

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



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***CUPRESSUS* FORESTS (*ACERO-CUPRESSION*; HABITAT CODE 9290): A NEW EU HABITAT IN ITALY?**

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In the European Union, the habitat type 9290 “*Cupressus* forests (*Acero-Cupression*)” is reported in more than 20 Natura 2000 sites of Greece and Cyprus. Scientific literature on the habitat 9290 is quite limited and the knowledge on its distribution needs more in-depth analyses and detailed studies. The Nature Reserve “Bosco di S. Agnese” (Siena, central Italy) hosts a large *Cupressus sempervirens* old-established forest (271 ha) originating from an ancient plantation (dated back to the Etruscan-ancient Roman times). *Cupressus sempervirens* seems to have found a precise ecological niche thus forming communities where the species is dominant. The aim of this study is to assess whether *Cupressus sempervirens* forest of Sant’Agnese can be considered as the first example of habitat 9290 in Italy. We compared it with the *Cupressus sempervirens* forests of the eastern Mediterranean area attributed to the habitat 9290. In June 2022, we collected original vegetation data in our study area. Moreover, additional data from the literature were retrieved for the eastern Mediterranean. A dataset of 217 vegetation relevés from Italy, Greece, Turkey, and Cyprus was obtained. Multivariate analyses (modified TWINSpan and NMDS ordination) highlighted how the *Cupressus sempervirens* forest in S. Agnese has remarkable floristic affinities with the ones from Crete and other Aegean islands. Italian and Greek *Cupressus sempervirens* forests were distinguished in species composition from those in Turkey and Cyprus due to the presence of several species with a western Mediterranean distribution, such as *Arbutus unedo*, *Pistacia lentiscus*, and *Quercus ilex*, and to the absence (in Italy) or poorness (in Crete) of many eastern species, e.g., *Acer sempervirens*. These preliminary results, as well as the naturalness of the understorey and the potential distribution of habitat 9290 that includes the western Mediterranean basin, support the hypothesis that the EU habitat 9290 is also present in Sant’Agnese Nature Reserve and in Italy. Our study also showed that more extensive and in-depth studies on the typical species and on the distribution of the habitat 9290 in Europe are needed.