

**PSEUDIONE ELONGATA AFRICANA, A NEW SUBSPECIES OF BOPYRID
ISOPOD FROM THE WEST COAST OF THE CAPE PENINSULA,
SOUTH AFRICA**

BY

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Reprinted from: CRUSTACEANA. Vol. 15 Part 2 1968.



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INTRODUCTION

In a collection of deep-sea decapod Crustacea from off the west coast of the Cape Peninsula, made in 1959, a specimen of *Nematocarcinus longirostris* Bate was found to have a parasitic bopyrid isopod in the left branchial chamber. The presence of the parasite had caused the left side of the carapace to be swollen and distorted. The prawn was caught at a depth of 1240 fathoms, at 33°26'S 16°33'E.

Pseudione elongata africana n. subsp.

Material. — Holotype, female, South African Museum catalogue number SAM.A12565. Allotype, male, SAM.A12565.

Description. — Female: Length 15.2 mm, greatest breadth 8 mm. Head oval, frontal margin almost straight, dorsally convex. First antenna 3-segmented, terminal segment minute, basal segments slightly swollen, fairly close together near the midline. Second antenna about twice length of first, 4-segmented. Maxilliped broadly lamellate, antero-median margin and palp ciliated. Palp unsegmented. Two elongate lamellate processes on ventral portion of segment near basal attachment of each maxilliped. Pleural plates of four anterior thoracic segments divided by a deep indentation into two portions, the anterior of which is again divided by a groove at right angles to the indentation. Posterior thoracic segments without this division, but having a posterior lobe. Margins of oostegites feebly fringed with setae.

Pleon segments dorsally distinct. Lateral portions of the anterior two segments broad and leaf-like, especially on right side. Fourth pleon segment on left side with a slender elongate lateral plate. Pleopods biramous, basal portion thickened, fleshy. Outer ramus lamellar, distally rounded. Inner ramus lamellar, apically pointed. More posterior pleopods smaller and irregular. Basal parts of pleopods warty. Telson and uropods very reduced, difficult to distinguish. Ventral portion of pleon between pleopods covered with knob-like protuberances.

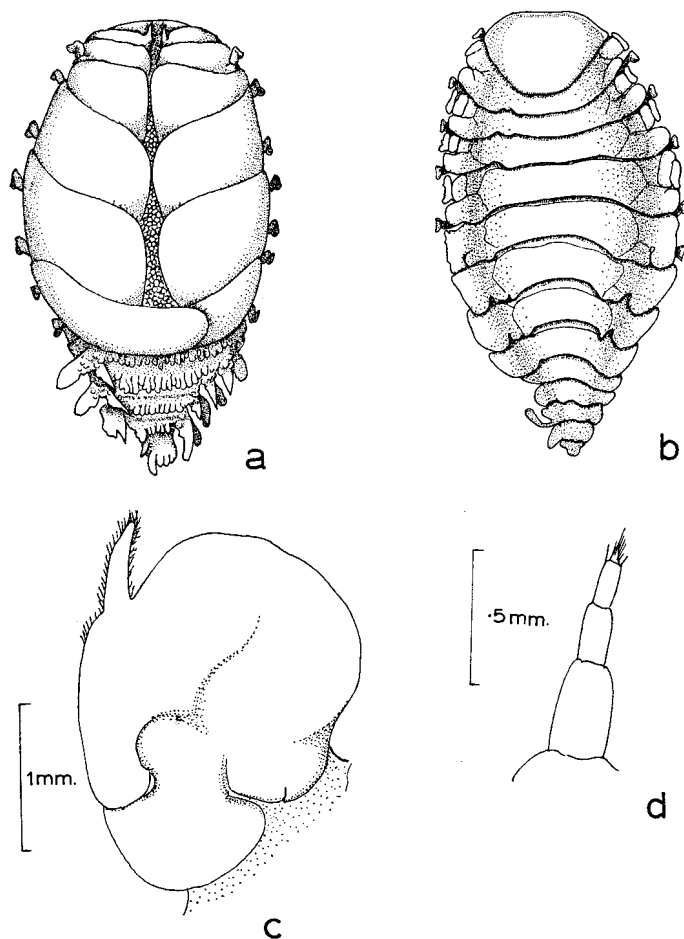


Fig. 1. *Pseudione elongata africana* n. subsp., female. a, ventral view; b, dorsal view; c, maxilliped; d, second antenna.

Epicaridean larvae under oostegites in advanced state of development. Length 0.3 mm, breadth 0.2 mm. Body anteriorly rounded, tapering slightly posteriorly. Antennae with three visible segments, ending in two unequal setae. Six similar pairs of pereopods, 6-segmented, hooked dactyls and projection of propodus forming a subchelate structure, very similar to the prehensile pereopods of the adult male. Five pairs of 2-segmented pleopods, ending in two long equal setae. One pair of biramous uropods, ending in two equal setae. Uropods almost twice length of pleopods.

Male: Length, 5.5 mm, situated between pleopods of female. Body elongate, three times longer than broad. First thoracic segment partially fused with head. Eyes tiny, pale grey, scarcely visible on antero-dorsal surface of head. Anterior margin of head ventrally curved, concealing antennae. First antenna 3-segmented,

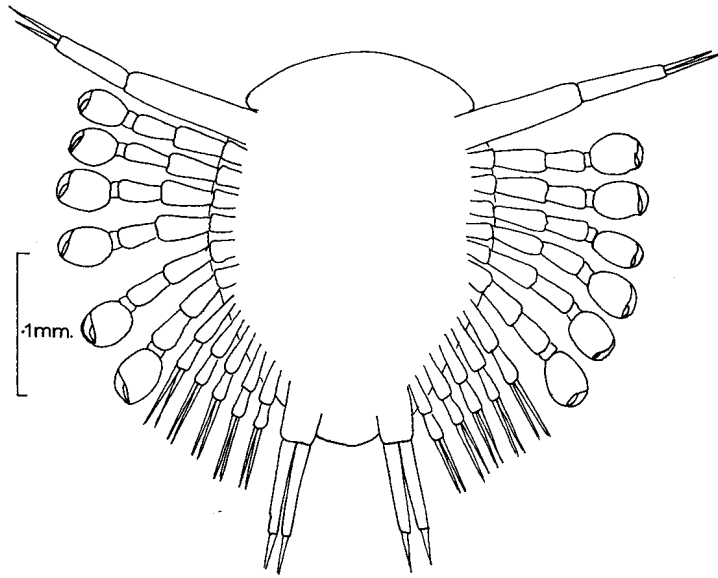


Fig. 2. *Pseudione elongata africana* n. subsp., epicaridean larva.

terminal segment very short and slender. Second antenna two-and-a-half times longer than first; 4-segmented, first segment largest, swollen, second and third segments of equal length, terminal segment minute. Mouth conical, protruding.

A medio-ventral raised cone-shaped papilla, apically rounded, on each thoracic and abdominal segment. A cluster of tiny spots on dorso-lateral portion of each thoracic segment; margin of latter rounded. Pleon about one-third of total length, tapering posteriorly, six segments well separated, lateral margins not rounded, but obtusely triangular. Pleopods represented by slightly elongate protuberances directed obliquely backwards. Uropods on sixth segment represented by two elongate backwardly directed structures, with a tiny median point between them.

Remarks. — These specimens are assigned to the genus *Pseudione* because of the narrow coxal plates on the thoracic segments, biramous pleopods in the female, six distinct abdominal segments, and tuberculate pleopods in the male. The structure of the telson in the female is unusual in *Pseudione*. The male is very similar to the group which includes *P. elongata* (Hansen, 1897), *P. elongata* var. *normalis* Nierstrasz & Brender à Brandis, 1931, *P. laevis* (Richardson, 1910) all of which are characterized by a bifurcate pleo-telson. The structure of the female, although very closely related to this group, is sufficiently different to accord the specimens subspecific status. This subspecies differs from *P. elongata* var. *normalis* and *P. elongata* which it most closely resembles, in the straight anterior margin of the head, and the reduced pleopods of segments 4, 5, 6, and in the indefinite structure of the telson and uropods in the female.

Pseudione elongata (Hansen) was recorded from the branchial cavity of *Nema-*

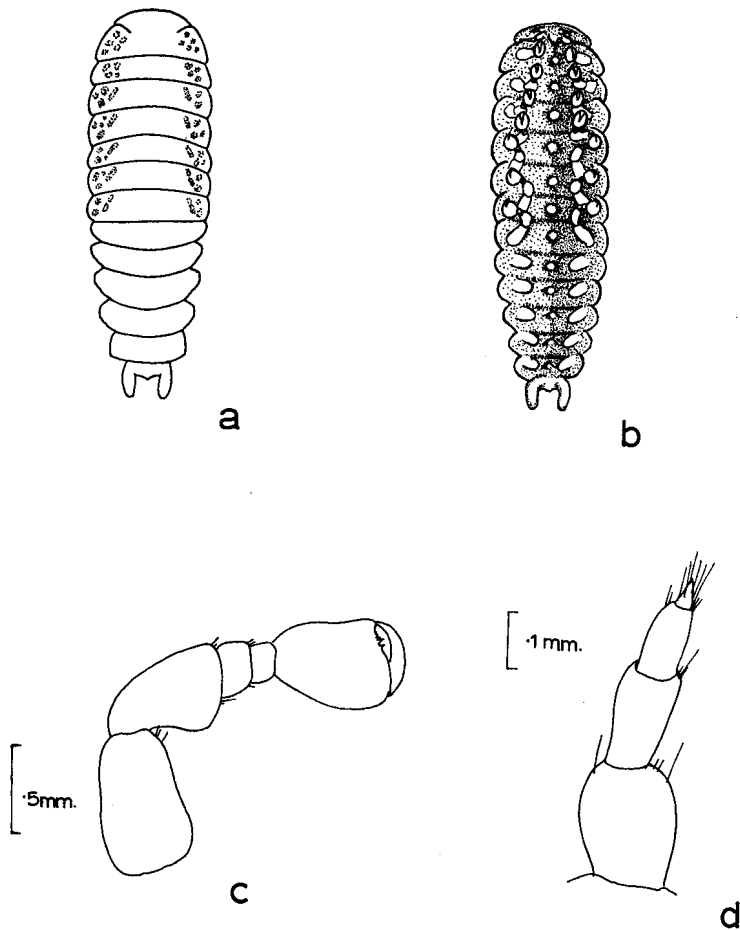


Fig. 3. *Pseudione elongata africana* n. subsp., male. a, dorsal view; b, ventral view; c, first pereopod; d, second antenna.

tocarcinus agassizii Faxon, taken at 885 fathoms, from off the Galapagos Islands.

Pseudione elongata var. *normalis* was recorded from Dr. Th. Mortensen's Pacific Expedition, 1914-1916, from a species of *Nematocarcinus*, taken at 250 fathoms 25 miles east of Zamboanga, Philippines. Two other species of bopyrid isopod, viz. *Hemiarthrus nematocarcini* Stebbing, and *Zonophryxus quinquedens* Barnard, have also been recorded from *Nematocarcinus longirostris* Bate.

ACKNOWLEDGMENTS

I am indebted to Dr. Torben Wolff of the Universitetets Zoologiske Museum for allowing me to examine the holotype of *Pseudione elongata* var. *normalis*, and to Dr. M.-L. Penrith for reading the manuscript.

ZUSAMMENFASSUNG

Ein Männchen, ein Weibchen, und Larven eines neuen parasitischen Isopoden, *Pseudione elongata africana*, werden beschrieben und abgebildet. Die neue Unterart ist ein Parasit der Tiefsee Garneele *Nematocarcinus longirostris* Bate, und wurde gefangen an der westlichen Küste der Kap der Guten Hoffnung, Süd-Afrika.

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