Bryozoans and serpulids associated to coralligenous build-ups: preliminary results from the CRESCIBLUREEF project

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Bioconstructions, mainly consisting of crustose coralline algae, develop in Mediterranean shelf settings forming elevate structures usually surrounded by coarse biogenic sediments. These extremely complex structures known as coralligenous host a relevant biodiversity of species living on the surface and inside cavities and crevices resulting from the irregular growth of the bioconstruction. Associated taxa occupy different niches and play different roles, all species being relevant for the functioning of the habitat. However, only skeletonized species can be preserved in the fossil record (in the structure and as bioclasts in the in nearby sediments) and a restricted number of invertebrates actively participate to construct the biogenic structure because they possess skeletons that cement to each other and act as subordinate builders, binders and dwellers. Bryozoans and serpulids usually play a major role but molluscs, foraminifera, barnacles and further taxonomic groups can add. In the frame of the FISR project CRESCIBLUREEF that aims at investigating Mediterranean coralligenous bioconstructions, we collected scraped samples from some discrete bioconstructions offshore Marzamemi (Sicily, Ionian Sea). The preliminary examination of samples from two of such bioconstructions covered by a canopy of soft algae and collected from 37.2 m and 36.2 m depth allowed identifying ca. 60 bryozoan and 30 serpulid species. However, leaving out uncalcified and lightly calcified bryozoan species as well as species attached by means of organic rootlets and those encrusting secondary soft substrata, the number of species lowers to ca. 28 for bryozoans and 25 for serpulids. These species subordinately contribute carbonate to the structure owing to their small sizes, but are relevant for analysing small-scale environmental conditions due to their adaptations to the colonisation of particular microhabitats, thus providing information to reconstruct coralligenous accretion history.