



Position Paper
on
Sea Turtle Conservation
in Trinidad and Tobago:
2009

“**International Conference on**
“Turtle Conservation, ecotourism and sustainable community development”
July 28-29, 2009, The University of the West Indies.



Compiled By
Dr. Allan Bachan
Turtle Village Trust

Table of Contents

1. PURPOSE OF DOCUMENT	3
2. ABSTRACT	3
3. INTRODUCTION TO THE MARINE TURTLES OF T&T	6
3.1 OUR LEATHERBACK NESTING POPULATION	6
3.2 OUR FORAGING TURTLES	8
3.3 TOBAGO SITUATION	8
4. INTERNATIONAL LEGAL STATUS	11
5. NATIONAL LEGAL STATUS	15
5.1 Review existing local laws and regulations	15
5.2 Evaluation of the effectiveness of law enforcement	17
6. INCIDENTAL CAPTURE AND MORTALITY OF SEA TURTLES IN THE COASTAL GILLNET FISHERIES OF TRINIDAD AND TOBAGO	19
7. SEA TURTLE RESEARCH AND MONITORING	22
8. DEVELOP PUBLIC EDUCATION	25
9. TRAINING AND CAPACITY BUILDING	27
10. CO-MANAGEMENT: NGOS AND LOCAL COMMUNITIES IN BIODIVERSITY CONSERVATION	27
11. GOVERNMENT AGENCIES WORKING TOGETHER	29
LITERATURE CITED	30

1. PURPOSE OF DOCUMENT

The uncontrolled commercial and subsistence harvest of sea turtles has been documented in Trinidad and Tobago for more than three centuries. While five of the six species of sea turtle found in the Caribbean Sea still frequent the waters and sandy (nesting) beaches of Trinidad and Tobago, two (loggerhead, , olive ridley;) are very rare.

The purpose of this Sea Turtle Conservation Position Paper is to compile what is known about these ancient creatures in this country, and to chart a course forward.

The author would like to acknowledge the WIDECASST STRAP Report as a valuable resource document used in putting this document together. This document, summarizes the issues relative to Sea Turtle Conservation, identifies threats, evaluates the legal framework and existing management strategies (including community-based conservation initiatives), and provides management recommendations.

It is hoped that the content of this document would find fertile ground with the Policy makers and those responsible for Turtle Conservation in Trinidad and Tobago and the recommendations .herein articulated would be implemented.

2. ABSTRACT

While progress has been made on behalf of sea turtle conservation in recent years, the conclusions identified nearly a quarter-century ago, are still valid: (i) sea turtles are a valuable natural resource of present economic importance, (ii) all sea turtles are on the IUCN list of Endangered Species, (iii) five species nest in Trinidad and Tobago, (iv) the nesting is, at least, from March to September, (v) most Caribbean countries have turtle conservation programmes, Trinidad and Tobago does not -- Consequently, (vi) unregulated exploitation still takes place in Trinidad and Tobago despite a seven-month closed season , (vii) existing legislation is inadequate, (viii) law enforcement is inadequate, (ix) there are no sanctuary areas for breeding turtles even though some important nesting beaches have been declared Prohibited Areas, which has restricted nocturnal access , and (x) there is an acute shortage of reliable data on the biology and exploitation rate of this resource.

Although there are relatively few individuals directly involved in this turtle hunting, legally and illegally, the number of turtle meat consumers is significant especially in Tobago. In Tobago there is a great deal of cultural pride attached to enjoying “wild meat” and poaching is always most severe in the weeks leading up to the major “harvest festivals” that occur annually in each village often during the nesting season. Despite the lack of credible baseline data on current stocks, some prominent persons in politics, business and law enforcement continue to actively support the exploitation of wildlife for food through events such as the “Wildmeat Fete” on the last day of the open hunting season.

In addition to the continued take of turtles at sea during the closed season and illegal hunting on the nesting beaches, it is becoming clear that incidental catch (the accidental entanglement of sea turtles in nets set for fish) is a serious threat; indeed, it appears to be the most serious contemporary threat to leatherback turtles, killing far more leatherback turtles in Trinidad and Tobago than all sources of mortality combined. It is clear that several hundred turtles are ensnared each year in traditional netting areas along the north and east coasts of Trinidad, a number which must conservatively represent at least 25% of the nesting females active in that area. The percentage may be much higher. At that rate, the turtles will be extinguished despite dedicated, ongoing conservation efforts on the nesting beaches.

Formal law enforcement and Traditional “top-down” natural resource management alone has been insufficient and ineffective and a more effective and innovative approach was needed. The growing trend in wildlife management now emphasises a partnership with rural communities, whereby communities are trained and sensitised to a locally occurring and threatened natural resource and, as a result, actively participate in resource protection. Empowering these communities has resulted in the formation of groups that provide suitable services and facilities to a situation that previously lacked organisation and infrastructure. It must be acknowledged that the reason that Trinidad and Tobago can boast in its efforts regarding sea turtle conservation has been largely due to the commitment and rededication of community groups such as Nature Seekers, Grand Riviere Tour Guides Association, Fishing Pond Turtle Conservation Group and SOS in Tobago. These pioneering efforts in co-management must now serve as models for conservation throughout Trinidad and Tobago as this is the reason why we have sea turtles.

The determined efforts of conservation-minded residents have been a leading force in curbing the illegal slaughter of sea turtles in Trinidad and Tobago. Until recently these efforts were conducted largely in isolation, without the serious support of either the professional non-government community or the regulatory offices of Government. Today there is growing activism on the part of citizens, the private sector, and Government. This activism cannot reach its full potential, however, without the realisation of a formal, mutually beneficial relationship between Government and community-based individuals and organizations and the private sector. Such a partnership not only functions to the benefit of sea turtles, but provides a vital service to a Government which is legally bound but unequipped to protect the sea turtle resource.

There is much to be done. This Sea Turtle Position Paper echoes the concerns and recommendations of Sea Turtle Recovery Action Plan for Trinidad and Tobago and the views of Turtle Conservation Groups in Trinidad and Tobago and strongly emphasizes an integrated approach to sea turtle conservation. Recommendations for specific conservation action on a wide variety of fronts are highlighted, including enacting a moratorium on turtle hunting and commerce, expanding the system of protected areas, improving coastal zone management (and monitoring) capacity, promoting public awareness, strengthening community involvement in conservation and management, and

implementing stiffer penalties for infractions against environmental laws. As advocates for conservation there is full endorsement of Government's pledge, as yet unfulfilled, to "introduce legislation to prevent the harvesting of sea turtles and sea turtle eggs throughout the year, and introduce public awareness and education programmes to promote sea turtle conservation" (Government of Trinidad and Tobago, 1994). Moreover, this paper strongly recommends to Government to show serious intent towards sea turtle conservation research by formally adopting and pledging long-term support towards the National Sea Turtle Monitoring Programme; reconsider its decision to withhold funds allocated for paying community groups to patrol and collect scientific data as part of this programme; and reconsider its decision to halt the Honorary Game Warden Programme.

We in Trinidad and Tobago are proud of our history and hopeful of our future. We realise that we cannot advance alone, we need our natural resources to support us. Our future must include healthy populations of sea turtles, both to pass on to the next generation as part of our natural heritage and to assist at the present time in financially sustaining (e.g., ecotourism, tour guiding) some of our rural communities. We intend that this document will aid policy-makers in making informed decisions, and we hope that it articulates a rationale persuasive enough to spark political interest.

Should our sea turtles be exterminated, they will not return in our lifetimes ... or in the lifetimes of our grandchildren. Maybe they will never return. Let us hope that we in Trinidad and Tobago have the good sense not to sacrifice these "remarkable creatures" on the altars of indifferent politics or short-term profit. If we miss our chance to act positively, we can be sure that we will not be granted another.

3. Introduction to the Marine Turtles of Trinidad and Tobago

Since the early colonial era, sea turtles have been observed nesting on sandy beaches and feeding in local waters; in particular, in seagrass and coral reef areas. Records of exploitation from the early seventeenth century illustrate how indigenous and customary turtle fishing and utilisation were in this country. Each year the turtle nesting season represented an added source of income to a small and largely artisanal fishing industry; to some extent, this is still true. Historically and up to the present day, sea turtles have been hunted both at sea (using nets and harpoons) and on the nesting beaches.

Today five species of marine turtle have been reported on our beaches and in our waters. Reproductively active females enter our waters seasonally every year, to lay their nests on our beaches, with the majority of nesting activity concentrated on the north and east coasts of Trinidad. Leatherbacks are the most well-known of these species, since they are the most commonly observed on our beaches. Hawksbill and green turtles are the next most common species nesting on our shores, but their nesting is much more scattered than the leatherbacks and their nesting beaches and numbers are less well known. Green and hawksbill turtles are found offshore our islands year-round, foraging on our reefs and seagrass beds. Little is known about this population of foraging turtles as so much focus has been placed on our remarkably large population of nesting leatherbacks. Both populations of nesting and foraging turtles are subject to numerous threats, including poaching on our beaches, and both legal and illegal active offshore harvests.

Our coastal communities are inextricably linked to our natural marine resources including all our marine turtles. They have made use of turtles for subsistence in the past and more recently as an eco-tourism attraction. Fanciful legends have grown up around the fishery: for example, nesting is closely associated with the Turtle Star, the brightest star in the heavens; leatherback turtles (*Dermochelys coriacea*) are ‘doctor turtles’, visiting other turtles when they are ill (hence the leatherback is always covered with spots); turtle eggs and genitalia are potent aphrodisiacs; etc. Our rich cultural history of sea turtle folklore still awaits proper documentation.

3.1. Our Leatherback Nesting Population

The leatherback turtle (*Dermochelys coriacea*) is the largest of all marine turtles and has the widest distribution of any reptile species. As the only entirely pelagic (open ocean) marine turtle, they range through-out the oceans travelling in excess of 10,000 km per year. While much of their time is spent in high-latitude environments, leatherbacks return to their natal beaches or areas in the tropics to reproduce every 2 – 3 years.

The islands of Trinidad and Tobago support nesting by more than 80% of all leatherbacks in the insular Caribbean and the nesting beaches of Trinidad’s north and east coast support nesting by the largest accessible nesting colony in the world with an estimated 10,000 leatherbacks nesting annually.

Given the extensive range of the leatherback, and Trinidad and Tobago's unique role in providing some of the most important nesting habitats for the species in the Atlantic Ocean, the fate of this Critically Endangered species in the Atlantic, is heavily influenced by management of the nesting turtles on Trinidad and Tobago.

Management responsibility for this vital nesting colony is the responsibility of the Government of Trinidad and Tobago's Department of Forestry Wildlife Section. Active management of the colony began in the late 1980's and early 1990's with efforts to stop rampant killing of adult females on the nesting beaches for sport and meat. However, limited financial and personnel resources meant that most such efforts were incomplete and many hundreds of females were slaughtered each year. In response, the Wildlife Section initiated the formation of local non-governmental conservation groups, and established co-management of the nesting beaches with those local NGO's.

3.2. Our Foraging Turtles: hawksbill and green turtles

It has been noted that although sea turtles spend only approximately 1% of their lives on beaches, about 90% of the available literature on their biology is based on studies on nesting beaches (Bjorndal, 1999). Foraging habitats which are also critical to turtles' survival have largely been neglected, (Eckert 1999), and there is a worldwide need to fill these deficiencies in our knowledge, to learn more about sea turtle biology and to influence important conservation decisions.

Like much of the rest of the world, Trinidad and Tobago's research and conservation efforts have largely focused on nesting beaches. It is important to extend efforts to include our potentially important foraging grounds as well.

While the hawksbill (*Eretmochelys imbricata*) and green turtles (*Chelonia mydas*) are relatively rarely seen nesting on the beaches of Trinidad and Tobago, they are the most commonly seen turtle species in our waters and are the most commonly harvested in the apparently active local turtle fishery (Pritchard 1984, Gaskin 1998, Chu Cheong 1995). Therefore, the status of these species is of the most immediate concern and research and conservation efforts for these species should focus on the population on local foraging grounds, rather than the small scattered nesting population, in order to protect these species effectively.

Both species may play important ecological roles in the coastal environment through foraging on the reefs and sea grass beds (Gulko and Eckert 2003, Leon and Bjorndal 2002, Hill 1998). The hawksbill turtle *E. imbricata* is of particular interest as this sponge-feeding specialist is hypothesised to limit overgrowth of corals by sponges on reefs (Leon and Bjorndal 2002 and Hill 1998).

Apart from their value to the ecology of Tobago, they have direct economic value through their consumptive use by fishermen and indirect use by SCUBA divers.

Management responsibility for our foraging turtles falls under the Fisheries Division, under the 1975 Fisheries Act. Enforcement under this Act is the responsibility of Fisheries Officers.

3.3. Tobago's Situation (SOS Tobago)

Tobago's reefs and sea grass beds sustain resident populations of Hawksbill and Green sea turtles. From March to August, the waters around Tobago also provide a temporary home to migratory breeding and nesting giant Leatherbacks. Sea turtles have been hunted at sea and on land for centuries and all are now endangered worldwide with Hawksbills and Leatherbacks listed as critically endangered. Sceptics will argue that turtle hunting is on the decline locally, but unfortunately, so are the turtles.

Turtle Beach, which is the busiest leatherback nesting beach in the monitoring area and in all Tobago, has an average of 1-3 turtles a night at the height of nesting season. On a quiet Saturday night, the same beach was beginning to see over forty enthusiastic 'turtle watchers' plus guests from nearby hotels plus passers by from the neighbouring villages. On more than one occasion a gravid female dragged herself all the way up the beach only to be confronted with a throng of curious onlookers, at which point, she headed back to sea. Once interrupted, a turtle will either come back later or try her luck at another, possibly unprotected, beach where anything could happen. With so few turtles nesting here at all, it was critical that those that did try completed the process successfully.

However, concerns about carrying capacity were tempered by a strong desire to keep the 'turtle watching' experience accessible to everyone. It was felt that opportunities for a controlled and compassionate viewing of the nesting process were critical not just for encouraging local support for conservation but also for encouraging of responsible eco-tourism practices on the island. At the start of 2002, SOS Turtle Patrol began working with tour guides and the Department of Natural Resources to develop turtle watching guidelines that would protect the turtles need for quiet and privacy while ensuring a satisfactory night out for the viewers.

Unlike Trinidad, some of the busiest turtle nesting beaches in Tobago like Turtle Beach are far from secluded. Restricting public access here would be virtually impossible and socially unacceptable, as beach access is already a contentious issue on the island. SOS Tobago continues to hold discussions with the Department of Fisheries and the management of Rex Turtle Beach Hotel in attempts to at least make this beach as 'turtle-friendly' as possible during the nesting season. Existing lighting from the hotel and adjacent fishing depot are causing severe disorientation for the nesting females and their offspring, with some hatchlings actually crawling back out of the water to head for the brighter lights onshore. Current storage methods for fishing boats and nets also threaten nests with suffocation and turtles with entanglement.

However, poaching of all species of sea turtles continues to be their greatest threat island wide.. In response to reports of heavy poaching also taking place along the north east

coast, SOS partnered with the international marine conservation group Sea Shepherd in July 2001 while their vessel, the Ocean Warrior was in the Caribbean on an anti-whaling mission. For three weeks, SOS and the Ocean Warrior crew provided full night time coverage from Charlotteville to Bloody Bay. They found the bushes along the shore littered with the decaying remains of Hawksbills, proving that the number of turtles nesting and being killed on these remote beaches far exceeded previous assumptions.

The practice of catching turtles in wide mesh 'turtle nets' is also still widespread from Kilygwyn to Petit Trou and at other points around the island. These nets, which haul in up to ten turtles at one time, are set near sea grass beds or within offshore reefs which are prime foraging grounds for juvenile Greens and Hawksbills respectively. Despite the Fisheries ordinance stating that turtles caught in open season must not be caught on reefs or within 1000 yards of the high-water mark, these nets can often be found year round within the near shore waters.

Turtle meat is still being served in abundance at harvest festivals during the closed hunting season and is still being sold openly during the rest of the year despite the fact that Trinidad and Tobago is signatory to a number of international and regional treaties to the contrary. SOS continues to encourage discussion and debate of the existing 'turtle laws' and is trying to provide more support and training for villagers in the north east so that they can conduct patrols in their area on a regular basis. By working with the community, the media and local governmental agencies, SOS strives to improve awareness and monitoring of turtle sites both at sea and on land and to lobby for tougher enforcement and stiffer penalties for offenders.

(Source SOS Tobago)



Most turtles caught in the open season are seized in nearshore waters by spear gun or turtle net. There is, for example, the long standing and lucrative tradition of laying turtle nets at Lambeau, Petit Trou, Canoe Bay and Kilygwyn where sea grass beds surrounded by reef provide an ideal feeding ground for young hawksbill and green turtles. There have in fact been reports of as many as twenty turtles being captured in one net at one time in this area with little or no

official monitoring by the authorities.

The existing laws make turtle hunting particularly complex to address in the open season in part, because of the whole male/female issue. The only visible way to distinguish

between a mature male and female turtle is by tail length, it is almost impossible to make this distinction in young turtles. Some will also argue that it is difficult to prove exactly how far a net is from the shore. While this may be true, it is also true that most turtle nets, like those in the Kilygwyn area, are set within or near areas of reef so the issue of distance from the highwater mark is therefore irrelevant in most cases.

While no comprehensive studies have been done to determine the sustainability of our current levels of sea turtle consumption, almost everyone agrees that the turtles are becoming less and smaller. All turtle species that inhabit in our waters are endangered worldwide and although Trinidad and Tobago is a signatory to many international and regional conventions recognizing the need to protect endangered species, our actual laws remain obviously inadequate with regards to marine turtles.

However, we each have the right and perhaps, in this case, even the responsibility to make an informed and compassionate dietary choice. Marine turtles have played a critical role in the ocean's food chain for millions of years; their decline disrupts the natural balance of the sea upon which we depend for food and recreation. The possibility that Tobago's turtles may be hunted to extinction in our lifetime is very real and could have more serious consequences than we will ever fully understand.

4. International Legal Status:

Sea turtles are migratory throughout the Caribbean; thus, no single nation can adequately protect sea turtles without the cooperation of other States. The FAO (1995) has developed a Code of Conduct for Responsible Fisheries and Trinidad and Tobago must seek to implement its provisions which support the establishment of systems for responsible use of both resources and the environment that supports them. Government is encouraged to participate in and to support international sea turtle conservation initiatives, including global treaties, regional and bilateral agreements, and symposia.

Recommendation

It is a recommendation of this Position Paper that Government take every advantage of these treaties to obtain technical and financial support for implementation actions, as well as using the commitment implied by ratification to strengthen conservation priorities and actions at home with regard to international treaties to which Trinidad and Tobago is a Party.

All our Sea Turtles and specifically our leatherback are listed on Annex II (full protection) of the Protocol concerning Specially Protected Areas and Wildlife (SPA) to the UNEP Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention); Appendix I (full protection) of the Convention for Migratory Species; Appendix I (full protection) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and is included in the annexes to the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere, a designation intended to convey that their protection is of “special urgency and importance”.

Trinidad and Tobago is Party to the SPAW Protocol which, *inter alia*, prohibits taking, possession, killing (including incidentally), and commercial trade in Annex II-listed species. Significantly, the Protocol also prohibits the “disturbance” of listed species during periods of breeding, incubation, aestivation or migration and other periods of biological stress.

Trinidad and Tobago is also Party to the Western Hemisphere Convention (1969) and CITES (1984), demonstrating a strong commitment to its neighbors and to the international community with regard to the protection of sea turtles and other species of endangered fauna and flora.

Trinidad and Tobago is not yet Party to the Inter-American Convention on the Protection and Conservation of Sea Turtles, but noteworthy is the fact that several participants suggested, during the meeting’s final plenary discussion, that accession to the IAC would be a positive step for Trinidad and Tobago.

Global treaties Issues

CITES

The 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was established to protect certain endangered species from over-exploitation by means of a system of import/export permits. The Convention regulates international commerce in animals and plants whether dead or alive, and any recognizable parts or derivatives thereof. Appendix I lists endangered species (including all species of sea turtle), trade in which is tightly controlled; Trinidad and Tobago became a signatory nation in 1984. CITES does not regulate or control any aspect of the domestic harvest and usage of species, including sea turtles; such regulations must be promulgated by Government.

Despite Government's ratification of CITES, tortoiseshell is openly sold in many tourist-oriented retail markets. This is true of both airports (Piarco and Crown Point), as well as roadside vendors, hotel shops, and boutiques, particularly in Tobago. No credible argument can be made that these items are not being sold primarily for export since tourists ultimately leave the Republic and return to their nations of residence, where they may face stiff fines and other penalties for possession of illegal wildlife products. While it is not presently illegal to possess turtle shell items or to offer them for sale during the open season (October-February), it is obvious from all accounts, as well as the personal observations of the authors, that these items are sold year around.

This loophole (i.e., national Fisheries law allows the sale of tortoiseshell to tourists during the open season, while CITES prohibits these products from leaving the country) should be closed. Government ratified the CITES treaty in good faith more than two decades ago, and has an unambiguous obligation to enact and enforce enabling national legislation.

Therefore, concurrent with enacting a moratorium on the harvest of sea turtles and the sale of their parts and products, a six-month grace period be granted to retail establishments in order to purge their inventory of all sea turtle items. After this period has passed, law enforcement authorities should make every effort to confiscate any remaining inventory. Consideration should be given to using the confiscated items in an educational display at ports of entry, reminding tourists that tortoiseshell looks best on the back of a sea turtle. As long as the market remains open, hawksbills will continue to be killed in contravention of national and international legal instruments.

Recommendation

Therefore, concurrent with enacting a moratorium on the harvest of sea turtles and the sale of their parts and products, it is a recommendation of this Position Paper that a six-month grace period be granted to retail establishments in order to purge their inventory of all sea turtle items.

Convention for the Conservation of Migratory Species

The Convention on the Conservation of Migratory Species of Wild Animals, commonly referred to as the Convention on Migratory Species (or, Bonn Convention), came into force in 1983. The Convention incorporates two appendices which list migratory species that would benefit from concerted conservation measures. Endangered species, listed in Appendix I, are accorded full protection. This includes all sea turtles. Range States of Appendix I species are to endeavor to conserve their habitat, to counteract factors impeding their migration, and to control other factors that might endanger them. Moreover, Range States are obliged to prohibit the taking of these species, with few exceptions. The definition of “taking” includes hunting, fishing, capturing, harassing and deliberate killing. Appendix II lists migratory species that have a conservation status that requires, or would benefit from, international cooperative agreements which provide for species and habitat conservation measures, research and monitoring, training and information exchange. Trinidad and Tobago has not acceded to this Convention

Recommendation

. It is a **recommendation of this Position Paper that Government consider the benefits of accession and move to support this important treaty.**

Regional treaties Issues

Cartagena Convention and SPAW Protocol

The most important regional treaty with regard to the protection of sea turtles and their habitats is the United Nations Environment Programme’s (UNEP) Regional Seas Convention in the Caribbean, known as the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention). In January 1990, a Protocol Concerning Specially Protected Areas and Wildlife (SPAW) to the Cartagena Convention was adopted. This included all six species of sea turtle inhabiting the Wider Caribbean (i.e., *Caretta caretta*, *Chelonia mydas*, *Eretmochelys imbricata*, *Dermochelys coriacea*, *Lepidochelys kempii*, and *L. olivacea* in Annex II (Eckert, 1991; UNEP, 1991). Trinidad and Tobago played an important role in the adoption of the new SPAW Protocol which Government ratified in August 1999.

Western Hemisphere Convention

Currently there are 22 Parties, including Trinidad and Tobago and 12 other Wider Caribbean nations are signatory to The Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, often referred to as the Western Hemisphere Convention.

The Convention's stated objective is to preserve all species and genera of native American fauna and flora from extinction, and also preserve areas of wild and human

value. Provisions include the establishment of national parks and reserves (article 2), strict wilderness areas to remain inviolate (article 4), protection of species listed in the annexes which are declared to be of “special urgency and importance” (article 8), and controls on trade in protected fauna and flora and any part thereof (article 9). Five species of sea turtle are listed. The language of this Convention is far-reaching, encompassing all the basic elements necessary to undertake the conservation and sustainable use of natural resources.

Recommendation

It is a recommendation of this Position Paper that Government honour its obligations under the Western Hemisphere Convention, Cartagena Convention and SPAW Protocol by protecting the sea turtles which nest on our beaches and feed in our waters.

It is a recommendation of this Position Paper that Government strongly support international agreements to protect sea turtles, as it is clear that hard-won local victories will come to naught as turtles continue to be killed in other parts of their Caribbean and wider Atlantic range.

Inter-American Convention for the Protection and Conservation of Sea Turtles

The 2001 Inter-American Convention for the Protection and Conservation of Sea Turtles, seeks “to promote the protection, conservation and recovery of sea turtle populations and of the habitats on which they depend, based on the best available scientific evidence, taking into account the environmental, socioeconomic and cultural characteristics of the Parties.”

The treaty requires Parties to protect and conserve sea turtle populations and their habitats; reduce the incidental capture, injury and mortality of sea turtles associated with commercial fisheries; prohibit the intentional take of, and domestic and international trade in, sea turtles, their eggs, parts and products; and foster international cooperation in the research and management of sea turtles. Additionally, the Convention specifically obligates Parties to require the use of Turtle Excluder Devices (TEDs) by commercial shrimp trawling fleets.

Recommendation

It is a recommendation of this Position Paper that Government accede to the Inter-American Convention, thereby strengthening this regional instrument with the expertise Trinidad and Tobago have in sea turtle issues, including related issues pertaining to fisheries, community participation, and coastal planning.

5. National Legal Status:

The Government of Trinidad and Tobago claims jurisdiction over an exclusive economic zone (extending 200 nautical miles seaward of the territorial sea), including “the protection and preservation of the marine environment”, and promises that “the Minister to whom responsibility for fisheries is assigned shall ensure, through proper conservation and management, that the living resources in the exclusive economic zone are not endangered by over-exploitation” (Archipelagic Waters and Exclusive Economic Zone Act, 1986). “Proper conservation and management” has not been achieved for the sea turtle resource. In order to achieve this goal, the national regulatory framework needs to be revised and improved. In the sections that follow, existing legislation is reviewed and changes are suggested where necessary.

5.1. Review existing local laws and regulations

The Conservation of Wild Life Act (Act 16 of 1958, amended by 14 of 1963), Chapter 67:01 of the Laws of Trinidad and Tobago, provides, among other things, for Game Sanctuaries, a Wild Life Conservation Committee, Game Wardens and Honorary Game Wardens, and penalties and fees for convicted offences. “Protected animal” is defined as any animal not specified or mentioned in the Second or Third Schedules to the Act. As sea turtles are not so mentioned, they are considered protected under the law and may not be hunted without a licence. Licences are granted by the Chief Game Warden and entitle the holder to hunt any specified animal for (a) scientific research, (b) collection of specimens for zoological gardens, museums and similar institutions, or (c) eradication of animals declared to be vermin by Section 11 of the Act. The Act protects all life stages (“animal” means mammal, bird or reptile and includes the eggs, carcass, meat, nest or young thereof) and “hunt” is defined to include not only wounding, killing and capturing, but also pursuing or molesting by any method or “attempting to do any of such things”, and includes any act immediately directed at the killing or capture of any animal.

The Conservation of Wild Life Act is a powerful law and it offers sea turtles, their nests and their young unambiguous protection against wounding and killing, as well as acts of harassment at sea or on the nesting beach. It is indeed unfortunate that in 1975 the “Protection of Turtle and Turtle Eggs Regulations” were promulgated under Section 4 of the Fisheries Act of 1916 (Chapter 67:51 of the Laws of Trinidad and Tobago). The Fisheries Act Regulations state that:

No person shall – (a) kill, harpoon, catch or otherwise take possession of any female 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; (b) take or remove or cause to be removed any turtle eggs after they have been laid and buried by a female turtle or after they have been buried by any person; (c) purchase, sell, offer or expose for sale or cause to be sold or offered or exposed for sale or be in possession of any turtle eggs.

No person shall, between 1 March and 30 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.

Offenders of these provisions are liable on summary conviction to a fine of \$2,000 TT and imprisonment for six months.

By designating an open season, these Regulations functionally repeal full protection granted to sea turtles under the earlier Conservation of Wild Life Act.

Government officials at all levels, community and conservation activists, and the fishermen themselves agree that confusion surrounding the legal status of sea turtles in this country is unacceptable and that clarity should be an immediate priority. The Wildlife Section took an approach from the 1980's that is an interim measure, since the Regulations do not refer to turtles on land, the Conservation of Wild Life Act provisions should be interpreted to protect turtles on land (i.e., nesting females) at all times of the year.

Conflicts and deficiencies in the legislation, coupled with inadequate law enforcement, have had the result that a largely uncontrolled take of marine turtles continues in and out of season, especially for hawksbill and green turtles, and this provides meat and eggs (as well as turtle shell) that are consumed locally and marketed formally and informally throughout the country.

Since as early as May 1987, government officials in various Ministries have been urging regulatory reform on behalf of marine turtles in Trinidad and Tobago. Despite agreement between the lead agencies more than a decade ago on a legislative proposal to amend the Fisheries Act to give complete protection to marine turtles, Parliament has yet to adopt this legislation.

Recommendation

It is a recommendation of this Position Paper that Government amend the "Protection of Turtle and Turtle Eggs Regulations" under the Fisheries Act to ban the capture, possession and sale of the whole or any part thereof of a sea turtle as well expand the legislation to include harassment.

It must be a recommendation of this Position Paper that the practices of the Republic respect the provisions of national laws and that international treaties ratified by Government in good faith must be accommodated in national legislation, (i.e. make a stronger case for localizing international laws).

It is a recommendation of this Position Paper that Honourary Game Warden programme involving community group residents under the Conservation of Wild Life Act be continued and strengthened.

It is a recommendation of this Position Paper that the Ministry of Agriculture continue to fund the patrolling of prohibited beaches by community patrols.

It is a recommendation of this Position Paper that Government include in the legislation Species and Habitat laws, Prohibited Beach Laws and Offshore No Catch Zones.

It is a strong recommendation of this Position Paper that Government adopt the Draft Sea Turtle Recovery Action Plan for Trinidad and Tobago as a PRIORITY.

5.2. Evaluation of the effectiveness of law enforcement

The Fisheries Act of 1916 (Chapter 67:51) states that, “5. It is the duty of the Fisheries Officer and any person authorised in writing by him so to do, subject to any general or special directions given by the Minister, to carry out the provisions of this Act.” The Conservation of Wild Life Act of 1958 (Chapter 67:01; Section 23.(1)) authorises Game Wardens as enforcement officials.

Largely because of ambiguity in existing legislation, and limited numbers of Game Wardens, (less than 20 for both islands), law enforcement has a weak profile. Other causal factors include insufficient material (vehicles, fuel) and human (staff time) resources within regulatory agencies and the well known challenges incumbent in enforcing rules and regulations in small communities where men are called upon to confront or arrest brothers and cousins. Finally, the widespread perception that the enforcement of wildlife law is not meaningful or even necessary hinders enforcement activity, and can even serve to shame those who would be its advocates.

. Attempts by the Wildlife Section to make all Game Wardens SRPs with powers to enforce all laws of Trinidad and Tobago had limited success as only two officers were so designated. This strategy still remains a valid option and should be pursued.

It is further recommended that the Environmental Commission (2001) moves aggressively to fulfill its mandate under the EMA Act (1995) as the highest court for all environmental infringements. To achieve this goal, Government must allocate the necessary resources to regulatory agencies to fulfill their law enforcement duties. Finally, Government should take every opportunity to sensitise the range of its enforcement officers (and the public) to the importance of compliance with environmental regulations. To date there have been few, but significant arrests for violation of sea turtle conservation legislation and until 1995, no jail time had been served.

It was well known by all persons, throughout the Republic, who were interviewed during the development of this Recovery Action Plan that turtles are routinely harvested with impunity both on the nesting beach (where they are protected year-round) and at sea



during the seven month closed season. Until arrest and incarceration are the assured result of illegal behaviour, it will continue unabated.

The situation is particularly unpalatable in Tobago where illegal meats, including meat from egg-bearing leatherbacks killed whilst nesting, are unabashedly sold at public 'fetes' during the closed season. No arrest has ever been made.

Recommendation

It is a recommendation of this Position Paper that any law enforcement agent, including Fisheries Officers, Game Wardens, and Honourary Game Warden, Constables and others, be empowered with jurisdiction to enforce sea turtle protection regulations promulgated under the authority of the Fisheries Act, the Conservation of Wild Life Act, and/or the Forests Act

It is a recommendation of this Position Paper that Honourary Game Warden programme under the Conservation of Wild Life Act be continued.

It is a recommendation of this Position Paper that the Ministry of Agriculture continue to fund the patrolling of prohibited beaches by community patrols.

It is a recommendation of this Position Paper that the Environmental Police Section created under the EMA be expanded recognizing that environmental law is becoming increasingly important and increasingly technical in Trinidad and Tobago, as is the case throughout the Caribbean region,...

It is a recommendation of this Position Paper that penalties be stiffened to include higher monetary fines and the confiscation of any equipment used in the offence.

6. Incidental Capture and Mortality of Sea Turtles in the Coastal Gillnet Fisheries of Trinidad and Tobago

Accidental entanglement of leatherback sea turtles (*Dermochelys coriacea*) in the gillnet fisheries of Trinidad is the most serious conservation problem faced by the species and threatens to undo several years of proactive conservation and innovative management by



Adult leatherback entangled in a gillnet off the northeast coast of Trinidad

(Source: Nature Seekers)

the government of Trinidad and Tobago and many local non-government organizations (NGOs). The entanglement problem also places a severe strain on the ability of Trinidad fishers to operate economically, and is so severe that many are unable to fish during the sea turtle nesting season. Undisputed among stakeholders is that incidental capture is the largest single source of mortality to leatherbacks in the country, killing more leatherbacks than all other factors

combined. Because it supports the second largest known nesting aggregation in the world, the Republic of Trinidad and Tobago plays a uniquely important role in the survival of this species on a global scale. With this in mind, incidental capture and mortality to reproductively active females in waters under the Trinidad and Tobago's jurisdiction constitute a major threat to this Critically Endangered (cf. IUCN) species on both Atlantic basin and global scales.

A study conducted by the Institute for Marine Affairs (IMA) estimated that more than 3,000 leatherbacks had been captured incidental to gillnet fishing in the coastal waters of Trinidad in 2000 and that more than half likely died as a result of such an encounter (Lee Lum, 2003).

Recommendations for Priority Action

(Proceedings of a National Consultation. Port of Spain, 2005)

Given that a significant number of egg-bearing adult leatherbacks is subject to entanglement in coastal gillnet fisheries, and that this entanglement threatens both the stability of the turtle population as well as the livelihood of coastal fisheries off the north and east coasts, there was consensus that management intervention with an aim to reduce or eliminate this mortality – while protecting the livelihoods of fishers – should be a priority

There is agreement that no one mitigation option would be adequate, given the level of variation in fishing techniques used among fishing areas and villages. Ideally, each village or fishing co-operative should be offered a choice of mitigation methods. Further, to increase the chance that fishermen will adopt these methods, all viable techniques should be evaluated in field trials that have direct participation of fishermen with strong

oversight and involvement of all stakeholders. There exist a number of common themes regarding this issue:

- It is agreed that there is a significant problem both for leatherback sea turtles and for fishers.
- It is suggested that gillnet fishing be replaced with alternate methods, although there was widespread concern that the marine resource regulatory structure and enforcement framework were inadequate to ensure compliance.
- It is agreed that it was unlikely that a single solution would emerge, and that fishers would need to be given choices.
- It needs to be stated that it was vital for fishers to be directly involved during testing and implementation of new methods, and that there be fair financial compensation for their involvement.
- It is strongly felt that replacement of gillnets by alternate fishing techniques should be the highest priority. Target species include kingfish, carite, and various shark species.
- There is consensus that gillnet fishing should be phased out for at least part of the year, throughout the leatherback turtle season (February to August), in favor of hook-and-line or trolling, but that experimentation to develop less destructive gillnet methods should also receive focused attention. The primary hook-and-line style fishing methods proposed for use are the following: banking, a-la-vive, switchering, and trolling. All of these techniques are currently in use in north and east coast fisheries; however, each method will need improvement to be practical as a replacement for gillnet fishing.
- In particular, the idea is promoted that live bait hook-and-line fishing (“a-la-vive”) could replace net fishing if baits were available, which, according to fishermen, are less available during leatherback nesting season along the northeast coast of the island. With this in mind, it is recommended that artificial baits be tested for effectiveness and that new sources of bait be developed. Since it was reported that one limitation to bait availability was the reduced coastal salinity during the rainy season, it was suggested that finding bait sources (e.g. Tilapia) that could be aquacultured and that were salinity tolerant would be very useful.
- It is proposed that FADs (Fish Aggregating Devices) be tested. Each fishery co-op could maintain their own FADs and use trolling or various hook-and-line gear in the vicinity of these FADs. This latter idea has received great emphasis for a number of reasons: the method could allow an almost complete elimination of gillnets; be inexpensive to implement; and enhance community control and management of marine resources occurring in local waters.

It is also suggested that training and other support (financial or otherwise) should be provided to fishermen to enhance their willingness to try out and apply new methods. .

Regulatory Options: The concept of time and area closures as a mitigation tool is strongly advocated. It is recommended that all gillnet fishing be prohibited from 1 March to 31 May within a region extending from the southern end of Fishing Pond Beach to the western end of Paria Beach, and extending 8 km offshore. Other types of gear would be allowed in this region at this time of the year. It is noted that lack of marine resource

management was of concern, and that the need for improved marine resource management must be addressed.. Finally, it is noted that commercialization of recreational fishing should be encouraged as an alternative to gillnet fishing during sea turtle nesting season.

Other Sustainability livelihood Options

Finally it is suggested that alternative livelihoods be established for fishermen during the leatherback nesting season. These might include:

1. The development of aquaculture projects in the region, such as shrimp or freshwater lobster (crayfish), Tilapia farming, or further development of seamoss mariculture.
2. Another alternate to fishing during the leatherback nesting season, the option of sea turtle ecotourism-related livelihoods can be considered for fishers in some locations and that the necessary training be made available. (Marine turtles have recently become popular subjects for dive and nature tourism and, in this context, are increasingly becoming a source of revenue for coastal communities throughout the Wider Caribbean Region).

Develop Public Education

Also there is need to stress the need for improved public education and awareness Fisheries extension efforts viz sea turtle conservation are needed nationwide. We recommend that informal Town Meetings be planned in key communities to focus on the subject of sea turtle biology and the need for an indefinite moratorium on the harvest of turtles and their eggs. In this way fishermen will learn why late-maturing, long-lived species such as turtles should be managed differently from the way most fishes are managed, they will have an opportunity to see that Government is serious about sea turtle protection, and they can discuss ways in which the transition to a zero quota could be made easier for them. Fishermen should also be invited to participate in surveys and to provide relevant information (i.e., turtle sightings) to the appropriate office.

Recommendation

It is a strong recommendation of this Position Paper that all gillnet fishing be prohibited from 1 March to 31 May

It is a suggestion of this Position Paper that training and other support (financial or otherwise) should be provided to fishermen to enhance their willingness to try out and apply new methods

It is a strong recommendation of this Position Paper that alternative livelihoods be established for fishermen during the leatherback nesting season. Eg aquaculture and wildlife farming.

It is a strong recommendation of this Position Paper that every effort be made on the part of Extension personnel of the Fisheries Division to inform fishermen about the plight of sea turtles, to discourage fishermen from breaching regulations, and to encourage the reporting of violations.

7. Sea Turtle Research and Monitoring

Gaps in our knowledge and understanding of marine turtle populations exist and hamper our management efforts. Increased knowledge will contribute towards more informed decision making and more effective conservation management.

Management responsibility for this vital nesting colony is the responsibility of the Government of Trinidad and Tobago's Department of Forestry Wildlife Section.

In response to the rampant killing of adult females on the nesting beaches for sport and meat, the Wildlife Section initiated the formation of local non-governmental conservation groups, and established co-management of the nesting beaches with those local NGO's. Success in reducing poaching has been almost complete, particularly at the 3 primary nesting colonies of Fishing Pond beach, Matura beach, and Grande Riviere beach. This came from conducting nocturnal beach patrols, tagging of nesting turtles, collection of morphometric information, documentation of mortality sources, assessment of population trends and behavioral patterns, supervision of eco-tourism, and education of the public.

However, due to the extensive size of the nesting colony, both in number of turtles nesting and the length and isolation of the beaches, combined with thinly stretched financial resources, the initiation of a national population monitoring and assessment program has been impossible. Up to this time, most resources have been dedicated to addressing the immediate threats to the population. The result indicates that the status of the nesting stock is still unclear, and there isn't a quantified assessment of population size. Both of these values are vital to the sustained management of this important nesting aggregation.

Central to the ability to properly manage sea turtle populations in Trinidad & Tobago, is the identification tagging of nesting females. **Facilitating such identification tagging is the focus of this proposal.** Resources are being requested that enhance patrol coverage, equipment acquisition and enhance public education of the conservation efforts taking place on the beaches of Trinidad and Tobago.

In 2008 the Turtle Village Trust, the umbrella body established by community conservation groups in Trinidad and Tobago in partnership with BHP Billiton and the Forestry Division developed and launched the National Sea Turtle Monitoring Programme for Trinidad and Tobago. In 2009 Atlantic LNG as part of its national commitment to conservation provided funding that allowed the programme to continue and expand. This year the commitment pledged by the Government (Ministry of Agriculture) and provided for under the 2008/2009 Budget allocation was withheld without explanation placing this vital programme at risk.

The Goal of the National Sea Turtle Monitoring Programme for Trinidad and Tobago is to promote informed decision-making and proactive management to prevent

the extinction of sea turtles in Trinidad and Tobago, integrated with the well-being and needs of human communities with which they interact. The main objectives are:

Objective 1 : To protect marine turtle nesting populations on our index beaches, and gather information about our population of nesting leatherbacks, hawksbills and greens, that will inform management decisions

Objective 2 : To gather information about the resident population of hawksbills and greens, foraging on the reefs and sea grass beds around Tobago that will inform management decisions. (STRAP #8)

Objective 3 : To develop the capacity of the community organizations to continue the conservation of sea turtles

Objective 4 : Public Awareness

- Promoting Community Tourism as a tool for conservation of natural ecosystems and species by using the spectacular ecological behaviour of the nesting Leatherback turtles as the principle focus for this activity.
- Safeguarding the nesting habitat of marine turtles and other natural resources from negative human activities through awareness activities.

Objective 5: Develop Beach Management Plans: Work with the stakeholders (members of the local community, members of turtle conservation groups, hoteliers, utilities in some cases – anyone who uses the beach or has any impact on the beach or its nesting turtles) to produce site-specific plans for Grande Riviere, Matura, Fishing Pond, Turtle Beach and Grafton that will direct the use of the resource, identify responsibilities of stakeholders, highlight research priorities and make recommendations to mitigate threats

As a result of the implementation of the National Sea Turtle Monitoring Programme, more precise data on the numbers of turtles nesting, number of hatchlings released, and the numbers of turtles harvested, as well as the distribution of important nesting and foraging sites will become available for use in decision-making by natural resource agencies and other involved entities. Moreover, employees and volunteers active in the Programme will receive formal training in sea turtle conservation and management, enhancing the nation's ability as a whole to wisely conserve remaining stocks. Finally, conservation materials (brochures, posters, videos, slide shows) will be available for public distribution, enhancing both resident and visitor awareness of and participation in sea turtle conservation in Trinidad and Tobago.

A break in the tagging cycle will leave opening for error in population count, which will defeat the purpose of this scientific work.

Recommendation

It is a strong recommendation of this Position Paper that Government to show serious intent towards sea turtle conservation research by formally adopting and pledging long-term support towards the National Sea Turtle Monitoring Programme.

It is a strong recommendation of this Position Paper that Government engage each community to conduct an inventory of human and Natural Resources

It is a strong recommendation of this Position Paper that Government engage communities to develop Alternative Development plans be developed for Index beaches.

It is a suggestion of this Position Paper that Sea Turtle Conservation Interests be represented on the National Conservation Committee

It is a strong recommendation of this Position Paper that Government (Ministry of Agriculture) reconsider its decision to withhold funds allocated for paying community groups to patrol and collect scientific data as part of this programme.

It is a strong recommendation of this Position Paper that Government (Ministry of Agriculture) reconsider its decision to halt the Honorary Game Warden Programme.

It is a strong recommendation of this Position Paper that the Tobago House of Assembly adopt the Offshore Monitoring Programme as it is extremely relevant to conservation management in Tobago.

It is a strong recommendation of this Position Paper that stronger collaboration be developed among Community Groups, Government and research institutions such as the University of the West Indies

8. Develop Public Education

The Turtle Village Trust sees an urgent need to strengthening awareness and education of turtle nesting areas and some of the major environmental problems in these areas including over hunting, illegal logging and consequent soil erosion, overuse of beach and river recreational sites, poor agricultural practices and uncontrolled use of agrochemicals.

Despite the best efforts of stakeholders responsible for the Matura, Fishing Pond and Grande Riviere and Tobago sea turtle conservation projects, laws designed to protect sea turtles are widely ignored and/or not enforced. There is general consensus that turtles are caught during the open season, that eggs are poached with impunity, and that egg-bearing females are killed on the nesting beaches. All of these activities are illegal.

Whenever possible, sea turtle displays should be incorporated into existing educational programmes; such as World Environment Day celebrations, TIC (Government-operated television), the Toco Cultural Extravaganza, Wildlife Section's annual "Open Day" (targeting school children), etc. Wildlife laws should be widely known and residents should be encouraged to report violations. People should be encouraged not to purchase sea turtle meat or products out of season and to consider the linkages between sea turtle survival and beach litter, indiscriminate anchoring, beachfront lighting, etc. This information should be communicated in a variety of media and venues, including newspapers, conservation periodicals, and public seminars.

There is need for a major focus that would involve a broadly based and aggressive public awareness campaign aimed at raising the national level of understanding and awareness about the need to protect Trinidad and Tobago's turtle fauna.

The public awareness campaign's objective will be to begin the difficult process of changing public perceptions and attitudes about turtles, and the assumption held by most people that turtles are an unlimited resource to be exploited. The campaign must focus on the general public, as well as schools. Some initiatives can be:

1. Initiate a national public awareness campaign making use of posters, brochures, media events, school and library programming (including a national quiz competition), narrated slide shows, video productions, etc. The campaign will be targeted at specific sectors of society, including fishermen, rural audiences, divers and yachters, coastal planners and developers, and visitors; as well as to the general public,
2. Development of curricula focused on the marine environment, sustainable fisheries, and endangered species should be actively encouraged by the Ministry.
3. Support NGO's in developing an community environmental education programme.
4. Develop an organized campaign that included locally produced jingles, audiovisual documentaries and a competitive national quiz. A short documentary can be produced was aired on national television and served to heighten interest in turtle conservation.

5. Specific attention should be given to correcting misconceptions, such as: all baby turtles survive, there are enough eggs laid to support a commercial market, male turtles escort females to and from the nesting beach, turtles live for more than 100 years, turtles care for their young, turtles nest ever year, artificial lighting (torches, flash cameras, beachfront hotels, depot lighting), riding a turtle back does not affect turtles, etc. These popular misconceptions are counter-productive to conservation. Current efforts by existing co-management stakeholders to correct these myths must be acknowledged and supported.
6. Enhance public awareness of the need for sea turtle conservation by designing educational materials for adults and children, as well as relevant sectors (e.g. fisherfolk, tourists, coastal landowners and developers).
7. Assist hotel staff with training and educational materials to encourage their own and visitor participation in sea turtle monitoring and conservation activities.
8. Lend market visibility to restaurants and retail outlets that do not sell sea turtle products. One component of this effort could be a “certificate of pride” issued to stores who neither carry nor promote such products.
9. Build on lessons learnt from 12 years of practical experience at northeast beaches in Trinidad

Public awareness is seen as one of the major strategies to be adopted by Government and the basis for a long-standing enhancement of the social, environmental, economic and aesthetic situation in the community to the benefit of the younger and future generations.

Recommendation

It is a strong recommendation of this Position Paper that a national sea turtle education programme be designed and implemented in order to create an awareness among citizens and visitors of the biology and endangered status of sea turtles, as well as the legislation protecting them in Trinidad and Tobago,.

It is a recommendation of this Position Paper that efforts to educate the national citizenry on matters regarding the legal and conservation status of endangered sea turtles be a top priority.

It is a recommendation of this Position Paper that notices be placed in the arrival lounges of both Piarco International Airport and Crown Point in Tobago to alert arriving tourists about regulations concerning possession and transport of protected wildlife species (including all species of sea turtles).

It is a recommendation of this Position Paper that every effort be made to solicit the support of the tourism industry in properly educating tourists.

9. Training and Capacity Building

Training and Capacity Building is an important component in any conservation programme. This training should logically include species identification (based on observation of a live turtle, a hatchling, an egg, or a crawl on the beach), beach etiquette, beach patrol methodology, record-keeping, and technical skills as needed (e.g., tagging, moving eggs, aerial surveys).

Recommendation

It is a recommendation of this Position Paper that all field personnel be educated concerning basic sea turtle ecology.

It is a further recommendation that refresher courses be convened annually by Government or other relevant authority to ensure that field personnel and community co-management partners are up to date in areas of law enforcement, sea turtle biology, management techniques, tour guiding, and other programme skills.

It is a strong recommendation of this Position Paper that a consistent effort be made to include Tobago in training opportunities, and that workshops designed specifically for Tobago be planned and implemented at least twice per year.

10. Co-management: NGOs and local communities in biodiversity conservation

Co-management brings together, on equal terms, stakeholders and agendas which can be vastly different from one another. It takes time and patience to learn to work together, and successful case histories are not yet commonplace. This option cannot be neglected, however, because a successful partnership yields enormous benefit to Government (which may have the will, but neither the staff nor the resources to fulfill its legislative mandate to safeguard the nation's ecological integrity), to communities (which are yearning for quality local employment and a larger measure of control over issues that directly affect them), and to imperiled natural resources (which derive no benefit from traditional “us vs. them” conservation and law enforcement options).

Trinidad is proud of the fact that co-management on behalf of sea turtles has already demonstrated in a practical way that rural communities *can* be entrusted with a large measure of responsibility for the conservation of their natural resources. As a result, threats to natural resources (in this case, harassment and killing of sea turtles) have been virtually halted and these same resources have been utilised for socioeconomic and other benefits in a sustainable manner.

There is a wide variety of NGOs and community-based organisations participating in biodiversity conservation, including service clubs, environmental organisations, trusts, and community groups. The Turtle Village Trust was formed as the umbrella group of major turtle conservation organisations in Trinidad and Tobago and facilitates collaboration amongst its members.

Under the principal constraint of inadequate funding, The Turtle Village Trust and those groups we represent are still actively engaged in biodiversity conservation through initiatives in research, species and ecosystem management and education.

It is an agreed fact that the Honourary Game Warden programme under the Conservation of Wild Life Act has been a success in conservation efforts. The testimony to this has been the number of sea turtles that continue to nest on our shores and the fact that we are now the largest leatherback nesting sites in the World. This paper strongly condemns the discontinuing of the programme. Tobago poses a unique challenge with hotels located on the nesting beaches. Security staff should be considered when the Wildlife Section is selecting persons to participate in the Honourary Game Warden programme under the Conservation of Wild Life Act. At present it is difficult for hotel staff to discipline unruly tourists gathering to observe nesting turtles. The seriousness of this situation should not be underestimated, and every effort should be made to empower hotel staff in tactfully controlling paying guests. Because the predictable arrival of egg-laying females on hotel beaches represents an enormous marketing advantage, a ‘no tolerance’ policy *viz* harassment is both imperative and strategic

Recommendation

It is a strong recommendation of this Position Paper that Government and relevant community-based organisations continue to pursue and formalize, in good faith, the often difficult partnership known as “co-management”.

It is a strong recommendation of this Position Paper that an inventory of Resources in each community be conducted.

It is a recommendation of this Position Paper that Honourary Game Warden programme under the Conservation of Wild Life Act be continued.

It is a recommendation of this Position Paper that the Ministry of Agriculture continue to fund the patrolling of prohibited beaches by community patrols.

It is a recommendation of this Position Paper that in cases where hotel security staff especially in Tobago are actively involved in the enforcement of rules of conduct on turtle nesting beaches, they be granted the appropriate authority to ensure that national wildlife laws and policies are not violated.

11. Government Agencies working together

Understanding that there is synergy and linkages among Conservation, Socioeconomic Drivers such as ecotourism and agriculture and sustainable community development this position paper strongly advocates for the need for Government Agencies to start working together. It has also been recognized that a lack of technical information exchange among Government agencies, conservation participants, resource users and coastal land owners is a serious impediment to effective conservation action.

Recommendation

it is a recommendation of this Position Paper that every advantage be taken of existing venues (e.g., national print and audiovisual media, community newsletters, national and local radio, cultural celebrations, civic group meetings, interagency meetings) to share information on the biology and status of sea turtles.

Further, it is a recommendation of this Position Paper that regulatory agencies work in close liaison with each other viz sea turtle conservation to maximize the expertise and resources that can be brought to bear on a particular conservation problem or activity.

LITERATURE CITED

- Bjorndal, Karen A.** 1999. Priorities for research in foraging habitats. *In*: Eckert, K. L., K. A. Bjorndal, F. A. Abreu-Grobois, M. Donnelly. (Eds.) Research and management techniques for the conservation of sea turtles. IUCN/SSC Marine Turtle Specialist Group Publ. No. 4, Washington D.C. Pp. 12-14.
- Bräutigam, A. and K. L. Eckert.** 2006. Turning the Tide: Exploitation, Trade and Management of Marine Turtles of the Lesser Antilles, Central America, Colombia and Venezuela. TRAFFIC International. Cambridge, UK.
- Chu Cheong.** 1995. Report on the sea turtle project 1981-1983 (unpublished). IMA, Natural Resources Division.
- Eckert, K. L. and W. Herron.** 1998. Tobago's Illegal Leatherback Hunt. Environment Tobago Newsletter 2:2.
- Eckert, Karen L.** 1999. Designing a conservation programme. *In*: Eckert, K. L., K. A. Bjorndal, F. A. Abreu-Grobois, M. Donnelly. (Eds.) Research and management techniques for the conservation of sea turtles. IUCN/SSC Marine Turtle Specialist Group Publ. No. 4, Washington D.C. Pp. 6-8.
- Fournillier, K. and K. L. Eckert.** 1998. Draft WIDECAST Sea Turtle Position Paper for Trinidad and Tobago. United Nations Caribbean Environment Programme, Kingston, Jamaica.
- Gaskin, Molly R.** 1998. Sea turtles and their habitats, Trinidad & Tobago and the Caribbean, 2ed. Pointe-a-Pierre Wildfowl Trust.
- Government of Trinidad and Tobago.** 1994. Policy Directions for Marine Fisheries of Trinidad and Tobago in the 1990's. Prepared by the Fisheries Division, Ministry of Agriculture, Land and Marine Resources. St. Clair, Port of Spain, Trinidad.
- Gulko, D. A., K. L. Eckert.** 2003. Sea turtles: an ecological guide. Mutual Publishing, Honolulu, HI.
- Hill, Malcolm S.** 1998. Spongivory on Caribbean reefs releases corals from competition with sponges. *Oecologia* 117:143-150
- Leon, Yolanda M. and Karen A. Bjorndal.** 2002. Selective feeding in the hawksbill turtle, an important predator in coral reef ecosystems. *Mar Ecol Prog Ser* Vol. 245:249-258
- Lee Lum, L. M.** 2003. An assessment of incidental turtle catch in the gillnet fishery in Trinidad and Tobago. Research Report: Institute of Marine Affairs, Trinidad and Tobago. 38pp.
- Pritchard, Peter C. H. 1984. Marine Turtles in Trinidad and Tobago. Report on a consultancy to the FAO for preparation of plans for the management of marine turtles.
- SOS Tobago.** 2003. Killing Turtles Affects Fishing and Tourism. SOS Tobago Press Release, June 2003. www.sos-tobago.org
- Troëng, S. and C. Drews.** 2004. Money Talks: Economic Aspects of Marine Turtle Use and Conservation. WWF-International, Gland, Switzerland.