
Location



Introduction

The Republic of Ireland is an island nation surrounded by North Atlantic Ocean to the west, the Celtic Sea in the south, St. George's Channel in the southeast and by the Irish Sea in the east. It also has dozens of coastal islands.

The island of Ireland lies to the west of Great Britain, and the Republic of Ireland shares its land border with Northern Ireland, a part of the island belonging to the United Kingdom. The Republic of Ireland has 1,448 km of coastline, with the west coast having long stretches of sea cliffs.

Ireland has a mild climate, with influences from the Gulf Stream, and abundant rainfall but does not tend to have weather extremes. The west coast can be prone to Atlantic Ocean storms.

Regional Seas and Biogeography

Celtic Seas
Celtic-Biscay shelf LME

Habitats

The coastline of the Republic of Ireland has a number of different habitat types, such as bays, estuaries, marshlands and wetlands, as well as rocky cliffs which are found mostly on the south and west coasts.

→ Salt Marshes

There are various salt marshes dotted around the coastline, with the highest concentration in the south-west coast along the Shannon Estuary.

→ Tidal/Mud Flats are numerous across the island given its location in the Atlantic Ocean which are important habitats for wading and shoreline bird species. The highest concentration of tidal/mud flats are in the east coast, with the lowest number along the south-east coast.

→ Marine and coastal wetlands can be found around the island which are important for seabirds and waders, with a cluster along the coast of Dublin in the East. The next highest number of these sites is in the south and south-east, between county Cork and Waterford.

→ High cliffs can be found around the island, with the most prominent being in the west coast. These high cliffs are home to many breeding populations of birds.

→ Cold water deep coral reefs can be found mostly off the west coast of Ireland which are a habitat for many marine invertebrates and deep sea fish species.

Biodiversity Hotspots

In this section, acronyms are used for some of the most common types of hotspot: National Park (NP), Marine National Park (MNP), Marine Protected Area (MPA), IBA (Important Bird Area), Important Marine Mammal Area (IMMA) and Ramsar Wetland of International Importance (RAMSAR). In each profile, some individual wildlife species of special concern may be noted followed by a letter in parentheses. These are species included in the IUCN Red List of Threatened Species within the top three categories of risk – Vulnerable to extinction (V), Endangered (E) or Critically Endangered (CR). In some cases, National or other Red Listed species are mentioned.

→ Ramsar sites

Ireland has 45 Ramsar sites covering 67,240 ha. Below is an overview of some of the key Ramsar sites for marine biodiversity.

North Bull Island is in Dublin on the east coast and is part of an estuary. It consists of salt marshes, dunes and intertidal lagoons and can have thousands of waders wintering birds, such as black-tailed godwit (*Limosa limosa*) and light-bellied brent goose. Harbour seals and grey seals are also present on the northeastern tip of North Bull Island. The area is a UNESCO Biosphere Reserve and a Natura 2000 site.

Sandymount Strand/Tolka Estuary is part of South Dublin Bay and features extensive intertidal mud and sand flats which extend for almost three kilometres at their widest. There are also salt marshes present. It is the main site in Ireland for the Mediterranean gull (*Larus melanocephalus*) and is a regular autumn roosting ground for a significant number of terns. The site is a UNESCO Biosphere Reserve and a Natura 2000 site.

Bannow Bay, also a Natura 2000 site, is a large estuarine system in the southeast of Ireland which consists of tidal and mudflats, and rare salt marshes. The site has considerable populations of Lapwing (*Vanellus vanellus*), Curlew (*Numenius arquata*), shelduck (*Tadorna tadorna*), little egret (*Egretta garzetta*), golden plover (*Pluvialis apricaria*), black-tailed godwit, and bar-tailed godwit (*Limosa lapponica*).

Dungarvan Harbour, also a Natura 2000 site, is in the south and comprised of extensive intertidal mud and sand flats, beach and dune systems, and salt and freshwater marshes. It is home many species of bird and is an important area for wintering waterbirds such as red knot (*Calidris canutus*), shoveler (*Anas clypeata*) and barnacle goose (*Branta leucopsis*).

Ballycotton Bay, also a Natura 2000 site, is in the south and is composed of intertidal mudflats, and saltwater and freshwater marshes. The area has many wading birds and is an important roosting site for waterbirds, such as the common loon (*Gavia immer*) and the bar-tailed godwit (*Limosa lapponica*).

Cork Harbour, a Natura 2000 site in the south, consists of intertidal mud and sand flats. The habitats regularly support 20,000 wintering waterbirds and is one of the top 5 waterbird sites in Ireland. The Site provides feeding and roosting habitat for the common pochard and horned grebe.

Castlemaine Harbour, a Natura 2000 site in the south-west, is an estuary which is protected by extensive dunes. It contains saltmarshes, mudflats and sandbanks. The site is home to important numbers of pale-bellied brent goose (*Branta bernicla hrota*) is an important spawning ground for sea and river lamprey, and the Atlantic salmon. It is also home to the European otter (*Lutra lutra*).

Inner Galway Bay, a Natura 2000 site in the west, consists of bedrock shore, shingle and sandy beaches and fringing salt marshes, as well as intertidal sand and mud flats, and a number of small islands. The Site has an important colony of common seal (*Phoca vitulina*), a breeding population of otter (*Lutra lutra*) as well as protected bird species: the black-throated diver (*Gavia arctica*), great northern diver (*Gavia immer*), golden plover (*Pluvialis apricaria*), sandwich tern (*Thalasseus sandvicensis*) and the common tern (*Sterna hirundo*).

Blacksod Bay and Broadhaven, also a Natura 2000 site in the east, has a diverse set of marine habitats which includes large dune ecosystems and also several brackish lakes with various species of breeding waders and wintering waterbirds. The site has internationally important numbers of Brent geese

Killala Bay/Moy Estuary, also a Natura 2000 site in the east, is an estuary and intertidal bay containing dunes, salt marshes and sea cliffs. The bay hosts internationally important numbers of Brent geese.

→ National Parks and ecological reserves

Rockabill to Dalkey Island is a Natura 2000 site and a Special Area of Conservation (SAC) under the EU Habitats Directive consisting of intertidal and subtidal reefs. It is located in the east and is home to relatively high numbers of common porpoises (*Phocoena phocoena*), as well as the Harbour seal (*Phoca vitulina*) and Grey seal (*Halichoerus grypus*).

Saltee Islands are a Natura 2000 site and SAC and consists of two islands and several islets and rocks in the southeast of the country. The site contains rare kelp and sponge species and is one of the most important seabird colonies in Ireland for populations and species diversity. The puffin, Fulmar (*Fulmarus glacialis*),

Kittiwake, Guillemot (*Uria aalge*), razorbill (*Alca torda*), can be found there, amongst other.

Ballymacoda Bay is a Natura 2000 site and Special Protection Area under the Birds Directive, found in the south. It consists of an estuary, muddy sands and sediments and salt marshes. It is the second most important site for wintering waterfowl on the south coast after Cork Harbour. The curlew sandpiper, Oystercatcher, black-tailed gowit, red-breasted Merganser (*Mergus serrator*) and lapwing can be found there amongst others.

Roaringwater Bay and Islands Natura 2000 site and SAC is in the southwest and consists of a shallow bay that includes several offshore island and rocks with strong tidal currents. Depending on the island, steep cliffs, estuarine communities, or caves with rare red algae can be found. The site has a significant breeding population of the grey seal (*Halichoerus grypus*), and the European otter (*Lutra lutra*) is well distributed.

Kenmare River SAC in the southwest contains salt meadows, shallow inlets and bays, dunes, reefs, sea caves and sea cliffs. The Arctic Tern, Eurasian otter and harbour seals can all be found in this protected area. It is also subject to significant tidal zones.

Castlemaine Harbour SPA in the southwest hosts over 20,000 waterfowl and has an internationally important population of Brent geese (*Branta bernicla*). The site is a feeding and roosting site for many birds and also hosts the European Otter.

Lower River Shannon SAC in the west is the most extensive area of estuarine habitat in Ireland. It regularly hosts the common bottlenose dolphin (*Tursiops truncatus*) and the Eurasian otter, as well as being home to a number of birds that either winter or breed in the area such as the Kingfisher and the Tundra swan.

West Connacht Coast SAC has a significant bottlenose dolphin (*Tursiops truncatus*) population where group sizes can be 65 dolphins or more per pod. Harbour Porpoise (*Phocoena phocoena*), Risso's Dolphin (*Grampus griseus*), Killer Whale (*Orcinus orca*) and Minke Whale (*Balaenoptera acutorostrata*) have also been recorded within the site.

Donegal Bay is a Natura 2000 site and SPA in the Northwest of the country. It is a large, mostly shallow, sea bay which supports a wide diversity of waterfowl species in the shallow bays and has internationally important populations of the Common loon (*Gavia immer*). The Eurasian otter can also be found in this site.

Lough Swilly SPA and Natura 2000 site is a large natural sea inlet with estuarine characteristics. Numbers of birds exceed 20,000, and it is home to 27% of the country's Greylag goose (*Anser anser*) population. It is also home to the Scaup, Oystercatcher, Great northern diver, and curlew amongst many others.

→ IBAs

Tory island is a large marine island off the coast of Donegal in the North of the country. Its coastline is mostly high cliffs areas. The island is home to an internationally important site for the Corn crane.

Aran Islands are off the west coast of Ireland which consists of one larger island – Inishmean – and a group of smaller islands. The area supports the largest breeding colony of Arctic Terns in Ireland (*Sterna paradisaea*).

The Cliffs of Moher are large vertical sea cliffs in the west of Ireland and are a popular tourist attraction. The common murre (*Uria aalge*), Northern fulmar (*Fulmarus glacialis*) and black-legged kittiwake (*Rissa tridactyla*) all breed in their thousands along the cliffs.

The *Connemara Islands* IBA covers many small islands and islets along the west coast of Ireland. It covers a number of smaller SACs on the islands. The group of islands support some of the most important breeding colonies of terns, such as the Arctic tern (*Sterna paradisaea*).

At risk Wildlife

In this section, some individual wildlife species are mentioned followed by a letter in parentheses. These are species included in the IUCN Red List of Threatened Species within the top three categories of risk - Vulnerable to extinction (VU), Endangered (EN) or Critically Endangered (CR). A more complete list of IUCN listed species is found in Appendix 1.

→ At risk birds

Given the relatively large coastline of Ireland and the diverse range of coastal habitats, many seabirds,

shorebirds, waders, and other bird populations as listed above can be found in large concentrations on the island. The island is home to many breeding populations of seabirds, as well as containing high numbers of wintering bird species.

➔ **At risk reptiles**

The most notable reptile in Ireland is the Leatherback turtle (CE), the only sea turtle considered to be in the waters, which can be found mostly off the west coast. However, they do not nest on the island.

➔ **At risk mammals**

Marine mammals account for some of the highest mammal numbers found in the Irish land and sea areas. Dolphins, porpoises, and a number of whale species can be found in the water. There are also common and grey seals, as well as the Eurasian otter that reside along the coast.

Past experience with oil spill and potential risks

Ireland has experienced a few oil spills but none of the incidents have involved an oiled wildlife response. In 1974, the *Universe Leader* accidentally spilled 2,600 tonnes of crude oil during unloading. 30 km of coastline were impacted.

In 1979, the *Betelgeuse* suffered a fire and explosion alongside the oil terminal which required international assistance for response equipment.

In 1986 the *Kowloon Bridge* bulk carrier got caught in bad weather, resulting in grounding and eventually broke into 2 parts. 1,200 tonnes of bunker fuel were spilled which impacted a number of coves and beaches.

In 1995 the *Salavat Yulaev* spilled 30 tonnes of bunker fuel after grounding inside Wicklow harbour impacting a nearby beach and river. A storm meant that the oil dissipated naturally.

In 2009 the *Admiral Kiznetzov* spilled approximately 300 tonnes off the southwest. Most of the oil dissipated naturally.

International and Regional Treaties and Agreements

➔ **Oil spill and HNS Response**

- d CLC Convention 69
- d CLC Protocol 76
- CLC Protocol 92
- d FUND Protocol 76
- FUND Protocol 92
- FUND Protocol 2003
- LLMC Convention 76
- LLMC Protocol 96
- OPRC Convention 90
- HNS Convention 96
- HNS PROT 2010
- OPRC_HNS 2000
- BUNKERS CONVENTION 01

➔ **Marine Biodiversity Protection**

- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)
- Bonn Agreement for Cooperation in dealing with pollution of the North Sea by oil and other harmful substances

Oil Spill Response and HNS Spill Response

➔ **National Contingency Plan?**

Ireland has a National Maritime Oil/HNS Spill Contingency Plan last updated in 2020, with the responsible body being the Irish Coast Guard.

→ **Role of Competent National Authorities**

The Irish Coast Guard (ICG) has the overall responsibility for pollution response, Search and Rescue and salvage during a marine pollution incident of both oil and HNS. They are also the responsible body for ensuring approval of contingency planning and response of local authorities (known as County Councils), harbours authorities, offshore units and oil/HNS facilities. County Councils are obliged to develop their own contingency plans for oil/HNS spills under the direction of the ICG.

Oiled Wildlife Preparedness and Response

→ **Formal guidelines?**

The National Contingency Plan includes a section on oiled wildlife response (OWR) which outlines the general principles of oiled wildlife rehabilitation and identifies OWR as an integral part of the overall incident management. The National Parks and Wildlife Services are acknowledged as having a general role in the protection of wildlife and their habitats. The OWR section also recognises the potential need for trained volunteers, and acknowledges the potential expertise available through the Oiled Wildlife Response Network in Ireland and further European assistance. As part of the contingency plans, County Councils are obliged to have a section on oiled wildlife.

However, while OWR is discussed in the overall contingency plan, there is no detailed OWR plan with clear roles and responsibilities for different actors.

→ **Response objectives and strategy**

There are no formal national guidelines or a national OWR plan in place.

→ **Euthanasia or rehabilitation?**

While the national contingency plans mention euthanasia and rehabilitation among a list of other general principles as a possible tool during an oiled wildlife incident, it does not have a detailed policy on euthanasia or rehabilitation.

→ **Impact assessment**

The plan does not indicate who would be responsible for an impact assessment.

→ **Notification and early response**

The plan does not specify the notification mechanism of an OWR incident, but it is likely that the OWRN and the NPWS would be notified by the ICG given that they are highlighted in the overall National Contingency Plan.

→ **Wildlife responders**

The Oiled Wildlife Response Network (OWRN) is a national network of trained volunteers for OWR, and are a member of the European Oiled Wildlife Assistance (EUROWA) network. They have run several OWR exercises and trainings over the years but do not have a formal role in the national plan. They have trained over 2000 volunteers to the EUROWA BASIC level and 15 to the EUROWA ADVANCED level.

→ **Cooperation between stakeholders**

The OWRN and the ICG have been in dialogue for many years regarding OWR, however no formal relationship exists.

The OWRN and SEA-PT covering the Shannon Estuary developed a procedure to see how assistance can be mobilised from the network and abroad. The procedure is not an OWR plan, but it is rather an understanding of how a response could be built up for that region. However, there is no guarantee of resources.

OWRN and the Kildare Wildlife Rescue centre have working relationship and would likely work together during and oiled wildlife incident.

→ **Permanent facilities**

The Kildare Wildlife Rehabilitation facility collaborates with OWRN and is the only facility in Ireland that has EUROWA trained responders. They could provide limited equipment and resources during an incident.

Seal Rescue Ireland have collaborated with OWRN and could potentially provide some facilities for oiled seals. However, Seal Rescue Ireland and the Kildare Wildlife Rehabilitation facility are not identified in the National Contingency Plan and no formal relationship exists for an OWR.

→ Current processes

There is an ongoing dialogue between the OWRN and the ICG to formalise a relationship for OWR which would follow on from the national plan where the network is identified. The development of an OWR Plan is announced in the national contingency plan last updated in 2020. At this moment there is no OWR plan.

Documentation and references

General References

Birdlife International Datazone List of Threatened Species. <https://datazone.birdlife.org/home>

Corie M. Boolukos, Aaron Lim, Ruth M. O’Riordan, Andrew J. Wheeler. ‘Cold-water corals in decline – A temporal (4 year) species abundance and biodiversity appraisal of complete photomosaiced cold-water coral reef on the Irish Margin’, Deep Sea Research Part I: Oceanographic Research Papers, Volume 146, 2019, Pages 44-54,

IUCN. 2023. The IUCN Red List of Threatened Species. Version 2023-1. <https://www.iucnredlist.org>.

Irish National Maritime Oil/HNS Spill Contingency Plan 2020

ITOPF Country Profile for Ireland (2018)

<https://oiledwildliferesponse.ie>

<https://www.npws.ie>

<https://biodiversityireland.ie>

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<https://iwdg.ie>

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<https://www.unep.org/explore-topics/oceans-seas/what-we-do/regional-seas-programme>

<https://ramsar.org/country-profiles>

<https://map.unbiodiversitylab.org/earth>

<https://natura2000.eea.europa.eu/>

https://ec.europa.eu/maritimeaffairs/atlas/maritime_atlas/

<https://www.cbd.int/ebsa/>

<http://wwz.cedre.fr/en/Resources/Spills?location=default>

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Appendix 1

➔ At risk birds

Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)

Long-tailed Duck / *Clangula hyemalis* / VU / Migratory (winter) / No
Velvet Scoter / *Melanitta fusca* / VU / Migratory (winter) / No
Horned Grebe / *Podiceps auritus* / VU / Migratory (winter) / No
Leach's Storm-petrel / *Hydrobates leucorhous* / VU / Migratory (summer) / No
Balearic Shearwater / *Puffinus mauretanicus* / CR / Migratory (summer-autumn) / No
Black-legged Kittiwake / *Rissa tridactyla* / VU / Migratory (summer) / No
Atlantic Puffin / *Fratercula arctica* / VU / Migratory (summer) / Breeding
Common Pochard / *Aythya ferina* / VU / Migratory (winter) / Breeding
Blue whale / *Balaenoptera musculus* / EN / Seasonal: Summer and Autumn / No
Fin whale / *Balaenoptera physalus* / VU / Resident / unknown
Seo whale / *Balaenoptera borealis* / EN / unknown / unknown
Sperm whale / *Physeter macrocephalus* / VU / Resident / unknown
Common porpoise / *Phocoena phocoena* / VU / Resident / unknown
Leatherback turtle / *Dermochelys coriacea* / CR / Seasonal / No

➔ At risk reptiles

Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)

➔ At risk mammals

Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)