

ON A NEW RECORD OF *METAPENAEOPSIS TOLOENSIS* HALL (CRUSTACEA : DECAPODA) FROM INDIAN WATERS, OFF THE COROMANDEL COAST

ABSTRACT

The penaeid prawn *Metapenaeopsis toloensis* Hall, 1962 is recorded for the first time from Indian waters and reported in this note. The material has been compared with the previous descriptions and additional characters are described for distinguishing the species from *M. barbata*.

THE PRESENT note is based on the material collected from trawl catches landed at Madras fishing harbour and gives the new known geographic distribution of the species, being recorded for the first time from Indian waters.

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Metapenaeopsis toloensis Hall, 1962

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Material: Two females with broken rostrum (20 to 21 mm carapace length) and 4 male

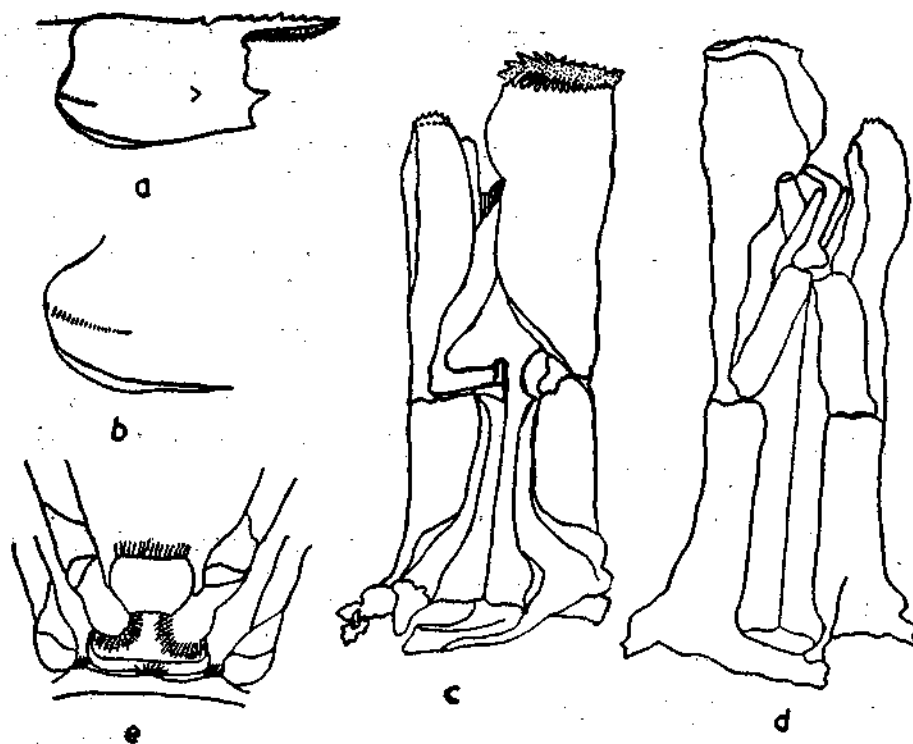


Fig. 1. *Metapenaeopsis toloensis* Hall: a. Carapace in lateral view; b. stridulating organ; c. petasma in ventral view; d. petasma in dorsal view and e. thelycum.

ranging from 88 to 91 mm total length (18 to 18.5 mm carapace length) collected from Madras fishing harbour on 2 December, 1988.

Distribution: *M. toloensis* has been recorded from Sri Lanka and Malaya (Holthuis, 1980), Thailand (Chaitiamvong and Ratana-Ananta, 1974), Sarawak, north coast of Borneo (Bruce, 1965), Hong Kong (Wear and Stirling, 1974) and Cebu, Philippines (Miquel, 1984 a). The present record from Madras fills the gap in the known geographic range of the species from Sri Lanka to Philippines.

total length are available only for males as the two females on hand have broken rostrum. All the males possess one epigastric tooth and seven arostral teeth on the dorsal side of the rostrum.

Miquel (1984 b) distinguished *M. toloensis* Hall from *M. barbata* (De Haan) on the basis of differences in the carination of third abdominal somite, in the position of penultimate rostral tooth and in the configuration of petasma and thelycum. The following additional charac-

Character	<i>M. toloensis</i>	<i>M. barbata</i>
Rostrum	Wider in profile; hardly reaching middle of 2nd segment of antennular peduncle.	Narrow in profile; reaching tip of 2nd segment of antennular peduncle.
Stridulating ridges	At $\frac{1}{4}$ depth carapace.	At more than $\frac{1}{5}$ depth carapace.
Pereopods	Shorter.	Longer.
1st pereopod	Reaches upto base of carapocerite.	Reaches upto middle of carapocerite.
2nd pereopod	Reaches tip of carapocerite.	Exceeds carapocerite by half the length of chela.
3rd pereopod	Reaches base of first segment of antennular peduncle.	Reaches upto second segment of antennular peduncle.
4th pereopod	Extends upto base of scaphocerite.	Extends upto tip of carapocerite.
5th pereopod	Reaches tip of carapocerite.	Exceeds carapocerite by half the length of dactylus.
Terminal spine of sixth abdominal somite	Blunt.	Acute.

Remarks: The specimens agree with the original description given by Hall (1962) and the recent description given by Miquel (1984 b). The carapace, the stridulating organ, the petasma and the thelycum are presented in Fig. 1. The number of rostral teeth and the

ters have also been found to vary in the two species:

The colour pattern in fresh specimens of *M. toloensis* agrees with the description given by Miquel (1984 b).

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LENGTH-WEIGHT RELATIONSHIP IN THE
BIVALVE *ANADARA ANTIQUATA* (LINNAEUS 1758)

ABSTRACT

Investigations were conducted on the hinge length meat weight relationship in *Anadara antiquata* (Linnaeus 1758) collected from the mud flats of Zanzibar, between July 1987 and February 1988. A hinge length frequency distribution with a clear mode at 2.4 cm was observed in a total sample of 980 bivalves used in the investigation. The meat weight frequency distribution was positively skewed and had a peak at 2.2 g. Meat weight and hinge length had a correlation coefficient of 0.9852 and were related by the exponential curve equation: $W=0.23676 L^{3.1661}$ where W=meat weight, L=hinge length. Meat weight was also found to vary with time.

THE BIVALVE *Anadara antiquata* occurs abundantly in the sheltered coastal mud flats of Tanzania (Matthes, 1974; Mwaieseje, 1982; Kayombo and Mainoya, 1985). It is an important non-conventional fishery item, constituting over seventy per cent of the bivalves collected (Per. obser.) and has a high potential for aquaculture development (Panikkar, 1966; 1976).

In Tanzania, coastal dwellers especially women and children engage in *Anadara* collection particularly during spring low tides. Groups of up to 30 collectors can often be seen along the beaches at low ebb tide. The bivalve is collected mainly to meet family consumption, but occasionally some is sold either fresh or after boiling and sun drying the meat, usually pierced and arranged on wooden spokes.

Studies on *Anadara antiquata* in Tanzania have to-date concentrated on aspects of the ecology and reproduction of the species (Kayombo, 1985). Another study related to this species has been that by Kudoja (1987), who reported coliform bacteria counts in the meat of *Anadara* spp. from Dar es Salaam coastal waters. His studies revealed high coliform bacteria count to the extent that he was of the opinion that bivalves collected from Dar es Salaam beaches should be declared unfit for human consumption as they could easily be a source of diseases.

Yield related studies on the bivalves currently being collected have not been undertaken. Information regarding the sizes and meat content of the bivalves cropped is essential for the determination of current human predation pressure on the bivalve populations, as well