to the natural regeneration consisted mainly of five fleshy-fruited and one dry-fruited species, all of them well protected against herbivory. Most of woody cover expansion was correlated with initial cover, although some hotspots presented 100% of cover increase from bare areas even further than 100 m away from any woody patch. Our results reveals that the composition and spatial configuration of past vegetation legacies can influence the secondary succession evolution, as well as the specific contribution of natural regeneration, human-made reforestation, herbivory and animal seed dispersal in creating these patterns, setting a template for further investigations regarding mechanisms and functional traits driving these patterns.

The contribution of forest restoration to the conservation of woody endangered species in Sicily

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Sicilian forest ecosystems are, in general, numerically poor in terms of their floristic composition. As many studies on Sicilian dendroflora have highlighted, such poorness is not intrinsic to forest formations, but it is due to the millenary human pressures. Repeated passage of fire, continuous wood usage and reforestations by single or few species dramatically reduced the plant biodiversity of Sicilian forest ecosystems, often suffering of monodominance. The Sicilian dendroflora includes several endangered species, such as *Abies nebrodensis, Betula aetnensis, Celtis tournefortii* subsp. *asperrima* and subsp. *aetnensis*, as the wild pears, which in Sicily are represented by 4 endemic species, in addition to the commonly known *Pyrus spinosa* and *P. pyraster*. Similarly, the genus *Salix* counts 8 different species instead of the given 4. Thus, higher attention toward all these taxa, which strongly improve the forest heritage of specific areas, is needed. Throughout their knowledge, survey, propagation and extensive use, the risk of local and general biodiversity loss can be limited. These actions necessarily require a targeted nursery program aimed to produce plantlets with high genetic variability starting from local propagation material.

Radial increment of Taxodium distichum from Veliko ratno ostrvo area (Belgrade-Serbia) at two different heights of the trunk

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Sustainable restoration of Mediterranean forests

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Abstract

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