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A NEW EUBRANCHIATE SPHAEROMID ISOPOD FROM ANGOLA

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(with 3 figures)

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ABSTRACT

A new species of isopod of the genus *Dynamenopsis* is described from Moçamedes in southern Angola.

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I. INTRODUCTION

In September, 1969, a joint expedition of the South African Museum, Cape Town, and the State Museum, Windhoek, visited Moçamedes (15° 10′S, 12° 10′E) in southern Angola. The aim of the visit was to do preliminary surveys of the fauna of the rocky shores. It was hoped that this survey would help to give a more balanced view of the transitional area northern South West Africa/southern Angola, reported on by Penrith & Kensley (1970). Very few species of isopods were represented in this collection. Two species were abundant, one being *Cirolana cranchii* Leach, the other the new species here described. Apart from these, the only other isopod collected was a munnid.

II. SYSTEMATIC DESCRIPTION

Dynamenopsis angolensis **n.sp.**

M a l e: Animal elongate, almost rectangular in outline, sides parallel, dorsally strongly convex, entire body smooth, head narrower than first pereion segment, with lateral compound eye on lobed portion of head. Rostral process hardly indicated. Upper lip ventrally rounded, sunken for half its length into epistome, latter four-sided. Coxal plates completely fused with dorsal segments. First pereion segment ventrally slightly expanded around eye, ventral margin straight. Coxal plates of segments two to five rounded, sixth produced backwards to touch first

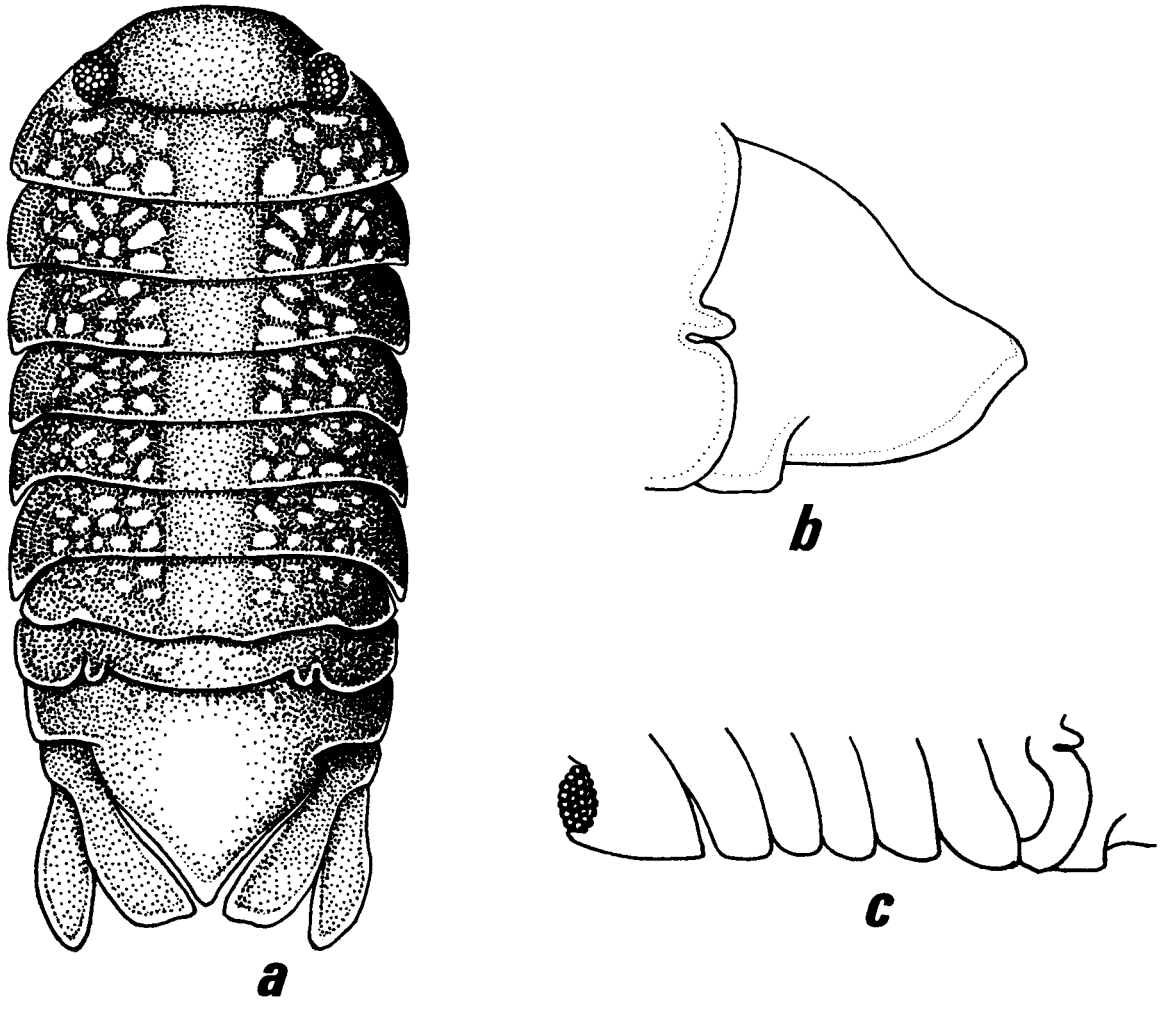

Figure 1. *Dynamenopsis angolensis*
a. Entire animal in dorsal view b. Pleotelson in lateral view c. Epimerites in lateral view

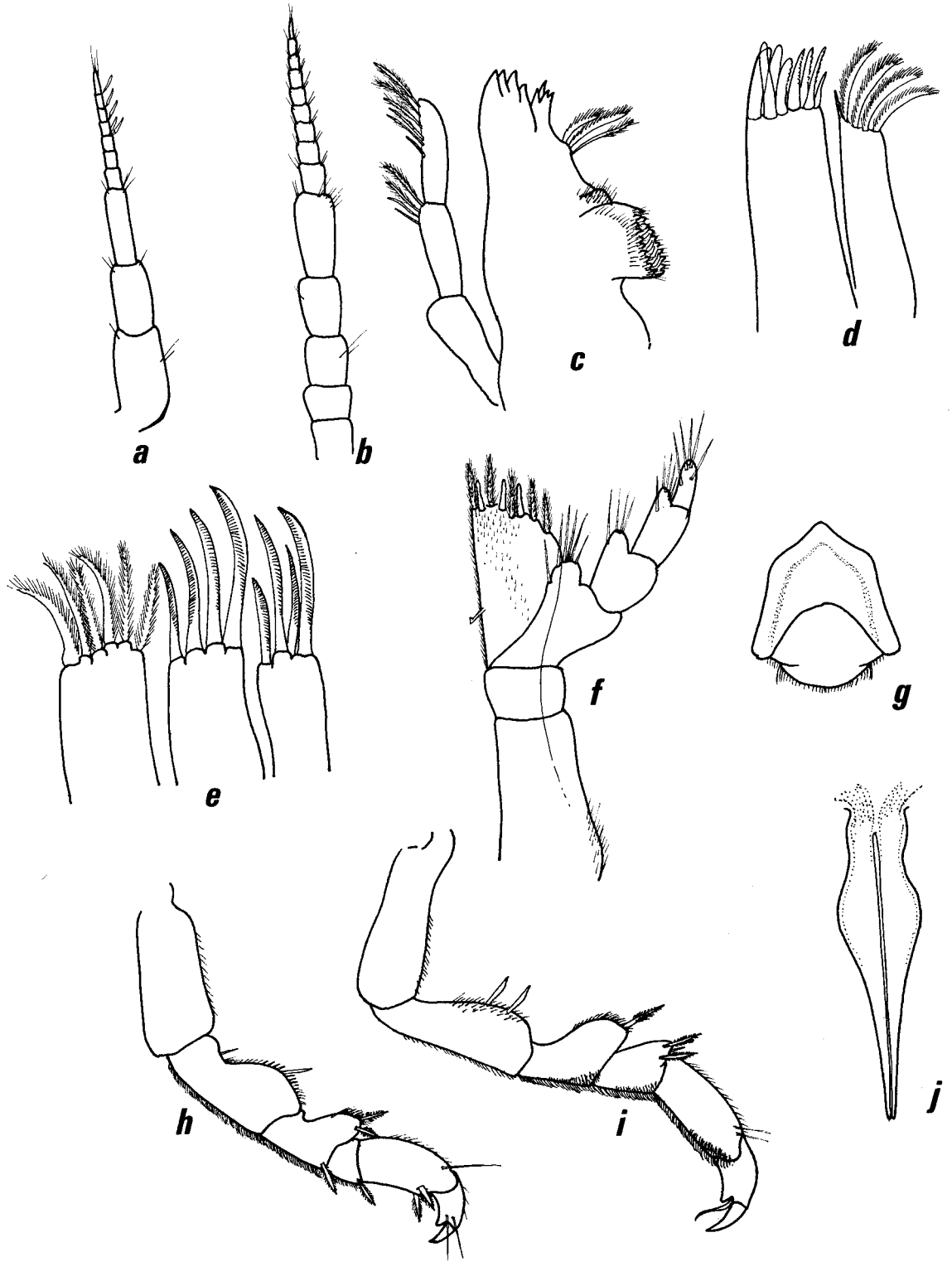

Figure 2. *Dynamenopsis angolensis*, male

a. First antenna
b. Second antenna
c. Mandible
d. First maxilla
e. Second maxilla
f. Maxilliped
g. Epistome and upper lip
h. First pereiopod
i. Seventh pereiopod
j. Penis

pleon segment. Seventh pereion segment with coxal plate shorter than sixth, ventrally rounded. Pleon of two segments, first narrow with postero-lateral lobe indicating fused segments. Pleotelson broadly triangular, with proximodorsal bulge, distolateral margins upswept in lateral view. Apex a narrow split.

Colour: Mid-dorsal broad band, paler than lateral portions, latter a more solid dark brown with irregular colourless patches.

Appendages: First antenna, basal segment longest and broadest, second segment two-thirds length of basal. Third segment slightly longer than basal, slender, flagellum of seven segments.

Second antenna: two basal segments together equal in length of fifth segment, third and fourth segments shorter. Flagellum of nine segments.

Mandible: palp three-segmented, two basal segments equal in length, terminal segment shorter, bearing eight plumose setae.

First maxilla: inner lobe narrower than outer, with four terminal plumose setae and single spine, outer lobe with eight terminal spines, some of which serrate.

Second maxilla: inner lobe with six apical plumose setae, middle and outer lobe each with four curved serrate spines.

Maxilliped: basis of two segments, distal segment about one quarter length of basal. Endite with median margin straight, bearing one coupling hook, outer margin arcuate, distally armed with three strong blunt spines, five or six penicils. Palp of four segments, decreasing in size distally, with setose lobes on inner distal margins.

First pereiopod: two basal segments equal in length, ischium roughly triangular, with barbed distal spines, merus about half length of ischium, bearing single barbed spine, carpus curved, equal to merus plus ischium in length, bearing two distoventral barbed spines. Propodus and dactylus together forming strong claw, propodus with distoventral blunt claw.

Seventh pereiopod: similar to first pereiopod, basis with two stout dorsal spines, merus only slightly shorter than ischium, bearing three distodorsal barbed spines.

Penis: two halves fused proximally for short distance, forming lanceolate channel reaching just beyond half of ventral length of abdomen.

First pleopod: endopod about half width and slightly longer than exopod, basis with three stout hooks.

Second pleopod: exopod ovoid, endopod triangular, slightly longer than exopod. Appendix masculina slender, tapering, reaching just beyond endopod.

Third pleopod: exopod ovoid, with articulation near distal end. Endopod triangular.

Fourth pleopod: endopod and exopod with respiratory folds, exopod with distal articulation.

Fifth pleopod: exopod with distal articulation and three rounded denticle-covered processes.

Uropod: rami subequal in length, just more than three times longer than wide, outer ramus apically more rounded than inner.

F e m a l e: Slightly smaller than male. First antenna, flagellum of six segments; second antenna, flagellum of seven segments, rest of appendages and body proportions as in male.

M a t e r i a l:

			Length (mm)
Holotype	S.A.M. A12839	♂	3,2
Allotype	S.A.M. A12840	♀	2,6
Paratypes	S.A.M. A12841	♂♂	3,0, 3,1
	S.M. A50005	♀♀	2,5, 2,5
Paratypes	Centro de Biologia,	♂♂	3,0, 3,0
	Aquatica Tropical,	♀♀	2,5, 2,5
Paratypes	Lisbon	♂♂	3,0, 3,1
		♀♀	2,4, 2,6

In addition, about 100 specimens, divided between the State Museum and the South African Museum collections, and the Instituto de Investigação Cientifica de Angola.

III. DISCUSSION

Of the more than 20 genera of the eubranchiate sphaeromids *(vide* Nierstrasz, 1931) nine do not possess a two-segmented exopod of the third pleopod. These nine include *Pseudosphaeroma, Dynamene, Naesicopea, Dynamenella, Cymodocella, Scutuloidea, Amphoroidea, Amphoroidella* and *Exocirceis.* Were it not for this division of the group into sections by the presence or absence of an articulation of the exopod of the third pleopod, the present species would fall close to genera such as *Dynamenella,* from which it differs (apart from the third pleopod) only in the telsonic structure. Hansen (1905:106) in discussing the classification of the eubranchiate Sphaerominae admits "the two portions arising from this division can scarcely be considered natural sections." Of the genera of the second group which possess a two-segmented exopod of the third pleopod, the present species most closely resembles *Dynamenopsis* in regard to the mouth-

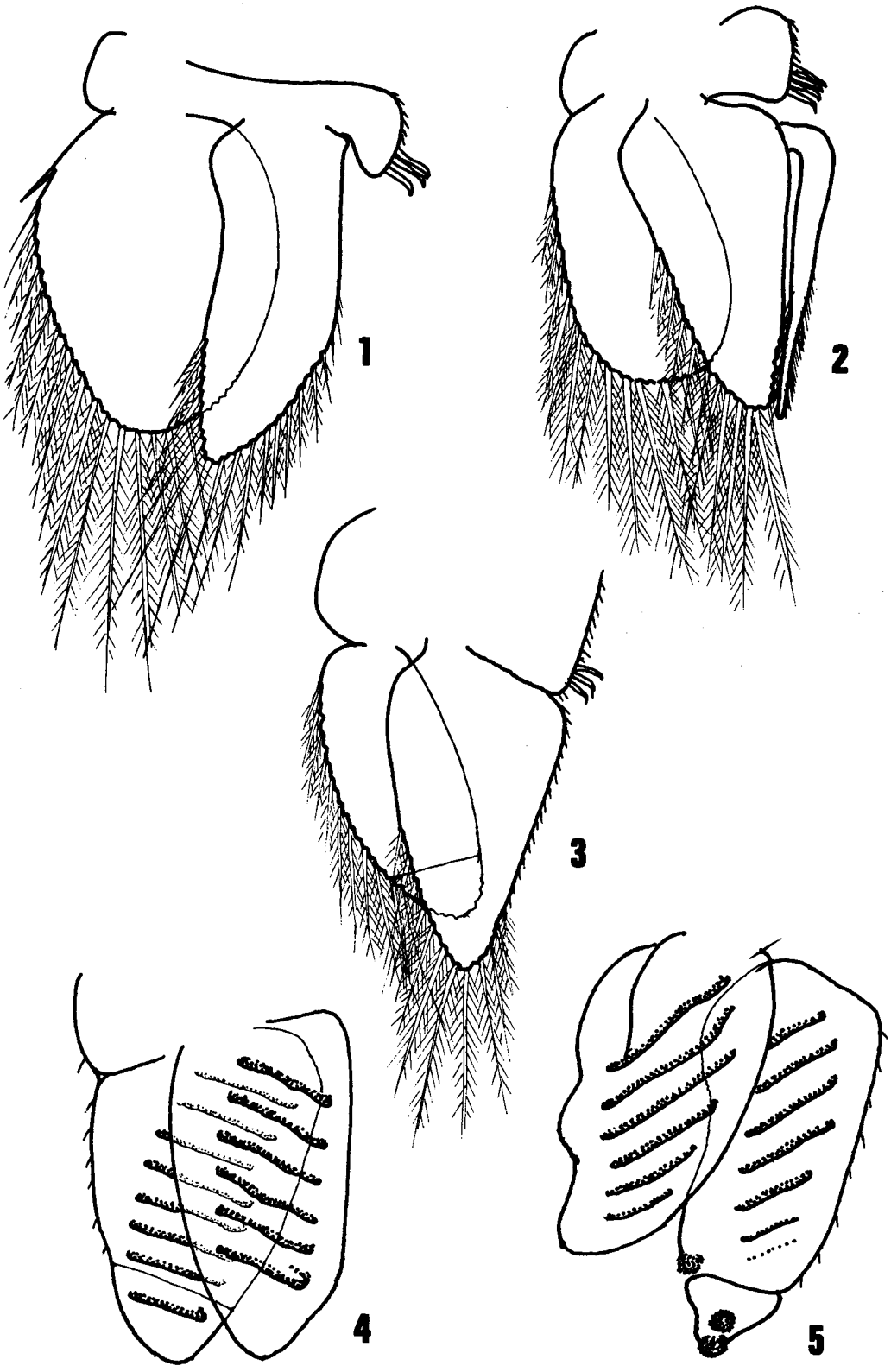

Figure 3. *Dynamenopsis angolensis, male.* Pleopods one to five.

parts and the male sexual characters. The known species of *Dynamenopsis*, however, usually possess a transversely ovate foramen at the apex of the pleotelson. Monod (1933) in dealing with this group of isopods, comes to the conclusion that often only the nature of the pleotelsonic apex separates some genera. In fact, he maintains (:208) that it is quite probable that among the Sphaeromidae described under the name *Dynamenella*, many actually belong to the genus *Dynamenopsis*. *Dynamenella* may or may not possess a pleotelsonic foramen, but always lacks the articulation of the exopod of pleopod three. *Dynamenopsis* always has this articulation, while Menzies (1962:142) in defining the genus states "Posterior notch (on pleotelson) is a transversely ovate foramen". The absence of this foramen in the present species thus seems to be the only character which might prevent inclusion in *Dynamenopsis*. If not placed in the latter genus, the present species would need to have a new genus erected for it, which is scarcely warranted. No species of *Dynamenopsis* have previously been recorded from West Africa. As all the other described species of this genus possess a pleotelsonic foramen, the Angolan animals must be placed in a separate species.

IV. SUMMARY

A new species of sphaeromid isopod from the intertidal zone of southern Angola is described and illustrated. It is placed in the genus *Dynamenopsis*, and the genera of eubranchiate isopods are briefly discussed.

V. ACKNOWLEDGEMENTS

My sincere thanks are due to Mr. C.G. Coetzee, Dr. M.-L. Penrith and Mr. M.J. Penrith of the State Museum, Windhoek, for their invaluable assistance, both with the collecting of the material here described, and throughout the several expeditions to the South West African coast and to Angola.

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