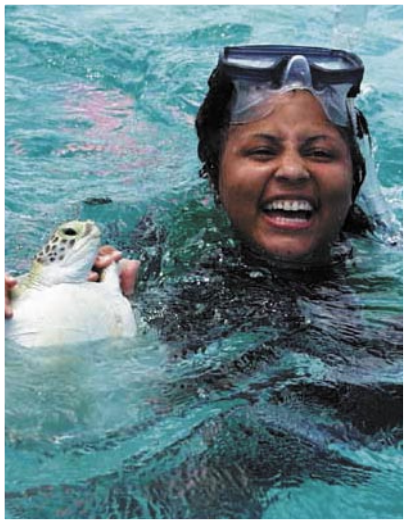


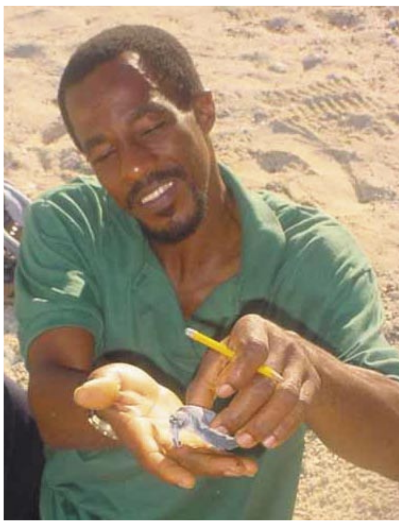

An Assessment of the Status and Exploitation of Marine Turtles in the UK Overseas Territories in the Wider Caribbean




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The full report is hosted in PDF format at the Project website: http://www.seaturtle.org/mtrg/projects/tcot/finalreport/

This project was implemented by the Marine Turtle Research Group (University of Exeter in Cornwall, UK), the Marine Conservation Society (UK), and Duke University (USA) in association with the Cayman Islands Department of Environment, Cayman Turtle Farm, and University of Cardiff (UK). This initial consortium was expanded to include a large number of organisations across the Overseas Territories.

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General Acknowledgements

The TCOT project would not have been possible without the massive commitment of personnel and resources from our OT partner organisations. We acknowledge this in detail in each chapter of this report but in particular the support of Cayman Islands Department of the Environment and the Cayman Turtle Farm from the inception of the project is gratefully appreciated. In addition, our own organisations have contributed significantly by donation of personnel time and substantial reduction in overhead costs. The TCOT team acknowledges the substantial in-kind donations of staff time, travel costs, equipment and other resources provided by the Marine Conservation Society (MCS). MTRG acknowledge the support of University of Exeter (Prof. C. Moody, Prof. D.M. Bryant, Prof. H. Lappin-Scott) and University of Wales Swansea (Prof. A. Rowley). In addition, Dr. G. Hays (UWS) gave logistical support during the initial bid writing process. Further academic and support time was donated by the University of Western Ontario and Duke University to allow the involvement of Dr. L. Campbell and her team. We thank Prof. M. Bruford and Dr. A. Formia for extensive donation of personnel time and equipment, which has allowed the molecular work to proceed with such great success. The project benefitted tremendously from online hosting and email listserv provided by Michael Coyne and SEATURTLE.ORG.

Executive Summary

We report on the results of a 3-year UK Government (Defra and FCO) funded project involving diverse collaborative research initiatives, capacity building and awareness raising efforts regarding the Status and Exploitation of Marine Turtles in the UK Caribbean Overseas Territories (TCOT). This included Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat and the Turks and Caicos Islands. In each OT, each species present can occur in both nesting population and foraging aggregations. For management purposes, these nesting and foraging populations need to be considered as different entities.

Nesting

Nesting populations in Bermuda have been considered extirpated for over 50 years. The nesting populations of four species in the other regional UK OTs are either critically reduced or extirpated. Given the fact that turtles return to the region of their birth to breed, these populations hold significant biodiversity value as they may constitute unique demographic units. There are green turtle nesting populations (Anguilla, British Virgin Islands, Cayman Islands, Montserrat and Turks and Caicos Islands); hawksbill nesting populations (Anguilla, British Virgin Islands, Montserrat, Turks and Caicos Islands with possible remnant nesting in Cayman Islands), leatherback nesting populations (Anguilla, British Virgin Islands with occasional nesting activities in Cayman Islands and Montserrat); loggerhead nesting populations (Cayman Islands with occasional nesting in Montserrat and unconfirmed nesting in Turks and Caicos Islands).

Rookery monitoring including genetics analysis is underway in all OTs. Although a few sites in Anguilla and Turks and Caicos Islands are yet to be subject to detailed scrutiny, it is possible that in each OT, the total combined nesting populations of all species numbers fewer than 50 females per year.

Foraging

Despite having been subject to direct harvest for centuries, all 6 OTs in the Wider Caribbean host aggregations of foraging marine turtles. Although other species may be found occasionally, two species are widespread and can be found in regionally important local pockets of abundance, typically in the less developed parts of near-shore environments. These are the green turtle (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Turks and Caicos Islands with unknown densities being present in Montserrat) and the hawksbill turtle (Anguilla, British Virgin Islands, Cayman Islands, Turks and Caicos Islands with small populations found in Bermuda and unknown densities being present in Montserrat). In Bermuda, in-water work was well developed but in the other five OTs, detailed work to allow patterns of distribution and abundance and genetic profiles was launched as part of the TCOT project. Turtles are likely to be the progeny of breeding colonies across the Caribbean and possibly across the whole Atlantic, highlighting the need for a regional approach to management of these species.

Direct Exploitation

Turtles are afforded a very high degree of protection in Bermuda, are subject to a moratorium in Anguilla and subject to a legal catch in each of the other 4 OTs in this study. Egg take and harvest of adult nesting females are no longer prevalent with most take focussing on turtles at sea. Preliminary data using site-specific methodological approaches gathered as part of TCOT highlights that the take is variable across the OTs;

British Virgin Islands: >150 green turtles and >50 hawksbill turtles per annum;

Cayman Islands: >20 turtles per annum constituting green, hawksbill, and loggerhead turtles;

Montserrat:10-30 turtles per annum - constituting green and hawksbill turtles;

Turks and Caicos Islands: up to 1130 green turtles and 900 hawksbills per annum.

Adjustments to size classes targeted, seasonality, current legislation and levels of enforcement would increase the likelihood that any continuing harvests take place at a sustainable level.

Sea turtles are considered economically and/or culturally valuable in all OTs. Sea turtle consumption is prevalent and culturally important in all of the OTs other than Bermuda. Its economic importance varies between OTs (depending on levels of harvest, trade, and numbers of fishers involved), but most turtle fishers and vendors of turtle products rate this importance as moderate or low. Turtle harvesting is arguably most important in Turks and Caicos Islands, where it fulfils both a subsistence and commercial need for a large number of fishers; prior to the moratorium on turtle fishing in Anguilla, turtle fishing was likely of comparable importance.

Indirect Exploitation

Tourism is an important activity in the economies of all of the OTs, although the absolute size of the industry varies greatly between OTs. Turtles are featured in some marine activities (i.e. snorkelling and diving), and are used in advertising (especially in the Cayman Islands). Surveys of both divers and business owners suggest that the economic importance of turtles to these businesses is currently low. While divers appreciate seeing turtles in the water, most do not seek out dive operators based on the possibility of seeing turtles. While businesses appreciate the attraction of turtles to customers, most believe that use of their services would not change if turtles disappeared from OT waters. In the rich marine environment of the Caribbean, turtles are one of many natural features that tourists appreciate. Given the low density of nesting of most species in most of the OTs, organized turtle walks are unlikely to become an important economic activity. Nevertheless, there are

ways that tourists and the tourist industry can participate in turtle conservation, and we make related recommendations with the aim of increasing the value of turtles to the tourism industry and increasing the tourism industry's investment in turtle conservation.

Recommendations

We make detailed, OT specific recommendations, to OT governments:

1. **To increase capacity for marine turtle management.**
2. **Amend legislation and policy to facilitate marine turtle population recovery.**
3. **Continue and enhance systematic monitoring of marine turtle populations.**
4. **Establish further conservation and awareness programmes to sensitise residents and visitors to marine turtle conservation requirements.**

Additionally, we make a major overarching recommendation to the UK Government to support the conservation and management of marine biodiversity in the UK OTs under the Environment Charters through the provision of funding and expertise under FCO/DfID's Overseas Territories Environment Programme (OTEP), Defra's Darwin Initiative and through the provision of bespoke scholarships to OT citizens to undertake tertiary education in biodiversity/ conservation related subjects.