114° Congresso della Società Botanica Italiana

VI INTERNATIONAL PLANT SCIENCE CONFERENCE (IPSC)

Padova, 4 - 7 September 2019

ABSTRACTS

KEYNOTE LECTURES, COMMUNICATIONS, POSTERS

ISBN 978-88-85915-23-7

2.6 = Notes on syntaxonomy, chorology and dynamics of *Olea europaea* L. var. *sylvestris* (Mill.) Lehr. forests in the Mediterranean landscape

Lorenzo Gianguzzi[1], Giuseppe Bazan[2]
[1]Department of Agricultural, Food and Forest Sciences, University of Palermo, Via Archirafi 38, 90123 Palermo, Italy; [2]Department of Biological, Chemical, and Pharmaceutical Sciences and Technologies, University of Palermo, Via Archirafi 38, 90123 Palermo, Italy

The wild olive or oleaster [*Olea europaea* L. var. *sylvestris* (Mill.) Lehr.] is a typical woody plant of the Mediterranean landscape, of which is an emblematic element of natural forest vegetation (1, 2). Forest community dominated by oleaster that has been described up until now in the Mediterranean basin, as more or less evolved aspects of woods, microwoods and high shrubland that principally tends to make up climax and edaphic climax "series heads". These formations are currently quite rare and fragmented in the wake of large-scale deforestations and the impoverishment of old-growth communities dominated by a millennial species; however, they maintain a significant large-scale distributive potential within the infra- and thermomediterranean bioclimate belt (also with small penetrations into the mesomediterranean) with a dry-subhumid (and sometimes humid) ombrotype. The study was conducted through the analysis of phytosociological data taken from the scientific literature and other unpublished data regarding North Africa (Morocco, Algeria), the Iberian Peninsula, the Balearic Islands as well as other islands from the Tyrrhenian area (Sardinia, Corsica, Sicily and its minor islands), the Italian Peninsula, the Balkan Peninsula, the Aegean region, Turkey and the southern Anatolian coast. A comparison between the different communities has shown a high floristic and physiognomic-structural homogeneity that justifies their categorization in the class *Quercetea ilicis* Br.-Bl. in Br.-Bl., Roussine & Nègre 1952.
The biogeographic and ecologic vicariance shown by the same formations within the large Mediterranean distribution range make it possible to subdivide them into the following three orders and respective alliances and sub-alliances:
1) *Pistacio lentisci-Rhamnetalia alaterni* Rivas-Martínez 1975 [a) all. *Tetraclini articulatae-Pistacion atlanticae* Rivas-Martínez, Costa & Izco 1986 (suball. *Pistacienion atlanticae* Barbero, Quézel & Rivas-Martinez 1981); b) all. *Asparago albi-Rhamnion oleoidis* Rivas Goday ex Rivas Martinez 1975; c) all. *Arbuto unedonis-Laurion nobilis* Rivas-Martínez, Fernández-González & Loidi 1999 (suball. *Arbuto-Laurenion nobilis* Rivas-Martinez & Sanchez-Mata 2001); d) all. *Oleo sylvestris-Ceratonion siliquae* Br.-Bl. ex Guinochet & Drouineau 1944];
2) *Quercetalia calliprin*i Zohary 1955 [e) all. *Ceratonio-Pistacion lentisci* Zohary et Orshan 1959];
3) *Quercetalia ilicis* Br.-Bl. ex Molinier 1934 [f) all. *Querco rotundifoliae-Oleion sylvestris*n Barbéro, Quézel & Rivas-Martínez in Rivas-Martínez, Costa & Izco 1986; g) all. *Fraxino orni-Quercion ilicis* Biondi, Casavecchia & Gigante ex Biondi, Casavecchia & Gigante in Biondi, Allegrezza, Casavecchia, Galdenzi, Gigante & Pesaresi 2013; h) all. *Erico arboreae-Quercion ilicis* Brullo, Di Martino & Marcenò 1977].
In the thermomediterranean belt most affected by farmland, the oleaster formations is generally made up of small fragmented nuclei; in these cases, they are located on isolated rocky outcrops or between hedgerows – for example along dry-stone walls – as a phytocoenological expression of regeneration. The most complete residual aspects are found on steep ridges which are not suited to agriculture, or in semi-natural environments in the upper thermomediterranean or mesomediterranean belts; this is the case, for example, of sites located near various kinds of rocky outcrops or on ledges, in areas where fire can't easily spread, and where forest vegetation can therefore evolve more easily.
Olea europaea L. var. *sylvestris* (Mill.) Lehr. forests are protected by European Habitats Directive (43/92 CEE; code "9320 - Olea and Ceratonia Forests") (3, 4). Considering the relictual nature of these formations in the Mediterranean landscape, it would be opportune extent the conservation measures to the other countries within the distribution range.

1) S. Rivas-Martìnez, F. Fernàndez-Gonzàlez, J. Loidi, M. Lousa, A. Penas (2001) Itiner Geobot., 14(2), 5-341
2) S. Rivas-Martínez, T.E. Díaz, F. Fernández-González, J. Izco, J. Loidi, M. Lousã, A. Penas (2002) Itiner Geobot., 15(1-2), 5-922
3) L. Gianguzzi, E.V. Perrino (2016). In: P. Angelini, L. Casella, A. Grignetti, P. Genovesi (editors). Roma. ISPRA, Serie Manuali e Linee Guida; p. 248-249
4) D. Gigante, F. Attorre, R. Venanzoni, A.T.R. Acosta, E. Agrillo, M. Aleffi, N. Alessi, M. Allegrezza, P. Angelini, C. Angiolini, et al. (2016) Plant Sociol., 53(2), 77-87