

2190 Humid dune slacks

Management of Natura 2000 habitats. Summary



*Dune slack on Sefton Coast, northwest England. Conditions for *Petalophyllum ralfsii* maintained by rabbit grazing and trampling. Photo: John Houston*

Humid dune slacks represent the wetland component of dune systems, usually where the underlying water table reaches the surface. There are two main types. Primary dune slacks run parallel to a dune coastline and are formed when a developing sand ridge cuts off a portion of beach. Secondary dune slacks are formed by the landward movement of dune ridges over stable wet sand at the watertable.

Dune slacks appear as flat valleys in the dune system, usually rich in species and associated with other wetland habitats. European vegetation classifications recognise a succession of slack types from bare damp sand to wet slacks dominated by trees and shrubs. The characteristic species of slacks are forms of dwarf willow, most commonly creeping willow. A number of rare species are associated with dune slacks including the fen orchid, petalwort (a bryophyte) and the natterjack toad.

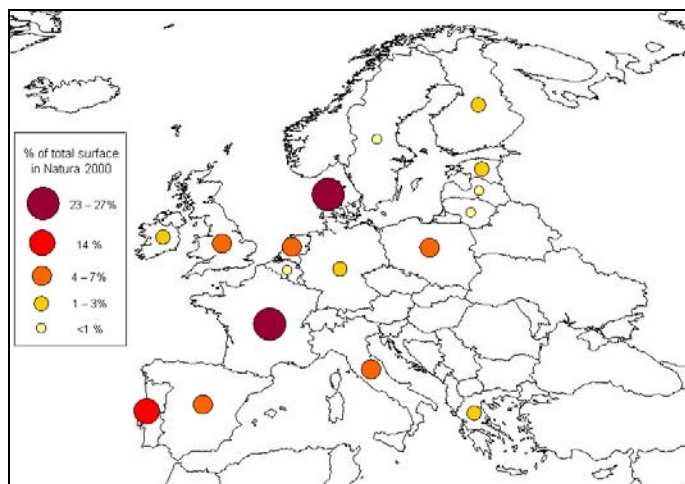
The principal threats to the wetland habitats are water abstraction and drainage, a lack of natural dynamics leading to few 'embryo' slacks, under-grazing and scrub development.

The natural formation of young primary slacks is also affected by shoreline management policies and coastal works. Climate change could pose a significant threat to the series of dune slacks in Europe. Most have been formed by natural sand movement but now lie within more stable dune systems. If water tables fall, as predicted in some areas, the habitat could be left 'high and dry'.

Most of the scientific research and published experience of management comes from the Netherlands, Belgium, France and the United Kingdom where there have been particular concerns about scrub invasion (especially by sea buckthorn) and the threats to rare plants. Applied techniques include scrub cutting, mowing, grazing, turf-stripping and re-wetting.

Several restoration projects developed mowing regimes to maintain the low swards required by species such as fen orchid. Mowing can prolong the younger species-rich stage of slack succession but cannot reverse the process. On sites with a mosaic of habitats grazing is the preferred management tool where the management of dune slacks can be integrated with a grazing plan for the whole system.

Slacks can be 'created' by turf-stripping and removal of nutrient-rich soil. But such projects need carefully planning if they are to succeed. An evaluation of projects found that it was difficult to maintain species-richness without a mowing regime. Dune slacks remain a particularly threatened habitat at the European level.



Percentage distribution of the total surface of humid dune slacks 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.