

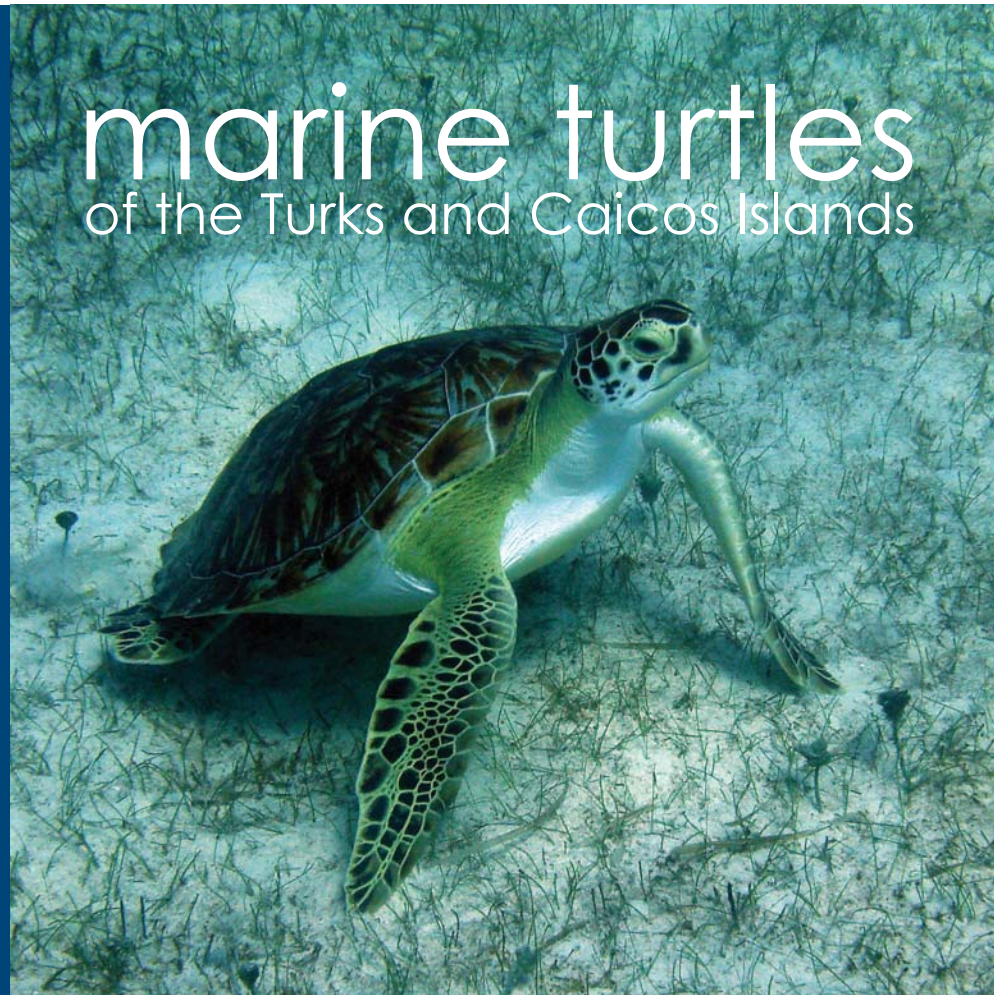
Marine turtle management and legislation

The Fishery Protection Ordinance (1998) regulates the marine turtle fishery of the TCI. Under this law the taking of laid turtle eggs and turtles above the low water mark is prohibited, and any turtles caught must weigh at least 20lbs. This legislation does not protect the sub-adult and adult turtles, and as there is no closed season, nesting females can be legally caught at sea. If the TCI nesting populations are to survive the larger turtles and reproductively active turtles must be protected, as it is these animals that maintain the populations. Legislative change, as well as management and monitoring of the turtle fishery, could help ensure that future generations will enjoy TCI's beautiful marine turtles.

There are various Multi-lateral Environmental Agreements (MEAs) which provide important frameworks to help ensure the survival of endangered species like turtles and the marine environment on which they depend. The Foreign and Commonwealth Office is responsible for the external affairs of the UK Overseas territories and works with their governments to decide which MEAs they would like to commit to. The UK Overseas Territory participation in these agreements is summarised here. You can download a complete guide to the UK Overseas Territories and MEAs www.seaturtle.org/mtrg/projects/tukot/MEA_guide.pdf

KEY	ANGUILLA	ASCENSION	BERMUDA	BRITISH INDIAN OCEAN TERRITORY	BRITISH VIRGIN ISLANDS	CAYMAN ISLANDS	GIBRALTAR	MONTSERRAT	PITCAIRN ISLANDS	ST HELENA	TURKS AND CAICOS ISLANDS
 Signed up  Not signed up N/A Not Applicable (This agreement does not apply to this Overseas Territory)											
AARHUS CONVENTION ON ACCESS TO INFORMATION, PUBLIC PARTICIPATION IN DECISION MAKING AND ACCESS TO JUSTICE IN ENVIRONMENTAL MATTERS www.unece.org/env/pp											
CONVENTION ON BIODIVERSITY www.biodiv.org											
WORLD HERITAGE CONVENTION CONCERNING THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE whc.unesco.org/pg.cfm											
CONVENTION ON MIGRATORY SPECIES OF WILD ANIMALS www.cms.int/											
CONVENTION ON TRADE IN ENDANGERED SPECIES www.cites.org www.ukcites.gov.uk											
THE CARTAGENA CONVENTION FOR THE PROTECTION AND DEVELOPMENT OF THE MARINE ENVIRONMENT OF THE WIDER CARIBBEAN REGION (SPAW PROTOCOL) http://www.cep.unep.org/law/carnut.php		N/A	N/A	N/A			N/A		N/A	N/A	
THE RAMSAR CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE ESPECIALLY AS WATERFOWL HABITAT www.ramsar.org											
THE INTER AMERICAN CONVENTION FOR THE PROTECTION AND CONSERVATION OF SEA TURTLES www.seaturtle.org/iac		N/A	N/A	N/A			N/A		N/A	N/A	
THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE (KYOTO PROTOCOL) www.unfccc.int											

marine turtles of the Turks and Caicos Islands



Other sources of information:

About the TUKOT project: www.seaturtle.org/mtrg/projects/tukot

About marine turtles in the Caribbean UK Overseas Territories: www.seaturtle.org/mtrg/projects/tcot/

About marine turtles and their conservation: www.mcsuk.org and www.seaturtle.org/MTN

The Department of Environmental and Coastal Resources

National Environmental Centre, Lower Bight Road, Providenciales, Turks and Caicos Islands Tel: (649) 9415122 Fax: (649) 9464793

Front Cover images:

Juvenile green turtle at coral gardens - Provo, DECR officers measuring a green turtle - South Caicos and Fisherman with hawksbill turtle - South Caicos, Peter Richardson/MCS • Loggerhead turtle and diver, Doug Perrine/seapics.com





Hawksbill turtle



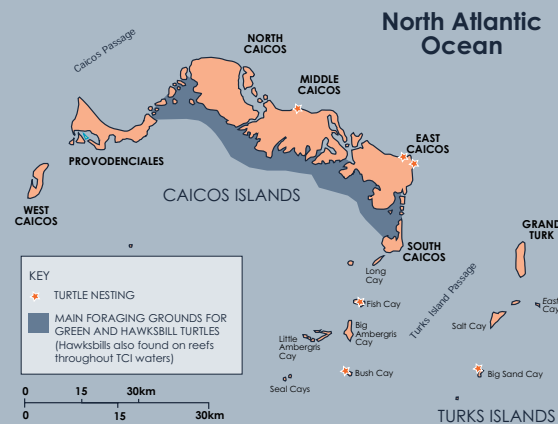
Hawksbill turtle hatchlings



Loggerhead turtle



Juvenile green turtle



Marine Turtles of the Turks & Caicos Islands

The people of the Turks and Caicos Islands (TCI) have had an enduring relationship with marine turtles. To the Taino Indians, turtles were an important food item. Nowadays it is still possible to find turtle meat on the menu in a few small restaurants in TCI but turtles are more often promoted as a tourist attraction. Turtles now play a new role as ambassadors of a holiday destination that is *'beautiful by nature'*.

Marine turtle nesting in TCI

Many of the Islands' sandy beaches were once used as nesting sites by turtles, but recent surveys suggest that turtles seldom nest on the most developed islands - nowadays and generally prefer to nest on remote beaches and cays. Loggerhead turtles very occasionally nest in the Islands, but green and hawksbill turtles are thought to nest more frequently, but in critically low numbers. The Department of Environment and Coastal Resources is monitoring turtle nesting in TCI, so please pass on any information about nests. Their contact details are listed on the back of this leaflet.

Marine turtles in TCI waters

In TCI you are likely to see young green and hawksbill turtles popping their heads above water to breathe. These juveniles are quite abundant around the islands, especially on the sea grass beds on the Caicos Bank. They are mostly unrelated to the adult turtles that nest in TCI. They come to the islands only to feed on the reefs and seagrass beds. Once they reach a certain size they will leave TCI's waters and travel to distant foraging sites. As adults they will return to the nesting beaches, where they themselves were hatched, to breed. Loggerhead turtles are also occasionally spotted in TCI's waters.

Images:

Hawksbill turtle and hatchlings, Peter Richardson/MCS • Loggerhead turtle and juvenile green turtle and fish, Doug Perrine/Seapics.com

Threats to marine turtles

Over-exploitation

For centuries marine turtles, their eggs and meat were an important source of food. In addition, the shell of marine turtles, in particular that of the hawksbill turtle, was made into tortoiseshell jewellery and sold. Marine turtle populations around the world have been decimated as a result of decades of over-harvest. The turtle fishery in TCI needs additional careful management to prevent TCI's turtles suffering the same fate.

Incidental capture

Around the world marine turtles are accidentally caught in fisheries targeting other species. Trawl nets and gill nets can entangle turtles and many drown before they can be released. Turtles are also attracted to baited long-line hooks set on the high seas for tuna and swordfish and end up hooked or entangled in the lines themselves. It is estimated that more than 250,000 turtles are caught in long-line fisheries operating around the globe each year. Though incidental capture does not seem to be a problem in local waters, TCI's turtles face this threat when they migrate beyond TCI waters.

Habitat loss

Loss of habitat, often associated with tourist or industrial developments, is a major problem for both nesting and foraging turtles worldwide. Foraging grounds, especially coral reefs and seagrass beds, are degraded by declining water quality, boat anchorage, and destructive fishing practices. In TCI, the tourism industry has gone through a boom since the 1980s, but hopefully TCI's excellent network of marine protected areas will be a lasting haven for the Islands' remaining nesting populations of turtles.

Climate change

TCI is no stranger to turbulent weather and Islanders in the past have survived passing hurricanes. Global climate change is set to create huge environmental challenges for people, but is also considered a massive potential threat to turtles. Sea level rise, increased temperatures and increased frequency of hurricanes and storms may seriously impact nesting and foraging sites in TCI. If the remaining turtle nesting beaches are left undeveloped they will be able to naturally migrate inland as the sea level rises and still provide habitat for nesting turtles.

Predation

At all stages of their life cycle marine turtles are preyed upon by other animals. Feral animals dig up turtle eggs, while frigate birds, night herons, crabs, fish and sharks eat hatchling turtles as they make their way down the beach and into the sea. The main predators of TCI's juvenile and adult turtles are sharks and man.

Images:

Turtle eggs, Montserrat Department of Fisheries • Captured green turtle, Peter Richardson/MCS • Beachfront development Provo, Peter Richardson/MCS • Night heron, Juliet Savage



The turtle's tale

A marine turtle's life is an epic journey. Throughout their long lives they roam the world's oceans, facing many threats at every stage. This is the turtle's tale.



Green turtles • Doug Perrine/Seapics.com

The mating game

Until they become adults at about 25 years old, male and female turtles look very similar. When males reach maturity they develop a long tail, used to deposit sperm during mating. Courtship and mating take place in the water near the nesting beach and can last for several hours.



Nesting green turtle • Peter Richardson

The big night

Female turtles come ashore at night to lay their eggs on the same beach on which they were born. They are vulnerable on land and are scared by lights and movement on the beach. If undisturbed, the female carefully digs a nest up to 1 metre deep in the sand at the back of the beach. She lays about 100 soft, white eggs. Females nest several times in a season, laying hundreds of eggs.



Green turtle hatchlings • Peter Richardson/MCS

Happy birthday hatchlings

About 6-10 weeks later the eggs begin to hatch. Digging out of the nest is a team effort and the hatchlings emerge from the nest as a group in the cool of the night. They make a dash for the sea, finding their way by heading for the lightest and lowest natural horizon, the sea.



Juvenile hawksbill turtle • Doug Perrine

The lost years

There are many predators in coastal waters including sharks and other large fish. Once in the water, hatchlings instinctively paddle against the waves, swimming non-stop, straight out to the safer open ocean for about 24 hours. This is known as the "juvenile frenzy". It's unclear how hatchlings survive in their first "lost years", but hatchlings of some species have been found in mats of seaweed floating far out in open ocean currents.



Leatherback turtle • Mike Daines

World travellers

Upon reaching adulthood, males and females migrate thousands of kilometres between their adult feeding and breeding grounds. Covering these vast distances takes a lot out of the turtles and so they don't usually undertake their migration every season. Leatherback turtles however are the ultimate ocean wanderers and continually roam the high seas.



Hawksbill turtle • Peter Richardson/MCS

Back in the shallows

In all species other than the leatherback, juveniles migrate back to coastal waters after several years when they are about the size of a dinner plate. They then adopt specific feeding grounds such as coral reefs and seagrass beds. In these nursery areas, young turtles from distant nesting sites live together. They tend to spend long periods at a single site, but will typically use several foraging sites before they reach adulthood.

Marine turtles in the UK and the UK Overseas Territories

Although small in land area, the UK Overseas Territories host extremely high levels of biodiversity, in total far more than Great Britain and Northern Ireland. Many islands are tropical and subtropical and host important habitats for marine turtle nesting and foraging.

The juvenile turtles foraging in the waters around the Overseas Territories are usually unrelated to the nesting adults. The map below shows which species are found in each of the Territories where turtles occur and whether they are nesting adults or foraging juveniles.

1 TURKS AND CAICOS ISLANDS



There are small nesting populations of green, hawksbill and possibly loggerhead turtles. The islands are a significant foraging site for juvenile green and hawksbill turtles.

2 BRITISH VIRGIN ISLANDS



There are small nesting populations of leatherback, hawksbill and green turtles. The islands are a significant foraging site for juvenile green and hawksbill turtles.

3 BERMUDA



Bermuda's green turtle nesting population is now extinct and only very rare loggerhead nests are laid. Bermuda remains a significant foraging site for green and hawksbill turtles.

4 UNITED KINGDOM

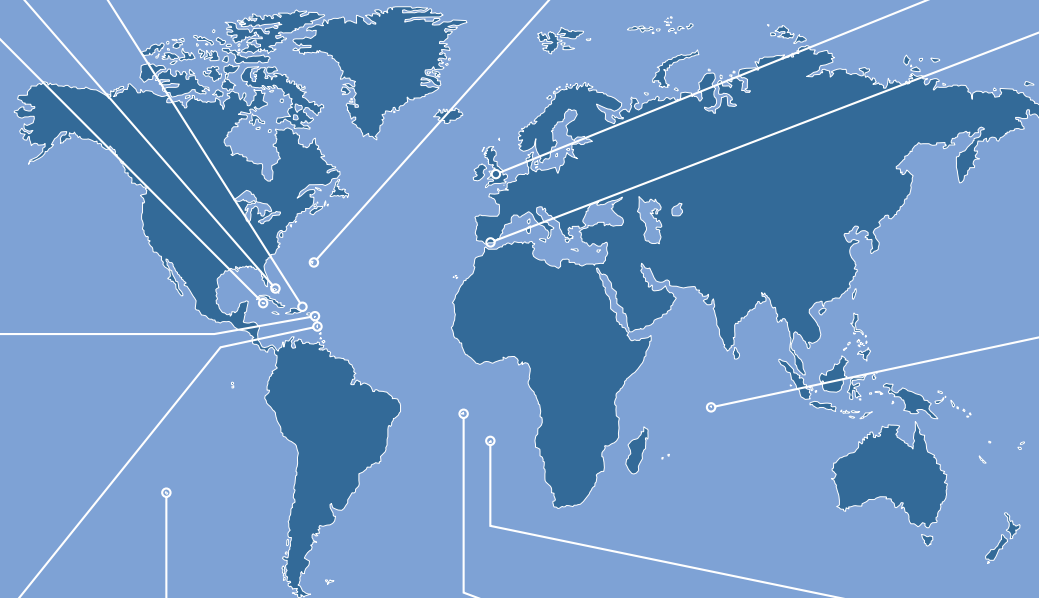


Adult foraging leatherback turtles visit UK waters every summer. Juvenile loggerhead, Kemp's ridley, green and hawksbill turtles are occasionally recorded.

12 CAYMAN ISLANDS



There are small green and loggerhead nesting populations. The islands are a foraging site for juvenile green and hawksbill turtles.

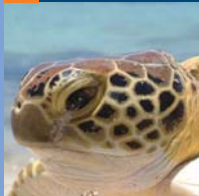


5 GIBRALTAR



As a result of its location, the waters of Gibraltar are an important pathway for immature loggerhead and adult leatherback turtles into and out of the Mediterranean.

11 ANGUILLA



There are small nesting populations of green, leatherback and hawksbill turtles. The island is a significant foraging site for juvenile green and hawksbill turtles.

6 BIOT



Early indications are that the British Indian Ocean Territory hosts significant nesting and foraging green and hawksbill turtle populations.

10 MONTERRAT



There are small green and hawksbill turtle nesting populations and the island is a foraging site for juvenile green and hawksbill turtles.

9 PITCAIRN ISLANDS



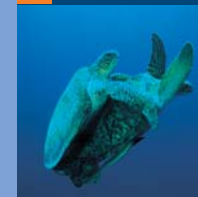
There is a small population of green turtles nesting on these remote and isolated islands. Most nesting occurs on Henderson Island, which is a World Heritage Site.

8 ASCENSION ISLAND



Ascension Island has the second largest nesting population of green turtles in the Atlantic ocean (4,000 females/year), and a small foraging population of juvenile hawksbills.

7 ST HELENA



St Helena now has very little sandy coastline, and rare green turtle nests are occasionally recorded. Mating green turtles and juvenile hawksbills are a regular sight in St Helena's waters.

Images: 1. Measuring a green turtle (Peter Richardson/MCS), 2. Staff and leatherback turtle (CFD), 3. Child with hawksbill -Bermuda (Bermuda Aquarium), 4. Leatherback turtle (Mike Daines), 5. Loggerhead turtle (Graeme Cresswell), 6. Juvenile hawksbill turtle - (Brendan Godley)

7. Mating green turtles (Doug Perrine/Seapics.com) 8. Children observing research (Brendan Godley), 9. Nesting green turtle (Peter Richardson), 10. JJ with green turtle hatchling (Brendan Godley), 11. Green turtle (Sue Ranger), 12. Satellite tagged loggerhead turtle (Janice Blumenthal)