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BOOK OF ABSTRACT

KEYNOTE LECTURES, COMMUNICATIONS, POSTERS



1.8. = THE TEMPORARY WETLAND COMPLEX OF ANGUILLARA AND ITS KEY ROLE FOR THE BOTANICAL HERITAGE OF WESTERN SICILY

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Temporary wetlands are endangered throughout the entire Mediterranean area (1). Contrary to the permanent wetlands, that (usually) cover larger surfaces and are now protected after a long period of siege and 'reclamation' attempts, temporary ponds and wetlands are small, scattered areas still under pressure and threatened by human activities. This fact represents a serious threat for biodiversity, since many species only occur in these peculiar sites. To secure their protection Mediterranean temporary ponds are listed as "priority habitat" in the EU "Habitats" Directive (92/43/EEC). The temporary ponds of Anguillara, located near Calatafimi in Western Sicily, host a huge amount of rare plants. This site was still unexplored until few years ago, and it falls outside the regional nature reserves and the Natura 2000 network. Although in 2011 an attempt was made to obtain a legal protection of the area (2), this proposal was not accepted by regional authorities, and few months later some of the ponds were destroyed to build greenhouses with solar panels. In the framework of a multidisciplinary study promoted by the 'Società Siciliana di Scienze Naturali' in order to improve the knowledge and awareness on the biological importance of the site, the wetlands were visited many times by bryologists, botanists and vegetation scientists in different seasons. The preliminary results of these still ongoing investigations are presented here. Several hygro-hydrophilous plant communities have been detected: the *Ranunculetum peltati* Horst, Krausch & Müller-Stoll 1966 em. Weber-Oldecop 1969 (class *Potametea pectinati* Klika in Klika et Novák 1941) is linked to the deepest part of the main seasonal pool, where species such as *Alisma lanceolatum* With. and *Glyceria notata* Chevall. occur. On the edges of the ponds several communities referred to the classes *Phragmito australis-Magnocaricetea elatae* Klika in Klika & Novák 1941 and *Isoëto-Nanojuncetea* Br.-Bl. & Tüxen ex Westhoff, Dijk & Passchier 1946 have been observed. The local vascular flora includes many species of high biogeographic and conservation interest, such as *Isoetes longissima* Bory (= *I. velata* Auct.) and *Ipomoea sagittata* Poir., the latter included in the European Red List (3), and a number of regionally or globally rare species such as *Myosotis sicula* Guss., *Elatine* cf. *macropoda* Guss., *Solenopsis laurentia* (L.) C.Presl, *Cicendia filiformis* (L.) Delarbre, *Lysimachia arvensis* (L.) U.Manns & Anderb. subsp. *parviflora* (Hoffmanns. & Link) Peruzzi. Local 'highlights' are with no doubt the recent discoveries of the only Sicilian population of the globally endangered *Pilularia minuta* Durieu (3), included in the European Red List (4), and of the only Italian population of *Trifolium isthmocarpum* Brot. subsp. *jaminianum* (Boiss.) Murb. (5), which was considered extinct at the national level. The site hosts also some interesting mosses such as *Ephemerum crassinervium* (Schwägrichen) Hampe subsp. *sessile* (Bruch) Holyoak, included in the National Red List (6) and confirmed a century after the collection in one single site of eastern Sicily, and *Enthostodon fascicularis* (Hedw.) Müll.Hal., new to western Sicily; and the liverwort *Riccia bicarinata* Lindb., rare in Italy.

Due to the richness of its communities and the conservation value of its flora at the local, regional and global level, the site of Anguillara with its network of temporary wetlands and pools results to play a strategic role for biodiversity of western Sicily, thus it urgently deserves appropriate protection measures.

1) A. Lumbreras, J.T. Marques, A.F. Belo, M. Cristo, M. Fernandes, D. Galioto, M. Machado, A. Mira, P. Sá-Sousa, R. Silva, L. G. Sousa, C. Pinto-Cruz (2016) *Hydrobiologia*, DOI 10.1007/s10750-016-2697-7

2) A. Troia, G. Bazan, R. Schicchi (2011) *Naturalista Sicil.*, 35, 257-293

3) A. Troia, R. Lansdown (2016) *Webbia*, DOI 10.1080/00837792.2016.1195105

4) M. Bilz, S.P. Kell, N. Maxted, R.V. Lansdown (2011) *European Red List of Vascular Plants*. Luxembourg: Publications Office of the European Union

5) L. Scuderi, A. La Rosa, S. Pasta (2016) *Naturalista Sicil.*, in press

6) F. Conti, A. Manzi, F. Pedrotti (Eds.), *Libro rosso delle piante d'Italia*. Società Botanica Italiana, Roma