

UK Overseas Territories Conservation Forum

Championing UK's most special species: the wildlife of UK's Overseas Territories (UKOTs) and Crown Dependencies (CDs)

FACT-SHEET ON:

Green Turtle *Chelonia mydas*UK Overseas Territory: Ascension Island

Green Turtles *Chelonia mydas* are found in several of UK's Overseas Territories, but Ascension, with an estimated 3000-5000 nesting females laying over 25,000 nests per year, is one of the two largest breeding numbers of the Atlantic population – and the largest of any sea-turtle in the UKOTs.

Until recently, this species was listed as Critically Endangered or Endangered on the IUCN Red List, but the conservation measures seem to have halted the decline of the Atlantic population.

Historically, these sea-turtles were an important source of fresh meat for passing ships. When nesting females (the only gender to come ashore), they were easily captured and stored live in shore-line holding tanks (which can still be seen in Georgetown). The turtles were kept alive onboard the vessels until required. Unfortunately, during the 19th and early 20th centuries, this take became industrialised for the famous green turtle soup. (The name comes from the colour of the fat found beneath the carapace.) This led to a huge depletion of the green turtle population.

Harvesting ceased in the 1930s and they are now fully protected under local legislation. Local volunteers and the Ascension Island Conservation Department escort visitors to see the nesting turtles, using techniques that avoid disturbing the latter. The turtles also provide a flagship for the safeguarding of the inshore and beach environments, as well as illustrating the need for international cooperation for migratory species.

Every year, the males and females migrate to Ascension from feeding areas over 2000 km away. Here, they mate in the sea, and the females crawl ashore to lay eggs in the sand. They are thought to navigate through a combination of smell and magnetic orientation. The Green Turtles that nest on Ascension are the largest of their species (1.5m-1.75m in length and up to 250kg in weight).

They are herbivorous and feed on seaweed and grasses, of which there are very little around Ascension. It is thought that neither the males nor females feed during the migration or nesting season, a period of 3-6 months. Green Turtles are thought to be 20-40 years old when they reach maturity and make the journey to their nesting grounds for the first time since they hatched. Most females make the journey every 3 or 4 years. Potential lifetime is estimated as 60-100 years.

Shortly after arrival at Ascension, mating occurs and then the females undertake the nesting process up to 10 times, at intervals of 10-17 days. Once the turtle has dug a large pit with all of her flippers, she digs a chamber at the bottom with her hind flippers, into which she lays approximately 120 ping-pong-ball sized eggs. When she reaches this stage, she sits virtually motionless. This is the only time when turtles should be observed closely.

After 50-60 days of incubating in the sand, the clutch hatches



Above: Around dawn, a female Green Turtle laying eggs looks downshore from the nesting pit that she has dug high on the beach, above high-tide level. © Dr Mike Pienkowski, UKOTCF

Below: Female uses her flippers to bury her eggs after completing laying. © Dr Sam Weber

Bottom: The last of the night's nesting females return to the sea in the very early morning at Long Beach, Ascension. © Dr Mike Pienkowski, UKOTCF







Female Green Turtles reach the sea after their egg-laying exertions on Long Beach, Ascension. © Dr Mike Pienkowski, UKOTCF

and the hatchlings climb up through the sand to make their way down to the sea. They have to escape predation by birds (including Ascension's endemic Frigatebird), crabs, feral cats (now removed) and fish. Predation, especially at sea, is considerable, and it is estimated that fewer than one hatchling in a thousand will survive until adulthood, when it will return and complete the breeding cycle.

From November until early May, mating Green Turtles can be seen off Long Beach, on the north side of the capital, Georgetown. Mating pairs can be seen close to the shore and jousting males can often be seen fighting over females. Although nesting starts in November, numbers are low until late December, escalating to a peak in March, when there can be as many as 100 females per night coming ashore to lay on Long Beach. High levels of nesting continue until May, with occasional nesting through June, July and August. The best time to see nesting females is between 10pm and 2am, although for the early riser there are often a few females still on the beach at dawn.

All the sandy beaches on Ascension have turtles nesting on them, although Long Beach, PanAm Beach, Hannay (Blowhole) Beach, North East Bay and English Bay have the densest nesting. Hatching peaks March-June. Hatchlings emerge usually at night, to minimise predation. On a moonlight night, however, or early

morning, one can often see them rushing to the sea trying to escape the predators awaiting them.

Monitoring is carried out during the breeding season by counting and recording tracks and successful nests on the beach from the night before. This is not an absolute measure of green turtle population size however, as a female will nest more than once each season. Track counts therefore need to be divided by the number of clutches each female lays. A project carried out in 2012 found that the average number of clutches laid by each female to be 6 (range 4-8) each season. The outlook is positive, with Green Turtle nests on Long Beach, the main nesting beach on the Island, having increased from approximately 1000 in 1977 to nearly 10,000 in 2013.

As well as Green Turtles, Critically Endangered Hawksbill Turtles *Eretmochelys imbricata* are found in near-shore habitats of Ascension Island, although they have never been found to be nesting there and are present in smaller numbers. Shell measurements taken indicate that most (if not all) individuals encountered around Ascension are juveniles. This suggests that Ascension serves as a mid-Atlantic developmental habitat for juvenile Hawksbill Turtles on their oceanic migrations before recruiting to their adult foraging grounds, likely to be located in Brazil or tropical West Africa.





In dawn's early light, one of the last young of the night's hatch rushes towards the sea – but it is a big beach to cross for a tiny creature, just a couple of centimetres long. But this one made it to the sea at least. © Dr Mike Pienkowski, UKOTCF