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NEW CUMACEA FROM NORTHERN AUSTRALIAN WATERS

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RÉSUMÉ

En étudiant une collection de Cumacés capturés dans les eaux nordiques d'Australie, on décrit deux espèces nouvelles de *Cyclaspis*: *C. prolifica* n. sp. et *C. stocki* n. sp. Le matériel a été capturé par le Dr. T. Ward et envoyé au Musée d'Histoire Naturelle "Grigore Antipa" par le Dr. J. A. Bruce, Chef de la Division des Sciences Naturelles du "Museum and Art Galleries of the Northern Territory".

INTRODUCTION

In a small collection of Cumacea collected by Dr. T. Ward and sent to me by Dr. J. A. Bruce, I identified several species of *Cyclaspis*, of which I now describe two new species: *C. prolifica* and *C. stocki*.

The first *Cyclaspis* from the Northern Australian waters were described more than 100 years ago (*C. pusilla* Sars, 1887 and *C. australis* Sars, 1887).

The studied material indicates that the genus *Cyclaspis* is well represented in the Northern waters of Australia, which stresses my conviction that its genetic center is in the Australian area.

Cyclaspis prolifica n. sp. (Fig. 1 A-N)

Diagnosis. This cumacean belongs to the group separated by Hale (1944, p. 113) as "exculpta" group, with a strong and complicated sculpture, one of which is "V"-shaped and very characteristic (Fig. 1A). Maxilliped III is more

or less straight and massive but it has a characteristic curvature in its median basal part (a kind of a "heel") (Fig. 1F, arrow). Pereopod I has a basis with a complicated edge of strong mono-, bi- and triconodont tubercles.

Material. 2 adult females: a pregnant one of 11 mm and the other of 9 mm from st.no. B₁; cruise 0283; Coll. T. Ward Cr. 002773.

Description of the adult female. Tegument strongly calcified and very breakable. Carapace has an impressive number of ridges (Fig. 1A, B); the new species shows in the dorsal posterior third of the carapace two ridges that obliquely start from the second transversal ridge and join the ventral thickening of the carapace, forming a small but typical prominence (Fig. 2B). The pseudo-rostral lobes grow thinner distally so that they do not exceed the optic lobe; the last one is three times longer than larger reaching the center of the rostrum with two brown lenses. Even the inner side of the optic lobe has denticulations (Fig. 1C).

Pleonites without bunches of setae between the first three of them. Labium is characterized

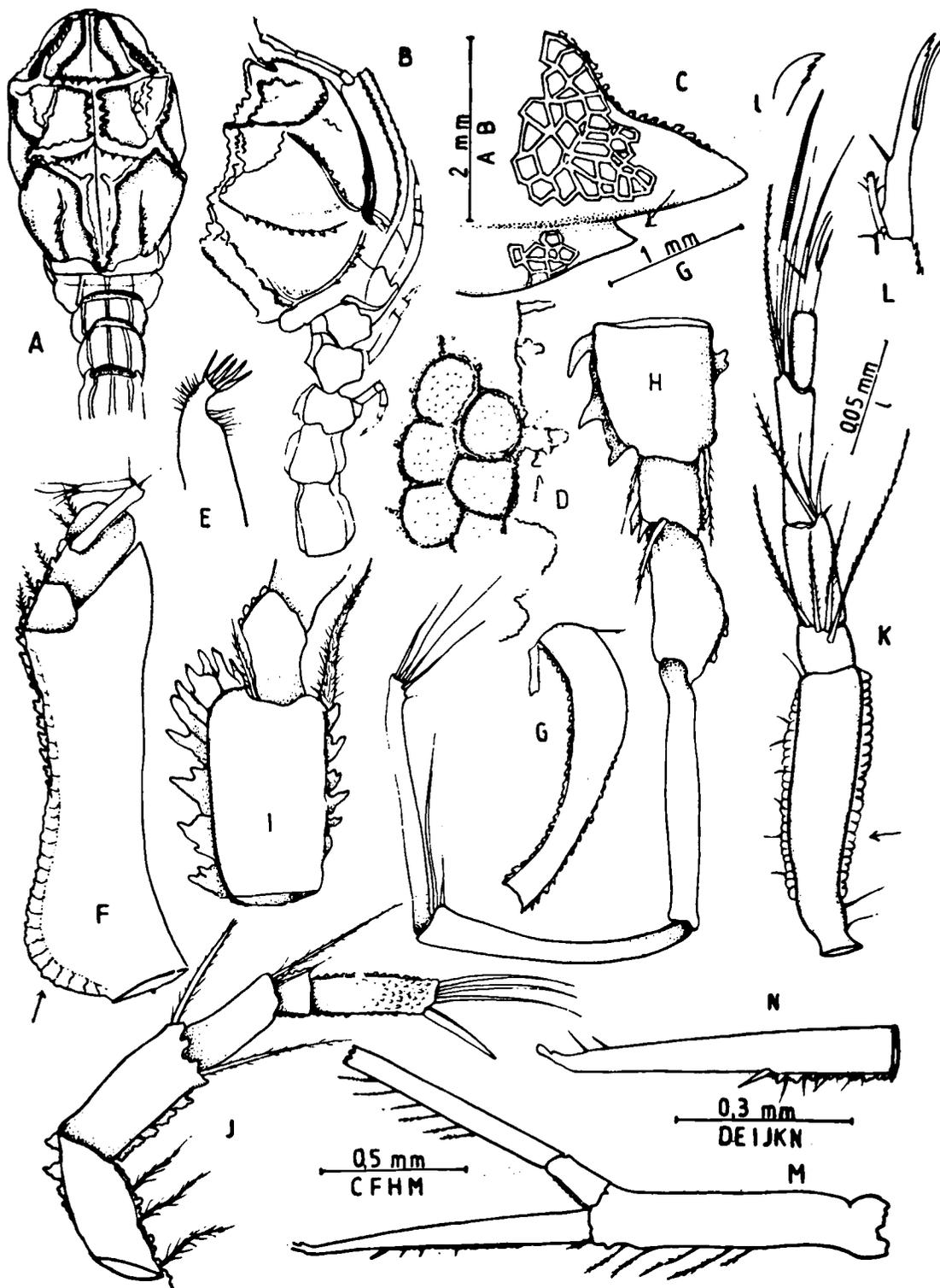


Fig. 1. *Cyclopsis prolifica* n. sp. ♀. A, cephalothorax, in dorsal view; B, idem, in lateral view; C, apical part of right pseudo-rostrum and its ratch; D, fragment of the inferior part of the carapace with granular expansions; E, right side of labium; F, maxilliped III; the arrow indicates its "heel"; G, basis of pereopod I; H, pereopod I; I, apical part of basis of the symmetric pereopod I, magnified; J, extremity of pereopod II; K, pereopod III; L, its dactylus, magnified; I, denticulation of its tip; M, left uropod; N, its endopodite, magnified.

by a median subapical excavation (Fig. 1E); the apex with four tiny spines of the left and only two short setae on the right one; asymmetry as in the mandible.

Maxilliped III is very characteristic for the species *C. prolifica*; it shows a large, massive and straight basis with a typical prominence on the inner-median side (Fig. 1F, the arrow) and granulated fringes on the same median ridge.

Pereopod I with basis practically devoid of the common median dilatation, but it is slightly curved on the outer side (Fig. 1G). The edges of the basis (Fig. 1H, I) bordered by pointed mono-, bi- and triconodont tubercles; its apex has a feathered seta on the outer corner (Fig. 1I). The apex does not reach the notch; carpus, propodus and dactylus, more or less equal in length, are hialine, uncalcified. Dactylus of symmetric pereopod I is a little longer than carpus and the row of teeth, stronger. Another characteristic of this species is the presence of winged edges on the sides of the pereopods II-V, very pronounced on their basis (Fig. 1K, the arrow). Dactylus of pereopod III has a flagellum as long as the claw (Fig. 1L). The chaetotaxy of the rest of the pereopods does not considerably differ from that of the other *Cyclaspis* species. Uropods (Fig. 1M) with basis a little shorter than rami; endopodite, longer than exopodite. Exopodite has the outer edge with a spine (Fig. 1N). The apex of the rami broken. The species was captured together with *C. usitata*, *C. supersculpta*.

Holotype: pregnant female, 11 mm in length with detached abdomen, is deposited at Northern Territory Museum, Darwin, North Australia; paratype: a female 9 mm in length completely dissected, deposited at the "Grigore Antipa" Museum of Natural History, Bucharest, Romania, no. 740.

Derivatio nominis. Having 133 eggs, the species is of course one of the most prolific Cumacea.

Remarks. *C. prolifica* belongs to the species with calcareous and strongly ridged carapace. It resembles slightly *C. tribulis* Hale (1948: 114), to which it is probably related.

Cyclaspis stocki n. sp. (Fig. 2 A-J)

Diagnosis. Cumacean with a globulous, brightly white carapace. Tegument with an extremely fine reticulation and no ridges. Optic lobe long, with lenses on top and flanked, but not exceeded, by the pointed tips of the pseudo-rostral lobes. Pleonites with lateral joints. Uropod has a basis shorter than pleotelson and even shorter than rami. Subequal rami, with pointed tips; no phanerae; pereopod I, with excavated apex, is flanked by a large hairy seta and a thin, densely plumose one.

Material: two ♀♀ from st. B₁, cruise 583 (Coll. T. Ward, nr. 002776).

Description of the adult female

Cumacean with globulous carapace, oval, like *C. pinguis* Hale or *C. pusilla* Sars, but the thin and pointed pseudo-rostral lobes do not exceed the optic lobe (Fig. 2A and a). Carapace oval in dorsal view (Fig. 2B). The optic lobe is twice as long as wide and shows an apical dark ommatidial spot, that seems to be formed by two joined lenses, with no other ommatidia (Fig. 2B). Tegument is poorly calcified and carapace with such a fine reticulated structure that it appears glossy and brightly white. Pleonites have strong lateral joints, like in the South-western Atlantic species of *Cyclaspis*, figured by Roccatagliata (1985). The morphology of antennule—with long and fine articles, short aesthetascs—is seen in Fig. 2C. Labium and mandible show asymmetries, like in *C. longicaudata* Sars (1899) from the Northeastern European waters. Maxilla I has two flagelli: an apical long one and another, subapical, perpendicular flagellum, that is shorter. Maxilliped III with a very fine ciliature along the whole outer edge (Fig. 2D). Pereopod I reaches the level of the notch with the apex of its carpus; its basis has a clear median threshold in its inner third (Fig. 2E, the arrow) and two setae (Fig. 2F). Dactylus is longer than propodus which is 1/3 times longer than carpus (Fig. 2E). Pereopod II is shown in Fig. 2G and pereopod IV, in Fig. 2H. The structure and the relation between the



Fig. 2. *Cyclaspis stocki* n. sp. ♀. A, female, in lateral view; B, carapace, in dorsal view; C, antennule; D, maxilliped III, apical part; E, terminal part of pereopod I; F, apex of basis of pereopod I, magnified; G, pereopod II; H, pereopod IV, with its striated setae; I, pleotelson and left uropod; J, its endopodite, magnified.

elements of the "tail complex" are shown in Fig. 2I. The basis of uropod is shorter than the length of the dorsal part of the last pleonite and is clearly shorter than its subequal rami. The tips of the rami are pointed, with no phanerae (Fig. 2J). Length of adult females: 9-11 mm.

Holotype: a female 11 mm long deposited at Darwin Museum, North Australia and a paratype a female 9 mm long, dissected, is deposited at the "Grigore Antipa" Museum of Natural History, Bucharest, Romania, under Nr. 741.

Derivation nominis. The species is dedicated to the distinguished Dutch carcinologist and speleologist Prof. Jan H. Stock.

Remarks

Few species of *Cyclaspis* (females) have globulous or ovoid carapace, without ridges and with such a fine reticulated tegument that appears almost glossy, like in *C. longicaudata* Sars (l.c., pl. VII) from the Northeastern Atlantic Ocean.

Still fewer species have a beak-like rostrum totally different from the truncated one, with pseudo-rostral lobes barely not melting in front of the ocular lobe uncovered by them, like in

other *Cyclaspis* from the waters of the Australian area, such as: *C. pinguis*, *C. pusilla*, *C. globulosa* or *C. clarki* (Hale, 1944).

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