

9530 *(Sub)-Mediterranean pine forests with endemic black pines

Management of Natura 2000 habitats. Summary



Alpine *Pinus nigra* forest in Friuli Venezia Giulia (Italy). Photo: P. Susmel

These forests, often thick and dominated by various subspecies of *Pinus nigra*, are found at montane-Mediterranean level on dolomitic substrate (EC 2007). This habitat type occurs at a few sites in the EU and has a fragmented distribution area. Mature *Pinus nigra* forests can develop a high and closed arboreal canopy, and have several age classes and trees well over 30 metres high, as well as a shaded understory. These black pine forests both protect against erosion and torrential floods and act as a carbon sink practically all year round.

The main threats to *Pinus nigra* forests include unsustainable cutting for production purposes (particularly timber), the spread of exotic species, defoliation by insect pests (especially *Thaumetopoea pityocampa*), overgrazing, fires and genetic pollution.

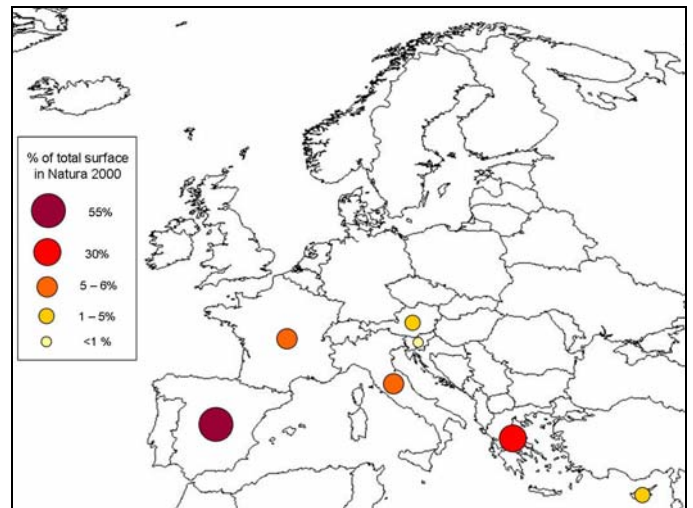
Management of pine forest containing endemic black pines should involve adequate representation of associated species and formation of irregular structures, containing trees of various ages, including very old specimens in order to secure genetic variability and an appropriate amount of dead wood. The importance of maintaining a certain volume of dead wood to assure biodiversity conservation and forest functionality has been acknowledged at international level.

Control of *Thaumetopoea pityocampa* and *T.wilkinsonii* infestations can be dealt with directly by, for example, aerial and ground spray treatments and by indirect measures such as thinning, cleaning, pruning and weeding, plus the use of pine tree species resistant to caterpillar attack.

Extensive and controlled grazing is advisable inside pine forest in an effort to balance the positive and negative effects (fire prevention and disappearance of species associated with the habitat, respectively).

To reduce the risk of genetic pollution, it is important to avoid planting black pines of unknown origin in the proximity of autochthonous pinewoods as intraspecific hybridisation can easily occur among different subspecies of black pine.

The management of the black pine forests should also take into consideration the requirements of the associated fauna of conservation value such as the biggest European raptor, the *Aegypius monachus* (cinereous vulture), which nests on flat-topped *Pinus nigra* trees in a large part of its distribution area, and a small passerine bird, the *Sitta whiteheadi* (Corsican nuthatch), endemic to Corsica, which feeds on insects and pine seeds, and nests in holes in old trees. In particular, old and mature trees should be favoured for their survival and the period of the year for carrying out the silvicultural interventions should be accurately planned, as the human activity can compromise the success of their breeding.



Percentage distribution of the total surface of (Sub)-Mediterranean pine forests in Natura 2000

The complete text of the document is available at: http://ec.europa.eu/environment/nature/natura2000/management/best_practice_en.htm

Management of Natura 2000 habitats is a project launched by the European Commission in January 2007 aimed at defining best practices for management of habitat types included in Annex I of the Habitat Directive (92/43/EEC) that need active recurring management. Twenty six habitat types that are representative of different bio-geographical regions have been considered.