

An update of the Sardinian orchids check-list

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Sardinia, together with the Greek islands, is one of the hot spots of the diversity of Mediterranean orchids. Insularity is certainly one of the factors that has most favored the formation of endemism. In this context, pathways of species colonization, genetic drift, adaptation to local conditions, and variations in the force and direction of natural selection mediated by pollinators can determine the formation of local “breeds”. It is clear that the orchids, thanks to their particular anemocorous dispersion, by which light seeds are driven by the wind at great distances, may have reached the Sardinian-race platform, most likely through routes from the Tuscan archipelago, Provence, Spain and North Africa.

Once they reached the Island, orchids had to adapt to new conditions, such as the possible absence of their specific pollinators, which did not always follow the same colonization paths, the simultaneous presence of new pronouns, which offered the opportunity to occupy new ecological niches, and finally coexistence with phylogenetically similar species that have colonized the Island from other migratory routes.

Recent studies (Bateman *et al.*, 2003), using ecological and molecular analyzes, have made it possible to better understand what the evolutionary dynamics of orchids have been and still are, and how they can be influenced by the anthropogenic impact. Sardinia, despite its insularity, is characterized by a particularly rich orchidological contingent confirmed by the numerous publications produced especially in the last thirty years during which new research fields have been developed that have provided interesting biosynthetic novelties.

The number of taxa currently present in Sardinia is not definable with certainty as it varies according to the taxonomic assessment that the various authors attribute to some of them. In the recent Delforge publication of 2005, Sardinia reported 71 entities compared with 63 of Scrugli and Cogoni in 1998. According to our opinion, the presence in some of these taxa on the island must be verified with greater certainty. Below are some brief critical considerations.

In the light of these data, the orchidological heritage of Sardinia amounts to 68 taxa belonging to 15 genera, of which the most numerous are *Ophrys* with 28 (42%), *Anacamptis* with 7 (11%), *Epipactis* with 6 (10%), *Orchis* with 5 (7%), *Serapias* with 4 (6%) and *Neotinea* with 4 (6%).

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