

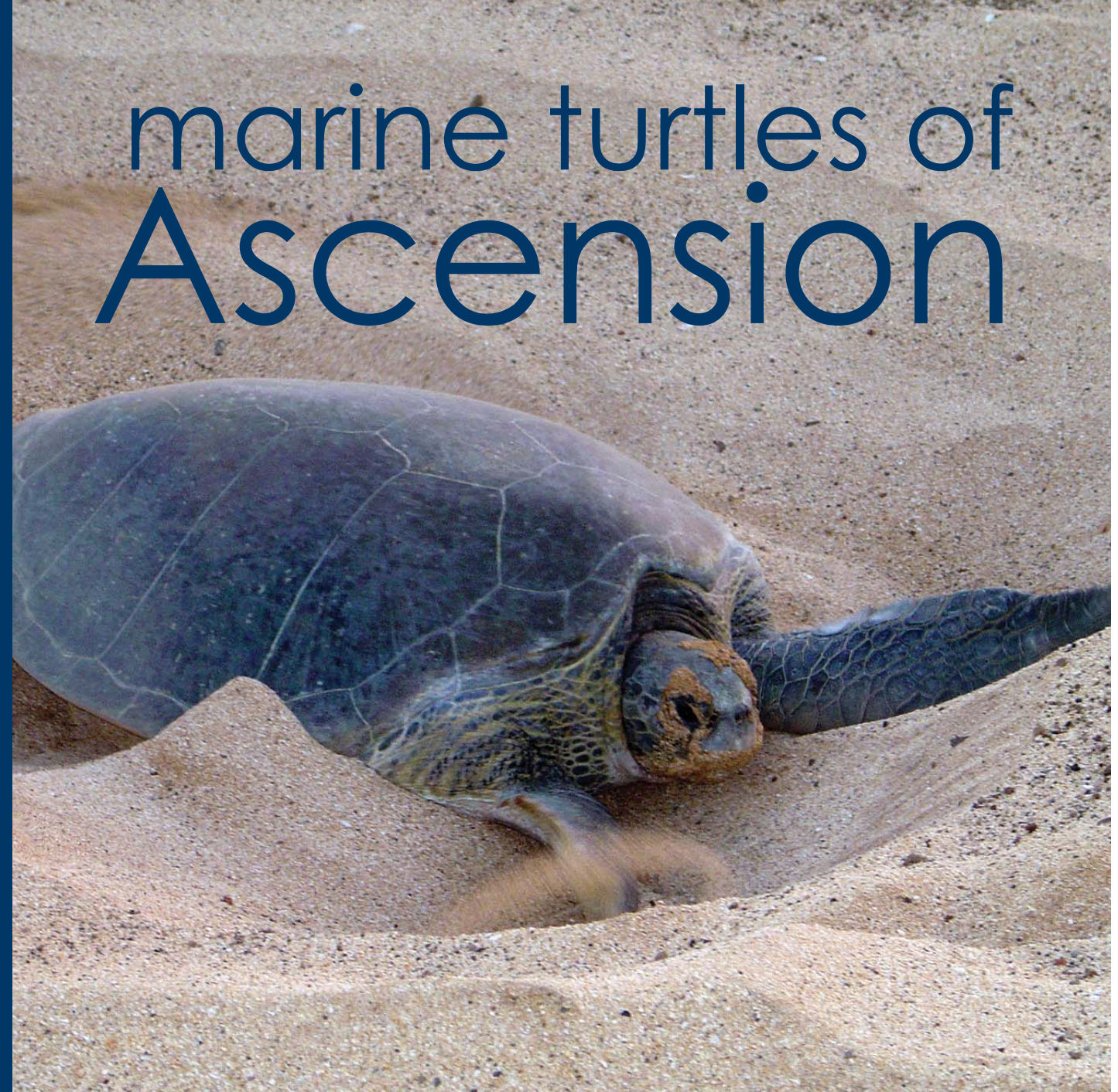
Marine turtle management and legislation

Turtles at Ascension Island are protected under both national and international legislation. The Endangered Species (Ascension) Control Ordinance (1976) prohibits the export and import of endangered species and The Wild Life (Protection) (Ascension) Ordinance of 1944 and the Wild Life (Protection) (Ascension) Regulations 1967 prohibit the killing, capturing or taking of any wildlife within Ascension unless under the control of the governor. More recently the National Protected Areas Ordinance 2003, enables the designation of protected areas and the major nesting beaches are proposed Nature Reserves.

There are various Multi-lateral Environmental Agreements (MEAs) which provide important frameworks to help ensure the survival of endangered species such as 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/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 Ascension



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

Conservation Office, Ascension Island Government Georgetown, Ascension Island
ASCN 1ZZ conservation@atlantis.co.ac www.ascensionconservation.org.ac

Ascension Island Turtle Project
Georgetown, Ascension island ASCN 1ZZ turtles.ascension@atlantis.co.ac

Front cover images: Nesting green turtle and releasing a juvenile hawksbill, Annette Broderick/MTRG • Green turtle returning to sea, Brendan Godley/MTRG • Children with hatchlings, Kevin Schafer • Breaker on Ascension, Brendan Godley/MTRG





Juvenile hawksbill turtle



Green turtle hatchling



Green turtle returning to sea after nesting



Raking old tracks to allow beaches to be monitored for new nests



Nesting occurs on all the sandy beaches of Ascension.

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Marine Turtles of Ascension

Nesting female green turtles were harvested at Ascension Island from the time of the island's discovery in the 16th century. When turtles came ashore to lay their eggs, they were easily captured and stored in the Turtle Ponds, which can still be seen in Georgetown.

The turtles were then taken onboard passing ships and were kept alive until they were required for their meat. The harvest of females was documented until the 1940's when it stopped as it was no longer commercially viable. Nowadays, no turtles are taken for meat at Ascension Island and all marine turtles are protected under local and international law.

The centuries of harvest of green turtles at Ascension Island took their toll and although the population has now made a dramatic recovery, it is still estimated to be less than half the size that it was prior to harvest. However, the Ascension Island green turtle population is still the second largest in the Atlantic Ocean, with an estimated 4,000 females nesting each year.

At 3-4 year intervals females migrate from Brazil to Ascension to breed, a 4,000km round trip and an amazing navigational feat! These green turtles are the largest of their species, weighing up to 250kg. Their impressive size probably helps them to cope with their arduous migration and the huge waves that crash onto the Island's shores. For information on how to see mating or nesting green turtles please contact the AI Conservation Office in Georgetown.

The hawksbill turtle is also found in Ascension Island's waters in small numbers, although it is not known to nest here, and most individuals are juveniles. Please report any sightings to the AI Conservation Office.

Images: Juvenile hawksbill turtle, Peter Richardson/MCS • Green turtle hatchling and green turtle returning to sea, Annette Broderick/MTRG • Researcher raking tracks/Brendan Godley

Threats to marine turtles

Over-exploitation

Around the world turtle meat and eggs have long been an important source of protein and "tortoiseshell", usually crafted from hawksbill turtle shell, is made into jewellery and sold to tourists. On a small scale a turtle harvest can be a sustainable source of food for coastal communities, but over-harvest has decimated many populations around the world. Though no turtles are harvested at Ascension today, breeding adults and juveniles forage in regions of West Africa and Brazil where there are still active turtle harvests.

Incidental capture

Marine turtles are often accidentally caught in fisheries targeting other species. Trawl nets and gill nets entangle and drown turtles before they can be released. Turtles can also be tangled or hooked by baited long-line hooks set on the high seas for tuna and swordfish. As many as 250,000 turtles are caught in long-line fisheries operating around the globe each year. When turtles leave Ascension's waters they are exposed to the pressures of large scale, industrialised fisheries, especially during their open sea migration.

Habitat loss

Loss of habitat, often associated with tourist or industrial developments, 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. Tourism development at Ascension is on the increase and sand mining for construction as well as lighting and noise have already reduced the quality of some local nesting habitat. Recent local legislation should allow the protection of major nesting beaches.

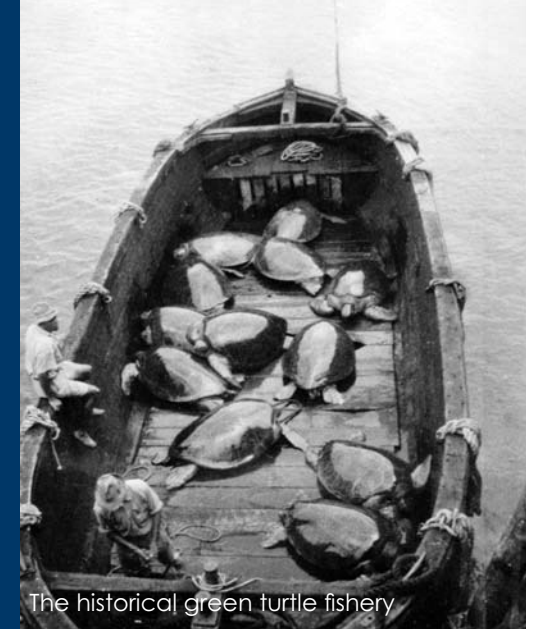
Climate change

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 at Ascension Island. Increased temperatures also threaten to destroy the balance between the number of male and female turtles as warmer nests produce more female hatchlings. This could be devastating to an isolated population like Ascension's.

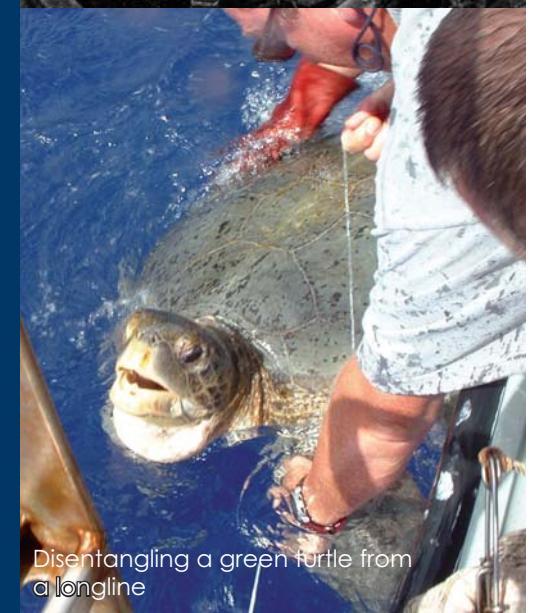
Predation

At all stages of their life cycle marine turtles are predated upon by other animals. 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. At Ascension the main predators are crabs, fish and frigate birds. The fact that there are few land predators is one of the reasons for the success of this population.

Images: Historical harvest, Ascension Heritage Society • Entangled green turtle, Ascension Island Conservation Office • Turtle researchers monitoring mating activity off Long Bay, Brendan Godley • Crab with hatchling/Peter Richardson



The historical green turtle fishery



Disentangling a green turtle from a longline



Researchers monitoring turtle mating behaviour at sea.



Crab catching a recently emerged hatchling

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 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.



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)