M A L A K O L Ó G I A I T Á J É K O Z T A T Ó
MALACOLOGICAL NEWSLETTER
2001 19: 93–94

Blister Pearls in *Arca navicularis* from the Red Sea

H. K. Mienis

Abstract: Blister pearl formation is reported for the first time from Arca navicularis, an common Indo-Pacific Ark shell rarely reported from the Red Sea. The blister pearls were triggered by boring organisms within the layers of the outer shell.

Key words: Mollusca, Bivalvia, Arcidae, Arca navicularis, Pearl formation.

In his excellent monograph of the bivalves living in the Red Sea, Oliver, P. G. (1992) included also *Arca navicularis* Bruguière, 1789 (Fam. Arcidae), yet it does not seem to be very common in the Eritrean faunal province. To my surprise the late Prof. Chanan Lewinsohn of the Tel Aviv University dredged thousands of empty valves belonging to *Arca navicularis* from 40-50 m depth off Elat, in the northern part of the Gulf of Aqaba, Red Sea, on 5 September 1966. A check of that material revealed the presence of three interesting cases of blister pearl formation.

The largest valve, a left one, has a length of 36.8 mm and shows two blister pearls. A light brown pearl is covering half of the posterior adductor scar and a tubular whitish pearl is situated halfway the posterior aductor scar and the centre of the ventral margin. A small round hole is located at the exterior of the shell more or less above both pearl formations.

An other left valve with a length of 33.5 mm shows nine irregular pearl formations in the centre of the interior. Seven have still the form of partly covered open tubes and are connected to a tunnel of a boring organism within the layers of the outer shell.

The smallest specimen, again a left valve, shows a whitish pearl formation below the posterior adductor scar. It covers in part a tube of a boring organism which penetrated the shell from the outside.

The blister pearl formations reported here were all triggered by boring organisms which tried to penetrate and tunnel the shell from the outside. They constitute the first reports on blister pearl formation in *Arca navicularis.* However, blister pearl formation seems to be a rather common feature in the family Arcidae since most recently I was able to report it from *Arca noae* Linnaeus, 1758, *Anadara uropigimelana* (Bory St. Vincent, 1824), *Barbatia barbata* (Linnaeus, 1758), *Barbatia decussata* (Sowerby, 1833) and *Scapharca natalensis* (Krauss, 1848) (Mienis, H. K. 1995, 2000, 2000a, 2000b, 2000c).

References

Mienis, H.K. (1995): A blister pearl in a fossil *Anadara uropigimelana* (Bory St. Vincent) (Mollusca, Bivalvia, Arcidae). De Kreukel, 31 (6-7): 77.

Mienis, H.K. (2000): Wratparels in *Barbatia barbata* uit Israël. C.B. Ned. Malac. Ver., 314: 67.
Mienis, H.K. (2000a): A blister pearl in *Scapharca natalensis.* Triton, 2. (in print)
Mienis, H.K. (2000b): A blister pearl in *Arca noae* Linnaeus, 1758. Of Sea and Shore. (in print)
Mienis, H.K. (2000c): Blister pearls in *Barbatia decussata.* Pallidula. (in print)
Oliver, P.G. (1992): Bivalved seashells of the Red Sea. 330 pp., 46 plts. Verlag Christa Hemmen, Wiesbaden & National Museum of Wales, Cardiff.

MIENIS, Henk. K.
National Mollusc Collection, Dept. Zoology
The George S. Wise Faculty of Life Sciences
Tel Aviv University, IL-69978 Tel Aviv, Israel
E-mail: mienis@netzer.org.il & mienis@hotmail.com