

LAST GLACIAL MOLLUSK FAUNAS CORED IN THE CENTRAL ADRIATIC SEA

TAVIANI Marco (1), CURZI Pietro (1) and NOTO Pietro (2)

(1) Istituto di Geologia Marina del CNR, via Zamboni 65, 40127 Bologna, Italy.

(2) Istituto Internazionale per le Ricerche Geotermiche del CNR, via Delbuongusto 1, 56100 Pisa, Italy.

ABSTRACT. A latest Pleistocene glacial mollusk fauna has been cored on the slope of a submarine hill in the central Adriatic Sea at 133 m of depth. The fauna comprehends the following species: Buccinum humphreysianum, Pseudamussium septemradiatum, Arctica islandica and Mya truncata. A ^{14}C dating of A.islandica provided an age of $37,000 \pm 1000$ y.B.P. for this fauna. A.islandica and M.truncata were previously unknown to have lived in the eastern Mediterranean during the last glacial.

During cruise Ads 74 of the R/V Bannock, a 552 cm piston core was raised from the eastern slope of a small submarine hill located at $42^{\circ}34.3' \text{ N}$ and $15^{\circ}23.1' \text{ E}$ at a water depth of 133 m (stat. Ads 74/24; fig.1).

The core (fig.1) is mainly represented by a Pleistocene sequence capped by 21 cm of Holocene sediments. From the bottom to 144 cm the core is constituted by pelites. The upper part (21 to 150 cm core depth) of the Pleistocene sequence begins with gravels followed upwards by pelites and loams.

Within the upper part we found a rich boreal mollusk fauna comprising some classical northern guests, i.e., two specimens of Arctica islandica and one specimen of Mya truncata, both species still in life position; two worn valves of Pseudamussium septemradiatum were present in the gravels at the base of the glacial sequence. A blackened and uncomplete specimen of a fourth boreal species, Buccinum humphreysianum, was found within the Holocene sediments (3-5 cm of depth); it is very likely that this specimen has been reworked from older, glacial sediments.

A ^{14}C analysis of a specimen of A.islandica from 98-100 cm of depth provided an age of $37,000 \pm 1000$ y. B.P.

Thus, our glacial fauna is datable to the last glacial (isotopic stages 2 to 5d of EMILIANI, 1966). As far as we know, this is the first time in absolute that a last glacial macrofauna has been recovered by coring in the Mediterranean Sea.

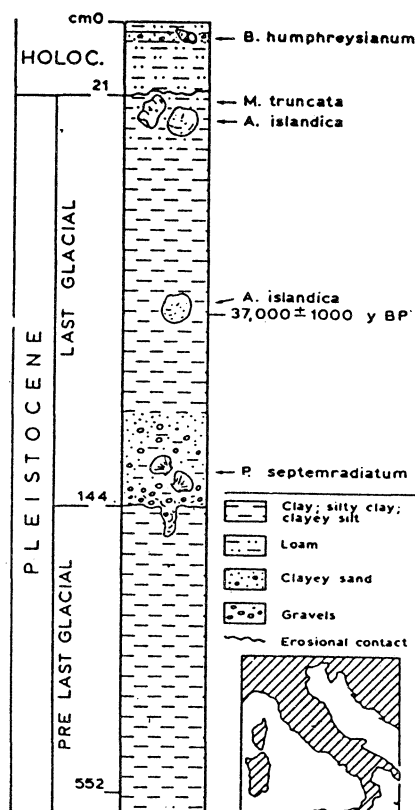
Submerged deposits of this age, containing boreal macrofaunas have been reported from many sites of the Mediterranean sea. From the extensive literature on the argument (TAVIANI, 1976, and DOMENECH & MARTINELL, 1982, with references therein; DI GERONIMO & LI GIOI, 1980), it appears that most of these findings are relative to the western part of the Mediterranean.

MARS & PICARD (1960) thought that P.septemradiatum was the only boreal mollusk which reached the eastern Mediterranean during the last glacial. This assumption has been later demonstrated wrong by the findings of a diversified last glacial mollusk fauna in the Adriatic

Sea off the Apulian coast (COLANTONI et al., 1975; TAVIANI, 1976, 1978).

The present finding allows us to add *A.islandica* and *M.truncata* (previously known only from the western basin) to the list of the boreal species which lived in the eastern Mediterranean during the last glacial.

Fig. 1. Schematic lithology and stratigraphy of core Ads74/24 with the position of the boreal mollusks. Note that vertical scale of the preglacial sequence is different from that of the upper part of the core. Location of the coring station is reported in the index map.



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