27th Congress of the European Vegetation Survey 23-26 May, 2018 Wrocław, Poland

Vegetation survey 90 years after the publication of Braun-Blanquet's textbook – new challenges and concepts

Book of Abstracts









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Quercus pubescens forests in Italy. A syntaxonomical issue over three vegetation classes

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The Downy Oak (Quercus pubescens s.l.) in Italy is a quite common tree species. Although its occurrence in all the Italian administrative regions, and a potential role for forming zonal forest throughout the whole Italian Peninsula it is not easy to find Q. pubescens woods covering wide areas or exhibiting a sufficiently high cover degree of the dominant tree layer to not be considered a wooded grassland or shrubland. In fact, the *Quercus pubescens* woods find their coenological optimum within the south facing slopes of the colline and submontane belts where the millenary traditional agricultural land-use practices were carried out by the Italic populations. From a taxonomical point of view the pubescent-oaks are a still open issue. A wide degree of hybridization characterized all the species of white oaks occurring in Italy and hybrids exist even between those oak species seemingly showing very different ecological features (Q. pubescens, Q. robur, Q. frainetto, Q. petraea). Nonetheless, in addition to Quercus pubescens, the Italian taxonomical and phytosociological literature (especially that concerning the southern Italy) reports a wide range of other pubescent-oak names, some of them of still uncertain taxonomical status (e.g. Q. virgiliana, Q. dalechampii, Q. leptobalana, Q. apennina, Q. amplifolia, Q. humilis, Q. congesta, Q. ichnusae) which were widely used as guide species for phytosociological associations or even for the higher rank syntaxa. Owing to the wide ecological amplitude of *Quercus pubescens* s.l., both in terms of bioclimate and bedrock type, the classification of its woods at the class rank is also a highly debated issue. According to some authors (e.g. Brullo & Marcenò 1985; Brullo et al. 2009), the most of the southern Italy pubescent-oak forests are not to be referred to Quercus pubescens s.s. but to other pubescent-oak taxa (especially Q. virgiliana and Q. dalechampii) having a strictly steno-Mediterranean distribution and ecological features pertinent to the Thermo-Mediterranean and Meso-Mediterranean thermotypes. Accordingly their forests were classified within the *Quercetea ilicis* whereas the pubescent-oak associations occurring in the temperate zones of the Italian peninsula were included in the Querco-Fagetea. Other authors (e.g. Blasi et al. 2004) disagreed with this position and considered all the pubescent-oak s.l. associations as belonging

to *Quercus-Fagetea* by virtue of the deciduous character of the guide-species. The Eurovegchecklist (Mucina et al. 2016) put forth the proposition that all the pubescent oak forests are to be considered as the evolution (or the remnants) of a previous form of steppe-forests coming from the East and therefore to be classified in the *Quercetea pubescentis*. In this contribution we have statistically analysed all the *Quercus pubescens* s.l. communities described for the Italian Peninsula at present and proposed a syntaxonomic and coenological interpretation on the basis of floristic, ecological and epionthological considerations.