

Angelo Troia, Adriana Arnal, Karl-Georg Bernhardt, Pablo García-Murillo, Riccardo Guarino, Vincenzo Ilardi, María. A. Rodrigo, Dario Salemi, Barbara Turner, Johanna Weitzel, Hendrik Schubert

University of Palermo, Dept. STEBICEF, Italy

University of Valencia, Cavanilles Institute for Biodiversity and Evolutionary Biology, Spain

BOKU-University of Natural Resources and Life Sciences, Dep. Integrative Biology and Biodiversity Research, Austria

University of Sevilla, Dep. Plant Biology and Ecology, Faculty of Pharmacy, Spain

University of Rostock, Institute for Biosciences, Chair Aquatic Ecology, Germany

Not only birds: the essential role of vegetation in wetland conservation - Poster presentation

Wetlands are ecosystems of extraordinary ecological importance, often highlighted for their key role in bird conservation. They serve as crucial stopovers and nesting sites for numerous migratory and resident species, drawing attention from scientists, conservationists, and the public. However, a bird-centred focus is reductive and risks overlooking the complexity of these ecosystems and the crucial role played by other components of wetlands, particularly vegetation. Despite its critical functions, wetland vegetation receives significantly less media and scientific attention than birdlife. Most conservation and management initiatives prioritize avian species (or other animals), neglecting the fact that bird populations strongly depend on the health of aquatic vegetation. This fragmented approach risks compromising wetlands conservation, underscoring the need for a more integrated perspective that acknowledges vegetation as a key element of ecosystem integrity, functionality and resilience. Among wetland macrophytes, the alga *Chara canescens* (Charophyceae, Charales) stands out as the only known

charophyte that can reproduce parthenogenetically and form oospores in the absence of male gametangia. It occurs in brackish waters, but while its parthenogenetic populations are widespread across Europe and the African Mediterranean coast, its sexually reproducing populations are exceptionally rare, with only a handful documented across Europe. Due to its ecological significance and peculiarity, *C. canescens* has become the target of the European project ProPartS (Biodiversa+) (<https://proparts.unipa.it>), started in April 2023; it aims to develop effective transnational conservation and restoration strategies for the species, based on targeted research carried out on the ecology, distribution and genetic of the European populations. In Fall 2024, an online meeting marked the foundation of a transnational network among the sites hosting sexual populations of *C. canescens*, including representatives from Austria, Italy, Serbia, and Spain. This preliminary goal was achieved by contacting environmental managers, policymakers, and conservation groups, directly talking in person with them and, if possible, visiting the sites with

them, establishing the basis for subsequent exchange of knowledge, best practices, and resources. Beyond protecting *C. canescens*, the project contributes to broader sustainability goals and serves as a model for future conservation efforts. It highlights the importance of stakeholder engagement and collaborative networks, and the need to integrate macrophytes and vegetation into wetlands management, ensuring these ecosystems are preserved not just as bird habitats but as complex, interdependent systems.

