

ANNALS OF THE SOUTH AFRICAN MUSEUM
ANNALE VAN DIE SUID-AFRIKAANSE MUSEUM

Volume 57 Band
April 1971 April
Part 8 Deel

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AMPHIPODA FROM SOUTHERN
ANGOLA

By
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Cape Town Kaapstad

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becomes available

Obtainable from the South African Museum, P.O. Box 61, Cape Town

Die ANNALE VAN DIE SUID-AFRIKAANSE MUSEUM

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Verkrygbaar van die Suid-Afrikaanse Museum, Posbus 61, Kaapstad

OUT OF PRINT/UIT DRUK

1, 2(1, 3, 5, 7-8), 3(1-2, 5, t.-p.i.), 51-2, 5, 7-9),
6(1, t.-p.i.), 7(1-3), 8, 9(1-2), 10(1),
11(1-2, 5, 7, t.-p.i.), 21, 24(2), 27, 31(1-3), 33, 38,
44(4).

Price of this part/Prys van hierdie deel

R1.00

Trustees of the South African Museum © Trustees van die Suid-Afrikaanse Museum

1971

Printed in South Africa by
The Rustica Press, Pty., Ltd.
Court Road, Wynberg, Cape

In Suid-Afrika gedruk deur
Die Rustica-pers, Edms., Bpk.
Courtweg, Wynberg, Kaap

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BRIAN KENSLEY

South African Museum, Cape Town

(With 5 figures)

[MS. accepted 9 December 1970]

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INTRODUCTION

In September 1969 a joint expedition of the South African Museum, Cape Town, and the State Museum, Windhoek, visited Moçâmedes (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 *a, b*). As the amphipods collected at Moçâmedes proved to be rather different from those collected in South West Africa and included a new species, it was felt that a short report on this group was warranted.

LIST OF SPECIES COLLECTED AT MOÇÂMEDES

Species	Distribution
<i>Ampithoe pollex</i> Kunkel	Oregon, U.S.A., Bermuda
<i>Elasmopus affinis</i> Della Valle	Congo, northern South West Africa
<i>Elasmopus rapax</i> Costa	Cosmopolitan tropical and temperate intertidal
<i>Hyale media</i> (Dana)	Cosmopolitan tropical intertidal
<i>Jassa falcata</i> (Montagu)	Cosmopolitan intertidal
<i>Maera inaequipes</i> (Costa)	Mediterranean, Canaries, S. Atlantic, S. Pacific, W. Africa
<i>Pleonexes macrocornutus</i> n. sp.	Moçâmedes, Angola
<i>Stenothoe gallensis</i> Walker	Caribbean, Mediterranean, Ceylon, Gambia, Hawaii

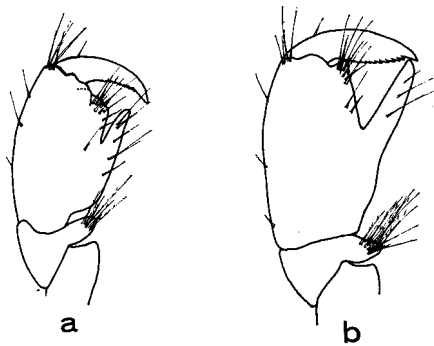
SYSTEMATIC DISCUSSION

Family **Ampithoidae***Ampithoe pollex* Kunkel

Fig. 1

= HIRSUTUS*Ampithoe pollex* Kunkel, 1910: 92. Barnard, 1954: 29.

Description: Antenna 1 slightly longer than antenna 2. Mandibular palp 3-jointed, second article slightly longer than third. Gnathopod 1 male with dactyl serrated on inner edge, palm defined by stout spine, hind margin slightly longer than palm, second article with rounded distal lobe. Gnathopod 2 male, palm deeply incised to form strong acute 'thumb'. Latter closely applied to palm in juveniles, more widely spaced in adults, dactyl serrate on inner margin. Pereiopods 1 to 5, with sixth article bearing three to four spines, dactyl strongly curved. Uropod 1 with rami shorter than peduncle, outer ramus with two spines and three apical spines, inner ramus with three apical spines only. Second uropod with rami almost equal to peduncle in length, spination similar to first uropod with rami almost equal to peduncle in length, spination similar to first uropod. Uropod 3 with rami shorter than peduncle, inner ramus with two stout apical curved spines, outer ramus with three terminal spines. Telson triangular.

Fig. 1 a. *Ampithoe pollex*.

a. Second gnathopod, male 2.8 mm in length. b. Second gnathopod, male 3.8 mm in length.

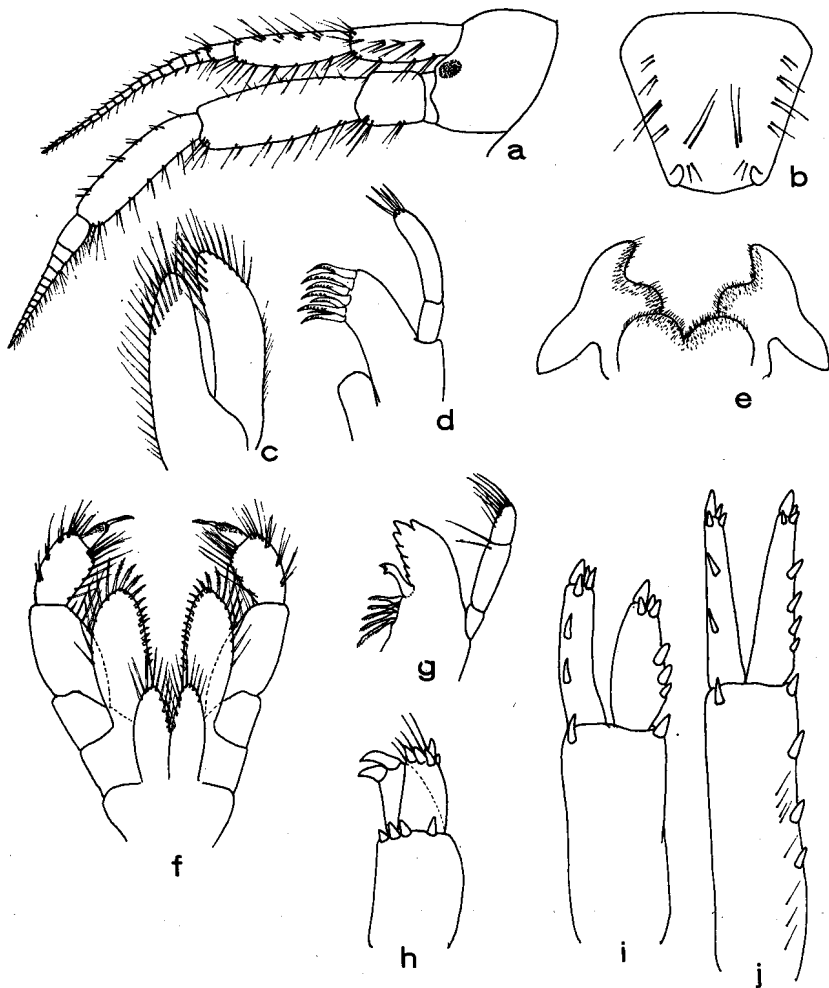
Distribution: Oregon, U.S.A.; Bermuda.

Remarks: Except for slight differences in setation and spination, the present material agrees well with Barnard's figures of material from Oregon. The species was very common amongst the intertidal algae, and this represents a truly remarkable extension of the known distribution.

Pleonexes macrocornutus n. sp.

Figs 2, 3

Description: Male—antenna 1 reaching just beyond end of peduncle of second antenna. First and second peduncle articles subequal in length, first more robust, third article one fifth length of second. Antenna 2 very stout, first article half length of second, third slightly shorter than second. Mandibular incisor process with seven teeth, molar process weak, palp with first article one third length of second, third shorter than second, with numerous apical setae. Lower lip with outer lobe notched, setose. First maxilla with palp biarticulate, second

Fig. 2 *Pleonexes macrocornutus*

a. Head and antennae in lateral view. b. Telson. c. Second maxilla. d. First maxilla. e. Lower lip. f. Maxilliped. g. Mandible. h. Third uropod. i. Second uropod. j. First uropod.

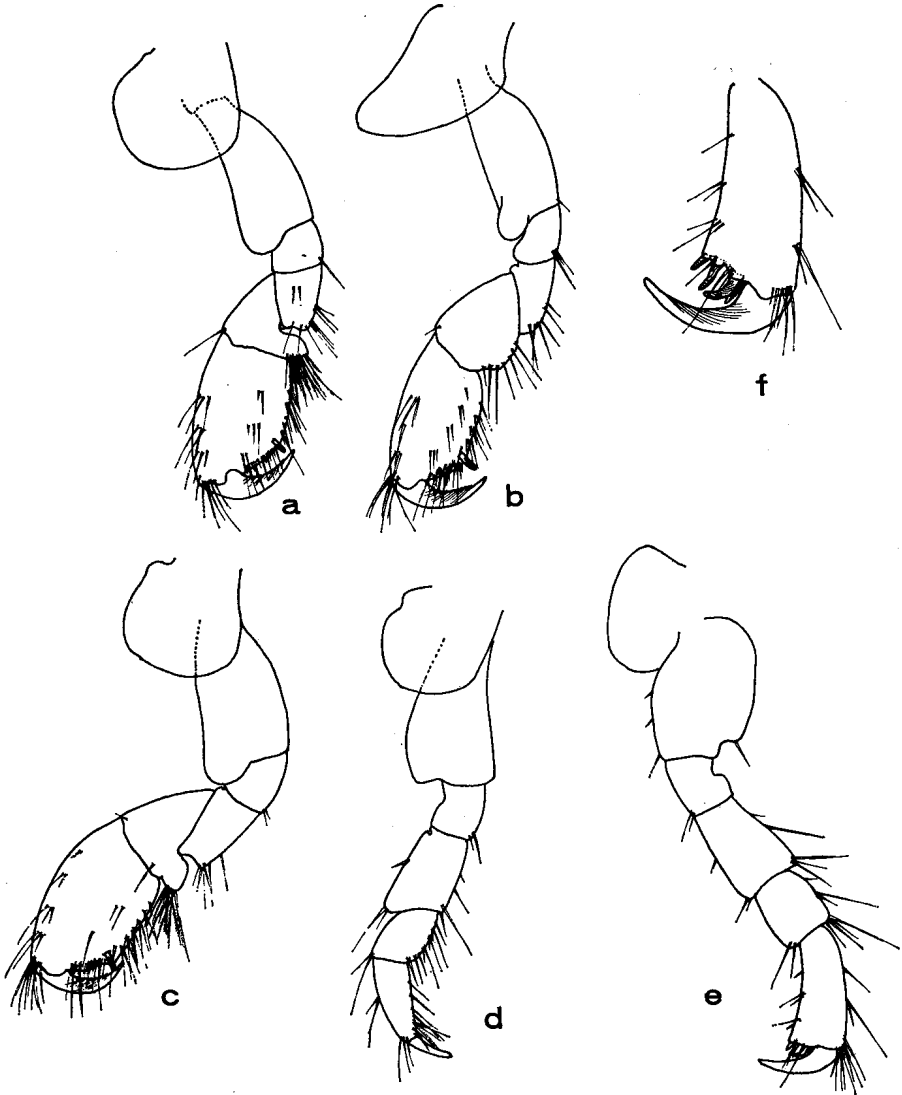


Fig. 3 *Pleonexes macrocornutus*

a. Second gnathopod, female. b. First gnathopod, male. c. Second gnathopod, male.
 d. First pereiopod. e. Fifth pereiopod. f. Propodus and dactylus, fifth pereiopod.

article three times length of first, bearing four apical setae. Outer plate well developed, bearing about ten dentate spines. Second maxilla plates equal in width, fringed with plumose setae. Maxilliped inner plate conical apically rounded, fringed with plumose setae. Outer plate reaching to end of second article of palp, inner margin with ten spines, becoming gradually longer distally, giving way to stout plumed setae. Second and third articles of palp

fringed with long setae. Fourth article one third length of third, covered with minute bristles, armed with strong dentate spine. Gnathopods subequal in size, first gnathopod with sideplate somewhat anteriorly produced. Second article with distal rounded lobe, fifth and sixth articles with numerous setae, sixth article with palm shorter than hind margin, defined by stout spine, inner margin of dactyl serrate. Second gnathopod with rounded sideplate, lobe of fifth article bearing tuft of serrate setae. Sixth article, palm of two regions, that nearest hinge convex, rest of palm concave, defined by stout striate spine. Hind margin longer than palm. Dactyl overlapping palm, serrate on inner margin. First pereopod with rounded sideplate, second article equal in length to third, fourth and fifth articles together. Fifth article shorter than sixth. Fifth pereopod with second article equal in length to third plus fourth article. Sixth article distally expanded, bearing three straight and one curved stout striate spines. Dactyl also striate. First uropod rami slightly less than half length of peduncle, latter with distal row of four spines. Rami of equal length, outer broader than inner, with row of four short spines and four apical spines. Inner ramus with row of two short spines, four apical spines. Second uropod with outer ramus half length of peduncle, inner ramus slightly longer. Peduncle with two distal spines. Outer ramus with row of three spines, four apical spines. More slender inner ramus with row of two spines, four apical spines. Third uropod with rami two thirds length of peduncle, latter with four short distal spines. Outer ramus equal in length to inner, with two strong uncinat apical spines. Inner ramus with five short apical spines, four slender setae. Telson bluntly triangular, with two distal blunt hooks, numerous setae.

Female—first antenna with peduncle relatively longer than in male, second peduncle article reaching two thirds of length of second peduncle article of second antenna. Second antenna similar to male.

Gnathopod 1 sideplate slightly produced anteriorly, palm evenly convex, defined by stout striate spine, shorter than hind margin. Dactyl serrate on inner margin. Second gnathopod, lobe on fifth article with tuft of serrate setae, sixth and seventh articles similar to those of gnathopod one.

Type Material:

	Institution	Length in mm (excluding antennae)
Holotype	South African Museum S.A.M. A12837	male 6.8
Paratypes	South African Museum S.A.M. A12838	4 males, 6.0-6.8 4 ovigerous females, 8.0-9.0 4 juveniles
Paratypes	State Museum, Windhoek N. 50004 N. 50005	2 males, 4.9, 6.1 2 ovigerous females, 7.5, 9.0
Paratypes	Lisbon	2 males, 5.2, 6.0 2 ovigerous females, 8.0, 8.0

Remarks: The presence of a mandibular palp, the lack of an accessory flagellum, a telson bearing recurved cornified processes and the pereopods three to five having the sixth segment distally expanded, places this species in the genus *Pleonexes*.

The shape of the second gnathopod of the male immediately separates this species from *P. gammaroides* (from the Mediterranean, the Atlantic coast of Europe, North Africa, the Canaries and the Azores) and from *P. ferox* (from the Mediterranean and the Canaries). *P. lessoniae* from New Zealand has a similar gnathopod structure to the present species, but differs in the structure of the antennae, the maxillipeds, the uropods, telson and especially the lower lip. The species referred to by Barnard (1966) as *Pleonexes*(?) species, also differs in the second gnathopod structure of the male, and in the telson which lacks cornified processes. As the present specimens can thus not be reconciled to any of the described species, a new species must be erected for it.

Family Gammaridae

Elasmopus rapax Costa

Fig. 4

Elasmopus rapax: Barnard, 1955: 10; 1966: 503.

Distribution: Cosmopolitan tropical and temperate intertidal.

Remarks: As noted by Barnard (1955) this species is very variable, especially with regard to the second gnathopods of the male. The present material resembles the male figured by Barnard (1966) from Micronesia. However, the lack of long setae on the second article of the pereopods 3 to 5, and the unarticulate accessory flagellum seem to place the material in the subspecies *mutatus* Barnard, recorded from southern California. The present material was collected along with specimens of *E. affinis* from amongst algae on the rocky shore at the lowest region exposed by the low tide of spring.

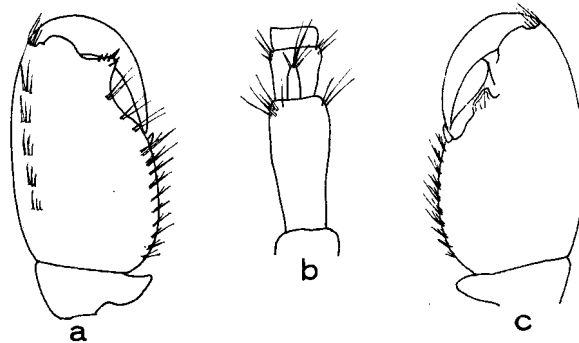


Fig. 4 *Elasmopus rapax*

- a. Second gnathopod, male, outer view. b. Accessory flagellum. c. Second gnathopod, male, inner view.

Family **Hyalidae***Hyale media* (Dana)

Fig. 5

Hyale media: Ruffo, 1950: 60. Stephenson, 1947: 37. Barnard, 1966: 520.

Distribution: Pantropical.

Remarks.: The present material agrees well with Stephenson's description, with a few slight differences. Gnathopod 2 of the male does not have the spines defining the separation of the palm and the hind margin as well developed as the Tristan specimens, but agrees more closely with Ruffo's figure of the Venezuelan specimens. The third pair of uropods have a relatively more slender peduncle, and the uropodal spination agrees with the Venezuelan rather than with the Tristan specimens.

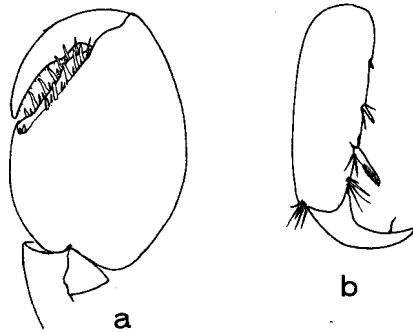


Fig. 5 *Hyale media*
a. Second gnathopod, male. b. Propodus
and dactylus, fifth pereopod.

It is interesting to note that while *H. media* is common at Moçâmedes, about 200 kilometres away, at the rocks just north of the Kunene River mouth, *H. saldanha* is very common, and *H. media* does not appear.

SUMMARY

A collection of eight species of gammarid amphipods from southern Angola is discussed. Four of the species are widely distributed through tropical regions. One species, *Ampithoe pollex*, has not previously been recorded from the African coast, while the species of *Pleonexes* proved to be previously undescribed.

ACKNOWLEDGEMENTS

My sincere thanks are due to the Governor-General of the province of Angola, the Governor of the district of Moçâmedes, and to the Instituto de Investigação Científica de Angola, for granting permission to work and collect in Angola. Grateful thanks are also due to the South African Council for

Scientific and Industrial Research for financial assistance towards the expedition. A special word of thanks is expressed to Mr. C. G. Coetzee, Mr. M. J. Penrith and Dr. M.-L. Penrith for their assistance with collecting and sorting.

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Style manual for biological journals. Washington: American Institute of Biological Sciences.

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FISCHER, P.-H. 1948. Données sur la résistance et de le vitalité des mollusques. *J. Conch., Paris* **88**: 100-140.

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KOHN, A. J. 1960b. Spawning behaviour, egg masses and larval development in *Conus* from the Indian Ocean. *Bull. Bingham oceanogr. Coll.* **17** (4): 1-51.

THIELE, J. 1910. Mollusca: B. Polyplacophora, Gastropoda marina, Bivalvia. In SCHULTZE, L. *Zoologische und anthropologische Ergebnisse einer Forschungsreise im westlichen und zentralen Süd-Afrika*. **4**: 269-270. Jena: Fischer. *Denkschr. med-naturw. Ges. Jena* **16**: 269-270.

ZOOLOGICAL NOMENCLATURE

To be governed by the rulings of the latest *International code of zoological nomenclature* issued by the International Trust for Zoological Nomenclature (particularly articles 22 and 51). The Harvard system of reference to be used in the synonymy lists, with the full references incorporated in the list at the end of the article, and not given in contracted form in the synonymy list.

Example

Scalaria coronata Lamarck, 1816: pl. 451, figs 5 *a*, *b*; Liste: 11. Turton, 1932: 80.