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ABSTRACTS

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“NOT ONLY FOOD: SUSTAINABLE DEVELOPMENT, AGRO-BIODIVERSITY
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3.3 = PLANT RED LISTS IN ITALY: ADDRESSING THE THREATS TO ENDEMIC PLANTS FROM AGRICULTURE

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“The New Red List of Italian Flora” project, promoted by the Ministry of Environment (MATTM), in collaboration with the Italian Botanical Society, started in 2013 with the aim to update the conservation status of Italian plant species (1, 2). So far, more than 700 vascular plant species were evaluated according to IUCN Red List criteria (3). All the species listed in the Directive 92/43/CEE and Bern Convention (4) and more than one third (484) of the about 1400 endemic taxa (5) were assessed. Data were organized in a database including distribution, population trends, and main threats categorized according to the IUCN threats classification scheme (6) and identified by expert-based observations.

Threats in the major category of “natural system modifications” and “human intrusion and disturbance” are the most frequent, however, an important threat is also represented by “agriculture”, with more than a quarter of endemic species (129, 26.6 %) threatened by agricultural expansion and intensification, including farming, silviculture and aquaculture practices. In particular, 66 out of 129 (51 %) endemic species resulted affected by farming and grazing that are the main threats between those connected to agriculture; 20 (15.5 %) species are threatened by annual and perennial non-timber crops and 16 (12.5 %) species are threatened by timber crops. For the remaining 27 species only generic threats linked to agricultural practices could be identified. Intensified livestock farming, and especially intensive grazing activities is the main threat also for Policy species at European level (7). However, it is worth noting that intensification of agriculture especially in lowland areas as a threat for the endemic flora of Italy is only one face of the coin. In fact, change in land use and land abandonment, especially in mountain areas, is also a threat for biodiversity, highlighting the positive effect of sustainable agricultural practices.

A general trend is that the least-intensive systems support greater species richness. Consequently to improve conservation of plant diversity, sustainable-farm systems (e.g. extensive grazing, organic and integrated farming, conservation agriculture) must be rewarded for the ecosystem services performed by their good practices, using instruments embedded by agricultural policies like Common Agricultural Policy (CAP), possibly in strict connection with Natura 2000 network, which is largely represented in EU also in agricultural areas.

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2) G. Rossi, C. Montagnani, T. Abeli, D. Gargano, L. Peruzzi et al. (2014) *Plant Biosystems*, 148, 187-190.

IUCN (2013) *Guidelines for Using the IUCN Red List Categories and Criteria. Version 10*. Standards and Petitions Subcommittee

3) G. Rossi, S. Orsenigo, C. Montagnani, G. Fenu, D. Gargano, L. Peruzzi et al. (2015) *Oryx*, in press.

4) L. Peruzzi, F. Conti, F. Bartolucci (2014) *Phytotaxa*, 168, 1-75.

5) IUCN (2012) *Unified Classification of Direct Threats: Version 3.2*.

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