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Department of Biodiversity,  
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# Park Notes



Department of  
Conservation and  
Land Management

## A guide to turtle watching on the north-west coast.

The North-West Cape and adjacent islands are one of the world's major breeding areas for sea turtles. Although turtles and turtle eggs are protected by law in Australia, most species are still endangered as a result of over-exploitation in other countries. To ensure their long term survival, it is therefore important that the North-West Cape remains a viable rookery for sea turtles. You can assist with turtle conservation by complying with the guidelines in this leaflet.

### Turtle species

Four species of turtle nest in the North-West Cape area:

**Green turtles** (*Chelonia mydas*) nest in large numbers each year. In the early 1970's, this species was hunted at Ningaloo. Although now completely protected in Australia, green turtles are still harvested in large numbers overseas to provide food, jewellery, leather and fertilizer.

**Loggerhead turtles** (*Caretta caretta*) frequently nest on the Muiron Islands, but they are less common on the mainland beaches. Loggerhead turtles are rarely eaten, but their numbers have declined in recent years because they have been alienated from many of their nesting beaches by tourist developments.

**Hawksbill turtles** (*Eretmochelys imbricata*) nest infrequently in this area. The shell of hawksbill turtles looks beautiful when polished and it is this species which is heavily exploited in Indonesia for "tortoiseshell".

**Flatback turtles** (*Chelonia depressa*) have also been reported to nest in the North-West Cape area. This species nests only in Australian waters where it is protected.

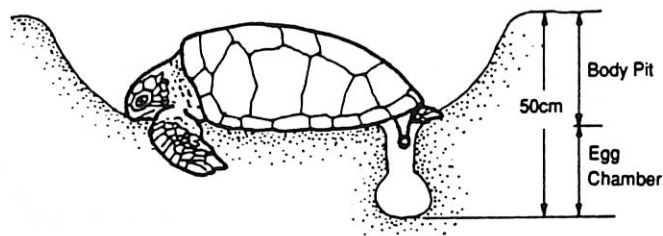
To assist with the identification of turtle species, refer to the brochure entitled "Marine turtle identification and tagging"

### Nesting behaviour

Nesting begins at the end of October. Females lumber up the beach at night leaving distinctive tracks in the sand. By quietly following the tracks, animals can be located in the sand dunes above high tide mark where they lay their eggs.

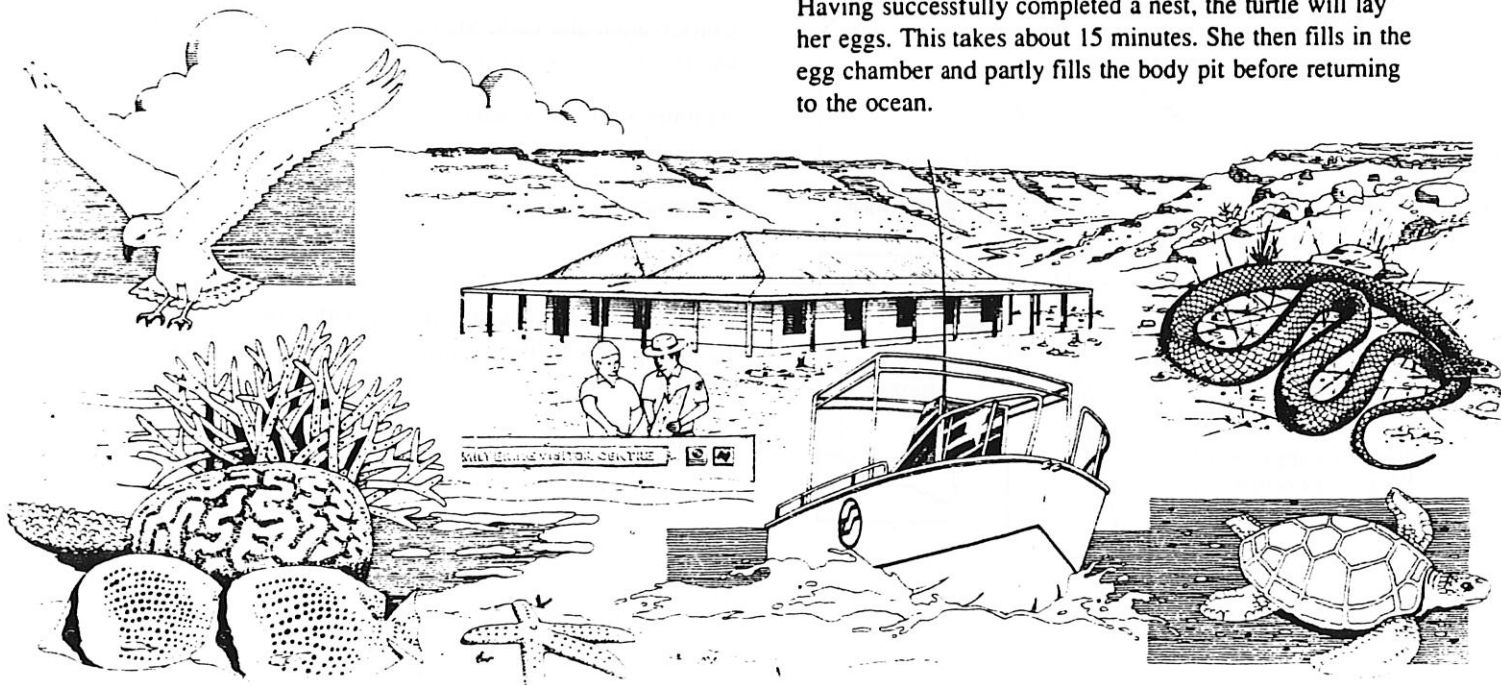
Nesting behaviour can be divided into several stages. Firstly the turtle scrapes away the vegetation, then she forms a body pit with all four flippers. After completing the body pit, she excavates a vertical pear-shaped egg chamber with the hind flippers.

In most cases, construction of a body pit and egg chamber takes 45 minutes, but if at any stage during the process the conditions are unsatisfactory, for instance the egg chamber caves in due to dry sand, or she encounters a root from nearby vegetation, she will abandon the nest, move to a new site and start again.



Turtle Nest Profile

Having successfully completed a nest, the turtle will lay her eggs. This takes about 15 minutes. She then fills in the egg chamber and partly fills the body pit before returning to the ocean.



## Eggs

Loggerhead and green turtles lay about 100 ping-pong ball sized eggs per clutch. The eggs are soft and leathery and they are coated with mucous which not only lubricates the passage of eggs during laying, but may also protect the developing eggs from fungus.

There is no parental care and the eggs are incubated by the warmth of the sand. Clutches laid in cool sand, at the beginning of the season or in shaded areas, take up to 12 weeks to incubate and produce predominantly male hatchlings. Eggs laid in warm sand can incubate in 6½ weeks and produce predominantly female hatchlings.

## Hatchlings

When fully developed, the young break their egg shells with an egg-tooth located on top of their beak. The individuals in a nest hatch within a few hours of each other and dig to the surface together.

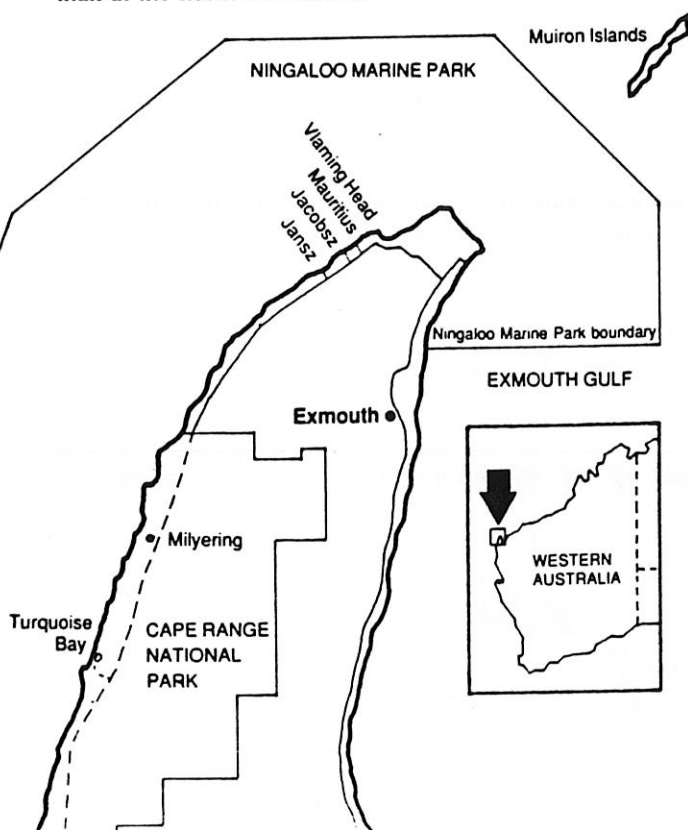
Most clutches leave their nests in the evening and rush straight to the waters edge. However, hatchlings are attracted to light and become confused if there are any lights near to the beach.

## Where to watch turtles

The focus of nest activity in the North-West Cape rookery is on the Muiron Islands and Long Island.

Within Ningaloo Marine Park, large numbers of turtles nest towards the north of the Cape on the western side. Mauritius, Jacobsz and Jansz are the closest nesting beaches to Exmouth and Vlaming Head.

For visitors camping within Cape Range National Park, the best beach to observe turtles is at Turquoise Bay. However, far fewer turtles come ashore at this location than at the northern beaches.



## When to watch turtles

Nesting turtles come ashore at night between October and February. They are usually seen from one hour before high tide to two hours afterwards. More turtles nest on nights when the high tide occurs near midnight.

Most hatchlings emerge from their nests from mid January to late April. The best time to watch for hatchlings is between 5pm and 8pm. The emergence of hatchlings is not related to the state of the tide.

## Planning your excursion

The exposed west coast beaches can be cold at night. You might like to take a jumper and a warm drink. A small torch is useful, but try to keep lights off while on the beach and allow your eyes to become accustomed to the natural light. To avoid stubbing your toes, it is worth wearing sand shoes or walking boots while on the beach.

Please drive slowly and allow plenty of time to reach your destination. Kangaroos and other wild animals are active at night and need to be protected by driving cautiously.

Please leave your pets and transistor radios at home.

## While on the beach please remember;

To minimize sea turtle disturbance, avoid continually walking the beach. Allow your eyes to adapt to the starlight, then sit quietly and watch for sea turtles emerging from the ocean.

Do not approach or shine lights on a turtle leaving the surf or moving up the beach. When a turtle has dug her nest and begun laying, she can be approached quietly.

Always approach turtles from behind so that they don't see you coming. This is particularly important on bright moonlit nights.

Turtles which have begun to lay can be observed with soft lights and gentle touching without undue disturbance. Avoid excessive noise or sudden movements. Flash photos may be taken but please contact the Department of Conservation and Land Management if you would like to use floodlighting for film production.

At times staff and volunteers may restrict your movements on the beach to allow a turtle time to make her journey up the beach without disturbance. Please abide by their requests.

When you have finished with this leaflet, please recycle it by giving it to another visitor or returning it to a member of staff.

Thankyou.