

Italian Society of Vegetation Science 56th Congress
Next Challenges in Vegetation Science: Facing the Anthropocene
Siena, 13-14 July 2023



Italian Society of Vegetation Science 56th Congress
Next Challenges in Vegetation Science: Facing the Anthropocene
Siena, 13-14 July 2023

Italian Society of Vegetation Science 56th Congress
Next Challenges in Vegetation Science: Facing the Anthropocene
Siena, 13-14 July 2023

THE PLANT COMMUNITIES OF TUSCAN RICE FIELDS

Fanfarillo E.^{1,2}, Fiaschi T.¹, Angiolini C.^{1,2}

¹Dept. of Life Sciences, University of Siena, Siena (Italy); ²NBFC, National Biodiversity Future Center, Palermo, Italy

Presenting author: Emanuele Fanfarillo, emanuele.fanfarillo@unisi.it

Vascular plants colonizing rice fields are highly specialized to grow in such a peculiar habitat, which is at a crossroad between wetlands and arable land. Italy is one of the main rice producers in the World, and most of its rice production is concentrated in northern regions. A few descriptive studies are available about the plant communities colonizing rice fields in the area. On the contrary, nothing is known about such communities in central Italy (Tuscany), where rice cultivation has a long tradition as well. With this study, we provide the first knowledge about the plant communities growing in the rice fields of southern Tuscany, where we carried out 40 square vegetation plots of 4 m² size in early September 2021 and 2022. The surveyed plant communities were characterized by a high presence of alien species, such as *Cyperus difformis*, *Heteranthera reniformis*, and *Lindernia dubia*, and were classifiable in the class *Oryzetea sativae* Miyawaki 1960. However, based on preliminary floristic observations and on distributional data from literature, most of such alien species seemed unable to spread outside rice fields and their immediate channels, except for the invasive plant of European concern *Hydrocotyle ranunculoides*. Among native species, the most frequent were *Alisma plantago-aquatica*, *Bolboschoenus maritimus*, and *Cyperus fuscus*. An abundant presence of Characeae algae was often recorded. The channels surrounding rice fields host natural aquatic communities with *Potamogeton* spp., *Utricularia* spp., and *Najas* spp., classifiable in the class *Potamogetonetea* Klika in Klika et Novák 1941 and representing the Natura 2000 Habitat 3260 “Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation”.