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THE SOUTH AFRICAN MUSEUM'S *MEIRING NAUDE* CRUISES PART 15 MARINE ISOPODA OF THE 1977, 1978, 1979 CRUISES

By

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THE SOUTH AFRICAN MUSEUM'S *MEIRING NAUDE* CRUISES

PART 15

MARINE ISOPODA OF THE 1977, 1978, 1979 CRUISES

BY

BRIAN KENSLEY

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(With 43 figures and 1 table)

[*MS accepted 25 August 1983*]

ABSTRACT

Fifty-one species (excluding the Anthuridea) collected off the east coast of South Africa are recorded. Two new genera, *Agularcturus* (Arcturidae) and *Natalianira* (Janiridae) and the following new species are described: *Agularcturus granulatus, Antarcturus bicornis, Astacilla eminentia, Microarcturus barnardi, M. halei, M. longispinus, M. nordenstami, Cirolana bougaardti, C. convexissima, Paracilicaea cordylina, Stenetrium perestrelloi, Ianisera expansa, Natalianira spinosa, Joeropsis integer, J. serrulus, Notoxenoides acalama, Haplomesus zuluensis, Ischnomesus glabra, Stylomesus natalensis*. The new name, *Cirolana anocula*, is provided for *C. caeca* Kensley, 1978, *non* Dollfus, found to be a homonym of a previously described Mediterranean species.

A brief discussion of the distribution and zoogeography of the isopods of all five cruises indicates the presence of a large endemic isopod fauna on the continental shelf and/or slope of the east coast of South Africa.

CONTENTS

INTRODUCTION

The present paper deals with most of the isopod material collected by the South African Museum's *Meiring Naude* cruises of 1977, 1978, and 1979. The isopod material from the first two cruises has already been dealt with in several

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publications (the Anthuridea (Kensley 1978*c*) and infraorders excluding the Anthuridea (Kensley 1978*a*)). Several shorter papers dealing with discreet taxa have also appeared (Kensley 1978*b*, 1978*d*, 1979). The Anthuridea of the three later cruises have been included in a revision of the southern African fauna (Kensley 1982). A brief discussion of the distributional information of all the cruises is given at page 298. A review of all the southern African species of *Microarcturus* (including those not collected during the *Meiring Naude* cruises) is included in an attempt to clarify the complicated taxonomy of this genus. Because of the confusion over names in the genus *Astacilla*, figures and a brief description of one Mediterranean species is included.

Station data for the 1975 and 1976 cruises may be found in Louw (1977), and for the 1977–9 cruises in Louw (1980).

SPECIES LIST FOR THE 1977–9 CRUISES (EXCLUDING ANTHURIDEA)

Material not identified to specific level is either damaged or immature.

	SM station no.	♂	♀	ovig. ♀	juv.
INFRAORDER VALVIFERA					
Family **Arcturidae**					
**Agularcturus granulatus* sp. nov.	163	3	—	2	3
	179	—	—	1	—
	185	1	—	—	—
**Antarcturus bicornis* sp. nov.	226	—	—	—	1
	232	4	—	—	2
Antarcturus kladophorus Stebbing	185	1	—	—	—
Arcturina hexagonalis Barnard	180	—	3	3	—
Arcturina scutula Kensley	164	1	—	—	—
	179	—	—	1	—
	180	1	—	2	—
Arcturinoides sexpes Kensley	163/4	17	10	18	—
	179	1	1	—	—
	180	5	1	7	—
	185	24	20	53	4
Astacilla corniger (Stebbing)	185	1	1	1	5
**Astacilla eminentia* sp. nov.	103	1	—	—	3
	109	1	—	—	—
	226	2	—	—	—
	232	2	2	—	—
Astacilla longispina (Kensley)	250	2	—	—	—
Astacilla tranquilla (Kensley)	250	1	1	—	—
	163/4	2	—	—	1
	179	1	—	—	—
Austroarcturus africana Kensley	185	2	—	—	—
	163	3	—	2	4
	179	3	—	2	2
	180	21	14	15	12
	185	8	4	10	2

* = new record

	SM station no.	♂	♀	ovig.♀	juv.
Austroarcturus foveolatus Kensley	163/4	—	—	1	—
	180	1	1	—	1
	185	8	4	2	13
**Microarcturus barnardi* sp. nov.	163	10	—	4	12
Microarcturus dayi Kensley	179	1	—	—	—
	180	6	—	1	4
**Microarcturus halei* sp. nov.	103	11	—	5	—
	109	—	—	1	—
	123	2	—	2	—
	226	11	—	6	20
	232	14	—	4	4
	250	6	—	6	17
**Microarcturus longispinus* sp. nov.	226	—	—	1	—
	228	1	—	—	—
	250	2	—	1	1
**Microarcturus nordenstami* sp. nov.	163	—	—	1	—
	185	13	4	13	9
	226	1	—	—	—
Microarcturus ornatus Kensley	228	5	—	—	—
	236	1	—	—	—
	250	6	—	—	—
Microarcturus oudops (Barnard)	103	2	—	4	4
	129	4	—	2	1
	226	7	—	6	—
	228	5	—	1	—
	236	1	—	—	1
Microarcturus quadriconus Kensley	179	2	—	5	—
	180	8	1	12	22
Microarcturus youngi Kensley	123	1	—	—	—
	129	3	—	—	2
	226	4	—	2	1
	232	14	1	4	—
Spinarcturus natalensis Kensley	123	1	—	—	—
	129	1	2	—	—
	226	—	—	—	1
	250	—	1	—	1
Family **Idoteidae**					
Idotea metallica Bosc	54	1	—	—	—
	160	—	1	—	—
	170	—	—	1	—
INFRAORDER FLABELLIFERA					
Family **Cirolanidae**					
Cirolana anocula nom. nov.	123	—	3	2	3
	129	5	3	5	6
**Cirolana bougaardti* sp. nov.	162	1	—	—	—
	226	1	—	—	—
**Cirolana convexissima* sp. nov.	250	2	—	2	7
Cirolana theleceps Barnard	163	—	1	—	—
	179	—	2	—	—
	185	—	2	—	—
Cirolana virilis Barnard	250	—	1	—	—
Conilorpheus scutifrons Stebbing	185	—	1	—	—
Family **Aegidae**					
Syscenus infelix Harger	119	1	—	—	—

* = new record

	SM station no.	♂	♀	ovig.♀	juv.
Family **Sphaeromatidae**					
Cymodoce alia Kensley	250	1	1	—	1
Cymodoce tuberculosa Richardson	163	5	—	—	—
Cymodoce velutina Kensley	185	1	1	—	1
	250	—	—	—	1
**Paracilicaea cordylina* sp. nov.	15	1	—	—	—
INFRAORDER GNATHIIDEA					
Family **Gnathiidae**					
Gnathia africana Barnard	179	1	—	—	—
	185	33	7	—	—
Gnathia cryptopais Barnard	226	2	—	—	—
	228	1	—	—	—
	232	2	—	—	—
Gnathia spongicola Barnard (*in situ*, in sponge *Tylodesma* sp.)	86	3	—	—	—
INFRAORDER ASELLOTA					
Family **Stenetriidae**					
Stenetrium abyssale Wolff	165	1	—	—	—
	226	—	1	—	—
Stenetrium crassimanus Barnard	250	—	2	—	—
Stenetrium dagama Barnard	123	1	1	—	—
	129	1	2	1	—
	151	—	1	—	—
	185	—	1	—	—
	226	2	—	—	—
	232	1	—	—	—
Stenetrium diazi Barnard	250	3	—	—	4
**Stenetrium perestrelloi* sp. nov.	163/4	2	1	1	18
Stenetrium saldanha Barnard	185	1	—	—	—
Family **Janiridae**					
**Ianisera expansa* sp. nov.	86	—	2	1	—
	103	—	4	—	—
	123	2	2	—	—
	129	4	3	4	—
	185	—	1	—	3
	226	3	2	1	—
**Natalianira spinosa* sp. nov.	86	1	—	—	—
	103	1	—	—	—
	123	1	—	—	—
	129	1	—	1	—
Paracanthaspidia natalensis Kensley	123	1	—	—	—
	226	—	1	—	—
	228	—	1	1	—
Spinianirella walfishensis Menzies	129	2	6	1	1
	162	—	1	—	—
	226	1	—	—	—
	236	1	—	—	—
	250	—	1	—	—
Family **Joeropsidae**					
**Joeropsis integer* sp. nov.	163	—	2	1	—
**Joeropsis serrulus* sp. nov.	163/4	—	1	1	—
	185	—	—	1	—

* = new record

	SM station no.	♂	♀	ovig. ♀	juv.
Family **Munnidae**					
Munna sp.	123	1	—	—	—
	129	—	1	—	—
	250	1	—	—	2
Family **Pleurogoniidae**					
**Notoxenoides acalama* sp. nov.	117	—	—	1	—
Family **Haploniscidae**					
Haploniscus gernekei Kensley	117	—	1	—	—
	123	3	1	1	—
	129	3	3	3	—
	228	—	1	—	—
	236	—	1	—	—
Family **Eurycopidae**					
Eurycope glabra Kensley	129	2	3	2	—
Family **Ilyarachnidae**					
Ilyarachna wolffi Kensley	250	2	—	1	—
Family **Ischnomesidae**					
**Haplomesus zuluensis* sp. nov.	60	—	—	2	—
**Ischnomesus glabra* sp. nov.	247	—	1	—	—
**Stylomesus natalensis* sp. nov.	117	—	2	—	1
	123	—	2	—	—
	129	3	1	1	—

SYSTEMATIC DISCUSSION

INFRAORDER VALVIFERA

Family **Arcturidae**

Agularcturus gen. nov.

Diagnosis

Head and pereonite 1 fused. Eyes dorsolateral. Antennal flagellum of two articles, ending in short claw. Pereopod 1, dactylus lacking terminal claw or spine. Pereopods 2–4 lacking dactyli. Pereonite 4 elongate, broad in female, cylindrical in male. Pleon consisting of one fused pleonite plus pleotelson. Exopod of pleopod 1 in male with notch at midlength and three specialized spines. Copulatory stylet of pleopod 2 male elongate-slender, apically bifid.

Type species

Agularcturus granulatus sp. nov.

Etymology

The name is derived from the Agulhas Current, which dominates the hydrology of the east coast of South Africa, plus the suffix '*arcturus*' frequently used for members of this family.

* = new record

Remarks

Agularcturus falls into the group of genera possessing a notched exopod of pleopod 1 male, i.e. *Arcturina, Astacilla, Neastacilla, Arcturinoides, Arcturella*, and *Spinarcturus*. The absence of a claw on the dactylus of pereopod 1 distinguishes it from *Astacilla*, while the lack of dactyli on pereopods 2–4 separates it from *Neastacilla*. The single fused pleonite in the pleon separates it from the rest of the group, as does the apically bifid copulatory stylet.

Agularcturus granulatus sp. nov.

Figs 1–2

Material

East London area. Holotype SAM–A15666, SM 179, 33°30′S 27°22′E, 80 m, 1 ovig. ♀, TL 9,1 mm. Allotype SAM–A15667, SM 163, 33°04′S 28°06′E, 90 m, 1 ♂, TL 7,9 mm. Paratype SAM–A15668, SM 185, 33°39′S 27°11′E, 90 m, 1 ♂, TL 5,5 mm. Paratypes SAM–A15669, SM 163, 90 m, 1 ovig. ♀, TL 8,0 mm, 1 ♂, TL 5,5 mm, 3 juvs. Paratypes USNM 189066, SM 163, 90 m, 1 ♂, TL 8,6 mm, 1 ovig. ♀, TL 7,5 mm.

Description

Female

Dorsolateral integument densely granulate, indurate, with fairly dense pile of fine, short setules. Head with two pairs of submedian, roughly conical tubercles, posterior pair longer; anterior margin deeply concave, anterolateral corners subacute. Eyes well pigmented, triangular. Head and pereonite 1 fused, line of fusion indicated by dorsolateral groove and ventrolateral slit; well-developed ventrolateral rim concealing buccal cavity and pereopod 1 in lateral view. Pereonite 1 with large median conical tubercle; epimeron barely marked. Pereonites 2–3 subequal, each with blunt middorsal tubercle; epimera short, with straight lateral margin. Pereonite 4 broader anteriorly than long, with slight posterior taper; lateral margin a broad rounded ridge; cluster of three dorsal tubercle clumps in anterior half; distinct hollow near posterolateral corner; strong submedian pair of backwardly directed spine-like tubercles on posterior margin. Pereonites 5–6 decreasing in length posteriorly, each with middorsal spine-like tubercle, epimera roughly triangular. Pleon consisting of single fused segment bearing strong middorsal spine-like tubercle, plus broadly pentagonal pleotelson; latter lacking ornament, with strong lateral angle; apex angle obtuse.

Antennule with three-articulate peduncle and uniarticulate flagellum bearing four aesthetascs. Antenna equal in length to head plus pereonites 1–4; flagellum of two articles, ending in short claw. Mouth-parts as figured. Pereopod 1 much shorter than pereopod 2, five distal articles setose; dactylus lacking strong terminal claw. Pereopods 2–4 slender, strongly setose, dactyli lacking; three proximal articles with pile of short setules on outer margins, basal article with outer surface granulate; coxa of pereopod 4 forming major part of brood-pouch,

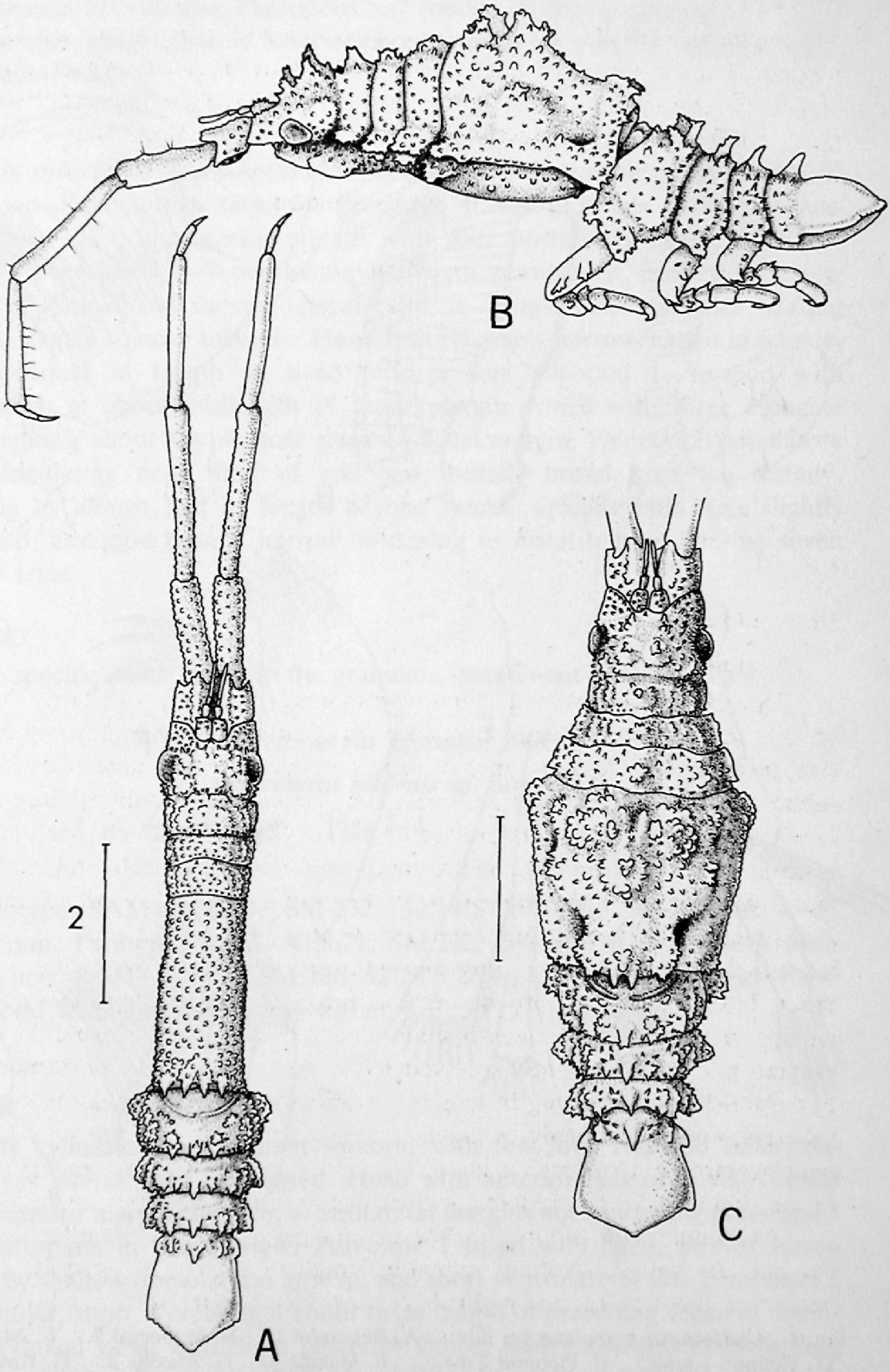

Fig. 1. *Agularcturus granulatus* sp. nov. A. Male, dorsal view. B. Female, lateral view. C. Female, dorsal view. Scales = 2 mm.

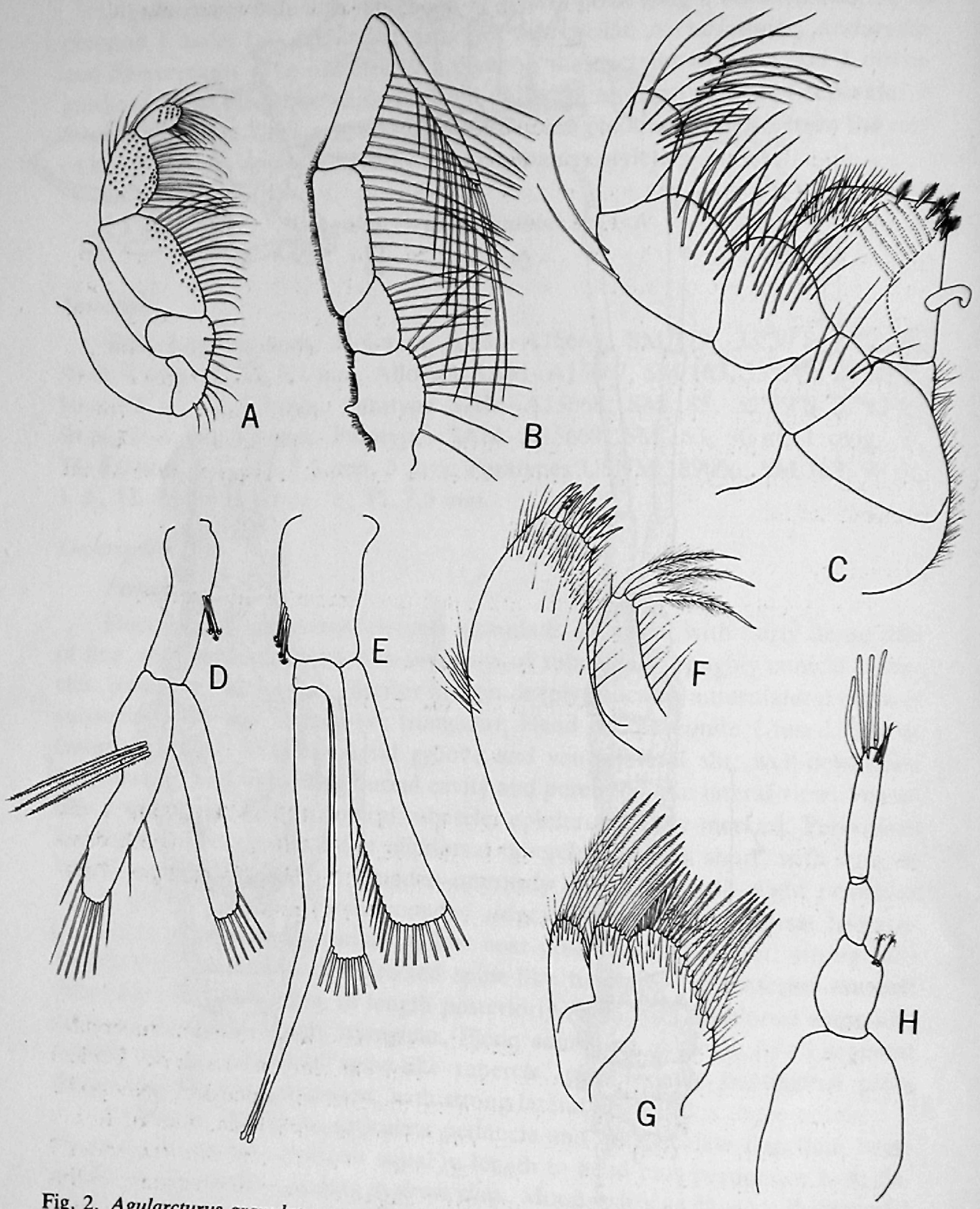

Fig. 2. *Agularcturus granulatus* sp. nov. A. Pereopod 1. B. Pereopod 2. C. Maxilliped. D. Pleopod 1 male. E. Pleopod 2 male. F. Maxilla 1. G. Maxilla 2. H. Antennule.