BOOK OF ABSTRACTS

VALENCIA (SPAIN) | 23-27 OCTOBER | 2023

Plant Conservation and Ecosystem Restoration in the Mediterranean

4th Mediterranean Plant Conservation Week

VALÈNCIA | 23-27 OCTOBER | 2023

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4th MEDITERRANEAN PLANT CONSERVATION WEEK

The 4th Mediterranean Plant Conservation Week (4th MPCW) is a congress that aims to bring together researchers and managers related to the conservation of wild plants and their habitats around the Mediterranean. For this edition, the 4th MPCW expands its initial goal—centered on the conservation of species and the relationships between people and wild or cultivated plants—towards the complementary recovery of habitats, as a contribution to the United Nations Decade for Ecosystem Restoration.

This congress is a meeting point where different opinions and experiences from diverse fields of knowledge converge. This is done by connecting experts on plant conservation and ecological restoration, being conscious that the goal of plant rescue is not possible without the full recovery of the ecological functions on-site.

Additionally, the 4th MPCW also intends to be a forum where experiences from the different sides of the Mediterranean region can meet and establish links for future cooperation projects. Specialists from Southern Europe, the North of Africa, and the Middle East can find here a forum for the conservation of a common natural heritage, including plants, their habitats, and the knowledge on how to manage and use them in a sustainable way.

The 4th MPCW is a window to show research results and experiences in the form of oral presentations and posters, not only from the plant or ecological sciences but also about the relationships between the public and the plant conservation world (citizen science, ethnobotany, local involvement, bottom-up initiatives, landraces, etc.), opening a new paradigm for the next decades around the Mediterranean: The plants are for the people, but with the people.

All this has been possible thanks to your participation, to our sponsors support and to our helpers involvement.

We do hope that you enjoy the Mediterranean Plant Conservation Week!

MEDITERRANEAN PLANT CONSERVATION WEEK

The first event of the 'Mediterranean Plant Conservation Week' took place in October 2016 in Montenegro, with the main organiser being the IUCN; it was attended by about 80 people from 18 countries.

The second 'Mediterranean Week' took place in November 2018 in Malta with main organisers being IUCN and MAICh through the 'CARE-MEDIFLORA' project (funded by the MAVA Foundation) and the participation of about 130 people from 25 different countries.

The third 'Mediterranean Week' was held in Chania, Greece, and 84 people in person and 39 virtually from 20 different countries, attended the congress.

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Assessment of the impacts of *Opuntia stricta* on vegetation and invertebrates in a small Mediterranean island

Misuri, A.,[1,2] Lazzaro, L.,[3] Siccardi, E.,[3] Tricarico, E.,[2,3] Forni, S.,[2,3] Morbidelli, M.,[3] Viciani, D.,[2,3] Benesperi, R.,[2,3] Santini, G.,[2,3] Masoni, A.,[2,3] Balzani, P.,[4] Mazza, G.,[2,5] Landi, S.,[2,5] Lagomarsino, A.,[5] Mugnai, M.[2,3]

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The extensive use of the *Opuntia* genus as food and ornamental plant has made it one of the most widespread in the Mediterranean basin. Especially, in the small Mediterranean island, Capraia (Tuscany Archipelago, Italy) the invasive alien species, *Opuntia stricta*, is the most pervasive one. In particular, its distribution threatens some important N2000 habitats, such as 5330 “Thermo-Mediterranean and pre-desert scrub”, 5320 “Low formations of *Euphorbia* close to cliffs”, 1240 “Vegetated sea cliffs of the Mediterranean coasts with endemic *Limonium* sp. pl.” and 6220 “ Pseudo-steppe with grasses and annuals of the *Thero-Brachypodietea*”.

Although its socioeconomic and vegetation impacts have been fairly documented, there is a paucity of studies on the micro invertebrate community and on soil chemistry. Therefore, in order to have a more comprehensive view of the impacts of this species at various levels in Capraia Island, our study aims to assess the impacts of this IAP not only on plant communities, but also on native microinvertebrates, and soil chemistry.
We created an experimental design that involved natural and semi natural areas surrounding Capraia port. We randomly launched 12 square plots of 4 m^2, 6 in the invaded area and 6 in the uninvaded area. All these plots were located within habitats of conservation interest and at least 25 meters apart from one another. For each of them, we recorded data on plant species occurrence and abundance and collected soil samples for analysis of moisture, density, skeleton and potential production of CO^2, N_2O and CH_4. In addition, we sampled ants using pitfall traps, collected soil samples for the characterization of micro-arthropod communities through the Berlese funnel method and further detected soil microbiota analysis.

For what concern the preliminary vegetation results, they show significant impacts on the composition of plant species but not as regards the diversity indices. Instead, preliminary results on soil physico-chemical properties and microbial activities show that there is a greater difference at the spatial level rather than between invaded and uninvaded areas. Hence, the invasion of *O. stricta* seems not to significantly change the soil characteristics, and probably also the soil fauna.

Keywords: alien species, cross taxon, soil analyses, habitat, plant ecology