

## THE WART-LIKE BARNACLES, VERRUCIDAE (CRUSTACEA: CIRRIPIEDIA) PRESENT IN MALTESE WATERS

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### ABSTRACT

Two species of wart-like barnacles, from the genus *Metaverruca* are reported from the deep waters round the Maltese Islands at the centre of the Mediterranean Sea.

**KEY WORDS:** Verrucidae, Cirripedia, Malta

### INTRODUCTION

The species of the Mediterranean Cirripedia were treated by Relini (1980), while those present in Maltese waters have been revised by Rizzo and Schembri (1997). However, no species from the family Verrucidae were known at that time for our Islands. Recent research has revealed a living deep water species and the presence of plates of another species of possibly Pleistocene age.

Young (2002) has shown that the shallow water species of *Verruca* from the Mediterranean belong to *Verruca spengleri* Darwin, 1854 and not to *Verruca stroemia* O.F. Müller, 1776, as has been cited in the past by various Mediterranean authors (e.g. Relini 1980). This was also confirmed by Young *et al.* (2003) and also by Relini (2010). Surprisingly, this, the most common Mediterranean shallow water species, is absent in Maltese waters, notwithstanding the fact, that it is found at shallow depths of 1-10 metres in nearly all the coastal shores around the Mediterranean and the Black Sea. The species found during this study belong to the genus *Metaverruca*, and include *Metaverruca imbricata* (Gruvel, 1900) and *Metaverruca trisulcata* (Gruvel, 1900). These are both deep water species.

### MATERIALS AND METHODS

Most of the material studied was obtained during the RV/Urania MARCOS Cruise (2007), the MEDITS 2007 Research Cruise and from a fisherman's bycatch. During the MARCOS research cruise several live specimens of *Metaverruca imbricata* were found attached inside crevices of fossil corals or pieces of the rocky substratum brought up by the heavy dredge. These were preserved in alcohol and later sent to Dr. R. Di Geronimo (Catania) for study (Zibrowius pers. comm.). The material from the fisherman's bycatch consisted of 6 live specimens. These were attached at the base of an old nylon rope used for anchoring the 'Kannizzati', the floats used for harvesting the fish *Coryphaena hippurus* (Linnaeus, 1758). Material of *Metaverruca trisulcata* was obtained from grab samples in both the MARCOS cruise and the MEDITS 2007 cruise.

The live material from the MARCOS cruise was collected and preserved by Dr. H. Zibrowius. The material from the MEDITS cruise was collected by Dr. M. Dimech and the live material from the fisherman's bycatch was collected by the author.

### MATERIAL STUDIED

*Metaverruca imbricata* (Gruvel, 1900) Fig. 1A.

Malta: South, RV/Urania, Marcos Cruise, Station MS 44, Heavy Dredge:

Start: 35°30.506'N-14°06.230'E. End: 35°31.228'N-14°05.698'E, 632-467m, 12-iv-2007, a small number of live specimens and a few loose plates.

Malta: South, MEDITS 2007, Station G19-2, Grab: 35°31.30'N-14°05.22'E, 460m, ix-2007, a few loose plates.

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Malta: SW, attached to old nylon rope brought up from 35°51.315'N-14°11.707'E in 250m, 27-viii-2008, 6 live specimens + 1 shell.

*Metaverruca trisulcata* (Gruvel, 1900) Fig. 1. B-C.

Malta: South, RV/Urania-Marcos Cruise, Station MS 44, dredge, Start:35°30.506'N-14°06.230'E. End: 35°31.228'N-14°05.698'E, 632-467m, 1 plate +1 rostrum with a thick basal part, 12-iv-2007.

Malta: South, MEDITS 2007, Station G19-2 Grab, 35°31.30'N-14°05.22'E, 460m, ix-2007, a few loose plates.

## CONCLUSIONS

All the study material was determined by Dr. R. Di Geronimo (University of Catania, Sicily). *M. imbricata* seems to be quite frequent in the southern Maltese waters, but always at moderate to great depths. Although the material of *M. trisulcata* appears fresh, it is subfossil of Pleistocene age. However, it cannot be ruled out that the species is still extant in the depths of the Mediterranean. Recent research has brought about quite a few surprises of species which were thought to be extinct here and even a species new to science (in study) was found to be still living at still scantily studied depths. *M. trisulcata* is found living in the eastern Atlantic and West Africa at depths of 622-1378 m (Young 2001; 2002). Both of these species are treated extensively by Young (2002).

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