

Location



Introduction

Italy is a long peninsular country bordered on the north by Monaco, Switzerland, Austria and Slovenia, on the northwest by the Ligurian Sea, on the west by the Tyrrhenian and Mediterranean Seas, on the south by the Mediterranean Sea, on the southeast by the Ionian Sea and on the east by the Adriatic Sea. The country includes several islands; the largest of which are Sicily and Sardinia. Including all islands, Italy's coastline extends 7,600 km, much of it steep cliffs, sandy beaches, and estuaries such as the Po Delta. The climate in Italy is variable with three regions experiencing different climates. The north has cold winters with heavy snowfall and fog, and hot, humid summers. In central Italy, the climate is milder with longer summer days and milder winters. The west coast of this region experiences higher rainfall than the east. In the south, the weather is hot and dry, with somewhat cooler temperatures in summer along the coast. There are no outstanding border issues between Italy and neighbouring countries.

Regional Seas and Biogeography

Mediterranean Sea which includes the following seas:

- Ligurian Sea
- Tyrrhenian Sea
- Adriatic Sea
- Ionian Sea

LMEs: Mediterranean Sea.

Habitats

The coast of Italy is quite varied. It alternates between high, rocky areas and level gravel beaches along the Ligurian coast, with long, sandy crescent beaches and abundant dunes between Tuscany and Campania, and high rocky areas with short beaches along the Calabrian coast.

Most of the Adriatic coast is level with some terraced gradients. The Po Delta is riddled with lagoons but the coast between Trieste and Istria is rocky, as is much of the coast of Sardinia, although it does have some areas of dunes and beaches. On Sicily, sandy beaches may be surrounded by steep cliffs and there are areas of marsh and salt pan.

- *Cold water corals* are most concentrated in the Ligurian Sea and along the bootheel of the Italian mainland, with some further scattered areas between the mainland and Sardinia.
- *Seagrasses* occur along much of the country's western coasts, on the eastern coast of Sardinia and along much of Sicily's coast.
- *Salt marshes* are few and scattered, with the largest concentration on Sardinia, the bootheel and around Tremiti in the Adriatic Sea.

Biodiversity Hotspots

→ Ramsar sites

Italy has 57 Ramsar Sites, many found along the coasts of the country. Below are some of the key sites for marine wildlife, however there is a complex of sites in the area just north of San Marino in the Adriatic which combined provide significant habitat for wintering and migratory avian species and another complex on the west coast of Sardinia around Oristano which also provides important habitat for breeding, nesting and staging waterbirds.

Trappola Marshland-Ombro River Mouth: is also part of the Uccellina mountains, Trappola Marsh and Ombro River Mouth IBA. is a mixed salt- and freshwater complex of wetlands which includes the mouth of the river and coastal wetland bordered by the sea where some rocky cliffs are found. It supports a large number of bird species, many of which are regionally, nationally and/or internationally threatened, such as the Slender-billed Curlew (CR)

Laguna di Orbetello: is also a Special Protection Area, a Natural Reserve, and a Wildlife Sanctuary composed of a large brackish lagoon with fringing reedbeds and sand dunes. More than 10,000 waterbirds of a variety of species winter or nest here.

Lago di Burano: is also a Special Protection Area and Integrated Natural Reserve, composed of a saline lake separated from the sea by a narrow channel. It is an important avian wintering area staging site for migratory birds, which can number up to 10,000.

Oasi di Castelvoturno o Variconi: is also an IBA and Regional Nature Reserve which includes fresh- and saltwater swamps and lagoons. This area is endowed with the largest number of aquatic bird species within the entire Tyrrhenian coastal area.

Trapani and Paceco Salt Ponds: in western Sicily is also a Natural Reserve and is one of the most important wetlands for millions of migratory birds as they cross the Strait of Sicily. At least 220 avian species have been recorded here including the Egyptian Vulture (EN) and Saker Falcon (EN). The site is important, both as a resting and feeding ground for migrants and the number of breeding species has increased since the Natural Reserve was established.

Biviere de Gela: is also a National Park, Natural Reserve and Wildlife Sanctuary. It is an important staging site for migratory birds and supports the highest diversity of nesting waterbirds in Sicily.

Vendicari: is also a Special Protection Area, and a Regional Natural Reserve made up of five brackish lakes which support up to 20,000 waterbirds during spring migration. It is also important wintering ground for birds.

Torre Guaceto: is also a Special Protection Area, a Wildlife Reserve, a Marine Nature Reserve and a State Natural Reserve composed of a small brackish marsh dissected by a network of canals and the adjacent shallow seas and small islands. It is important for migratory species and supports a number of endangered waterbirds.

Saline de Margherita: is also a Special Protection Area, a Natural Reserve and Wildlife Sanctuary composed of a series of salt pans connected to the sea which hosts up to 30,000 waterbirds of numerous species during winter.

Laguna di Venezia: Valle Averte: is also a Special Protection Area and a Wildlife Sanctuary which is a complex of coastal lagoons, freshwater marsh, reed swamps and intertidal sandflats. The site is internationally important for numerous species of nesting, staging and wintering waterbirds.

Valle Cavanata: is also a Special Protection Areas composed of coastal lagoons and wetlands which is important for breeding and migratory birds, hosting approximately 10,000 birds on migration.

Stagno di Sale Porcus: is also a Special Protection Area, Natural Reserve and Wildlife Sanctuary composed of seasonal saline lagoons which, (when wet) is one of the most important wetlands in the Mediterranean for staging Flamingos (*Phoenicopterus ruber roseus*) as well a variety of other nesting and migratory species.

→ **National Parks**

Parco Nazionale dell'Arcipelago di Maddalena (also a World Heritage Site) is part of the European network of areas of great environmental importance (a Site of Community Importance and Special Protection Areas) which includes the marine areas surrounding the land mass of the parks. Whales, dolphins, sea turtles are found offshore, large nesting colonies of seabirds gather in the archipelago, and it is an important staging area for migratory avian species.

Parco Nazionale Arcipelago Toscano: is also a UNESCO Biosphere Reserve and the largest marine park in Europe, which hosts breeding colonies of Audouin's Gull (VU) and populations of other gulls and shearwaters. Whales and dolphins are found in its waters.

Parco Nazionale dell'Arcipelago Toscano provides rich habitat for dolphins, whales, and migratory birds.

Parco Nazionale dell'Arcipelago della Maddalena hosts nesting seabird colonies, as well as cetaceans.

Parco Nazionale dell'Asinara includes a Marine Protected Area which hosts cetaceans and seabirds

Parco Nazionale Isola di Pantelleria: hosts large numbers of waterbirds and raptors on migration.

→ **IBAs**

Tuscan Archipelago: is a complex of seven small islands between Tuscany and Corsica which support breeding populations of Scopoli's Shearwater (*Calonectris Diomedea*), Yelkouan Shearwater (VU), and Audouin's Gull (VU).

Diaccia Botrona: is a large wetland including reedbeds and open water which supports more than 15,000 wintering and migrating waterbirds including the Slender-billed Curlew (CR).

Costa Viola: consists of rocky coastline and hills on the Calabrian coast which is an important bottleneck site for 10,000-20,000 soaring birds during migration.

Egadi Islands: are a group of islands west of Sicily providing important breeding habitat for seabirds.

Pantani di Vendicari e di Capo Passero: is a complex of brackish coastal wetlands in southeast Sicily that is important for more than 20,000 migratory waterbirds, including large numbers of waders.

Simeto mouth and middle course and Biviere di Lentini: is a complex of wetlands near the town of Catania which hosts more than 20,000 breeding, migrating and wintering waterbirds.

Valli di Comacchio and Bonifica del Mezzano: is a complex of coastal wetlands and salt marshes hosting breeding, migrating and wintering waterbirds, as well as a winter foraging area for geese and host to a number of heronries.

The Po Delta: is fed by six major branches of the River Po and is composed of brackish lagoons, open coastal lagoons, sandbanks and rivers. The site is important for wintering waterbirds with nearly 50,000 birds present each year. In summer colony breeding gulls, terns and herons are present in the thousands.

Pantani de Vendicari is a complex of brackish coastal wetlands in southeastern Sicily which regularly hosts more than 20,000 migrating waterbirds, including large numbers of waders.

Stagnone de Marsala and Saline de Trapinin is a complex of brackish wetlands, saltpans and islets on the west coast of Sicily hosting wintering and migrating waterbirds and breeding waders and terns. Over 21,000 waders have been recorded migrating through the area in spring.

→ **IMMAs**

Waters of Ischia and Ventotene: is a complex of canyon systems within the Tyrrhenian Sea, that has regular populations of Fin Whales (VU), Common Bottlenose Dolphin (*Tursiops truncatus*) and Common Dolphin (*Delphinus delphis*).

Northern Adriatic: is a shallow continental shelf area hosting approximately 6,000 Common Dolphins (*Delphinus delphis*).

North West Mediterranean Sea, Slope and Canyon System: which includes the Pelagos Sanctuary (an approximately 87,500 sq km sanctuary under agreement between Italy, Monaco and France) has canyons and areas of upwelling considered important for Fin Whales (VU), Sperm Whales (EN) and Risso's Dolphins (*Grampus griseus*).

Lampedusa IMMA is located between the island of Lampedusa and the Tunisian coast and is considered a biodiversity hotspot with large congregations of Fin Whales (VU) in spring and the regular presence of the Mediterranean population of Bottlenose Dolphins (*Tursiops truncatus*).

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**

Italy is a stopover for shorebirds, herons, ducks, swans and geese on the Black Sea-Mediterranean Flyway, particularly in the northwestern area of the country. The Po Delta and other estuaries are important for many nesting aquatic species. Gulls, terns, shearwaters and other marine and coastal species frequent Italy's waters. The islands of southern Italy are also important stopover sites for birds migrating between Africa and Europe.

→ **At risk reptiles**

Four species of sea turtle are found in Italian waters but only three are known to nest. Loggerhead Turtles (VU) nest in the largest numbers in Calabria, Sicily, Campania, and Puglia with a few nests in Lazio, Toscana, Sardinia and a first record in 2021 in Veneto. Green (EN) and Leatherback (VU) Turtles may also nest in small number and Kemp's Ridley's (CR) are rare visitors.

→ **At risk mammals**

Eleven species of cetacean have been recorded in the Mediterranean, of which Rough-toothed Dolphins (*Steno*

bredeanensis), Harbour Porpoise (*Phocoena phocoena*) and Orca (*Orcinus orca*) are occasional to rare visitors. Extremely rare sightings of juvenile Mediterranean Monk Seals (EN) have been reported in Italy's waters.

Past experience with oil spill and potential risks

Italy has experienced one major oil spill. In 1991, the *Haven* caught fire off the coast of Genoa, exploded and broke into three parts, losing its cargo of 144,000 tonnes of crude oil. Although most of it burnt out and sunk, over 10,000 tonnes affected the coasts. There are no official records, however it is believed that about one hundred birds were oiled as a result. The Centro di Riabilitazione Uccelli Marini e Acquatici (CRUMA), part of the Lega Italiana Protezione Uccelli (Italian Bird Protection Society /LIPU) network, treated some of these birds. In 2010, a spill, likely the result of intentional sabotage at a refinery on the Lambro, a tributary of the Po, resulted in an estimated 550,000 gallons of oil being released. Clean-up efforts prevented the oil from reaching a critical protected wetland at the mouth of the Po. There were reports of ducks being taken to a local animal shelter for care and more found dead.

Italy has also experienced a number of HNS spills, none of which resulted in a documented 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

- Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS)

- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)

- Barcelona Convention for the Protection of the Mediterranean Sea against Pollution

- The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)

Oil Spill Response and HNS Spill Response

→ National Contingency Plan?

A National Contingency Plan was approved in 2010, with the Department of the Interior listed as maintaining and implementing the plan.

→ Role of Competent National Authorities

The Ministero della Transizione Ecologica (MITE/Ministry of Ecological Transition, formerly the Ministry of the Environment, Land and Sea) has overall responsibility for spill response.

Under its guidance, the Guardia Costiera (GC)'s Marine Environment Department (MED) and the Dipartimento Ambientale Marino (Marine Environmental Department of the Port Authority Corps/DAM) within the MITE would be called on to respond to pollution incidents, with the DAM handling small, spills within or near ports, and the MED responding in larger incidents.

The Dipartimento della Protezione Civile (DPC/Civil Protection Department) under the Presidenza del Consiglio dei Ministri (Presidency of the Council of Ministers) may also be called in where the situation warrants.

In the event of a major incident, the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) would be activated.

Activities of the Dipartimento amministrazione generale, pianificazione e patrimonio naturale (Department of General Administration, Planning and Natural Heritage /DiAG) and the Istituto Superiore per la Protezione e la Ricerca Ambientale (Italian Institute for Environmental Protection and Research/ISPRA) are guided by MITE.

Oiled Wildlife Preparedness and Response

→ Formal guidelines?

The National Contingency Plan states that response must include recovery, stabilisation and treatment of affected marine birds, mammals and reptiles, as well as identification of equipment and means for disposal of animal carcasses. It also states that pre-planning is essential for the effective implementation of volunteers in rescue and rehabilitation of wildlife.

While there is no national plan for oiled wildlife response, the Italian Institute for Environmental Protection and Research (Istituto Superiore per la Protezione e la Ricerca Ambientale /ISPRA) provides advice and oversight during oiled wildlife incidents.

→ Response objectives and strategy

As noted above, the NCP requires response to include recovery and care for marine wildlife.

→ Euthanasia or rehabilitation?

Rehabilitation is allowed. In fact, it is required and euthanasia is allowed based on welfare of individual animals and populations but a consultation with a veterinarian is required.

→ Impact assessment

Impact assessment is carried out under the direction of ISPRA.

The Universities of Pisa, which works on marine environmental issues, and Padua, which has experience in turtle necropsy, cetacean responses and maintains the country's Marine Mammal Tissue Bank and may be involved in this work

The Tethys Institute may be involved in incidents in the Ionian Sea, particularly should the Pelagos Sanctuary for Mediterranean marine mammals be impacted. The Istituto Zooprofilattico Sperimentale delle Venezie (Italian health authority and research organisation for animal health and food safety/ IZSve) hosts the National Reference Laboratory for Diagnostics on Marine Mammals and would likely be activated if cetaceans are impacted.

→ Notification and early response

MITE informs ISPRA, which then determines how oiled wildlife response will be carried out.

→ Wildlife responders

There are 400 Coast Guard stations around the country which oversee response. LIPU, with would be the primary organisation responding to avian species impacted by oil.

The Centro Studi Cetacei (Cetacean Study Centre/CSC) oversees Italy's marine mammal stranding network. Established in 1985, it is recognized by MITE and maintains a 24 hour hotline for reporting stranded cetaceans, and also may respond to sea turtles. The University of Padua also maintains a Cetaceans Strandings Emergency Response Team.

The Department of Veterinary Medicine at the University of Bari has experience with wildlife rehabilitation. The primary response system for sea turtles, which began with the establishment of Tartanet, an EC Life Natura project, includes marine turtle researchers and rescue/protection groups which maintain 29 rescue centres throughout the country working with the 24 hour hotline noted above, although many of them are not able to respond 24/7. In the Adriatic, Adrionet is a network which includes eight turtle response and care centres.

→ Cooperation between stakeholders

There is a history of cooperation between the members of the various stranding networks and wildlife responders, who often work with agencies such as the Coast Guard, Fire Brigade, Port Authorities, Carabinieri and Forest Guard, in addition to their cooperation under ISPRA.

Italy can request international assistance in case of an oiled wildlife incident through REMPEC's Mediterranean Assistance Unit.

→ Permanent facilities

Centro Recupero Uccelli Marini Acquatici (CRUMA) is the only specialised centre in Italy that treats marine and other aquatic bird species. Established in 1987, CRUMA and treats roughly 3000 birds a year, of which a small percentage are oiled birds. CRUMA was involved in the rehabilitation of oiled birds following the Haven incident

and the Trecate accident in 1994 (an onshore well blowout). CRUMA was also present at the Prestige spill in Spain in 2002.
In addition, LIPU maintains nearly 40 wildlife rescue and rehabilitation centres throughout the country which could be called upon during a spill event.

→ **Current processes**

Two Italian turtle rescue and research groups participated in the inaugural oiled sea turtle response training led by the European Oiled Wildlife Assistance (EUROWA), providing insight into further development of this training course.

Documentation and references

Sea Alarm Country Wildlife Response Profile 2014: <https://www.sea-alarm.org/publications/country-wildlife-response-profiles>
ITOPF Country Profile 2010: <https://www.itopf.org/knowledge-resources/countries-territories-regions/Italy>
REMPEC Country Profile 2021: <https://www.rempec.org/en/knowledge-centre/country-profiles/italy>
Birdlife Datazone: <http://datazone.birdlife.org/country/italy>
IUCN Redlist: <https://www.iucnredlist.org/>
Mediterranean Science Commission, Marine Research, Migratory Species: https://www.ciesm.org/marine/programs/migratory_species.htm
<https://www.ciesm.org/marine/index.htm>
Italy transnational issues: <https://www.cia.gov/the-world-factbook/countries/italy/#transnational-issues>
Climate: <https://www.touristsecrets.com/destinations/europe/italy/guide-to-the-weather-in-italy/>
IMMAs: <https://www.marinemammalhabitat.org/imma-eatlas/>
Birdlife Data Zone: <http://datazone.birdlife.org/country/italy>
RAMSAR: <https://www.ramsar.org/wetland/italy>
UNEP Ocean Data Viewer: <https://data.unep-wcmc.org/datasets/>
National Parks: <http://www.parks.it/indice/PN/Eindex.php>
LIPU Wildlife Rehabilitation Facility Information: <https://animaliferiti.lipu.it/i-centri-recupero-in-italia>

Terms and Conditions

These Country Wildlife Profiles are provided in good faith as a guide only and are based on information obtained from a variety of sources over a period of time. This information is subject to change and should, in each case, be independently verified before reliance is placed on it. Country Wildlife Profiles may have been issued solely to incorporate additional or revised information under one heading only. Each Profile has therefore not necessarily been completely verified or updated as at the stated Date of Issue.

Sea Alarm hereby excludes, to the fullest extent permitted by applicable law, any and all liability to any person, corporation or other entity for any loss, damage or expense resulting from reliance or use of these Country Wildlife Profiles.

© Sea Alarm Foundation, 2023

These Country Wildlife Profiles may be reproduced by any means for noncommercial distribution without addition, deletion or amendment, provided an acknowledgment of the source is given and these Terms & Conditions are reproduced in full.

These Country Wildlife Profiles may not be reproduced without the prior written permission of Sea Alarm Foundation either for commercial distribution or with addition, deletion or amendment.

Appendix 1

→ **At risk birds**

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

Nesting-Pupping (season)

Balearic Shearwater / *Puffinus mauretanicus* / CR / Resident / Non-breeding (nests in Balearic Islands)
Slender-billed Curlew / *Numenius tenuirostris* / CR / Migratory (Sept.-Mar.) / Non-breeding
Saker Falcon / *Falco cherrug* / EN / Migratory (winter) / Non-breeding
Long-tailed Duck / *Clangula hyemalis* / VU / Migratory (Sept.-May) / Non-breeding
Velvet Scoter / *Melanitta fusca* / VU / Migratory (Sept.-April) / Non-breeding
Marbled Teal / *Marmaronetta angustirostris* / VU / Migratory / Breeding (April-Sept)
Common Pochard / *Aythya ferina* / VU / Resident / Breeding (April-Sept)
Horned Grebe / *Podiceps Auritus* / VU / Migratory (winter) / Non-breeding
Yelkouan Shearwater / *Puffinus yelkouan* / VU / Migratory / Breeding (Summer)
Black-legged Kittiwake / *Rissa trydactyla* / VU / Migratory (Sept.-April) / Non-breeding
Audouin's Gull / *Larus audouinii* / VU / Resident (locally migratory) / Breeding (March-August) offshore islands
Atlantic Puffin / *Fratercula Arctica* / VU / Migratory (winter) / Non-breeding
Egyptian Vulture / *Neophron percnopterus* / EN / Migratory (Sept.-Mar.) / Non-breeding

→ At risk reptiles

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

Green Turtle / *Chelonia mydas* / EN / Migratory / Occasional nesting
Loggerhead Turtle / *Caretta caretta* / VU / Migratory / Nesting (May-October)
Leatherback / *Dermochelys coriacea* / VU / Migratory (immature only) / Occasional nesting
Kemp's Ridley / *Lepidochelys kempii* / CR / Migratory (rare visitor) / Non-nesting

→ At risk mammals

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

Fin Whale / *Balaenoptera physalus* / VU / Migratory (variable) / Non-breeding
Sperm Whale / *Physeter macrocephalus* / VU / Migratory (variable) / Non-breeding
Sei Whale / *Balaenoptera borealis* / EN / Migratory (rare visitor) / Non-breeding
Mediterranean Monk Seal / *Monachus monachus* / EN / Extremely Rare (occasional juvenile sightings?) / Non-breeding