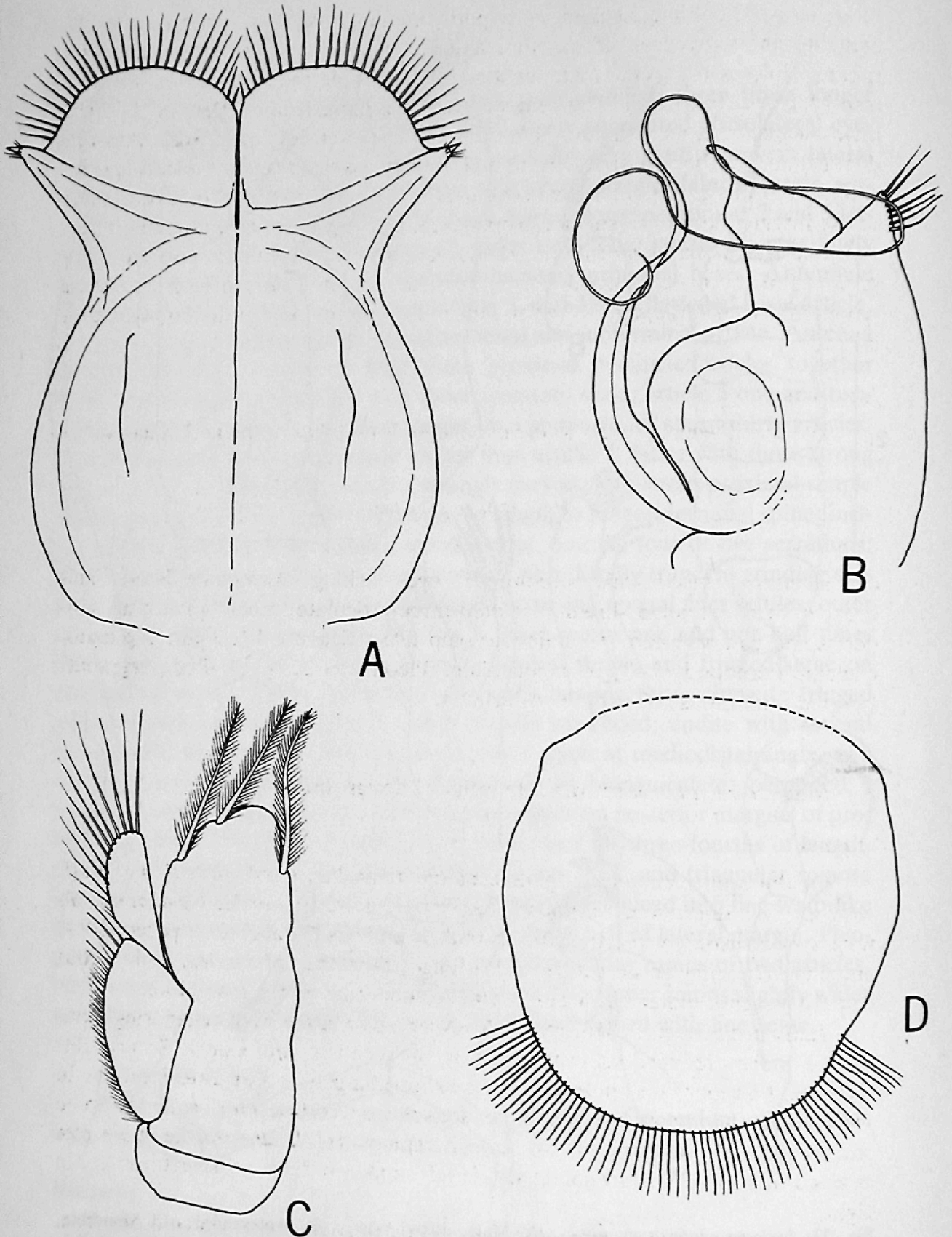


Fig. 34. *Ianisera expansa* sp. nov. A. Pleopod 1, male. B. Pleopod 2 male. C. Pleopod 3 male. D. Operculum, female.

of genera. The biunguiculate pereopods, minute eyes, very short uropods, elongate antennae, lack of rostrum, and the whip-like extension of the inner ramus of pleopod 2 in the male most closely resemble the situation in *Neojaera* (see Menzies 1962b: 74). The remarkable distal expansion of pleopod 1 in the male, however, is very similar to *Ianisera trepidus* Kensley, 1976, from Amsterdam Island, southern Indian Ocean, and, mainly for this reason, the new species is placed in this genus. *Ianisera expansa* differs from *I. trepidus* in having a less setose integument, more slender uropodal rami, a more elongate antenna, finely serrulate lateral margins of the head and pereonites, and shorter spiniform lateral lobes of the male pleopod 1. It is possible that *Ianisera* will be found to be synonymous with *Neojaera*, when the much-needed revision of the family is produced.

Etymology

The specific name refers to the expanded distal lobes of the male pleopod 1.

Natalianira gen. nov.

Diagnosis

Head not fused with pereonite 1; eyes lacking. Antennule longer and broader than antenna. Mandibular palp three-articulate; molar spiciform, slender; spine row reduced. Maxillipedal palp five-articulate. Pereopod 1 pseudo-chelate. Pereopods 2-7 uni-unguiculate. Pleon consisting of single segment. Uropod uniramous, of one (?two) articles.

Type species

Natalianira spinosa sp. nov., by original designation.

Remarks

Of the approximately 40 genera of the Janiridae, only *Janirella* and *Katianira* possess uniramous uropods. The former, however, unlike *Natalianira*, always has a distinctly biarticulate uropod, a prehensile subchelate pereopod 1, antennae (bearing an accessory scale) longer than the antennules, and a stout distally truncate molar and well-developed spine row on the mandible.

Katianira Hansen, 1916, resembles *Natalianira* in the slender tapering mandibular molar, reduced spine row, and in the 'chelate' pereopod 1. Several differences, however, are apparent. The maxillipedal palp is four-articulate, five in *Natalianira*; the two pairs of antennae are subequal in *Katianira*, while the spine row of the latter consists of two elongate spines. In *Natalianira* the spine row consists of two very short spines in the left, and two flattened structures in the right.

The highly modified mandible and uropod of *Natalianira*, which differ from those of most genera of the Janiridae, suggest that this is a far more apomorphic form than most members of the family. The highly spinose nature of the body

margins and appendage margins, and the pseudochelate pereopod 1 may be an adaptation for life in a rubble or organic detritus-rich habitat. In all specimens, the body outline was obscured by debris entangled in the marginal spines.

Etymology

The generic name is a combination of 'Natal', along the continental shelf of which province the animals were collected, and '*Janira*', the type genus of the family. Gender: feminine.

Natalianira spinosa sp. nov.

Figs 35-36

Material

Zululand to southern Natal area. Holotype SAM-A17865, SM 123, 30°33'S 30°48'E, 690 m, 1 ♂, TL 2,5 mm. Paratypes SAM-A17866, SM 129, 30°53'S 30°31'E, 850 m, 1 ovig. ♀, TL 3,0 mm, 1 ♂, TL 2,5 mm. Paratype USNM 189082, SM 86, 27°59'S 32°40'E, 550 m, 1 ♂, TL 2,5 mm. Paratype USNM 189083, SM 103, 28°31' 32°34'E, 680 m, 1 ♂, TL 2,1 mm.

Description

Male

Body elongate-oval. Head slightly more than three times wider than long; frontal margin straight, armed with row of spines; eyes lacking, but unpigmented rounded lobe present lateral to antennular base; broader spinose rounded lobe posterolateral to eye rudiment; dorsum with four spinose tubercles. Pereonite 1 with spinose lateral margin consisting of single lobe; pereonites 2-7 each with bilobed spinose lateral margins; all pereonites bearing one middorsal and two lateral rounded spine-bearing tubercles. Pleon consisting of single segment, with rounded lateral lobe in anterior half, posterior margin between uropodal bases tapering to rounded apex; dorsally rounded with large middorsal and smaller lateral spinose tubercles.

Antennule with broad flattened basal article bearing two spines on medial and eight spines on outer margins; flagellum of eight articles, second article four times longer than first, articles 4-7 each with single aesthetasc, terminal article with three aesthetascs. Antenna considerably shorter and narrower than antennule, of five peduncle articles and single flagellar article. Mandible with three-articulate palp, basal article about one-fifth longer than second, distal article shorter than second, with six spines on distal margin; incisor of two or three narrow cusps; bicuspid lacinia mobilis on one side, with two very small spines in spine row, three flattened spines on other side; molar spiciform, with one small distal tooth on one side; bluntly triangular keel-like structure distal to palp insertion. Maxilla 1, inner ramus with three elongate serrate spines and one very short simple spine distally; outer ramus with thirteen simple and serrate spines. Maxilla 2, inner ramus

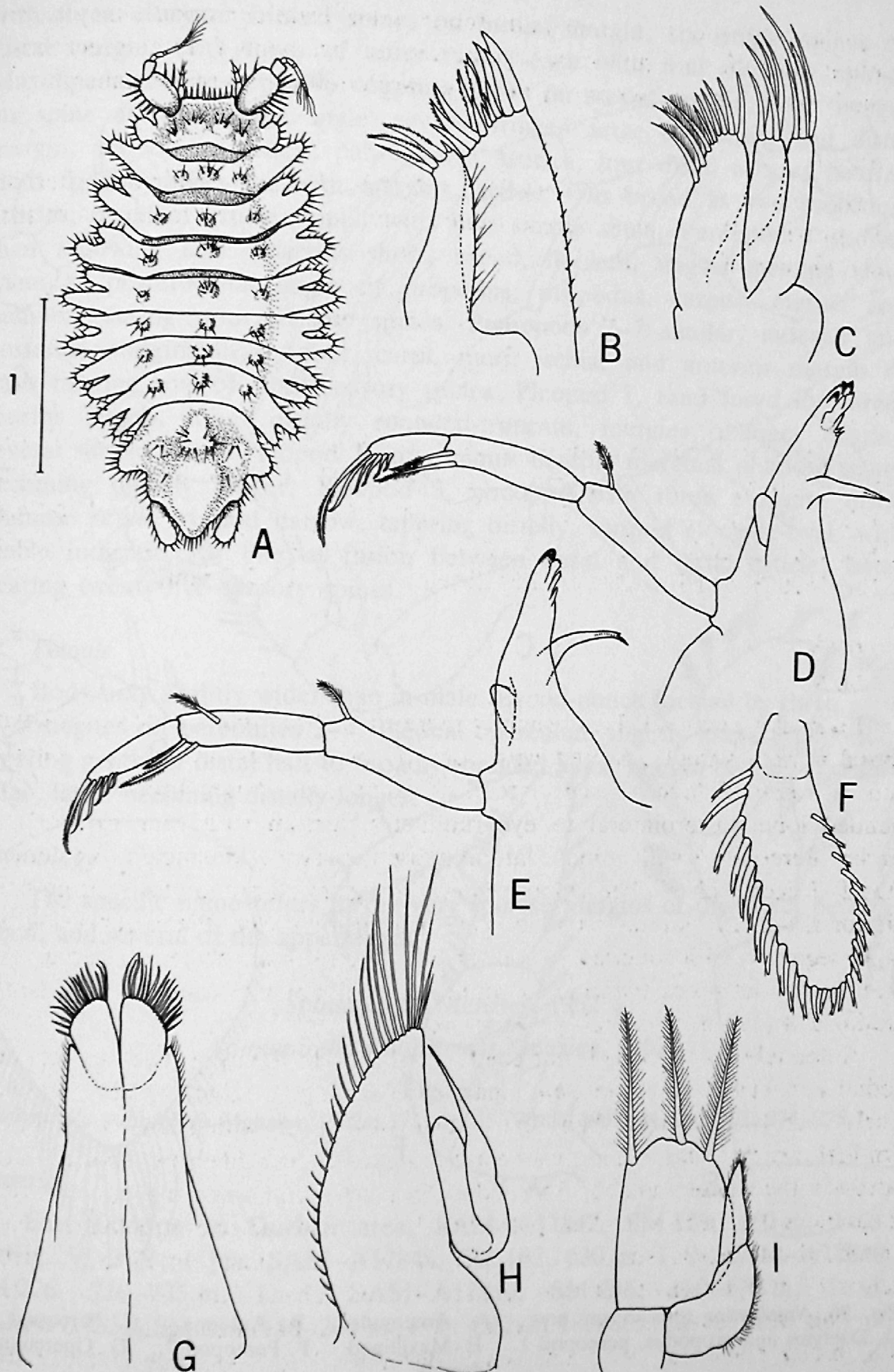


Fig. 35. *Natalianira spinosa* sp. nov. A. Holotype, dorsal view. B. Maxilla 1. C. Maxilla 2. D. Right mandible. E. Left mandible. F. Uropod. G. Pleopod 1 male. H. Pleopod 2 male. I. Pleopod 3 male. Scale = 1 mm.

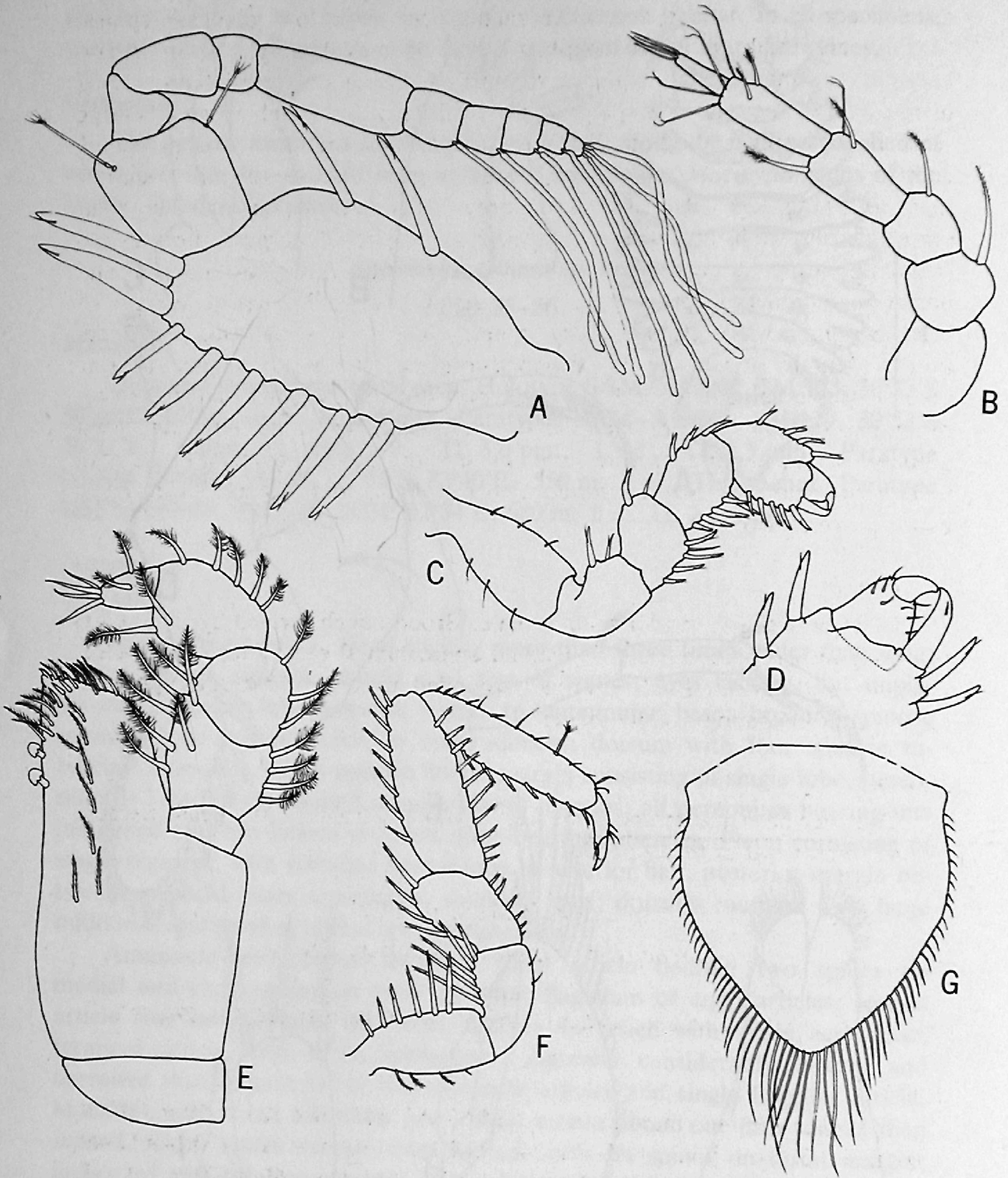


Fig. 36. *Natalianira spinosa* sp. nov.
D. Dactylus and propodus, pereopod 1.

A. Antennule.
E. Maxilliped,
female.

B. Antenna.
F. Pereopod 7.

C. Pereopod 1.
G. Operculum,

with three elongate fringed spines on mesial margin, six simple spines on distal margin; both lobes of outer ramus each with four elongate spines. Maxillipedal endite with two coupling hooks on mesial margin, short irregular spine at mediobasal angle; several fringed setae on mesial and distal margin, and outer surface; palp of five articles, four distal articles bearing stout fringed spines on both margins, article 4 as broad as two preceding articles; terminal article tipped with four simple setae. Pereopod 1 shorter than following legs; dactylus short, broad, hooked, unguis meeting stout spine at posterobasal angle of propodus; propodus, carpus, merus, and ischium bearing stout sensory spines. Pereopods 2-7 similar, anterior and posterior margins of propodi, carpi, meri, ischia, and anterior margin of basis bearing row of stout sensory spines. Pleopod 1, rami fused for three-fourths length, lobes distally rounded-truncate, margins oblique, bearing several simple setae. Pleopod 2 outer ramus bearing marginal plumose setae, becoming distally longer. Pleopod 3, endopod with three elongate distal plumose setae; exopod narrow, tapering distally, uropod elongate-oval, with feeble indication of line of fusion between basal and distal article; latter bearing twenty-five sensory spines.

Female

Body only slightly wider than in male. Brood-pouch formed by three pairs of oostegites on pereonites 2-4. Pleonal operculum slightly longer than wide, tapering gently in distal half to broadly rounded apex, margin bearing plumose setae, latter becoming distally longer.

Etymology

The specific name refers to the very spinose margins of the head, pereon, pleon, and several of the appendages.

Spinianirella Menzies, 1962

Spinianirella walfishensis Menzies, 1962

Fig. 37

Spinianirella walfishensis Menzies, 1962a: 171, fig. 55. Wolff, 1962: 34, 262, 271, 274, 275.

Material

East London to Durban area. SAM-A17847, SM 129, 850 m, 1 ♂, 1 ovig. ♀, 3 ♀, 1 juv. SAM-A17848, SM 162, 630 m, 1 ♀. SAM-A17849, SM 226, 710-775 m, 1 ♂. SAM-A17850, SM 236, 660-670 m, 1 ♂. SAM-A17851, SM 250, 150-200 m, 1 ♀. USNM 189080, SM 129, 850 m, 1 ♂, 3 ♀.

Previous records

South Atlantic, Walvis Basin, 1 816-2 970 m.