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Department of Environmental Biology, Sapienza University of Rome



European
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Survey

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May 21 – 25, 2023, Rome (Italy)



EUROPEAN VEGETATION SURVEY: METHODS AND APPROACHES IN A CHANGING ENVIRONMENT

Book of abstracts

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Monitoring and evaluation of Malta's coastal wetlands in a global change context: a case study using a multimethod approach

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Mediterranean coastal wetlands are important ecosystems that provide a variety of ecological services such as coastal protection, habitat for fish and bird species, and carbon sequestration (Tomaselli et al. 2022). As regards the Maltese Islands' saline, these wetlands are sparsely spread along the shoreline and are frequently affected by anthropogenic influences. Consequently, the Maltese Islands lack pristine saline marshlands (Henwood 2006; Lanfranco et al. 2009) and the most extant have been artificially engineered. One such wetland is il-Magħluq ta' Marsaxlokk, which forms part of the Natura 2000 site, il-Ballut ta' Marsaxlokk.

This is a case study to investigate the plant species cover and diversity of il-Ballut ta' Marsaxlokk, which aims to contribute to the knowledge on participatory management in protected areas. Despite its high ecological importance, this site has been subjected to several stresses including habitat loss due to sea erosion. In order to evaluate the plant biodiversity of the wetland, a multimethod approach investigation was carried out. Photointerpretation and on-site surveys were used to identify habitats, which were then classified in accordance with CORINE Biotopes, Directive 92/43/EEC, and EUNIS codes. In addition, phytosociological relevés retrieved from literature and unpublished data were processed. The diversity was quantified through three indices: species richness, Shannon's diversity index, and Simpson's diversity index. Our preliminary results suggest

that over time there has been a reduction of the halophilous plant communities. With several threats such as climate change and human activities, frequent monitoring of wetlands like this one will be increasingly important for long-term conservation in accordance with the objectives of the Habitats Directive.

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