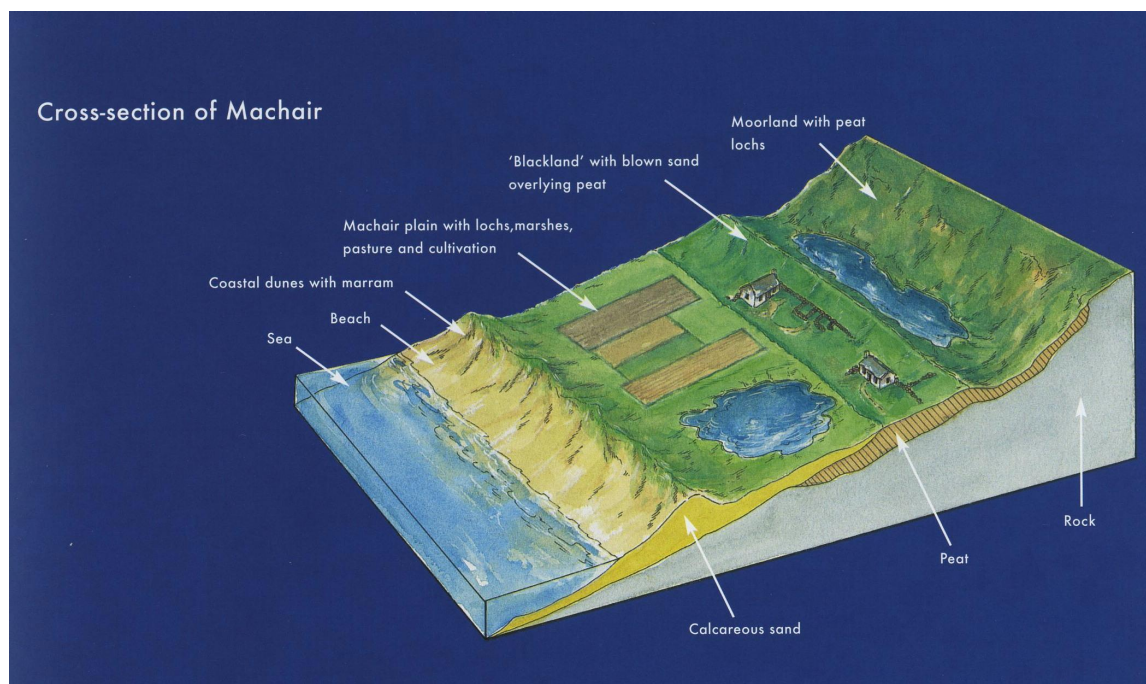


What is machair?

Machair is a distinctive sand dune formation formed by a particular combination of physical factors, including climate and landform. Sand with a high shell content is blown onshore by the westerly winds that prevail in the north and west of Scotland, onto a low-lying coastal plain. Vegetation develops that is typical of calcareous to neutral sandy grassland. In these northern locations the machair grassland has a number of species extending their southern range on the west coast. The most extensive and floristically-rich formations occur as a mosaic of drift-line, foredune, machair plain and transitions to saline lagoons and saltmarsh, or to calcareous lochs, acidic grasslands, fens, heath or bog. These habitats occur within machair, but some may additionally be identified as Annex I types in their own right.



© SNH

The habitat type also supports large breeding bird populations and is particularly important for waders and corncrake *Crex crex*.

It is believed that machair grassland has been modified by man throughout its development. Traditionally, machair supports extensive grazing regimes and unique forms of cultivation that rely on low-intensity systems of rotational cropping. This traditional agriculture sustains a rich and varied dune and arable weed flora. Some of the arable weed species are now largely restricted in the UK to these traditionally managed areas.

Where is machair found?

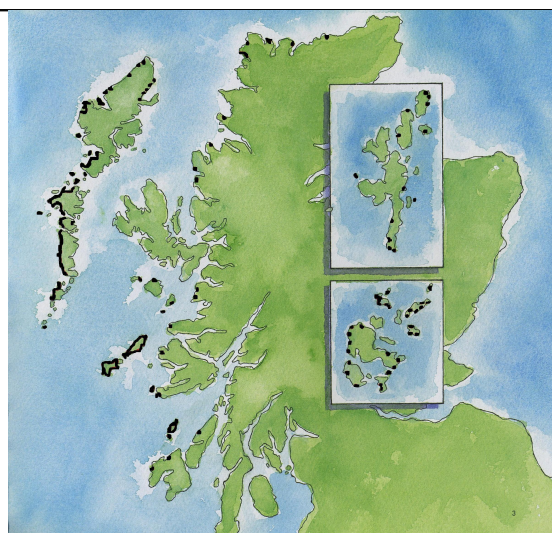
Machair is found nowhere else in the world but the north and west of Scotland and western Ireland. Machair is a priority habitat in Ireland but not in the UK.

It is estimated that more than two-thirds of the global machair resource is found in Scotland. Machair complexes occur in the Outer and Inner Hebrides and to a smaller extent on the mainland and the Northern Isles. The Outer Hebrides support the largest and richest examples of cultivated machair and a variety of uncultivated machair types. The Inner Hebrides machair complexes are largely uncultivated, as are those in Ireland.

North Uist contains very extensive areas of both wet and dry machair. The site supports the second-largest extent of machair in the Outer Hebrides. The machair in North Uist is different from that found on South Uist because of local differences in traditional methods of cultivation. A high proportion of the machair on North Uist has been traditionally cultivated or used for rough pasture, although areas of uncultivated machair found at Baleshare and Kirkibost are of interest because of their high species diversity. There is a mosaic of other habitats, with well-developed lochs and fens (e.g. at Balranald Bog) and transition to saltmarsh and sediment flats (e.g. Baleshare and Kirkibost, and Vallay). Machairs Robach and Newton is regarded as the most dynamic system in the Uists. The wet machair supports

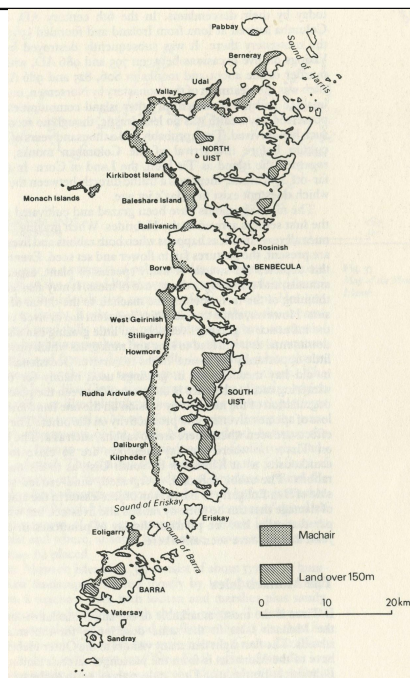
an unusual population of the southern species sea rush *Juncus maritimus*, its only occurrence in the Uists.

South Uist in the Outer Hebrides has the most extensive cultivated machair system in Scotland, extending the whole length of the island and up to 2 km inland. There is extensive grazing, and rotational cultivation, mainly to provide cattle fodder. The area is very diverse in physical form and is extremely rich in plant species. Extensive areas of wet machair include transitions to machair lochs or wet heath, marshes and peatland. The site is selected for several of these Annex I habitat types in their own right. The standing waters within the site exhibit a wide range of pH and salinity. The Annex II species 1833 Slender naiad *Najas flexilis* occurs in a number of them, for which the site is also selected.



© SNH

Location of machair in Scotland



Machair in the Uists