

**LIVE AND DEAD BRYOZOANS IN THE CORALLIGENOUS BUILD-UPS OF MARZAMEMI
(IONIAN SEA)**

Gemma DONATO^{1*}, Rossana SANFILIPPO¹, Francesco D'ALPA¹, Francesco SCIUTO¹, Valentina Alice BRACCHI², Daniela BASSO² & Antonietta ROSSO¹

¹ Department of Biological, Geological and Environmental Sciences, University of Catania, Italy

² Department of Earth and Environmental Sciences, University of Milano-Bicocca, Italy

*Presenting author: gemma.donato@unict.it

Coralligenous is among the most biodiverse habitats of the Mediterranean Sea. It results from the active construction of skeletonized marine organisms, mainly crustose coralline algae and subordinately selected groups of invertebrates. In this context, bryozoans are relevant both for biodiversity and for the contribution they provide to the bioconstruction. Indeed, most have heavily mineralized colonies that, although usually small, can provide carbonate to the build-up whereas all species increase Coralligenous biodiversity. In the framework of the FISR project CRESCIBLUREEF “Grown in the blue: new technologies for knowledge and conservation of Mediterranean reefs”, 8 samples were scraped from 4 columnar build-ups arising from a coarse biogenic bottom at a depth of 33.5-37.2 m off Marzamemi (SE Sicily, Ionian Sea). Living and dead bryozoans were identified and scored, distinguishing colonies settled on the canopy (mostly fleshy algae and erect bryozoans) from those forming the concretion. Communities include a total of 85 species (1337 colonies), while only 42 species (287 colonies) were identified in the thanatocoenoses. No species are shared by all build-ups but relevant differences in the total diversity and species composition of both communities and thanatocoenoses have been detected between build-ups confirming the high heterogeneity of this habitat both in the present-day and the recent past. These data, and still ongoing research on further build-ups including a deeper one, provide new information increasing previous knowledge about the role of bryozoans in the Coralligenous of the area and of the whole Mediterranean. Structural and/or compositional differences between live and dead bryozoan associations are being particularly addressed in order to detect possible (paleo)-environmental proxies.