

Location



Introduction

The Cooperative Republic of Guyana (Amerindian for 'Land of Many Waters') is located in northern South America and is bordered on the northeast by the Atlantic Ocean, on the northwest by Venezuela, on the southwest and south by Brazil and on the southeast by Suriname. The country is a member of the Wider Caribbean cooperative known as the Caribbean Community (CARICOM).

Guyana's climate is equatorial lowland, with high temperatures, heavy rainfall with small seasonal differences, and high humidity. The heat and humidity are mitigated by trade winds near the coast.

Guyana and Barbados have a claim before the UN Convention on the Law of the Sea (UNCLOS) that Trinidad and Tobago's maritime boundary with Venezuela extends into their waters.

Regional Seas and Biogeography

Atlantic Ocean

Large Marine Ecosystems (LMEs):

- North Brazilian Shelf.

Habitats

Guyana's approximately 430 km of coastline includes about 145 km within the Shell Beach Protected Area on the north coast. Much of the coastal plain is comprised of mudflats created when soils from the Amazon River are carried north by the Atlantic Ocean. Some sandy beaches may be found along the south coast. The Essequibo River basin, along the border with Venezuela, extends some 30 km inland from where the river and its tributaries drain into the Atlantic. Some areas of Guyana's coast are protected by manmade sea defence barriers.

Tidal flats occur along much of the country's coast, some extending more than 25 km offshore.

Mangrove swamps and marshland occur along the north coast.

Seagrasses may be found along the northern coast of the country.

Cold water corals are distributed offshore of the country.

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).

Ramsar Sites

There are no Ramsar sites in Guyana.

National Parks/National Specially Protected Areas/Areas of Importance

The *Shell Beach Protected Area*, located in the Barima-Waini Region, covers over 120 km of beach and mudflat, with some beaches composed of shell fragments. The area hosts the largest and most intact mangrove forests (coastal and riverine) in Guyana, seasonally flooded wetlands/savannahs and sandy beaches. The NPA is host to flamingos, Manatees, Guiana Dolphins, jaguars and Scarlet Ibis, as well as nesting Leatherback, Green, Hawksbill and Olive Ridley Turtles. The *Barima Mora Passage*, an intercoastal waterway just behind this protected area, is being proposed as a Specially Protected Area as well.

Essequibo River Estuary, while not officially designated as a protected area of at this time, is considered an Area of Importance, rich in riverine, estuarine and coastal wildlife, including birds, turtles and American Manatee (VU).

IBAs

There are no coastal IBAs in Guyana.

IMMAs

Guyana's marine and coastal waters have not yet been assessed for potential 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

Numerous species of heron, ibis, seabird and shorebird, both resident and migrant, are found on the Guyana coast and along the mudflats at the mouths of many rivers, including the Demerara, Mahaica, Abary and Essequibo. In addition, raptors such as the Rufous Crab Hawk (*Buteogallus aequinoctialis*) forage in these areas.

→ At risk reptiles

Leatherback (VU), Olive Ridley (VU), and Green (EN) and Hawksbill (CR) Turtles nest on Guyana's beaches. Almond Beach in the Northwest District is important for nesting Hawksbills, while Shell Beach Protected Area hosts the other three species.

Several species of Caiman inhabit the coast as well.

→ At risk mammals

Ten species of cetacean have been reported in Guyana's waters, however, there has been little research on the presence and seasonality of cetaceans here. Guiana River Dolphin (*Sotalia guianensis*) are found along the coast, particularly in estuaries and river mouths.

American Manatee (VU) are resident in nearshore, estuarine and riverine areas.

In addition to marine mammals, the Giant Otter (EN), Neotropical Otter (*Lontra longicaudis*), Crab-eating Raccoon (*Procyon cancrivorus*), Jaguar (*Panthera onca*) and a variety of forest species may be found in the mangrove swamps, particularly in the Barima-Mora Passage.

Past experience with oil spill and potential risks

There have been no major oil spills in Guyana's waters to date.

Oil production in the Suriname- Guyana Basin is rapidly increasing, with much of the area's offshore waters being explored or developed, increasing future spill risk.

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**

- 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?**

Guyana's National Oil Spill Response Plan (NOSRP) was put into force in 2021, with a National Oil Spill Committee (NOSC) which supports contingency planning and leads policy direction for the management of spill events.

Guyana is also included in the Caribbean Island Oil Pollution Response and Cooperation (OPRC) plan administered by the Regional Activity Centre-Regional Marine Pollution Emergency, Information and Training Centre (RAC-REMPEITC).

Oil companies operating in Guyana are expected to maintain their own plans and equipment for oil spill response.

→ **Role of Competent National Authorities**

The Guyana Coast Guard (GCG), under the Civil Defence Commission (CDC) is the Competent National Authority responsible for oil spill emergencies under the plan, with the NOSC providing input and support as needed.

The Maritime Administrative Department is the focal point for offshore spills, and the Guyana Energy Agency is responsible for coordinating the operational aspects of response.

Oiled Wildlife Preparedness and Response

→ **Formal guidelines?**

There are no formal guidelines for oiled wildlife response at this time.

→ **Response objectives and strategy**

The NOSRP does not include objectives and strategy for wildlife response, however, such response would likely be overseen by the Environment Protection Agency (EPA), under the direction of the CDC.

→ **Euthanasia or rehabilitation?**

It is not clear what form response to oiled wildlife would take, however, should there be a decision to rescue and rehabilitate, international assistance would be needed.

→ **Impact assessment**

Impact assessment would be handled by the EPA, under the guidance of the CDC.

→ **Notification and early response**

There is no process in place at this time for notification of, and response to, oiled wildlife, however it is likely that the EPA would be notified by the GCG.

→ **Wildlife responders**

There are currently no wildlife rescue or rehabilitation groups in Guyana, thus any response to wildlife would require international assistance.

→ **Cooperation between stakeholders**

The agencies involved in the NOSC work closely on spill related issues.

→ Permanent facilities

There are no permanent facilities for oiled wildlife response or wildlife rehabilitation in Guyana.

→ Current processes

Training and exercises, workshops, and development of further oil spill response resources, were undertaken in 2021-22. The results of these activities will be utilised in refining the NOSCP.

In March 2022, the US National Oceanic and Atmospheric Administration (NOAA)'s Emergency Response Division, held a workshop which included training on Shoreline Cleanup Assessment Technique, Environmental Sensitivity Index maps, and Responding to Oiled Wildlife. The wildlife session was provided by NOAA's National Marine Fisheries Service.

In 2021 a virtual conference was held on Cross-Border Coordination in Spill Prevention and Response in the Suriname-Guyana Basin.

Documentation and references

Sea Alarm Profile 2015: <https://www.sea-alarm.org/publications/country-wildlife-response-profiles/>

IOPF Country Profile 2020: https://www.iopf.org/fileadmin/uploads/iopf/data/Documents/Country_Profiles/guyana.pdf

RAC-REMPEITC Country Profile 2008: <http://www.racrempeitc.org/sites/default/files/Guyana%20-%20Country%20Profile%202008.pdf>

Transnational issues: <https://www.cia.gov/the-world-factbook/countries/guyana/#transnational-issues>

Large Marine Ecosystems Hub: <https://www.lmehub.net/#north-brazil-shelf>

Oil spill response plan announcement: <https://oilnow.gy/featured/guyana-operationalizes-national-oil-spill-response-plan/>

Caribbean Island OPRCP: <http://www.racrempeitc.org/sites/default/files/Caribbean%20Island%20OPRCP%20Plan%202012.pdf>

Ocean Data Viewer: <https://data.unep-wcmc.org/datasets/>

SWOT Report vol.15 Sea Turtles of the Caribbean 2020: <https://www.seaturtlestatus.org/articles/2020/2/25/sea-turtles-of-the-caribbean>

Wider Caribbean Sea Turtle Conservation Network (WIDECAST): <https://www.widecast.org/>

Regional Sea Turtle Conservation Program and Action Plan for the Guianas 2003: https://www.widecast.org/Resources/Docs/Reichart_et_al_2003_Guianas_Regional_Program.pdf

NOAA Training Sessions in Guyana: <https://response.restoration.noaa.gov/noaa-provides-guyana-first-scat-esi-and-responding-oiled-wildlife-training>

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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)

Leach's Storm-petrel / *Hydrobates leucorhous* / VU / Migratory (variable not season dependent) / Nesting (variable)
Agami Heron / *Agamia agami* / VU / Resident / Breeding/nesting (rain dependent)

→ 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 / Nesting (March-August)
Olive Ridley / *Lepidochelys olivacea* / VU / Migratory / Nesting (March-August)
Leatherback / *Dermochelys coriacea* / VU / Migratory / Nesting (March-August)
Hawksbill Turtle / *Eretmochelys imbricata* / CR / Migratory / Nesting (March-August)

→ 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 (migrates within region / Breeding/calving (possibly year round)
Sperm Whale / *Physeter macrocephalus* / VU / Migratory (not well studied in region / Non-breeding
Giant Otter / *Pteronura brasiliensis* / EN / Resident (migrates within region / Breeding/pupping (possibly year round)