

**Photo: Henry Detwiler**



## Pacific Green Turtle

**Scientific name:** *Chelonia mydas agassizi*

The Pacific Green Turtle is a gentle giant of the sea. Green Turtles can reach a maximum carapace (upper shell) length of 1.5 m, and weight of 295 kg. Green Turtles rarely leave the water and clearly are built for their aquatic lifestyle. The front legs are modified into flippers, and the rear legs are paddle shaped. The carapace is brown to olive green, while the small plastron (shell covering the belly) is pale cream to yellow. The skin on the legs and head is olive-green.

Perhaps the easiest way to tell whether a Green Turtle is male or female is to look at the rear end. Female Green Turtles have short tails. Male turtles have long tails with a horny tip. Unfortunately, if you live in B.C. chances are you'll never see one of these turtles outside of a museum. Only 9 records of Pacific Green Turtles exist in B.C., and these turtles are thought to be accidentals – individuals that wandered off course during their long and wondrous migrations.

## **Making a living**

Green Turtles spend their lives in the ocean, usually visiting land only to breed. They bask and sleep floating in the water, often resting near the shallow continental shelves where predators are less common. There are no breeding sites in B.C. Green Turtles breed in hot, tropical places such as the Caribbean Islands, off of the coast of Costa Rica, Australia, and on the islands of the Indian Ocean (and who could blame them?).

Courtship is quite a strenuous affair. A male may court a female for many hours, while competing with other interested males, before she chooses to mate. Pairs mate either at the surface or on the bottom of the sea. Mating also can take many hours, but for females, it will be their first and last mating of the season. One male will fertilize all of the eggs she lays that year.

Female Green Turtles lay up to 4 clutches in a season, each clutch made up of between 100 and 110 eggs. Starting soon after mating, the female hauls herself onto land every few weeks to lay another clutch. Females typically come on land during high tide. Their bodies, normally buoyed by water, seem to make audible protest to the daunting task ahead of them. As they leave the water and their massive bodies compress their lungs, the escaping air makes groans and sighs. It's sure to make any onlooker sigh in sympathy.

Digging the nest can take many hours, as can laying the eggs. And females repeat the ritual up to four times during the season, making a new nest every time. However, their nesting areas (called rookeries) are not randomly chosen: biologists have shown that Green Turtles return to the same sites year after year, and that rookeries are shared by many turtles. Females appear to breed once every 2 years or more, undergoing long migrations between breedings.

Weeks after being laid, the hatchling turtles (their carapaces only 5 cm across) emerge and head for sea. Hatchlings face a daunting gamut of predators during their first hours of life, as rats, crabs and gulls all prey upon the little turtles. Once fully grown, their predators are restricted to big oceanic carnivores like sharks and Killer Whales.

While most Green Turtles don't hibernate, a few off of the coast of California have been found to hibernate in the muddy sediments at the bottom of the ocean.

## **What's for dinner?**

Adult Pacific Green Turtles mainly are herbivorous, occasionally supplementing their diet with meat. Adults eat vegetation and animals such as jellyfish. Young Green Turtles are more carnivorous, and eat many types of small invertebrates.

## **Places and spaces**

Pacific Green Turtles are largely tropical and sub-tropical – while they have been recorded off the coast of B.C. and Alaska, it is very unlikely there are any permanent populations near B.C. Biologists studying the species' ability to regulate heat feel that the cold waters off of B.C. likely are too cold for Green Turtles to live in for any length of time. Instead, they seem to prefer the continental shelves of the shallow seas, where vegetation is abundant.

## **Past, present, and...future?**

Many Green Turtle nesting sites have been lost because of human disturbance, and the species has been overexploited as a food source. Yet another source of mortality are fishing nets, where Green Turtles are mistakenly captured and eventually drown (remember, they need to breath air - they don't have gills like fish).

While there are not thought to be any permanent populations near B.C., of the 9 recorded sightings of Green Turtles, 7 have occurred quite recently. This is causing some biologists to call for further research – maybe Green Turtles are more common in our waters than previously thought! As biologists feel this species is at risk of global extinction (a sad prospect for a gentle giant), any further knowledge of their habitat use and population size is important. So if you see a Pacific Green Turtle, spread the news - contact the Canadian Department of Fisheries and Oceans (DFO).

DFO is working with other organizations to keep track of all sea turtle sightings – your help is greatly appreciated. Because biologists feel this species is at risk of global extinction, knowledge of their habitat use and population size is very important.

Telephone:

British Columbia Cetacean and Sea Turtle Sightings Network (BCCSN)  
1-866-I SAW ONE (1-866-472-9663)

Email:

Vancouver Aquarium  
[turtle@vanaqua.org](mailto:turtle@vanaqua.org)

Online form for reporting sightings:

<http://www.wildwhales.org/network/turtlesightings.htm>