

Pearl formation in *Chlamys varia* from Bretagne

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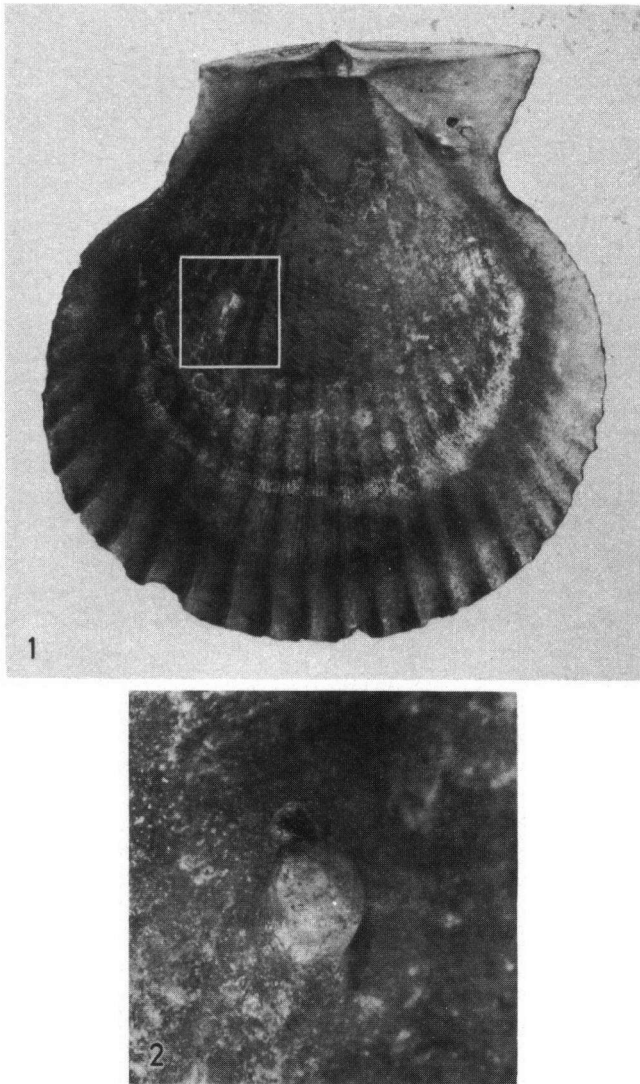
Pearl formation is generally known to occur in the pelecypod families of the pearl oysters (Pteriidae) and the freshwater pearl mussels (Margaritanidae, Unionidae). In these families precious and valuable pearls are found, consisting of thin layers of aragonite, which show iridescent colours called the orient or lustre of the pearl. According to the situation of pearl formation within the mollusc two main types of pearls are recognized: free pearls and blister pearls. Free pearls are formed within the soft parts of the animal; blister pearls are found fixed to the inside of the shell.

Except for the three families mentioned above, pearl formation is known from a number of other pelecypod families: Arcidae, Glycymeridae, Mytilidae, Pinnidae, Pectinidae, Spondylidae, Anomiidae, Ostreidae, Veneridae, Tellinidae, Tridacnidae, Mactridae, and Myidae (Korschelt, 1912: 113-117; Schmidt, 1928: 143; Bolman, 1941: 5-9). Recently Alagarwami (1965) described a pearl from the venerid *Gafrarium tumidum* Röding. Most of the pearls from these families consist of calcite, are without iridescence, and have a porcellaneous texture.

In addition pearls are known from a number of gastropods (Coomans, in press), and from the cephalopod *Nautilus*. Two centuries ago Linnaeus stated that every mollusc with a shell is able to produce pearls: "Omnes conchae possunt cogi, ut dent uniones" (Drake, 1930: 110).

In the Pectinidae pearls were known from the genus *Pecten*. In this paper a case of pearl formation in the genus *Chlamys* is described.

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Figs. 1-2. Pearl formation in *Chlamys varia* (L.). 1. Inside of left valve with pearl formation, Pointe du Bindy, Rade de Brest, Bretagne, France; shell length 52 mm. 2. Close up of blister pearl of fig. 1. Photographs L.A. van der Laan.

University of Amsterdam in August 1973 organized an excursion to the coast of Bretagne, France, with residence at the Station Biologique de Roscoff. On 18 August 1973 during one of the fieldtrips the author collected at Pointe du Bindy in the Rade de Brest one left valve of *Chlamys varia* (Linnaeus, 1758) with a blister pearl. This shell (fig. 1) is of a chocolate brown colour, the length is 52 mm, width 47 mm. The pearl (fig. 2) has a light brown colour without iridescence, and measures 4 mm in diameter at the base, $1\frac{1}{2}$ mm at the top. Pearl formation was evidently caused by drilling of a predator gastropod. On the outside of the shell, opposite the pearl and located between two ribs, a round hole is present with a diameter of 0.75 mm. In this case pearl formation has proved to be an excellent method of defence of *Chlamys varia* against an attacking carnivorous snail.

LITERATURE

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