

6170 Alpine and subalpine calcareous grasslands

Management of Natura 2000 habitats. Summary



Alpine grasslands in Somola Alto (ES2410023) in the Western Pyrenees, Spain. Sheep have grazed these grasslands for centuries. Photo: R. García-González.

Alpine and subalpine calcareous grasslands occur above the timberline on base-rich soils in the high mountains of Europe. Harsh climatic conditions (i.e., low temperatures, prolonged frost, heavy snow accumulation), which limit the vegetative period to a few months, characterize this habitat. It includes many plant communities, mainly in the *Elyno-Seslerietea* and *Ononidetalia striatae* phytosociological classes. Alpine calcareous grasslands are highly diverse, with abundant endemic and rare species, and support alpine birds (e.g., *Charadrius morinellus*, *Lagopus muta*) and Lepidoptera (e.g., *Erebia*, *Glacies*, *Colias*, *Elophos*) that have high conservation value.

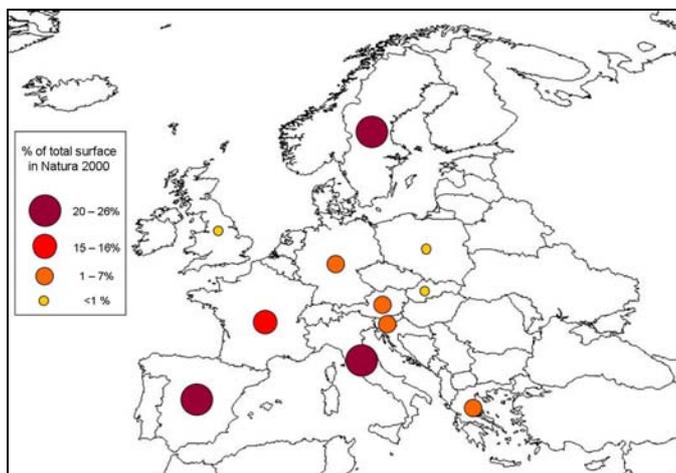
Many of those grassland communities are stable, but very sensitive to disturbances. When the vegetative cover is altered or there is significant loss of soil, it is almost impossible to restore the original habitat. Active management is not required for the conservation of habitat 6170. Given the high structural complexity and fragility of the habitat, the best management practice is to leave it alone.

The main threats to these grassland communities are inappropriate grazing practices, the construction of infrastructures (mainly ski resorts), and perturbations caused by changes in land use and global warming. Subalpine and alpine pastures tolerate moderate grazing, and the elimination of grazing can lead to the disappearance of some species; however, overgrazing and overstocking in certain areas, e.g., resting places, profoundly alter the vegetation and cause soil erosion.

SICs and SACs that contain habitat 6170 should develop plans for grazing management, particularly including the adjustment of stocking densities (e.g., grazing intensity <25% of net primary production) and regulating grazing practices so that conservation objectives are met; e.g. preventing grazing in high alpine communities until vulnerable species have completed their reproduction.

New ski resorts are one of the main threats to alpine calcareous grasslands. The construction and maintenance of ski trails lead to the deterioration of alpine habitat; therefore, they should not be built in areas where the alpine vegetation has high conservation value.

There is strong evidence that global warming is leading to changes in alpine vegetation communities (e.g., the intrusion of alpine species into higher elevations). Currently, beyond the general measures recommended for minimizing the effects of climate change, little more can be done apart from establishing a network of monitoring sites at the most representative points in the alpine mountains.



Percentage distribution of the total surface of alpine and subalpine calcareous grasslands 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.