Marine turtle management and legislation

The current marine turtle fishery in the British Virgin Islands (BVI) takes mainly green and hawksbill turtles, apparently at much reduced levels compared to historical harvests. The Virgin Islands Fisheries Act (1997) and the Fisheries Regulations (2003) regulate the BVI turtle fishery. Capture of leatherback and loggerhead turtles is prohibited. Nests, eggs and nesting turtles of all species are protected. It is only permissible to take green turtles of more than 24 inches (61 cm) carapace or shell length and hawksbill turtles of more than 15 inches (38.1 cm) carapace or shell length. The open season is for the months of December to March inclusive.

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

Signed up — Not Signed up

N/A — Not Applicable (This agreement does not apply to this Overseas Territory)

	ANGUILLA	ASCENSION	BERMUDA	BRITISH INDIAN OCEAN TERRITORY	BRITISH VIRGIN ISLANDS	CAYMAN ISLANDS	GIBRALTAR	MONTSERRAT	PITCAIRN ISLANDS	ST HELENA	TURKS AND CAICOS ISLANDS
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/cartnut.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 British Virgin 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**

BVI Conservation and Fisheries Department, P.O. Box 3323, Road Town, Tortola, British Virgin Islands Tel: 284 494 5681
BVI National Parks Trust, P.O. Box 860, Road Town, Tortola, British Virgin Islands Tel: 284-494-3904 http://www.bvinationalparkstrust.org/parks.html

seaturtle.org

Front Cover Images:
Leatherback turtle, Doug Perrine/Seapics.com • Measuring a juvenile green turtle, Brendan Godley/MTRG • Juvenile hawksbill in BVI waters, Peter Richardson/MCS • School children, Brendan Godley/MTRG • Green turtle face, Peter Richardson/MCS

NATIONAL PARKS TRUST BRITISH VIRGIN ISLANDS · CONSERVATION AND FISHERIES DEPARTMENT · MARINE TURTLE RESEARCH GROUP · MARINE CONSERVATION SOCIETY · OTEP · TUKOT TURTLES IN THE UK OVERSEAS TERRITORIES



Leatherback turtle



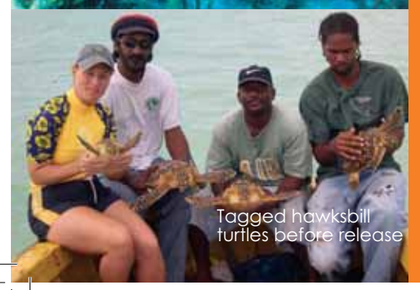
Leatherback turtle hatchling



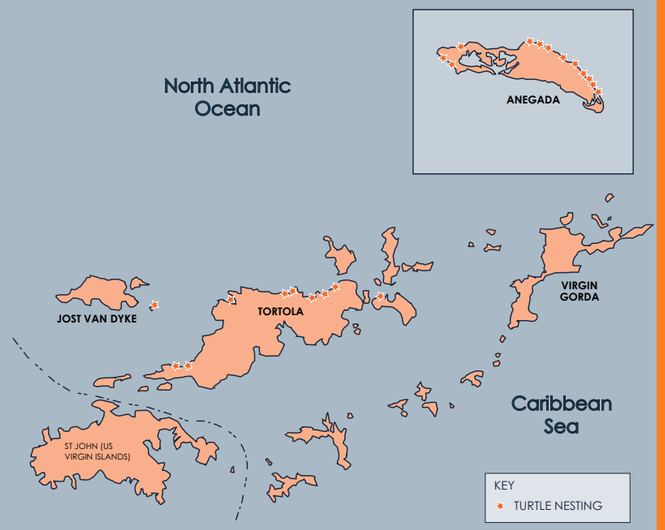
Juvenile green turtle



Hawksbill turtle



Tagged hawksbill turtles before release



Marine Turtles of the British Virgin Islands

The people of the BVI have had a long relationship with marine turtles. Turtles have served as a food item, a cultural symbol and a tourist attraction and have added to the diversity of this unique island group. Marine turtles migrate vast distances between their breeding grounds and feeding areas and visit the waters of many different countries on their travels. BVI's turtles are therefore a shared resource and their conservation depends on international cooperation.

Marine turtle nesting in BVI

Although BVI's sandy beaches are potentially good nesting sites for turtles, research has shown that few nests are now laid in the islands in comparison with past numbers. Leatherback, green and hawksbill turtles are known to nest in the BVI, but all in critically low numbers and urgent conservation action is needed to ensure the survival of the nesting populations. The BVI Conservation and Fisheries Department is monitoring turtle nesting in the BVI, so please pass on any information about nests. Their contact details are listed on the back of this leaflet.

Marine turtles in BVI waters

At some sites around the BVI you are very likely to see young green and hawksbill turtles popping their heads above water to breathe. These juvenile turtles are quite abundant, but are mostly unrelated to the nesting turtles. They come to the BVI to feed on the reefs and seagrass beds. Once they reach a certain size they will leave and travel to distant foraging sites before returning to the beaches where they hatched to breed. Loggerhead turtles are also occasionally spotted in BVI waters.

Images:
Leatherback turtle and staff, BVI CFD • Leatherback hatchling and green turtle with fish, Doug Perrine/Seapics.com • Hawksbill turtle, Jeremy Stafford-Deitsch • Researchers, Brendan Godley/MTRG

Threats to marine turtles

Over-exploitation

For centuries marine turtles, their eggs and meat were an important source of protein for fishing communities. In addition, the shell of marine turtles, in particular that of the hawksbill turtle (also known as tortoiseshell), was made into jewellery and sold to tourists. Many marine turtle populations around the world have been decimated as a result of decades of over-harvesting.

Incidental capture

Marine turtles are often accidentally caught in fisheries targeting other species. Trawl nets and gill nets entangle turtles and many drown before they can be released. Turtles are attracted to the 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. Although the turtle fishery in the BVI is now very much reduced, BVI's turtles are exposed to all the pressures of large scale, industrialised fisheries when they travel to distant seas.

Habitat loss

Loss of habitat due to coastal development associated with tourism, industry and reclamation is a major problem for both nesting and foraging turtles. Foraging grounds, especially coral reefs and seagrass beds, are degraded by declining water quality, boat anchorage, and destructive fishing practices. In the BVI, the tourism industry has gone through a boom since the 1980's and sand mining for construction as well as lighting and noise have all reduced the quality of the local nesting habitat.

Climate change

BVI is no stranger to turbulent weather and BVI Islanders have survived hurricanes in the past. 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 storminess may seriously impact nesting and foraging sites. Some nesting beaches must be left undeveloped so that they can naturally migrate inland as the sea level rises.

Predation

At all stages of their life cycle marine turtles are preyed upon by other animals including crabs, birds like night herons, feral animals, sharks and other large fish. In some cases predator numbers can be unnaturally high. If large numbers of nests are being destroyed, there is no recruitment to the population and this can have devastating effects on marine turtle numbers.

Images:
Bucket of hawksbill scutes, Peter Richardson • Entangled green turtle, Doug Perrine/Seapics.com • Cruise ship terminal and run off on Tortola, 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.

1



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.

2



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.

3



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.

4



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.

5



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.

6



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.

Background image: Juvenile loggerhead turtle • Doug Perrine/ Seapics.com

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 or 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.

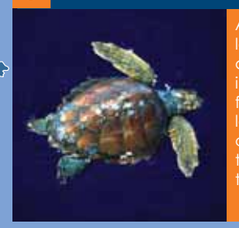
12 CAYMAN ISLANDS



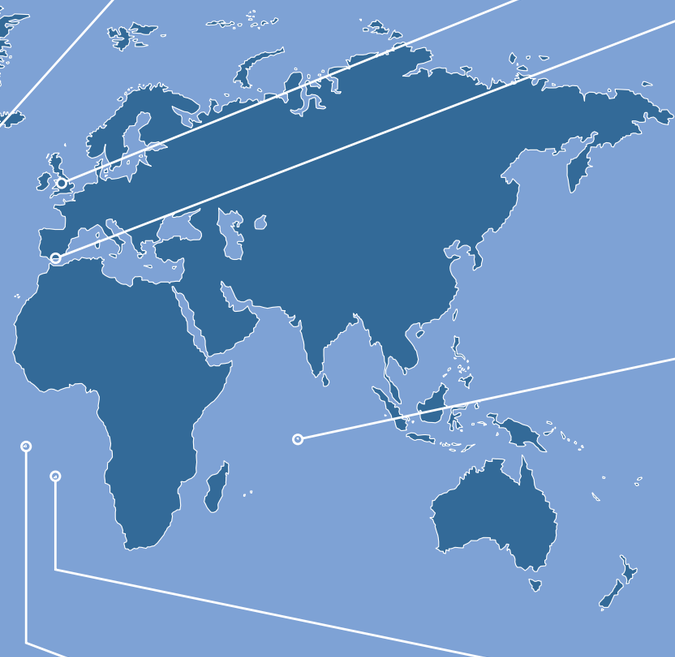
There are small green and loggerhead nesting populations. The islands are a foraging site for juvenile green and hawksbill turtles.



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 MONTSERRAT



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



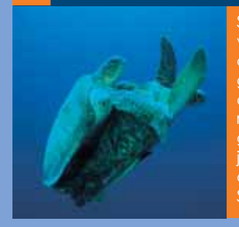
There is a small population of green turtles nesting on these remote and isolated islands. Most nesting occurs on Henderson Island, which is a World Heritage Site.

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)