



Marine heritage - deeper than you think.

FURTHER READING

- *Ireland's Coastline: Exploring its nature and heritage* by Richard Nairn (Collins Press, 2005).
 - *Oileáin: A Guide to the Irish Islands* by David Walsh (Pesda Press, 2004).
- *A Beginner's Guide to Ireland's Seashore* by H.Challinor and others (Sherkin Island Marine Station, 1999).
- *Rural Beach Management: A Good Practice Guide* by John McKenna, Michael MacLeod, James Power and Andrew Cooper. (Donegal County Council 2000).
 - *Underwater Ireland: Guide to Irish Dive Sites* by John Hailes (Irish Underwater Council, 1999).
 - *Boats and Shipwrecks of Ireland* by Colin Breen and Wes Forsythe (Tempus Publishing, 2004).
 - *Ireland's Islands: Landscape Life and Legends* by Peter Somerville Large (Gill & Macmillan, 2000).
- *Bright Light, White Water: The story of Irish lighthouses and their people* by Bill Long (New Island Books, 1993).
 - *Conserving Ireland's Maritime Heritage: Policy Paper of the Heritage Council* (2006)
- *Review of Integrated Coastal Zone Management and Principals of Best Practice* by V. Cummins, C. O'Mahoney and N. Connolly (CMRC Cork: Available as pdf download on www.heritagecouncil.ie/marine).
- 'Ireland's Maritime Archaeology: Our Ancient Coastal Landscapes' (Heritage Council, 2006).

WEBSITE INFORMATION

<http://bibliomara.ucc.ie>

an annotated bibliography on the cultural and built heritage of the Irish coastal zone.

www.coastalheritage.ie

a summary of information on Ireland's coastal heritage with links to other sources.

Further information available from

The Heritage Council, Kilkenny: www.heritagecouncil.ie

National Parks and Wildlife Service: www.npws.ie

BirdWatch Ireland: www.birdwatchireland.ie

Irish Whale and Dolphin Group: www.iwdg.ie

Coastwatch Ireland: www.coastwatch.org



Ireland's Coastal Heritage



What is Ireland's Coastal Heritage?

The island of Ireland has a long and complex coastline in relation to its land area. This interface between land and sea contains some of the finest parts of our natural and man-made heritage. The natural heritage includes rocks, marine and coastal habitats and marine life, including plankton, shellfish, fish, seabirds, whales and seals. Our human heritage is rich and varied including coastal and island communities, traditional boats, historical fishing methods, shipwrecks, and coastal archaeology.

The coastal fringe of the island is one of our richest areas for biodiversity as it marks the interface between land and marine habitats. A great variety of plants and animals can occur in a relatively small area. For example, a simple rock pool in a limestone area is one of the richest areas for intertidal marine animals. Ireland's location on the edge of the European continental shelf makes it a rich feeding area for seabirds, whales and

dolphins. Fishing and the exploitation of other natural resources such as seaweed, seabird, seals and whales have sustained coastal communities over the ages.

Our human heritage began with the first coastal settlers over 9,000 years ago. Then early farmers left their imprint of stone walls on the coastal landscape. In sheltered estuaries early settlers constructed fish traps and tidal mills. Traditional boats such as the currach were designed especially for the sea conditions of the Atlantic. Shipwrecks and abandoned boats give archaeologists information on the how early sailors navigated the seas. Waves of invaders such as the Vikings and Normans all left their mark on the Irish coast. Islands have a special place in our Irish heritage due to the resilience and creativity of their small communities. Our lighthouses, piers and harbours are a distinctive and attractive part of the coastal landscape.



Modern tidal head weir in Waterford harbour, oriented to catch fish moving up stream or with the flooding tide. A long shore fence runs diagonally down from the shore to meet a shorter flood fence, with a raised platform situated at the eye of the trap. The Shannon estuary post-medieval and modern fish traps were broadly similar. (Aidan O'Sullivan)



Bloody Henry starfish. Though situated in the North Atlantic Ocean, Ireland lies in the path of the warm currents of the Gulf Stream. Our coastal seas contain an interesting combination of species from warm southerly and cold northerly waters. (BioMar)



Brown seaweed (or wrack) covers rocky shores with a thick blanket. Seaweed is an integral part of the ecosystem of our rocky shores, and has long been used as a fertiliser by coastal farmers. It was also burned for the extraction of valuable minerals. Today seaweed is collected for use in the food and cosmetics industries and is still used in traditional seaweed baths. (Patricia Byrne)



Seacliff at Mucross Head, Co. Donegal. Ireland's coastline displays a wide range of geological formations, from beaches, dunes and rocky shores to islands, cliffs and sea caves. (Richard Nairn)



Hare Bell. Sea cliffs and coastal grasslands support a colourful variety of wild flowers. Many of these plants grow in poor soil, and are adapted to the rigorous conditions of wind, salt spray and drought. (Patricia Byrne)



This small trawler is a typical example of the older, wooden inshore fishing vessels found all around the Irish coast.

This one, with a small crew, is engaged in lobster fishing close to the unmanned lighthouse on An Tiaracht, the most westerly of the Blasket Islands, off the coast of County Kerry. (Ted Creedon)

Facts about Ireland's Coast

At over 7,500km, the Irish coast is longer than the Amazon River.

There are over 300 islands large and small around the Irish coast.

No part of the island of Ireland is more than 100km from the coast.

The earliest human settlements in the Irish coast are over 9,000 years old.

Over half of the present population of Ireland lives within 10km of the coast.

Irish lighthouses were once manned by keepers but are now fully automated.

More than 460 species of marine fish have been recorded in Irish waters.

At least 24 types of whales and dolphins have been recorded around Ireland.

Up to the nineteenth century, coastal communities used seaweed to make fertiliser.

Little Skellig rock, seen from the 9th century monastery on Skellig Michael, supports the third largest Gannet colony in the world. The Skelligs are two uninhabited rock pinnacles 16 km from the Co. Kerry coast. (Richard Naim)



Sandy beach at Portnoo, Co. Donegal. Ireland's coastline can be enjoyed in so many ways today; walking, swimming, surfing, sailing, sea kayaking, Scuba diving, sea-angling, birdwatching and whale and dolphin watching. (Richard Naim)



A Galway Hooker, one of Ireland's traditional wooden fishing and cargo boats. Many of Ireland's traditional boats are unique to particular coastlines. (Richard Naim)



Lighthouse on Arranmore, Co. Donegal, now fully automated. Lighthouses have existed in Ireland since the 5th century and have guided and protected seafarers around the coast for centuries. (Richard Naim)

Native oyster beds, once a widespread resource, were overexploited in the nineteenth century.

Ireland is internationally important for its breeding seabirds.

Large marine turtles swim into Irish waters every year to feed on jellyfish.

Traditional boats like the Galway Hooker and the Currach are unique to Ireland.

In the Spanish Armada in 1588, at least 26 ships were wrecked on the Irish coast.

Atlantic waves can reach more than 6 metres in height on the west coast.

Climate change could cause sea level to rise by up to a metre in the next century.

Marine storms are now more frequent and intense due to climate change.

Ireland's coastal waters support a rich diversity of marine habitats and species.

Puffins nest in underground burrows on steep slopes of islands or headlands. Ireland holds internationally important numbers of breeding seabirds. (Oscar Merne)



Threats to the coastline

Climate change

The release of man-made carbon dioxide to the atmosphere is causing an accelerated rise in global temperature. This is leading to melting of the polar ice and a rise in sea level estimated to reach between a half and one metre higher by the end of the 21st century. Combined with increasing frequency and intensity of marine storms, this is already causing increased erosion and coastal flooding on Ireland's coast. Especially vulnerable areas are the south and east coasts which are already subject to rising sea level as the land readjusts to the last Ice Age. The coasts which are most vulnerable to marine flooding include all of our major cities which are in low-lying estuarine areas.



Easterly storm in Wicklow. (Richard Naim)

Reclamation of estuaries

Historically, many of our urban areas have been developed by infilling and reclamation of nearby estuaries. This has reduced the areas available for the rising tide causing it to flood elsewhere on the coast. It has also caused a major reduction in the area of intertidal habitat available for wildlife. For example, brent geese, which traditionally fed on the shoreline, are now forced to feed in coastal parks and sports pitches. Estuaries are also important spawning areas for fish stocks and of major amenity value for sailing and other water sports.



Saltmarsh.



Sea aster. (Patricia Byrne)

Coastal protection

The effects of climate change call for a new approach to coastal protection. Traditional hard engineering structures, such as sea walls, may still be needed in certain urban areas where settlements are threatened by the sea. However, in rural areas, where land is less valuable, the policy should be one of accommodating and adjusting to the effects of the sea. Natural habitats such as offshore bars, shingle beaches, sand dunes and saltmarshes can act as buffers, absorbing and dissipating the destructive energy of the waves. The dynamic and flexible nature of these areas needs to be retained to give the best coastal protection. Strategic planning which maximises the benefits of these "energy sponges" is essential when authorities are considering fixed developments such as golf courses, coastal roads and piers.

Water pollution

The discharge of untreated waste water to rivers and estuaries can ruin shellfish beds and bathing water. The most toxic effects come from chemicals such as those released in mining or industrial waste. However, organic enrichment from sewage effluent can also cause a major imbalance in coastal ecosystems leading to massive growth of nuisance algae and the disappearance of sensitive coastal species. The removal of phosphates and nitrates from our waste water is the only way to solve this problem.

Compass Jellyfish, Diver and cover photo of the Bull Rock off the Beara peninsula are Copyright of John Collins and taken from the book 'Cool Waters Emerald Seas', www.JohnCollinsKinsale.com <http://www.JohnCollinsKinsale.com>.

Dumping and litter

Dumping of waste at sea or on the coast can ruin beaches and other amenity areas. The sea has a limited capacity to absorb waste. Plastics and other non-biodegradable waste can persist for years in the marine environment and may end up on our beaches, causing a serious hazard to people and wildlife. Always remove any litter or waste from the beach and dispose of it safely.

