

OCCURRENCE OF *CHELONIBIA TESTUDINARIA* (LINNAEUS) (CRUSTACEA: CIRRIPIEDIA) IN COASTAL WATERS OF PAKISTAN

Javed Mustaqim and Mahjabeen Javed
Centre of Excellence in Marine Biology, University of Karachi,
Karachi-75270, Pakistan.

Five specimens of sessile barnacle, *Chelonibia testudinaria* (Linnaeus) were collected, in February 1993, from the back of a green turtle, *Chelonea mydas*, which was going back to the sea after laying eggs on Sandspit beach (24°49'N; 66°56'E). *Chelonibia testudinaria* is widely distributed throughout tropical and temperate seas and has only been reported to be found attached to turtles (Newman and Ross, 1976). In spite of its wide distribution it has not been reported from Northern Arabian Sea bordering Pakistan. The only species of genus *Chelonibia* known to occur in coastal waters of Pakistan is *C. patula* (Ranzani) recently reported by Javed and Mustaqim (1992). A brief description of *C. testudinaria* based on the present material is given below. All the specimens are housed in the Centre of Excellence in Marine Biology.

Chelonibia testudinaria (Linnaeus) (Figs.1-2)

Chelonibia testudinaria, Pilsbry, 1916, p.267; Wagh and Bal, 1970, p.121; Newman and Ross, 1976, p.44.

MATERIALS AND MEASUREMENTS:

Five specimens, two males and three females, were examined. The measurements of the smallest and the largest specimens are as follows: basal diameter, 26 and 37mm; shell height, 8 and 10mm; aperture length, 12 and 15mm.

DESCRIPTION:

The shell is strong, conical and depressed with a broadly oval or almost circular outline. The six compartments do not differ much in size, the rostrum is slightly larger than the carina. The aperture is oval, elongated, large, exceeding in length one-third of the longer basal diameter. The radii are narrow, their outer lamina or both sides of each suture is divided into teeth, the points of which face and touch each other. These teeth give the whole shell a starlike appearance (Fig.1).

The opercular valves are elongated. The occludent margin of the scuta is inflected and sinuous. The tergum is mitre-formed, with the carinal margin more sloping than the scutal margin. The mandibles have five teeth all, excepting first and fifth, being laterally double (Fig.2A). There is a row of short setae along the dorsal convex curved margin and a row of rather stouter ones on the ventral margin. A few short setae are scattered over the surface of the mandible near the teeth.

The maxillule (Fig.2B) is flat and somewhat rectangular in outline. It is not

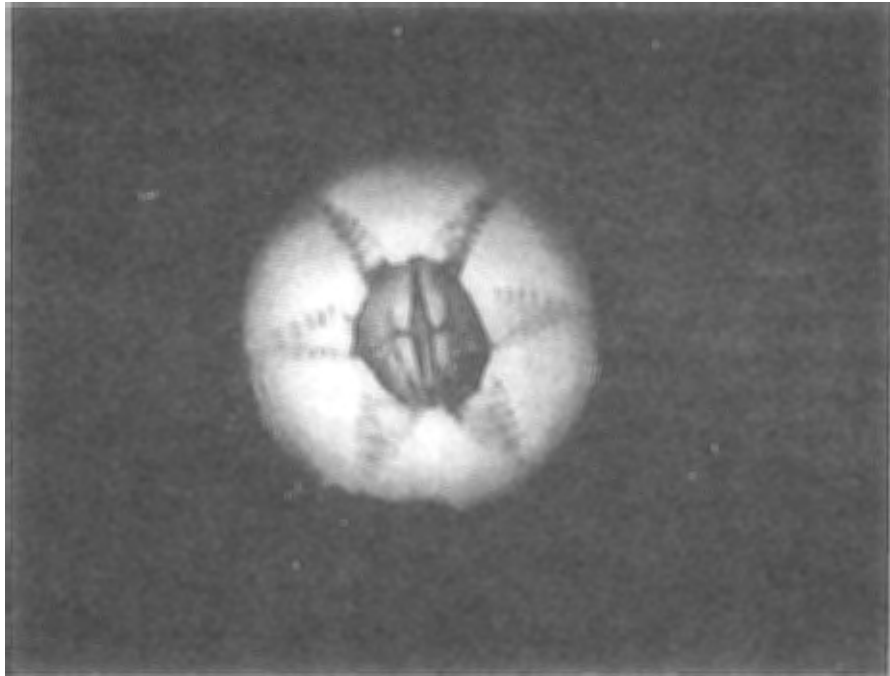


Fig.1. *Chelonibia testudinaria* (Linnaeus), basal diameter 37 mm.

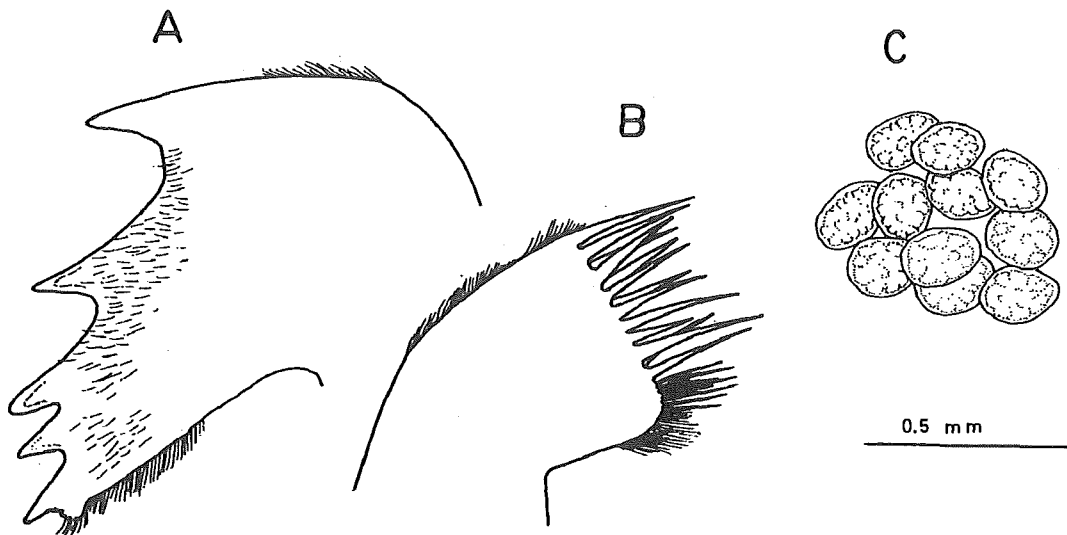


Fig.2. *Chelonibia testudinaria* (Linnaeus), (A) mandible, (B) maxillule and (C) eggs.

notched. Its free distal margin is armed with long stout spines. There is a row of short setae along the dorsal margin and a row of slender forwardly directed slightly curved spines along the lower margin.

COLOUR:

Dirty white to off white.

REMARKS:

All the three female barnacles were egg-bearing. The eggs (Fig.2C) were oval in shape. Their average size, as measured by ocular micrometer, was found to be $0.2\text{mm} \pm 0.4$ (SD) ($n=36$).

DISTRIBUTION:

Tropical and temperate seas, attached to turtles. This is the first record of this species from Pakistan.

REFERENCES

- Javed, M. and J. Mustaqim, 1992. New record of an acorn barnacle *Chelonibia patula* (Cirripedia, Thoracica) from Pakistan, *Crustaceana* 61. (In press)
- Newman, W.A. and A. Ross, 1976. *Revision of the balanomorph barnacles; including a catalog of the species*. Scripps Institution of Oceanography and San Diego Natural History Museum, Memoir 9: 43-44.
- Pilsbry, H.A. 1916. The sessile barnacles (Cirripedia) contained in the collection of the U.S. National Museum; including a monograph of the American species. *Bulletin U.S. National Museum*, 93: 1-366.
- Wagh, A.B. and D.V. Bal. 1970. Observation on systematics of sessile barnacles from West coast of India I. *Journal of the Bombay Natural History Society* 71: 109-123.