

Fois M. (1)\*, Cuenca A. (1), Bacchetta G. (1), Bagella S. (2);  
Barone G. (3,4), Camilleri L. (5), Debono K. (5), Domina G. (3),  
Lanfranco S. (5), Panitsa M. (6), Pasta S. (7), Troia A. (8), Lazzaro L. (9),  
Fraga-Arguimbau P. (10), V. Lansdown R. (11), Bazos I. (12),  
Minissale P. (13), Nikolić T. (14), S. Christodoulou C. (15), Kadis C. (16),  
Jilani I. B. H. (17,18), Daoud-Bouattour A. (18), D. Muller S. (19),  
Stinca A. (20), Fournaraki C. (21), Capó M. (22), Gazaix A. (23),  
Aksoy N. (24), Diadema K. (25)

## **Wetland plants in Mediterranean Islands: A collaborative initiative to collect information for their conservation**

In the Mediterranean Basin, the conservation of plants faces critical challenges due to the historic and ongoing impacts of human land use, placing biodiversity under pressure. This issue is particularly pronounced on islands, where the intrinsic fragmentation of freshwater environments is exacerbated by the limited land area. Consequently, island wetlands, which are generally smaller than their continental counterparts, are more fragile and often overlooked in conservation efforts. Therefore, addressing the need for improved knowledge of wetland plants occurring on islands is a crucial objective that remains largely unresolved. Challenges persist, including cryptic taxonomy within certain genera, and there is still a need for a comprehensive overview of the diversity, distribution and conservation status of these plants. These knowledge gaps contribute to policy and management shortcomings, hindering effective conservation or recovery efforts. This study seeks to bridge these knowledge gaps by compiling information from local experts on wetland vascular plants occurring on the approximately 10,000 Mediterranean islands and islets. Our work presents and discusses the preliminary results of a checklist of over 200 wetland vascular plants of conservation interest. Remarkably, 20% of these species are globally endangered, 50% face threats on at least one island, and available information is inadequate to assess the conservation status of 30%. The insights provided in this study can support parallel initiatives, such as the Red List Index of Mediterranean wetland plants. Moreover, they can

serve as a reference for planning targeted conservation actions and fostering public awareness about plant diversity in Mediterranean island wetlands.

- (1) University of Cagliari, Department of Life and Environmental Sciences, Cagliari, Italy
- (2) University of Sassari, Department of Chemical, Physical, Mathematical and Natural Sciences, Sassari, Italy
- (3) University of Palermo, Department of Agricultural, Food and Forest Sciences, Palermo, Italy
- (4) National Biodiversity Future Center (NBFC), Palermo, Italy
- (5) University of Malta, Department of Biology, Msida, Malta
- (6) University of Patras, Department of Biology, Patras, Greece
- (7) National Research Council, Institute of Biosciences and BioResources, Palermo, Italy
- (8) University of Palermo, Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), Palermo, Italy
- (9) University of Florence, Department of Biology, Florence, Italy
- (10) Marimurtra Botanical Garden, Carl Faust Foundation, Blanes, Spain
- (11) IUCN SSC Freshwater Plant Specialist Group, Gloucestershire, UK
- (12) National and Kapodistrian University of Athens, Department of Biology, Panepistimiopolis, Athens, Greece
- (13) University of Catania, Department of Biological, Geological and Environmental Sciences, Catania, Italy
- (14) University of Zagreb, Department of Biology, Zagreb, Croatia
- (15) Ministry of Agriculture, Rural Development and Environment, Lefkosia, Cyprus
- (16) Frederick University, Nature Conservation Unit, Nicosia, Cyprus
- (17) University of Carthage, National Agronomic Institute of Tunisia, Tunis, Tunisia
- (18) University of Manouba, Biogeography, Applied Climatology and Environmental Dynamics, Manouba, Tunisia
- (19) University of Montpellier, CNRS, IRD, EPHE, Institute of Evolutionary Sciences (ISEM), Montpellier, France
- (20) University of Campania Luigi Vanvitelli, Department of Environmental, Biological and Pharmaceutical Sciences and Technologies, Caserta, Italy
- (21) Mediterranean Plant Conservation Unit of Mediterranean Agronomic Institute of Chania (CIHEAM-MAICH), Crete, Greece
- (22) Polytechnic University of Madrid, Center for Biodiversity Conservation and Sustainable Development, Madrid, Spain
- (23) Tour du Valat, Research Institute for the Conservation of Mediterranean Wetlands, Arles, France
- (24) Duzce University, Department of Forest Botany & DUOF Herbarium, Duzce, Türkiye
- (25) National Mediterranean Botanical Conservatory of Porquerolles, Hyères, France

\* mfois@unica.it