

Project Update: November 2022

Gorgonians are fan-shaped soft corals, highly vulnerable against anthropogenic stressors, especially here in the Sea of Marmara. Over the last decade, the marine life of Marmara has been challenging with the local stressors such as excessive sedimentation (2015-2016 period) and recent mucilage (2019). Although recently in 2021, the Ministry of Environment, Urbanization and Climate Change implemented an Action Plan and declared the Sea of Marmara as a Special Environmental Protection Area (SEPA) Marmara, still mechanical damages (caused by fishing nets, fishing lines, anchoring) continues to treat the region.



Therefore, to increase public awareness for the implementation of action plan and protect marine life we selected *Spinimuricea klavereni* as a flagship species for coral gardens in the Sea of Marmara. *S. klavereni* is a Mediterranean endemic species, found deeper than 70 m but exceptionally shallower in Marmara, due to peculiar oceanography. This particularity allows gathering data and samples by scuba diving, of a Data Deficient species in IUCN Red List. We will compare, morphologically and genetically, samples obtained by ROV from the Tyrrhenian Sea with those of Marmara, an inner sea that's been isolated from the Mediterranean for thousands of years. Our aim is to improve the status of this gorgonian with solid scientific data, with a final outcome of local conservation.

Summer 2022, Sample collection

The Mediterranean samples have already been collected from the fishnets (bycatch) and the Marmara samples were collected by SCUBA diving in September 2022 with the help of volunteers.

The morphological studies have been conducted in Genova where Dr. Marzia Bo has a suitable experienced laboratory and samples from Italian coasts.



As a first step we compared multiple features of *S. klavereni* including sclerites (small skeleton parts), anchorage structures, and histological analysis (oocytes and spermaries output) of Marmara vs Tyrrhenian samples.



Sharing the current status of the Sea of Marmara

The Mediterranean Symposia on Marine Vegetation, Coralligenous, Dark Habitats and Non-Indigenous Species, took place from 19 to 23 September 2022 in Genoa, Italy. Our team also participated with different topics, and I presented the current situation of the gorgonians and soft corals in the Sea of Marmara after mucilage.

We try to raise awareness of the beautiful coral gardens here in Marmara and accelerate the conservation and management strategies.

There, I presented a poster and won the best poster award. Below is the reference of the poster.

Saraçoğlu C., Barraud, T., Akyüz, O.U., Değirmen, B., Topçu N.E. Sharp Decrease of Alcyonarian Assemblages Following a Severe Mucilage Event in Northeastern Sea of Marmara. Proceedings of the 4th Mediterranean Symposium on the conservation of Coralligenous & other Calcareous Bio-Concretions (Genova, Italy, 20-21 September 2022). Bouafif C., Ouerghi A., edits, SPA/RAC publi., Tunis, 173 - 174.



