

Location



Introduction

The Republic of Cuba is bordered on the north by the Gulf of Mexico and the Straits of Florida, on the north and east by the Atlantic Ocean, and on the south and west by the Caribbean Sea. Cuba lies less than 100 miles from the United States and the Bahamas in the north, Mexico to the west, Jamaica and the Cayman Islands to the south, and Hispaniola and Turks & Caicos to the east.

The country is an archipelago with 3735 km of coastline, Cuba being the principal island. It encompasses four main island groups: the Colorados, the Sabana-Camaguey, the Jardines de la Reina and the Canarreos, which include at least 1,600 keys and islets offshore.

Cuba has a tropical climate moderated by trade winds, with a dry season lasting from November to April and a rainy season from May to October. Hurricane season runs from June to November.

The United States leases a naval base at Guantanamo Bay for which the lease can only be terminated by mutual agreement or US abandonment of the facility.

Regional Seas and Biogeography

Caribbean Sea
Gulf of Mexico
Straits of Florida
Atlantic Ocean
Cayman Trench

Large Marine Ecosystem (LMEs):
Caribbean Sea.

Habitats

The Cuban coastline is broken into hundreds of bays, inlets and shallow narrow rivers, and includes more than 7500 km² of mangrove swamp and more than 3000 km² of coral reef.

Coral reefs: are found along most of the country's coastline, some of it protected in national parks and biosphere reserves.

Mangrove swamps: surround much of the country. The most consistent mangrove habitat is found from San Antonio to Bahia Honda and from Bay of Pigs to Cabo Frances in the west, with limited mangroves to the east.

Seagrass beds: are limited to areas west of Havana, within the Archipelagos de Sabana and Camaguey on the north shore, and the Archipelago de la Reina and Golfo de Batabano on the south coast.

Tidal flats: are most extensive on the central north coast, however, other than sections of the southeastern and northwestern shoreline, they are found along most of the coast.

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), Ramsar Wetland of International Importance (RAMSAR). Further details on these species, including their Latin names, can be found in Appendix 1. Other species mentioned here that are not listed in Appendix 1 have their Latin name in parentheses.

UNESCO Biosphere Reserves

Buenavista: (also a Ramsar site) includes Caguanes NP, Jardines de la Reina NP and two fauna refuges west of Santa Maria Key and Las Loras Key. At least 112 avian species nest in the marshes and coastal area of

Caguanes NP which surrounds the Caguanes peninsula and includes 10 small cays. Cayos de Piedra reaches out into the Bay of Buena Vista (see Ramsar sites below). Habitats include coral reefs, rocky beaches, evergreen coastal forest and mangroves. The Jardines de la Reina NP is Cuba's second largest archipelago and includes more than 250 virgin coral islands and numerous cays.

Ciénaga de Zapata: (also a Ramsar site, NP and IBA), located on the south-central coast, is one of the largest wetlands in the Caribbean with a marine border. Its rivers, swamps, marshes, intertidal flats and estuarine waters host over 175 avian species, and numerous reptile and mammal species including a number of endemics.

Desembarco del Granma: (also an NP and IBA) includes terrestrial, mangrove forest, rocky and sandy coast and subcoastal scrub habitat, which hosts 134 avian, 44 reptilian and 13 mammalian species.

Cuchillas del Toa: includes the Alejandro de Humboldt NP and IBA, the coastal portion of which hosts a number of marine and coastal avian species.

Ramsar Sites

In addition to the *Ciénaga de Zapata and Buenavista Biosphere Reserves* (see above), the following Ramsar sites are found in coastal Cuba.

Ciénaga de Lanier y Sur de la Isla de la Juventud: is located on the southern part of Isla de la Juventud off the south coast of western Cuba. It includes the Ciénaga de Lanier and supports a diversity of wetland and coastal habitats. Large numbers of resident and migratory waterbirds are found here, including significant populations of West Indian Whistling Duck (*Dendrocygna arborea*) and the resident subspecies of Sandhill Crane (*Grus canadensis nesiotis*). Green (EN) and Loggerhead (VU) Turtles, and Cuban (CR) and American Crocodile (VU) are also found here. The Cuban Crocodile is, however, largely limited to inland waters.

Humedal Delta del Cauto: also an IBA, is the largest delta in Cuba and one of the most important in the Caribbean. It has some of the best-preserved mangroves in the country and hosts vulnerable and endangered wildlife species. Glossy Ibis (*Plegadis falcinellus*) and Flamingo (*Phoenicopterus ruber*) nest here in significant numbers, along with over 20,000 nesting pairs of various herons and egrets. During migration, large numbers of ducks utilise the area for resting and foraging.

Humedal Rio Maximo-Caguey: which also includes several IBAs, is an extremely fragile marine-coastal ecosystem located at the mouth of Maximo and Caguey Rivers with a number of cays located in the shallow surroundings. It is the largest nesting site for American Flamingo (*Phoenicopterus ruber*) in the Caribbean and the Antilles, and serves as a refuge for migratory birds from around the Americas. Large populations of American Crocodile (VU) and American Manatee (VU) are resident as well.

Gran Humedal del Norte de Ciego de Ávila: on the north coast, encompasses coastline, maritime waters and adjacent islets. Large populations of Flamingo (*Phoenicopterus ruber*), Double-crested Cormorant (*Phalacrocorax auritus*), in addition to other waterbirds, inhabit the area.

National Parks and Ecological Reserves

In addition to the Caguanes NP and the Jardines de la Reina NP (see Buena Vista Biosphere Reserve above), the following national park is located on the coast.

Guanahacabibes: (also an IBA) is located in westernmost Cuba and includes forested limestone plains, coastal caves and coastline. It hosts 190 avian species, of which 31 are endemic, as well as sea turtles and cetaceans.

Cayo Largo Ecological Reserve is located on the south coast of the country with no permanent human population. The Reserve includes beaches and coral reefs, hosting marine turtles as well as coastal and marine birds.

IBAs

In addition to the IBAs noted above in the RAMSAR, Biosphere Reserve and NP sections, the following IBAs are found along the Cuban coast.

Humedal Sur de Pinar del Rio: located in the southwest is a fringe of natural coastal wetlands, consists of several lagoons, mangroves, salt marshes and intertidal mudflats, and supports more than 101 avian species. Significant numbers of resident and migratory waterbirds utilise this habitat, including ducks, waders, shorebirds and the largest concentration of wintering American White Pelican (*Pelecanus erythrorhynchos*) in the Caribbean. American crocodile (VU) are found in its coastal lagoons.

Humedal del Sur de Sancti Spiritus: is a wetland and coastal area on the south coast noted for its resident and migratory waterbirds, with congregations of migratory shorebirds exceeding 10,000 individuals, including over

20,000 Glossy Ibis (*Plegadis falcinellus*). Migratory Blue-Wing Teal (*Anas discors*) number over 100,000 on passage and West Indian Whistling Ducks (*Dendrocygna arborea*) nest here.

Las Picuas-Cayo Del Cristo: is a group of cays on the northwest coast characterized by muddy-sandy substrate, mangroves and dunes with shrub vegetation. The area supports significant breeding populations of Flamingo (*Phoenicopterus ruber*), Glossy Ibis (*Plegadis falcinellus*), and West Indian Whistling Duck (*Dendrocygna arborea*), in addition to approximately 45 other species of waterbirds. Sea turtles and American Manatee (VU) are also found here.

IMMAs

The waters around Cuba have not yet been evaluated for IMMAs.

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

Cuba lies within both the Mississippi Americas and Atlantic Americas Flyways, and hosts valuable stopover sites for migratory birds. It also hosts important nesting areas for waterbirds. In addition to a number of wading and shorebird species – grebes, ducks, flamingos and darters migrate through or are resident in Cuba.

→ At risk reptiles

Five species of sea turtle, American Crocodile (VU), and several species of caiman are found in Cuba. The Guanahacabibes National Park and Cayo Largo Ecological Reserve host the largest number of sea turtle nests in Cuba. Green (EN), Loggerhead (VU) and Hawksbill (CR) Turtles nest at these sites, with Cayo Largo hosting over 2,000 nests along 15 km of beach.

→ At risk mammals

Seventeen species of cetacean, as well as the American Manatee (VU) have been recorded in Cuba's waters. Many of the cetacean species populations are well enough studied to determine their IUCN status.

Past experience with oil spill and potential risks

Cuba has experienced minor spills (<6000 tons) in 1992, 1993, 2002, 2018, and 2021. In all cases, there were no reports of wildlife being impacted.

Cuba, in addition to its own oil production, imports significant amounts of oil from Venezuela. There is significant ship traffic around the country, particularly through the Florida Strait.

International and Regional Treaties and Agreements

→ Oil spill and HNS Response

- 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

- Operative Network for Regional Cooperation among Authorities of South America, Mexico, Panama and Cuba (ROCRAM)
- Cartagena Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region
- The Protocol Concerning Co-operation and Development in Combating Oil Spills in the Wider Caribbean Region (the Oil Spills Protocol)

Oil Spill Response and HNS Spill Response

→ National Contingency Plan?

There is a Cuban State National Plan to Fight Oil Spills, which was updated in 2011.

→ Role of Competent National Authorities

The National Civil Defence Staff (EMNDC) is in charge of ensuring compliance with preparation and response to oil spills. The Ministry of Transportation (MITRANS), in coordination with EMNDC responds and directs spill response activities. EMNDC activates the Disaster Situation Management Centre (DSIM) as needed and provincial and municipal Defence Councils respond locally. DSIM holds the Secretariat of the Hydrocarbon Anti-Spill Group (GAH). The Ministry of Science, Technology and the Environment (CITMA) oversees environmental issues, and would likely be involved in oil spill mitigation and recovery.

Oiled Wildlife Preparedness and Response

→ Formal guidelines?

There are no formal guidelines for response to oil-impacted wildlife.

→ Response objectives and strategy

It is not clear what objectives and strategy might be employed in response to wildlife.

→ Euthanasia or rehabilitation?

Rehabilitation might be allowed, however, there are no experienced oiled wildlife responders in the country and no wildlife rehabilitation facilities, thus international assistance would be necessary in the event of a response to wildlife.

→ Impact assessment

It is likely that CITMA would oversee any impact assessment, with assistance from BirdsCaribbean, which has monitoring and conservation projects in the country and region.

→ Notification and early response

There is no plan in place for notification of, or early response to, oiled wildlife in Cuba. However, CITMA would likely determine any notification and response procedures.

→ Wildlife responders

There are no organisations or individuals in Cuba with experience in responding to oiled wildlife. International assistance would be required should wildlife response be initiated.

→ Cooperation between stakeholders

CITMA would likely act as coordinator for any oiled wildlife response.

→ Permanent facilities

There are no permanent facilities for oiled wildlife rescue and rehabilitation in Cuba. There do not appear to be any wildlife rehabilitation facilities in the country either.

→ Current processes

The US and Cuba have a cooperative agreement on preparation and response to oil and HNS spills which covers the Gulf of Mexico and the Florida Strait.

Documentation and references

ITOPF Country Profile 2008: https://www.itopf.org/fileadmin/uploads/itopf/data/Documents/Country_Profiles/cuba_01.pdf
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Ocean Data Viewer: <https://data.unep-wcmc.org/datasets/>
Cuban biosphere reserves: <https://en.unesco.org/biosphere/lac#cuba>
Birdlife Data Zone: <http://datazone.birdlife.org/country/cuba>
BirdsCaribbean: <https://www.birdscaribbean.org/>
Ramsar sites: <https://www.ramsar.org/wetland/cuba>
Sea turtle nesting sites: <http://www.cubamar.org/sea-turtles.html>
Marine Mammal Records of Cuba: <https://www.gbif.org/dataset/28bf3cf9-3d61-4548-8a73-9a0423e45896>
Cuban National System of Protected Areas: https://www.ecured.cu/Sistema_Nacional_de_%C3%81reas_Protegidas

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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)

Black Rail / *Laterallus jamaicensis* / EN / Migratory (Sept-Apr) / Non-breeding
Zapata Rail / *Cyanolimnas cerverai* / CR / Resident (primarily inland) / Breeding (winter)
Leach's Storm-petrel / *Hydrobates leucorhous* / VU / Migratory (variable) / Breeding (variable-offshore islands)
Great White Heron / *Ardea occidentalis* / EN / Resident / Breeding (year round)

→ At risk reptiles

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

Hawksbill Turtle / *Eretmochelys imbricata* / CR / Migratory / Nesting (summer)
Green Turtle / *Chelonia mydas* / EN / Migratory / Nesting (summer)
Loggerhead Turtle / *Caretta caretta* / VU / Migratory / Nesting (summer)
Leatherback / *Dermochelys coriacea* / VU / Migratory (forages offshore) / Non-nesting
Olive Ridley / *Lepidochelys olivacea* / VU / Migratory (forages offshore) / Non-nesting
American Crocodile / *Crocodylus acutus* / VU / Resident / Nesting (possibly year round)

➔ **At risk mammals**

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

American Manatee / *Trichechus manatus* / VU / Resident / Breeding/calving (possibly year round)

Fin Whale / *Balaenoptera physalus* / VU / Migratory / Not well studied

Sperm Whale / *Physeter macrocephalus* / VU / Migratory / Not well studied