

HABITATS OF IRELAND



The 'coastal zone' stretches from the hinterland down through the splash-zone, which occasionally floods, through the intertidal area into shallow coastal waters. Ireland's geology, the ice ages, our weather and tides, the warm Gulf Stream and local conditions – both natural and man-made – shape our various coastal habitats



Hard coast habitats include vegetated sea cliffs, where plants – such as the strange-smelling rock samphire – can grow out of tiny cracks. Below the cliffs, one may find reefs, partly covered by water, and sea caves, where our seals pup. Biogenic reefs are made by animals such as mussels and honeycomb worms.

Storm waves can lift boulders to form high stony banks. Rarely submerged, this exposed habitat supports perennial vegetation like sea beet. Sometimes these banks create coastal lagoons, which are very rare, near-freshwater pools situated behind the shore.

Exposed soft coast habitats – where spring tides have deposited their load – may support annual drift-line vegetation. There is only a brief opportunity for seeds to germinate, and for insects – such as sand-hoppers – to complete the life cycle before the next high spring tide. The ringed plover breeds here.

Sand blown into hills forms dunes. Embryonic shifting dunes are the youngest sand accumulations, with sandcouch grass and sea

bindweed as pioneers. Next marram grass takes over, forming white dune habitat. As the sand hill ages, biodiversity increases. Grey or fixed dunes form as lady's bedstraw, clovers, and then patches of moss mixed with grey lichens appear. Standing on a dune ridge, you can see down into valleys known as dune slacks. Humid, warm and sheltered, they are heaven for rare flowers and insects. Dune heath, with heather and gorse, is the oldest dune type. Flat coastal dune fields, typical in northwest Ireland and Scotland, are known as machairs.

Sheltered coastal habitats are found in bays and estuaries. At the seaward end there are often sand and gravel banks with cockles and heart urchins. Travel up an estuary, walking towards fresh water, and observe how the habitat changes. You know you are close to the apex of an estuary when you see the last brown seaweed.

Estuaries have huge food reserves and complex food webs, with species moving between sea, river, mudflats, pools in sandbanks, warm salt-marsh creeks and reed beds. With a dozen or more habitats often occurring in close proximity, what's really special about the Irish coast is its rich variety.

THREATS TO THE HABITAT

Sea level rise, greater storm frequency and heavier rainfall are having noticeable impacts on our soft southeastern and southern coasts. Most scientists predict that these problems will increase with climate change. Plants and animals moving up the shore as water rises face competition from shore based species. If our response is to put in rock armour and walls, 'coastal squeeze' is further increased.

Unsustainable coastal fishing methods, building too close to or infilling the shore, sand taking, driving on rare birds' eggs, some aquaculture practices and recreational abuse

with dune bonfires can do significant damage to our coastal habitats. Alien invasive species pose a serious threat, especially where organisms are already struggling to adapt to changes in the coastline.

WHAT CAN INDIVIDUALS DO TO PROTECT THE HABITAT?

Move softly, and know how your coast works before interfering. Watch, draw, photograph and write. There is a chronic lack of information about our coastal biodiversity and much damage is done through ignorance. Your observations are valuable. Do the Coastwatch Biodiversity Survey (www.coastwatch.org). Protect coastal habitats and species, and encourage others to do the same. Report environmental abuses to responsible official bodies and other organisations.

Seaside gardens can have a vital nature-protection role. Support wise planting and maintenance. When boating, avoid spreading invasive alien species. Make a family day at the seaside beneficial to the shore by spending some time cleaning up.

FURTHER INFORMATION

- For protected sites and species: National Parks & Wildlife Service: www.npws.ie
- For marine uses such as fishing, aquaculture and dredging: Department of Agriculture (coastal zone management section): www.agriculture.gov.ie
- Report oil pollution to the Coast Guard: 01 678 2304.
- For information on coastlines and beaches, contact the relevant local authority.
- An Taisce, BirdWatch Ireland, Coastwatch Europe, the Irish Seal Sanctuary, the Irish Whale and Dolphin Group and the Irish Wildlife Trust all have interests in our coastal zone. Find contact details for these groups at www.ien.org