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# A NEW SPECIES OF *AUSTROLIBINIA* FROM THE SOUTH CHINA SEA AND INDONESIA (CRUSTACEA: BRACHYURA: MAJIDAE)

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***ABSTRACT.*** - A new species of *Austrolibinia, A. pincerna*, new species, is described from Southeast Asia, and compared with its congeners. It most closely resembles the northeastern Australian *A. capricornensis* Griffin & Tranter, 1986, but can be separated by the carapace tuberculation, spination, shape of the carapace and male first pleopods.

## INTRODUCTION

In his review of the Australian majid spider crabs Griffin (1966: 269) established the new genus *Austrolibinia* for two species known to occur in the Indian Ocean, viz. *Austrolibinia andamanica* (Alcock, 1892), and Northern Australia, viz. *Austrolibinia gracilipes* (Miers, 1879). The latter was indicated as the type species of the new genus. In their monograph on the Indo-West Pacific Majidae, Griffin & Tranter (1986: 109) described a third species for the genus, viz. *Austrolibinia capricornensis*. This species is thus far known only from the Capricorn Group (Queensland, Australia).

The late Dr R. Serène made a preliminary study of the genus *Doclea* Leach, 1815. In his notes, still kept in the Museum National d'Histoire Naturelle, Paris (France), he referred to two samples originating from Indonesia and the South China Sea, which he provisionally labelled "*Doclea brucei*? nov." (det. R. Serène, 14.ii.1970). These samples are preserved in the Zoological Reference Collection (ZRC) of the Department of Zoology, National University of Singapore, and were examined by the author during the preparation of his review of the genus *Doclea* (Wagner, 1987).

However, Serène's specimens are not a *Doclea* species, but a new *Austrolibinia* instead and it is described below.

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## SYSTEMATICS

### *Austrolibinia pincerna*, new species
(Figs. 1-7)

"*Doclea brucei*? nov.", Serène, manuscript name.

***Material examined.*** - Holotype - male (ZRC 1970.2.19.1), South China Sea, coll. Hong Kong Fisheries, 1968.

Paratypes - 1 male (ZRC 1970.2.19.2), South China Sea, coll. Hong Kong Fisheries, 1968; 1 juvenile male (ZRC 1970.11.2.1) Indonesia.

***Description.*** - Carapace globular, covered with a short, but dense pile. Rostrum slit in middle for 0.5 mm at utmost, tips pointed and directed forwardly. Groove partly present from slit to submedian frontal tubercles. Orbital margins swollen, formed by two coalescent supshaped spinules. Postorbital spine separated from orbital margin by broad slit, forming a cupshaped postorbital margin. Medial line of carapace carrying seven spines; first four placed in mesogastric region, fifth and sixth in cardiac region, and last one in intestinal region; first three median spines with blunt to more or less cupshaped tips; fourth median spine twice as long as second one, while first and third ones are very small; fifth median spine situated at base of sixth one; intestinal spine directed backwards. On protogastric region at same level as second mesogastric median spine two submedian tubercles present on either side; the less submedian ones having blunt to a bit cupshaped tips; the most submedian ones are large, flat and cupshaped. Metagastric region shows a small tubercle at either end of the anterior margin. Hepatic regions bear only one blunt tipped tubercle. Branchial regions either with six tubercles or spines; four of them increasing in size posteriorly and situated at the anterolateral margins and converging posteriorly; fifth tubercle situated halfway second anterolateral spine and fourth median spine; sixth one more dorsally and posteriorly situated and composed out of three blunt-tipped tubercles. Metabranchial region with two spines; one situated at same level as second cardiac spine, thus forming with latter spine and anterolateral spines of branchial region a concentric ring of spines over the carapace; other metabranchial spine situated submedian near posterolateral margin of carapace and intestinal margin. In front of anterolateral spines of branchial region a large spine, directed downwards, is present. The spine on the outer margin of buccal frame has a broad cup-shaped tip.

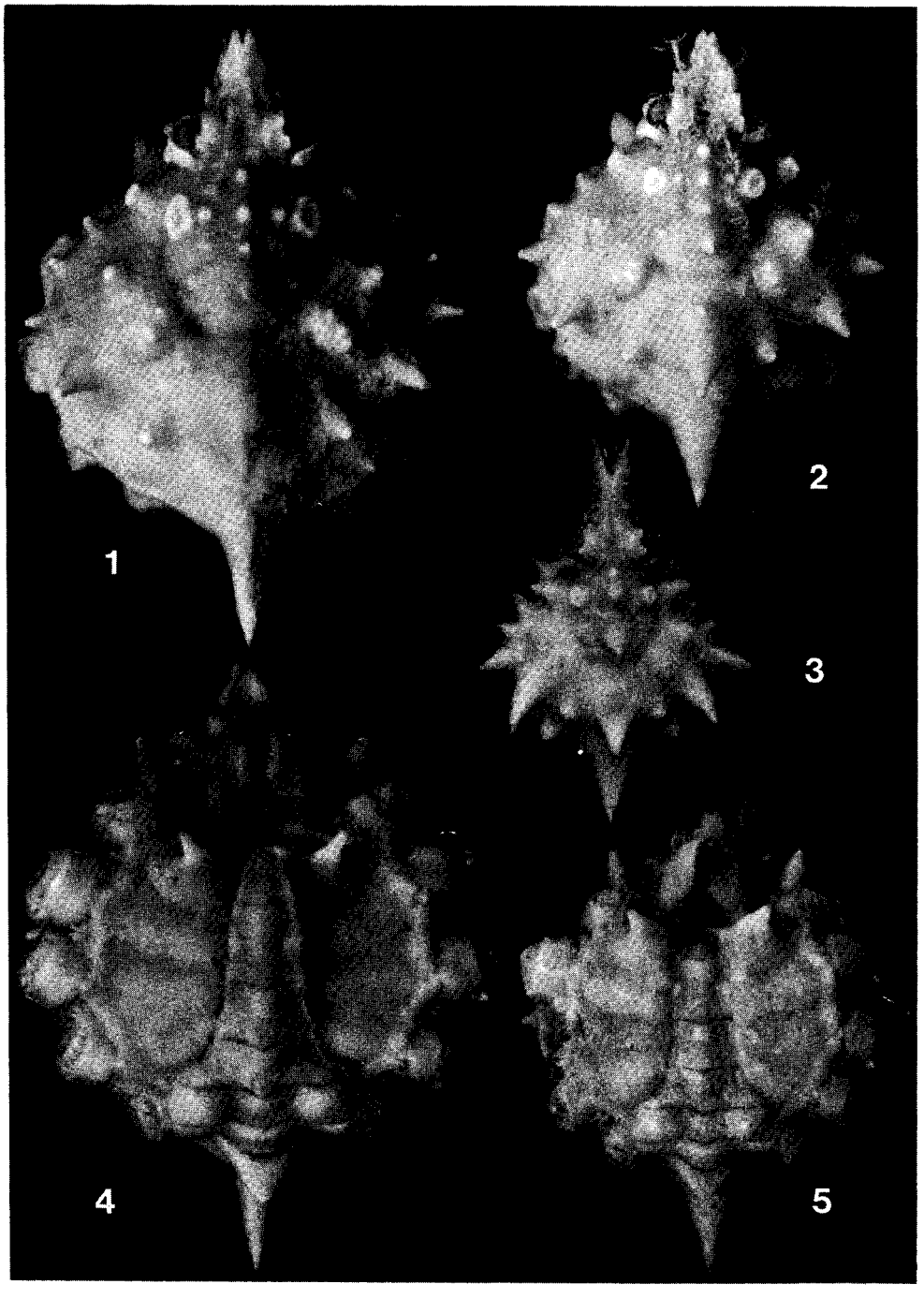
Mouthparts are flat at meropodite and distally to the dactylopodite; submedian margin of meropodite produced into a flat spine. Spines of basal antennular segments cupshaped; basal antennular segment flattened to cupshaped at either side.

Chelae smooth, globose, and about equal length as carapace (excluded intestinal spine).

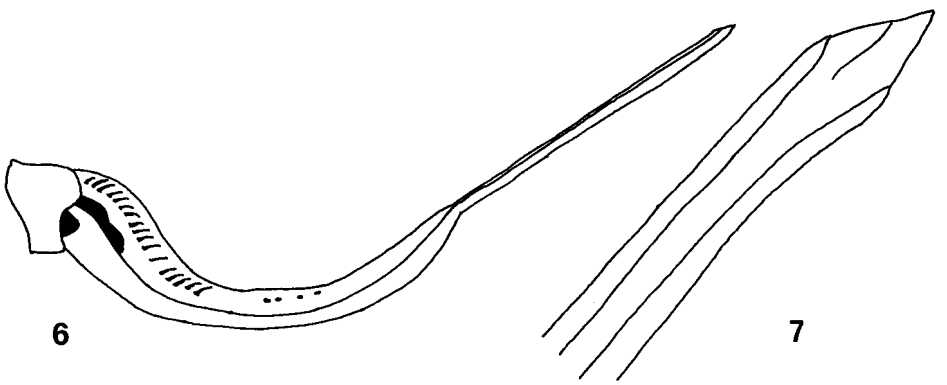
First pereopods 3.5-6 times carapace length; all pereopods without pile.

Abdominal segments of male smooth and separate; first segment carrying a broad, ventrodorsally flattened and pointed tubercle; second segment with a submedian tubercle at either side.

Two large sharp-pointed submedian spines are situated on the fourth sternal segment just in front of the last abdominal segment.




Figs. 1-5. *Austrolibinia pincerna*, new species. 1, carapace holotype (ZRC 1970.2.19.1), dorsal view; 2, carapace paratype (ZRC 1970.2.19.2), dorsal view; 3, carapace juvenile paratype (ZRC 1970.11.2.1), dorsal view; 4, habitus holotype (ZRC 1970.2.19.1), ventral view; 5, habitus paratype (ZRC 1970.2.19.2), ventral view.




Figs. 6-7. *Austrolibinia pincerna*, new species. Holotype (ZRC 1970.2.19.1). 6, first pleopod; 7, detail of tip of first pleopod.

First male pleopod well chitinized, more or less circular in transverse section; it is bend, stout and abruptly tapering to a long narrow distal portion; tip pointed. Second male pleopod bend, stout, regularly tapering, and approximately half the length of the first pleopod. Female unknown.

***Measurements.*** - The measurements taken include the rostrum, but exclude the intestinal spine. Carapace holotype 26.8 mm long, 22.5 mm broad; adult paratype 21.3 mm long, 17.3 mm broad; juvenile paratype 15.7 mm long, 9.5 mm broad.

***Etymology.*** - The specific epithet *pincerna* means cupbearer, referring to the concave tubercles (cups) that this species carries on the branchial regions of its carapace.

***Type-locality.*** - South China Sea.

***Variability.*** - The juvenile paratype specimen from Indonesia shows some differences in comparison with the holotype and paratype from the South China Sea; the length and shape of the rostrum, and the length of the pereopods in respect to the carapace length are different, but this can be attributed to the immature stage of the individual. In all juvenile spider crabs, the pereiopods are usually longer compared to the carapace length. Also, the rostrum is distinctly larger in respect to the body in juveniles. Therefore, there is no reason for me to consider this juvenile specimen as not belonging to *Austrolibinia pincerna*.

***Remarks.*** - The new species can be distinguished almost instantly from *Austrolibinia gracilipes* (Miers, 1879) by the same characters tabulated by Griffin & Tranter (1986: 108-109). Of the remaining two species, *Austrolibina pincerna*, new species, resembles *Austrolibinia capriocornensis* Griffin & Tranter, 1986, most closely. However, it can be distinguished by the presence of a flattened, but apically concave tubercle, giving it a cup-shaped appearance (not cup-shaped in *A. capricornensis*); the dorsally implanted tubercle of the hepatic region has apically a flattened ridge (instead of a blunt point); the presence of a small metabranchial spine being situated submedially near the posterolateral margin of the carapace and intestinal margin (absent in *A. capricornensis*); the more rotund shape of the carapace; the slightly different shape of the male first pleopods; and the rostrum being relatively shorter and broader. The differences with *A. andamanica* (Alcock, 1892) are the cup-shaped tubercle on the protogastric region; the presence of a small metabranchial spine being situated submedially near the posterolateral margin of the carapace and intestinal margin (absent in *A. andamanica*); the more rotund shape of the carapace; a quite different shape of the male first pleopods; the rostrum being relatively shorter and broader; as well as the same characters cited by Griffin & Tranter (1986: 110, 112) for distinguishing *A. andamanica* from *A. capricornensis*.

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