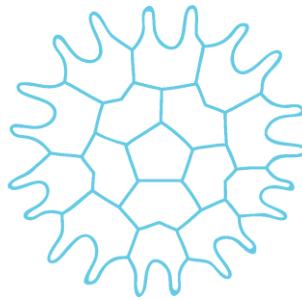
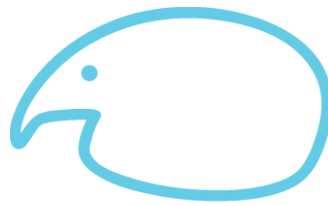


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FIRST RESULTS ON CLADOCERAN REMAINS IN LAKE GARDA, THE LARGEST ITALIAN LAKE

Manuela Milan¹

¹*Sustainable Agro-ecosystems and Bioresources Department, IASMA Research and Innovation Centre, Fondazione Edmund Mach. Via E. Mach 1, 38010 San Michele all'Adige (TN), Italy
(manuela.milan@fmach.it)*

Lake Garda is the largest Italian lake and is located in the northern part of Italy, nestled in the Alps chain arch. It is very important for biodiversity, agriculture, drinking water and tourism. From a morphological point of view, it is subdivided in two basins: the deepest one (Brenzone, 350 m) in the north-western part and a shallower (Bardolino, 81 m) in the southern part of the lake.

The subfossil diatoms were analysed to reconstruct the total phosphorus trend in the last two centuries in both basins. Cladoceran remains are used to support the obtained data and also to find more information concerning the litoral zone and the water column changes.

This contribution presents the results of the analyses carried out on one short sediment core (44 cm) collected from the litoral zone (30 m depth) of the shallower basin (Bardolino) in 2011. The samples present not well preserved remains and also only few species, due to the mineralogical sediments. From the first analysis on cladoceran composition, the core appears to be divided in two part: the upper part is dominated by *Daphnia* sp. and *Bosmina* sp., while the bottom part by *Alona* sp. and *Acroperus harpae* and presents more variety in species. This suggested some water level fluctuations, and probably changing of chemical components.

Further studies will be focused on the two cores used for total phosphorus reconstruction based on diatoms. They will be analysed for cladocera identification and counting to obtain a more detailed reconstruction of the lake evolution.