

Introduction

The island nation of Trinidad and Tobago is located in the southern Caribbean, less than 20 miles east of Venezuela. In addition to the two main islands, there are multiple smaller islands in this country, mainly along the northeast coast of Trinidad and the northwest coast of Tobago. The 362 km of coastline is largely made up of intertidal mud, sand and/or salt flats with some mangrove forests and tidal swamps and estuaries, some of which are within the country's 1 marine and 7 coastal protected areas.

At Risk Wildlife

Avian Species - the tidal mudflats, estuaries and lagoons of Trinidad and Tobago host a variety of migratory waterfowl and wading bird species in spring and fall. Of these, several sandpipers, egrets and herons are considered near threatened. The scarlet ibis (*Eudocimus ruber*) population can reach 15,000 or more in winter, most of them concentrated in a few areas along the western coast. Resident species of concern include the rufous crab-hawk (*Buteogallus aequinoctialis*) and Caribbean coot (*Fulica caribaea*). A number of species of gull, tern, shearwater and storm-petrel are found offshore, as are three species of booby and two of tropicbird.

Marine mammals - nineteen species of whale and dolphin are found in the waters surrounding Trinidad and Tobago. The population status of many of these cetaceans is unknown but the sperm whale (*Physeter macrocephalus*) is considered vulnerable. The West Indian manatee (*Trichechus manatus*) is found in coastal waters and estuaries of Trinidad.

Other mammals - both the crab-eating raccoon (*Procyon cancrivorus*) and the neotropical river otter (*Lontra langicaudis*) are found in coastal areas and their largely aquatic diet may result in their being affected by an oil spill.

Marine Reptiles - Trinidad and Tobago hosts nesting sites for endangered green (*Chelonia mydas*), leatherback (*Dermochelys coriacea*) and hawksbill (*Eretmochelys imbricata*) sea turtles between March and August. Loggerhead (*Caretta caretta*) and olive ridley (*Lepidochelys olivacea*) are occasionally found foraging in the area. Several species of caiman, crocodile and alligator also inhabit these islands.

Regional Seas

Caribbean Sea

Past experience

Although there has been a long history of oil and gas exploration and production in Trinidad and Tobago, there have been few large spills. A major incident occurred in 1979 off the coast of Tobago when two vessels, the Atlantic Empress and the Aegean Captain, collided but most of the hundreds of thousands of gallons of oil did not reach land. In 2013, a series of pipeline ruptures resulted in approximately 7,500 barrels of oil being spilled. Response to oiled wildlife was limited, however a few animals were rehabilitated at one small facility.

Response: the role of the authorities

The Ministry of Energy and Energy Affairs (MEEA) is the lead agency responsible for oil spill preparedness and response. Trinidad and Tobago's National Oil Spill Contingency Plan, approved in 2013, is designed to work alongside and with the Caribbean Island Oil Pollution Preparedness Response and Cooperation Plan (OPRC).

The MEEA appoints an Incident Commander to be in overall charge of the response. That IC directs the operations of the Trinidad and Tobago Coast Guard (TTCG) during a response. The Ministry of National Security (MNS) may provide operational support.

Industry is required, in addition to maintaining Tier-1 response capacity, to maintain Tier-2 capacity via subscription to a

dedicated Tier-2 Oil Spill Response Organisation (OSRO) resident in the country. There are no response arrangements in place for HNS spills.

For larger spills, Trinidad and Tobago is a signatory to the Cartagena Convention and its ancillary Oil Spills Protocol and Special Protected Areas and Wildlife (SPAW) Protocols. There is also a bilateral agreement with Venezuela for oil spill response.

Oiled wildlife response

Formal guidelines?

Although wildlife response is included in the NOSCP, there is no comprehensive wildlife response plan for Trinidad and Tobago. The plan states that the Wildlife Section of the Forestry Division of the Ministry of Housing and the Environment has the authority to arrange for oiled wildlife to be sent for rehabilitation at a registered centre. To date, however, only one organisation is registered.

The Environmental Management Authority Biodiversity Officer and the Forestry Division Forestry Officer are included in the Wildlife Branch of the Operations section with the Forestry Division and the Zoological Society of Trinidad and Tobago/Emperor Valley Zoo (ZSTT) listed in the Recovery and Rehabilitation Group.

Response objectives and strategy

The primary strategy is to prevent oil from reaching sensitive wildlife habitat and affecting wildlife.

Euthanasia or rehabilitation?

The NOSCP allows for rehabilitation at the discretion of the Forestry Division and there is a history of wildlife rescue and rehabilitation in Trinidad and Tobago, although responses to oiled wildlife have been limited to date.

Impact assessment

Although the NOSCP does not provide details, the Incident Command tree includes the Environmental Management Agency (EMA)'s Biodiversity Officer in the Wildlife Branch and Ecological Assessment Specialists from the EMA and the Institute of Marine Affairs (IMA) in the Environmental Unit.

The Mount Hope School of Veterinary Medicine and staff from the National Veterinary Diagnostic Laboratory (which shares facilities with the veterinary school) pathologists would likely provide necropsy and testing services.

Notification and early response

The Incident Command Team (ICT) is activated when threat of oil is reported to the Trinidad and Tobago Coast Guard. The team includes representatives from the MEEA, the EMA, the Maritime Service Division of the Ministry of Works and Transportation (MSD/MOT), the Ministry of National Security (MNS), the TTCG, the TTAG, the Tobago House of Assembly (THA) and the Responsible Party.

There is no specific notification or response plan for wildlife.

Wildlife responders

The Wildlife Orphanage and Rehabilitation Centre (WORC) is the designated facility for oiled wildlife as of 2014.

Several other organisations, such as the El Socorro Center for Wildlife Conservation and the Pointe-a-Pierre Wildfowl Trust, also have some limited capacity for involvement in response. These organisations have responded to smaller incidents individually but all have limited space, staff and experience.

The Manatee Conservation Trust (MCT) and ZSTT are first responders for manatee or cetacean strandings, having responded to non-oil spill based manatee and cetacean incidents in Trinidad. The two groups recently held a training session on advanced cetacean response under the leadership of the International Fund for Animal Welfare's Marine Mammal Rescue and Research staff. The ZSTT maintains an ambulance for wildlife rescue, as does the Wildlife Branch of the Forestry Division.

On Tobago there are no experienced wildlife rehabilitators but there is a veterinarian with wildlife experience at the Tobago SPCA.

Cooperation between stakeholders

To date, only small numbers of oiled birds have been responded to, generally by individual organisations, thus

opportunities for cooperation have been limited.

Permanent facilities

WORC, El Socorro, Pointe-a-Pierre and the ZSTT each have a limited capacity to care for small numbers oiled wildlife (approximately 25 animals per facility). Point-a-Pierre is located within the Petrotrin refinery complex, which might affect logistics during spill response. The Mount Hope School of Veterinary Medicine has some limited space for response, in addition to their probable participation in impact assessment.

The Zoological Society of Trinidad and Tobago/Emperor Valley Zoo (ZSTT) also has some space for washing and rehabilitation of birds at the zoo itself in Port of Spain and at its affiliated Brigand Hill facility for rehabilitation of wildlife rescued from trade and another property on Manzanilla Beach where a sea turtle nesting site protection project operates. These two sites are on the east coast, with much more limited access, but more space for large numbers of birds.

On Tobago there are no permanent facilities. In the south, the Tobago SPCA has a small facility with some cages. Access to the northeast of the island is limited but there is a small research facility under construction in the area which may be able to provide space for a temporary facility. On Tobago local community outreach centres, which are run by the local governments may be approached for use as temporary facilities.

Current processes

In 2013 a national wildlife response planning workshop was organised by BP Trinidad and Tobago. This workshop provided an introduction to the main wildlife planning issues, a tabletop exercise and a first responder training.

The 2013 Petrotrin spills increased awareness of the need for centralised oversight of wildlife response. In 2014 the veterinary association scheduled a workshop on oiled wildlife response during their conference to look at ways to increase response capacity and coordination within the country.

Documentation and references

General references

ITOPF Country Profile (2013)

Trinidad and Tobago NOSCP (2013)

Birdlife International

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TRINIDAD AND TOBAGO

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

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