

Introduction

The Republic of Panama is the southernmost country in Central America. Situated on an isthmus connecting North and South America, it is bordered by Costa Rica to the west, the Caribbean Sea to the north, Colombia to the east, and the Pacific Ocean to the south.

The country's approximately 2,490 km of coastline includes a great diversity of ecosystems. Panama is home to the largest mangrove forests in Central America. Mangrove swamps and associated sea-grass beds occur along parts of both coasts, however on the Pacific coast many areas are heavily developed, particularly in the Gulfs of San Miguel and Chiriqui. Coiba National Park is an offshore Pacific Island which has pelicans and frigatebirds, nesting hawksbill, loggerhead, olive ridley and leatherback turtles and American crocodile. Offshore, humpback whale and orca are common.

Panama has five Ramsar Sites with a variety of wildlife:

- The Punta Patiño Wetlands connect to the Bagre Biological Corridor linking to the Darien National Park. The Wetlands host between one and two million shorebirds during migration, as well as resident American crocodile and the crab-eating raccoon which forages in the intertidal zone.
- The Gulf of Montijo Wetlands supports numerous nesting and wintering waterbirds, in addition to resident American crocodile and neotropical otter, a species which forages in the intertidal zone.
- The Bahía de Panamá Wetlands hosts large numbers of migrating shorebirds as well as resident American crocodile, and two species which forage in the intertidal zone: crab-eating raccoon and neotropical otter.
- The Damani-Guariviara Wetland (Humedal de Importancia Internacional Damani-Guariviara) hosts manatees, nesting hawksbill, loggerhead and green turtles,
- The San San-Pond Sak Wetlands has the largest population of American manatee in the country, in addition to coastal foraging crab-eating raccoons and neotropical otters. Leatherback and hawksbills turtles nest here and there are a number of resident waterbirds.

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 (V), Endangered (E) or Critically Endangered (CR).

Avian species – the mangroves of the Pacific coast support thousands of shorebirds, wading birds and seabirds in the dry season (January to April). The Intertropical Convergence Zone (ITCZ) creates an upwelling of cold, nutrient-rich waters in the Gulf of Panama, attracting large numbers of fish-eating birds. Several key estuaries in the Pacific coast support high densities of waterbirds including the Golfo de San Miguel, Bahia de Parita, Golfo de Montijo, Bahia de Muerta and Bahia de Panama; with the highest densities found along the shoreline of the Bahia de Panama. Hundreds of millions of birds pass through Panama each year on their passage between breeding and wintering grounds. Bahia de Panama, in particular, appears to play a prominent role in waterbird migration throughout the Americas. Wintering species are present from late November to early March. Migration occurs from March through May and September through November. Species of special concern include the black rail (E), black petrel (V), and agami heron (V).

Marine mammals – American manatees (V) are resident along the Atlantic coast, primarily in the San San-Pond Sak wetlands, although more than 20 species of cetacean have been recorded in Panama's waters. Of these blue (E) and sei (E) whales are endangered while the status of majority of other species is not completely known. While the majority of cetacean species are found offshore, the bottlenose dolphin, humpback whale and orca may also inhabit nearshore waters.

Marine reptiles – Hawksbill (CR), loggerhead (V), green (E), leatherback (V) and olive ridley (V) turtles nest on Panama's beaches between May and September (see RAMSAR Sites in the introduction section above for more details on where these species are found).

Regional Seas
Pacific Ocean
Caribbean Sea

Past experience

There have been a number of pollution incidents in Panama, primarily as a result of collisions and groundings in the Panama Canal.

In 1986 a major oil spill due to a ruptured storage tank at a coastal refinery occurred in Bahia Las Minas, affecting the Caribbean coast. A section of coastline was heavily oiled, impacting extensive areas of mangroves, intertidal reef flats, seagrass beds, and subtidal coral reefs. Heavy oiling was also observed along much of the coast between Isla Margarita and Islas Naranjos. Post-spill studies were carried out by the Smithsonian Tropical Research Institute (STRI)'s Galeta Island Marine Education Center at the Caribbean entrance to the Panama Canal, near the city of Colon, as the spill significantly affected their study area.

Since the 1986 spill there have been a number of additional small spills in parts of the study region, including a diesel spill at Toro Point in May 1988 and fuel oil spills in December 1988 and June 1990 from an electrical generating station.

In February 2007, one of the crude oil tanks at the Petroterminales of Panama terminal (Chiriqui Grande, Bocas del Toro Province) spilt 5000 tonnes of crude oil at Laguna de Chiriquí (Caribbean Sea), causing damage to coastal resources, however no reports of oiled wildlife exist.

In July 2020, a small fuel spill from the barge Sea Lion was reported at the Port of Rodman on the Pacific side of the Panama Canal. There were no reports of impacted wildlife.

Response: the role of the authorities

The Autoridad Maritima de Panama (Panama Maritime Authority/AMP) oversees oil spill response on the coasts of the country utilising contractors to perform clean-up work. Spills in the approximately 80 km of the Panama Canal and the 19 km of sea approach on either side are handled by the the Autoridad del Canal de Panama (Panama Canal Authority/ACP).

Although a draft National Contingency Plan has been in existence for a number of years, it has not yet been finalised or approved.

The Ministerio del Ambiente (Ministry of the Environment) and Autoridad de los Recursos Aquaticos de Panama (Panama Aquatic Resources Authority/ARAP) have primary responsibility for wildlife response and impact assessment.

Oiled wildlife response

Formal guidelines?

Although the Ministerio del Ambiente and ARAP are responsible for wildlife response, there are no formal guidelines for carrying out responses.

Response objectives and strategy

N/A

Euthanasia or rehabilitation?

It is likely that rehabilitation would be allowed, however, there is limited capacity to respond within the country.

Impact assessment

It is likely that, La Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT) would support impact assessment with ARAP with the Ministerio del Ambiente leading the work. The Smithsonian Tropical Research Institute (STRI) and Sociedad de Audubon Panama (SAP) may be involved on a case by case basis. The Ramsar Centro Regional para el Hemisferio Occidental (RAMSAR CREHO) would be involved should any of the country's Ramsar sites be impacted.

The Universidad Maritima Internacional de Panama (International Maritime Institute of Panama/UMIP) staff and students might also be activated. Panama Wildlife Conservation (PWCC) has a sea turtle monitoring

and protecting sea turtles on the Pacific coast of the Azuero Peninsula and may be able to assist in that area.

Notification and early response

There is no system for notification of, or early response to, oiled wildlife.

Wildlife responders

There are no experienced oiled wildlife responders or personnel with marine wildlife rescue and rehabilitation experience, thus any response would require international assistance. SAP, STRI, RAMSAR CREHO and PWCC may be able to assist but do not have any rehabilitation experience.

Cooperation between stakeholders

The Ministerio del Ambiente and ARAP work together on wildlife issues. RAMSAR CREHO, STRI, and SAP have a working relationship.

Panama is a signatory to the Cartagena Convention for the Protection and Development of the Wider Caribbean Region with other states in the region, the Red Operativa de las Autoridades Maritimas de las Americas (Operative Network of Regional Cooperation of Maritime Authorities of the Americas/ROCRAM) with South America, Mexico, and Cuba. It is also signatory to the Regional Activity Centre/Regional Marine Pollution Emergency Information and Training Centre of the Wider Caribbean (RAC/REMPEITC Carib).

Permanent facilities

There are no permanent facilities for oiled or marine wildlife in Panama. Jungla de Panama is a small wildlife rescue and rehabilitation centre in Boquete however, this facility's expertise is with forest wildlife and may have limited ability to assist with marine wildlife.

Current processes

In February 2020, a workshop was given by Central American Commission for Maritime Transportation (Cocatram) to personnel from the Departamento de Prevención y Control de la Contaminación, de la Dirección de Puertos e Industrias Marítimas (Pollution Prevention and Control Department, of the Directorate of Ports and Maritime Industries/ DGPIMA), of the AMP, to help with the preparation and approval of a National Contingency Plan.

Documentation and references

General references

ITOPF Country Profile (2019)

RAC-REMPEITC Country Profile (2015)

Sea Alarm Regional Wildlife Response Profile for the Wider Caribbean Region v.07 2020

Birdlife International Country Profile

RAMSAR Sites Information Service

Jackson, J.B.C. et al.1989. Ecological Effects of a Major Oil Spill on Panamanian Coastal Marine Communities. *Science, New Series*, Vol.243, No.4887.37-44.

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PANAMA

Country Wildlife Response Profiles
A Summary of oiled wildlife response
arrangements and resources worldwide

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