

PROPOSED MARINE TURTLE CONSERVATION REGULATIONS

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*Building a healthy and sustainable global community for people
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1.0 Introduction

Trinidad and Tobago has made great progress protecting marine sea turtles. Since the 1970's, poaching of marine turtles has been reduced, important nesting beaches have been protected, and a tourist program has been initiated that creates dozens of jobs and brings thousands of dollars of revenue into the local economy.

However, significant conservation challenges remain. Marine turtles continue to be taken, both legally and illegally, within Trinidad and Tobago's territorial waters; poaching remains a concern, particularly in Tobago; and perhaps most alarmingly, large numbers of adult leatherback sea turtles—the largest and most imperiled of the marine turtles—are being incidentally killed in artisanal nets at an unsustainable rate. If these killings are not reduced, it is possible that the leatherback sea turtle population in Trinidad and Tobago could be lost.

In this document, two regulatory changes are proposed to aid marine turtle conservation in Trinidad and Tobago. Both changes can be implemented using authority already granted to the Minister of Food Production, Land, and Marine Affairs: no further Act of Parliament is needed to implement these proposals. The first proposal closes an inadvertent loophole in existing marine turtle protection regulations, a loophole that arguably permits individuals to kill marine turtles under certain circumstances without violating any conservation law. The second proposal creates a new fisheries regulation that will reduce bycatch of leatherback sea turtles while providing local fishers with new opportunities to increase daily revenues.

To understand the rationale and import of these proposed regulations, this document first describes the biology of the leatherback sea turtle, including its recent conservation status. The document then discusses existing hunting, fishing, and conservation laws and regulations that apply to marine turtles in Trinidad and Tobago. Next, the document discusses the gaps in protection that currently exist, and how those gaps are impacting sea turtle conservation in Trinidad. Finally, the document provides draft proposals to remedy these conservation challenges through regulations implemented by the Minister.

2.0 Biology and Conservation Status of Leatherback Sea Turtles

2.1 The Leatherback Sea Turtle, *Dermochelys coriacea*

The leatherback sea turtle is a superlative species. It is the largest living reptile in the world: mature adults can be as long as six-and-a-half feet (2 m) in length and weigh almost 2,000 lbs. (900 kg). The leatherback sea turtle is also the oldest extant sea turtle species: the leatherback's ancestors have been observed in the fossil record as far back as 150 million years ago. It is also the most widely distributed sea turtle, nesting on beaches in the tropics and sub-tropics and foraging in higher-latitudinal sub-polar waters.

The leatherback sea turtle is also, unfortunately, the world's most imperiled sea turtle. The species declined by more than 90% in the 1990s, and today there are fewer than 30,000 individuals left on Earth. This was the fastest decline of any large vertebrate in history, and the species is now considered Critically Endangered by the IUCN.

Industrialized fishing fleets in the Pacific Ocean caused the leatherback sea turtle's population decline. Sea turtles drown when they are incidentally caught in nets or hooked on long-lines set by fishing vessels. During the Pacific Ocean population collapse, populations in the Atlantic and Caribbean appeared to be more stable. But recent data indicates that threats to Atlantic and Caribbean populations are reaching a point that the continued viability of some leatherback populations is questioned.

2.2 Trinidad and Tobago's Leatherback Sea Turtles

Trinidad and Tobago currently contain the second largest nesting population of leatherback sea turtles in the world, just behind French Guiana. More than 6,000 leatherbacks nest in Trinidad each year: in 2007, 10,500 leatherback turtles were recorded nesting in Trinidad.

The robust population in Trinidad is due to the Nation's comprehensive, long-term program of legislative protection for turtles and community engagement in conservation. During the early 1970s, high rates of slaughter of egg-bearing female turtles created national concern for the future of the species. In 1975, Trinidad implemented regulations under the Fisheries Act to limit the killing of sea turtles and the harvest of turtle eggs. In 1990, Trinidad also declared Matura Beach, one of the most important nesting areas for sea turtles in Trinidad, as a Prohibited Area under the Forest Act during the nesting season. These regulations were combined with community engagement in the Matura area, and soon a community-lead turtle patrol was implemented on the beach. Today the community-lead patrol, called Nature Seekers, is the largest employer in the Matura region and has brought poaching of leatherbacks close to zero.

2.3 Challenges to Leatherback Sea Turtles in Trinidad and Tobago

Although incredible conservation gains have been achieved in Trinidad and Tobago, several threats are still impacting sea turtles and jeopardizing the population as a whole.

For example, poaching, while extremely limited at Matura Beach, is known to occur on other nesting beaches in Trinidad and throughout Tobago. Efforts have been initiated to spread the community-led turtle patrols to other beaches, but these efforts are still in their infancy.

Perhaps more importantly to the survival of the species, approximately 3,000 leatherback sea turtles are entangled in gillnets each year in Trinidadian waters. As many as 1,000 of these turtles drown or are killed in an effort to salvage the net. The scale of the loss is unsustainable and is undermining the long-term

efforts of conservationists, NGOs and the Trinidad and Tobago government to prevent the population from going extinct.

3.0 Domestic Sea Turtle Protection Legislation in Trinidad & Tobago

Trinidad and Tobago currently has two major domestic laws that address sea turtle conservation. The first, the Fisheries Act, contains several provisions pertinent to sea turtle conservation. The second, the Conservation of Wildlife Act, provides protection for sea turtles implicitly. The key elements of each law are outlined below.

3.1 The Fisheries Act

The Fisheries Act of 1916, although a limited statute, does contain several provisions pertinent to sea turtle conservation. As a preliminary matter, the Fisheries Act contains two key definitions that bring sea turtles under the Fisheries Act's purview. First, the Fisheries Act defines the term "fish" broadly to include, among other things, "turtles" and "turtle eggs," thus bringing these marine reptiles under the jurisdiction of the Fisheries Act. Second, the Fisheries Act defines a "prohibited area" as "an area declared by the Regulations made under section 4 to be a prohibited area." Although this definition is somewhat circular, read in context with the implementing regulations described below, the definition gives the Minister the authority to promulgate a wide variety of gear, time, and area fisheries closures, and impose fines and penalties if the prohibitions are not obeyed.

Section 4 of the Fisheries Act provides the Minister with the authority to promulgate regulations. For example, the Minister is authorized to "prescribe the size of mesh, form, and dimensions of nets or appliances for fishing, and for the manner of using the same"; to make regulations "restricting the size of fish, crabs, shrimps, and turtles that may be taken"; regulations "declaring any area to be a prohibited area"; or regulations "prohibiting the killing, harpooning, taking, removing, catching or any other means of taking possession of fish or any variety thereof either absolutely or at such times and within such areas as may be prescribed."

Previous Ministers have used this authority to create several distinct types of regulations under the Fisheries Act. For example, there are over 13 separate restrictions on nets in Trinidad, which prescribe the size and form of nets and the manner in which each net can be used to harvest specific species. Furthermore, previous Ministers have also established several prohibited areas, restricting access to these areas.

Previous Ministers have also used the authority granted under Section 4 of the Fisheries Act to promulgate regulations specifically protecting sea turtles. For example, in 1975, the Minister promulgated the "Protection of Turtle and Turtle Eggs" regulations, which establish several prohibitions against taking sea turtles

and their eggs. There are three major elements of these regulations. First, the regulations prohibit the killing of female turtles between the land and any reef, or in areas where there are no reefs, within 1,000 yards of the high water mark. Second, the regulations prohibit taking turtle eggs once the eggs are laid and buried, and prohibit the sale, purchase, and possession of turtle eggs. Finally, the regulations prohibit the killing of any sea turtle, regardless of sex, between 1st March and 30th September.

Although relatively comprehensive, these regulations do allow for direct take of critically endangered sea turtles under certain circumstances. This alone is a conservation concern, but it becomes particularly troubling in light of the conflict the regulations create with the Conservation of Wildlife Act, described below.

3.2. The Conservation of Wildlife Act

Trinidad's Conservation of Wildlife Act was initially passed in 1958 and amended most recently in 1980. The Wildlife Act defines an "animal" to include "any mammal, bird, or reptile and includes the eggs, carcass, meat, nest or young thereof," ensuring that sea turtles and their eggs are also under the jurisdiction of the Wildlife Act. The statute further defines the term "protected animal" as "any animal not specified or mentioned in the Second or Third Schedule" of the Act. The Second and Third Schedules define game species and species declared as vermin, respectively. Therefore, any animal not expressly listed in the Second Schedule as a game species or in the Third Schedule as vermin is a protected animal under the Conservation of Wildlife Act. Direct take of protected animals is prohibited under the Act.

Sea Turtles are not listed in either the Second or Third Schedules, so therefore they are protected animals under the Conservation of Wildlife Act and may not be directly taken by any method. However, as explained below, this puts the Conservation of Wildlife Act in tension with the Turtle protection regulations implemented under the Fisheries Act.

3.3. Fines & Penalties

Both the Fisheries Act and the Conservation of Wildlife Act contain statutory provisions setting fees and penalties for violations of the respective acts. These fines are generally perceived to be too low to deter poaching or other illegal wildlife activities. However, these fines cannot be changed by regulation: an Act of Parliament is required to change the size of the fines and penalties.

4.0 Gaps in Protection for Sea Turtles in Trinidad and Tobago

Three gaps in sea turtle protection remain in Trinidad. Combined, these three threats leave the population vulnerable to extinction. Fortunately, two of these three threats could be addressed relatively quickly through regulations promulgated by the Minister; no further Acts of Parliament are required to fill these

two gaps. These gaps are described more fully below, and opportunities to fill the gaps are discussed.

4.1 Conflict Between Fisheries Act Regulations and the Conservation of Wildlife Act

As explained above, the leatherback sea turtle and all other sea turtles are considered protected animals under the Conservation of Wildlife Act, and therefore they may not be directly taken. However, this prohibition against direct take is, at least in theory, in conflict with the Turtle and Turtle Egg Protection Regulations implemented under the Fisheries Act. On their face, these Fisheries Act regulations permit the killing of male sea turtles from 1 October through 28 February; permit the killing of female sea turtles during the same period when the turtles are outside of a reef, or when no reef exists, more than 1,000 yards from shore; and may provide inconsistent protection of turtle eggs: eggs are protected only when laid and buried, and therefore it may be possible to take eggs after they are laid by a turtle but before they are buried without violating this law.

Although forceful arguments exist indicating that the Conservation of Wildlife Act, as an Act of Parliament, should trump the regulations promulgated by the Ministry, there is a widespread belief in Trinidad that the Fisheries Regulations inhibit enforcement of the sea turtles' protected status. This is in part due to an unconfirmed report of a Magistrate judge ruling that found that the fisheries regulations, because they expressly reference sea turtles, trump the provisions of the Conservation of Wildlife Act.

Although formal documentation of the Magistrate's interpretation does not appear to be available, the belief that the sea turtles' protected status has been undermined by the turtle regulations is impacting law enforcement efforts, because poaching laws cannot be easily enforced during portions of the year that the Fisheries Regulations are operative. To restore anti-poaching efforts, it is imperative that the conflict between the Fisheries Regulations and the Conservation of Wildlife Act be remedied.

4.2 Closure Area Needed to Protect Sea Turtles from Entanglement

As explained above, leatherback sea turtles are being caught in gillnets from artisanal fishers in Trinidad waters at an alarming, unsustainable rate. Approximately 1,000 turtles are killed annually in this manner, threatening the entire population with extinction. Nearly all of these entanglements occur during the sea turtle breeding season and within fifteen kilometres of the Trinidad coast.

Presently, there are no suitable domestic laws or regulations for the government to address this problem. However, existing regulatory authority does provide the Minister with the ability to enact reasonable closure regulations without an additional Act of Parliament. In particular, a suitable time/gear/area closure or protected area could be implemented under existing regulatory authority to restrict sea turtle deaths.

5.0 Proposed Sea Turtle Protection Regulations

5.1. Proposed Amendments to the Turtle and Turtle Eggs Regulations

As explained above, the Minister has authority under Section 4 of the Fisheries Act to implement and modify regulations prohibiting the killing of “fish,” including sea turtles. The Minister could exercise this authority by modifying the existing Turtle Protection regulations to eliminate any possible opportunity to directly take sea turtles legally under Trinidad law. To be effective, three key changes would need to be made: the amendment must eliminate any legal killing of female sea turtles, regardless of where they are found; the amendment must clarify that turtle eggs can never be taken, not even after they are laid but before they are buried; and the killing of male sea turtles must be prohibited.

The following draft proposed regulation can accomplish these objectives:

Additions are underlined, subtractions are ~~stricken~~.

Protection of Turtle and Turtle Eggs Regulations

made under Section 4

1. These Regulations may be cited as the Protection of Turtle and Turtle Eggs Regulations.
2. No person shall—
 - (A) Kill, harpoon, catch, ~~otherwise take possession,~~ destroy, harm, harass, or pursue, or attempt to kill, harpoon, catch, take possession, destroy, harm, harass, or pursue of any female sea turtle which is in the sea within any reef or ~~within one thousand yards from the high water mark of the foreshore where there is no reef~~ on land or within the Exclusive Economic Zone of Trinidad and Tobago;
 - (B) Take or remove or cause to be taken or removed any sea turtle eggs from any sea turtle or any sea turtle nesting area on land or within the Exclusive Economic Zone of Trinidad and Tobago; ~~after they have been laid and buried by a female turtle or after they have been buried by any person;~~
 - (C) Purchase, sell, or offer ~~or expose~~ for sale or cause to be sold or offered ~~or exposed~~ for sale or be in possession of any sea turtle, sea turtle egg, or parts of or products made from any sea turtle.
3. ~~No person shall, between 1st March and 30th September, kill harpoon, catch or otherwise take possession of or purchase sell, offer or expose for sale or cause to be sold or offered or exposed for sale any turtle or turtle meat.~~

5.2 Proposed Time/Area/Gear Prohibited Area

Similarly, existing regulatory authority permits the Minister to create Prohibited Areas. This authority has been used extensively to close areas to fishing completely, or tailor more specific prohibitions as deemed necessary.

To eliminate leatherback sea turtle entanglements, a prohibited area that bans net fishing, but permits trolling can successfully reduce leatherback sea turtle entanglements around important nesting beaches during the nesting season. To include most of Trinidad fishable waters, the closure areas should extend 10 miles out to sea.

The following draft regulation would accomplish these objectives:

Leatherback Sea Turtle Conservation Area

Made under Section 4

1. These regulations may be cited as the Leatherback Sea Turtle Conservation Area Regulations.
2. *Prohibition.* No person may fish with, set, haul back, or be in possession of any fishing net, including any net specified in Section 2 of the Fisheries Regulations, between 15 February and 30 July, in the area bounded by the high water mark of coastal Trinidad and straight lines connecting the following coordinates in the order listed:
Blanchisseuse/Paria Bay ($10^{\circ}47' N 61^{\circ}17' W$) to $10^{\circ}56' N 61^{\circ}17' W$;
 $10^{\circ}56' N 61^{\circ}17' W$ to $10^{\circ}58' N 60^{\circ}54' W$;
 $10^{\circ}58' N 60^{\circ}54' W$ to $10^{\circ}48' N 60^{\circ}45' W$;
 $10^{\circ}48' N 60^{\circ}45' W$ to $10^{\circ}30' N 60^{\circ}51' W$;
 $10^{\circ}30' N 60^{\circ}51' W$ to Manzanilla Point ($10^{\circ}31' N 61^{\circ}0' W$).

A satellite image of this closure area is provided here:



Although this area only accounts for a fraction of the sea turtle's range in the Southern Caribbean, impacts on fishers should be addressed. Fortunately, studies conducted by WIDECAST indicate that fishers can earn the same and even more money by swapping out turtle-entangling nets for trolling gear. This saves the fishers money because they do not need to repair nets, and it also increases the value of the fish caught because trolling targets high-value species such as kingfish. Although the number of fish caught may drop, the overall economic gain will remain the same or be greater for the fisher because there will be less down-time caused by turtle entanglement. Proposals to fund capital costs to implement a gear swap to turtle-friendly fishing gear should be considered.

6.0 Conclusion

Trinidad and Tobago has made great progress protecting leatherback sea turtles, but great challenges still remain. While some challenges, such as the low fines and penalties for harming sea turtles, cannot be addressed without an Act of Parliament, other challenges can be addressed immediately through existing regulatory authority held by the Minister under Section 4 of the Fisheries Act.

Using this authority, the Minister can rapidly harmonize existing turtle protection regulations with the Conservation of Wildlife Act to ensure that sea turtles cannot be directly taken at any time. The Minister can implement a Sea Turtle Protection/Conservation area that would limit gillnet fishing within 10 miles of critical leatherback sea turtle nesting beaches during the breeding and nesting season.