

Location



Introduction

The Republic of Estonia is a country in Eastern Europe, bordered to the north by the Gulf of Finland, to the west by the Baltic Sea, to the south by Latvia and to the east by Russia. The territory includes mainland Estonia, two larger islands Saaremaa and Hiiumaa, as well as over 2,000 other islands and islets on the eastern coast of the Baltic Sea. The coastline is 3,794km long. Estonia has a temperate maritime climate with warm summers and fairly mild winters. The coast is often icebound in winter, although some recent winters have been ice free.

Regional Seas and Biogeography

Baltic Sea
Baltic Sea LME

Habitats

Estonia has a long shallow shoreline including cliffed and rocky shores, shingle and sandy beaches. The largest lake, lake Peipus in the east of the country shares a border with Russia.

→ Seagrasses

Seagrasses are found along the central northern coast and off the islands of Saaremaa and Hiiumaa.

→ Saltmarsh

Saltmarshes are found quite extensively throughout the coast and the islands of Saaremaa and Hiiumaa.

→ Reedbeds

Reed bed areas cover more than 20,000 hectares of Estonia's territory, with the largest area in the delta of the Kasari River, on the eastern shore of Matsalu Bay. These reed beds provide nesting grounds for many wading birds, shelter for ducks during the late summer moulting period.

→ Tidal flats

Tidal flats are found along the western tip of the Estonian mainland.

Biodiversity Hotspots

Millions of birds from all over Europe stop on their migratory paths in western and northwestern Estonia, the western part of Saaremaa Island and Sõrve Peninsula, Väinameri and the western part of the Gulf of Finland. However, recently migratory paths of birds have moved eastwards to also cover the eastern part of the Gulf of Finland. The most important areas for wintering seabirds in Estonia are the Gulf of Riga, Saaremaa and Hiiumaa islands' west coasts, and north coasts of Hiiumaa and Vormsi islands.

→ Ramsar sites

Matsalu Bay (also a National Park/NP), on Estonia's west coast includes around 50 islands/islets and areas of reedbed, with extensive salt flats and seasonally flooded meadows. It provides habitats for huge numbers (more than 200,000 individuals have been recorded) of nesting and migrating waterbirds, including lesser white-fronted goose (VU) and barnacle goose (*Branta leucopsis*), and the nationally vulnerable tundra swan (*Cygnus columbianus*) among others. The bay is one of the most important wetland areas for birds, being on the East Atlantic Flyway. More than two million waterfowl pass over the national park annually. The largest number of waterfowl and shorebirds flock here in spring (from mid-April to mid-May) and in autumn (from September to mid-October).

Haapsalu-Noarootsi is a large wetland complex on the northwest coast, with lagoons, coastal meadows, reefs, reedbeds and intertidal mud and sandflats. It is an important site for thousands of migrating waterbirds including long-tailed ducks (VU) and tundra swan.

Puhto-Laelatu-Nehatu Wetland (also an IBA), on Estonia's west coast is a wetland with several lagoons, shallow lakes and bogs. It is an important stopover for migrating wading birds and provides roosting areas for

geese and common crane.

Hiiumaa Islets and Käina Bay, on the southeast coast of Hiiumaa island, (also an IBA and NP) is a shallow sea area with small islets, mudflats and bays with saltmarsh and reedbed areas. Numerous species of waterbirds breed here and important numbers of migrating birds stop over at the site, including lesser white-fronted goose (VU). 1,000–5,000 birds stop in Käina Bay in the spring time, with numbers up to four times higher in autumn.

Luitemaa, on the south-western coast, is a shallow sea area with capes and islands, reed-beds, dunes, bogs and submerged forests. The site hosts many thousands of birds, including the lesser white-fronted goose (VU), the great snipe (*Gallinago media*) and the horned grebe (VU).

Laidevahe is a wetland complex on the southern coast of Saaremaa Island, with lagoons, shallow coastal lakes, numerous small islands, coastal meadows, saltmarshes and reed beds. The site is an important breeding and migration stopover site for birds, including horned grebe (VU), velvet scoter (VU) and nationally endangered species such as the dunlin (*Calidris alpina schinzii*) and ruddy turnstone (*Arenaria interpres*).

Vilsandi (also a National Park and part of the West Estonian archipelago biosphere reserve) is a wetland complex on the western coast of the island of Saaremaa with coastal brackish lagoons, reedbeds, eelgrass meadows, seasonally flooded coastal meadows and around 160 small reefs and islands. The site supports important numbers of wintering waterbirds, including the globally threatened Steller's eider (VU), where over 2,000 individuals can be seen wintering. Many bird species also breed here.

→ National Parks and ecological reserves

Lahemaa NP, on the northern coast East of Tallinn, is an important site for birds, ringed seals are also permanent inhabitants.

→ IBAs

The Irbe strait IBA shared with Latvia is the strait south of Saaremaa island that connects the Gulf of Riga to the open Baltic Sea. It supports large numbers of wintering seabirds including long tailed duck, velvet scoter, red-throated loon (*Gavia stellata*), arctic loon (*Gavia arctica*) and black guillemots (*Cepphus grylle*). There are also large concentrations of mergansers.

Pärnu Bay, on the southwest coast towards the border with Latvia, hosts concentrations of swans, geese and several duck species on passage, as well as breeding concentrations of cormorants, dunlin and various species of tern.

Pakri and Nõva-Osumussaare IBAs, on the northwest coast west of Tallinn, host significant populations of swans, common eider, velvet scoters (VU), long tailed duck (VU) and goldeneye on passage, some of these species are also wintering.

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

Many species of waders are regular breeders in Estonia including teal, duck, geese, merganser, grebe, scoter, bittern, egret, stork, avocet, oystercatcher plover, lapwing, ruff, shank, kite, curlew and gull. Many of these species can be found in their thousands or even tens of thousands.

Species which winter in internationally important numbers include Steller's eider (VU), velvet scoter (VU), red-throated diver (*Gavia stellata*), long-tailed (VU), black guillemot (*Cepphus grylle*), common goldeneye (*Bucephala clangula*), mute swan (*Cynus olor*), goosander (*Mergus merganser*), red-necked grebe (*Podiceps grisegena*), and red-breasted Merganser (*Mergus serrator*). Other wintering species in large numbers are common scoter (*Melanitta nigra*) and several species of gulls.

For seabirds, gannets and cormorants, shearwaters and storm petrels are occasional visitors.

→ At risk reptiles

→ At risk mammals

Grey seals (*Halichoerus grypus*) are found all around the islands of Saaremaa and Hiiumaa and have their

haulout areas there, with lower numbers found in the Gulf of Finland on the northern coast. The grey seal is considered a game animal in Estonia and can be hunted subject to licence.

The winter ice fields found in the Gulf of Riga on Estonia's southwest coast are important breeding habitat for the Baltic subpopulation of the ringed seal (*Pusa hispida botnica*, VU on HELCOM RedList). Ringed seals are also observed along the northern coast of Estonia in the Gulf of Finland, in Kolga Bay and Krassi island.

Eurasian otters (*Lutra lutra*) are widely dispersed in rivers and coastal areas in Estonia, including on the larger islands.

The Harbour porpoise (Baltic subpopulation CR on HELCOM RedList) may be present in low numbers in Estonian waters.

Past experience with oil spill and potential risks

In January 2006, a mystery spill of around 20T of fuel oil from an unidentified ship occurred in Keibu Bay in the Gulf of Finland. An estimated 3,000 birds were oiled by the spill. An international wildlife response team was mobilised to support authorities and local NGOs (including the Estonian Fund for Nature) to deal with affected birds. Species affected included Long-tailed ducks, mute swans, golden-eyes and smews (Eurasian diving ducks). A temporary wildlife hospital was set up where over 100 live birds were rehabilitated. A scientific impact assessment was also conducted to determine the impact on seabird populations. After the incident, the national oil spill plan was updated to include oiled wildlife response.

International and Regional Treaties and Agreements

→ Oil spill and HNS Response

- d CLC Convention 69
- CLC Protocol 76
- CLC Protocol 92
- 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

- Baltic Marine Environment Protection Commission – also known as the Helsinki Commission (HELCOM)
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)

Oil Spill Response and HNS Spill Response

→ National Contingency Plan?

The National Oil Spill Contingency Plan was updated to include oiled wildlife response following the mystery spill in 2006.

→ Role of Competent National Authorities

Oiled wildlife response is managed by the Estonian Environmental Board, which has a cooperative agreement in place with the Estonian Fund for Nature (ELF). Wildlife response will also involve the Environmental Inspectorate as well as the Veterinary and Food Board.

The overall Incident Commander appointed by the Rescue Board will appoint an Environmental Board representative to coordinate oiled wildlife response operations from a local, regional and/or national headquarters. If both local and regional command headquarters are established then the regional manager will appoint a local specialist who will manage some main elements of the wildlife response.

Oiled Wildlife Preparedness and Response

→ Formal guidelines?

The national oiled wildlife response plan was adopted in 2013 and revised in 2022.

→ Response objectives and strategy

Wildlife response activities are activated if more than 50 individuals of an animal species are affected by pollution, but can be for lower numbers if species are protected on the Estonian RedList. The Environmental Board will make the decision on when to activate wildlife response activities.

→ Euthanasia or rehabilitation?

Wildlife rehabilitation is a primary focus of the wildlife response plan, but a procedure for euthanasia is included for animals whose successful rehabilitation is unlikely.

→ Impact assessment

It is likely that the Estonian Ornithological Society or Eesti Ornitiliigiaühing (EOÜ) would get involved in monitoring and impact assessment for birds, they coordinate bird monitoring schemes and publish an Estonian breeding bird atlas. In the Matsalu NP area, the Matsalu ringing centre is also involved in tagging and monitoring birds.

→ Notification and early response

The Environmental Inspectorate or emergency services will in the event of an incident notify organisations on the crisis list of the Ministry of the Environment, including notifying the Environmental Board if wildlife is threatened or impacted.

→ Wildlife responders

The Estonian Fund for Nature is the primary oiled wildlife response organisation in Estonia who developed experience during the mystery spill in 2006 and cooperate closely with the Environmental Board. ELF maintains a network of trained volunteers who can assist in oiled wildlife response work and shoreline cleanup.

→ Cooperation between stakeholders

Estonia is a signatory to the Helsinki Convention and maintains bilateral agreements with the Russian Federation and Finland for oil spill response.

In 2021, Estonian authorities completed an oiled wildlife managers training delivered by Sea Alarm, attended by the Estonian Ministry of Environment, Environmental Board, Rescue board and Police and Border Guard. The course provided information to feed into an update of the National oiled wildlife response plan, completed in 2022.

The Estonian Fund for Nature works closely with the Environmental Board and are also a member of the EUROWA network.

→ Permanent facilities

The Estonian Environmental Board holds an equipment stockpile for wildlife response, including a tent which can be setup as a temporary facility and equipment for capture, husbandry and washing of oiled birds. This equipment stockpile is also used for EUROWA training courses in Estonia.

→ Current processes

ELF periodically organises EUROWA training courses for its staff and volunteers, including BASIC and ADVANCED oiled wildlife responder training.

Documentation and references

General references.

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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/wintering /
Steller's Eider / *Polysticta stelleri* / VU / resident/migratory/wintering /
Velvet Scoter / *Melanitta fusca* / VU / migratory/wintering /
Horned Grebe / *Podiceps auritus* / VU / /
Lesser White-fronted Goose / *Anser erythropus* / VU / migratory /
Common Pochard / *Aythya ferina* / VU / migratory /

→ 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)

Harbour porpoise / *Phocoena phocoena* / Baltic subpopulation CR (HELCOM RedList) / Resident /
Ringed seal / *Pusa hispida botnica* / Baltic subpopulation VU (HELCOM RedList) / Resident /