

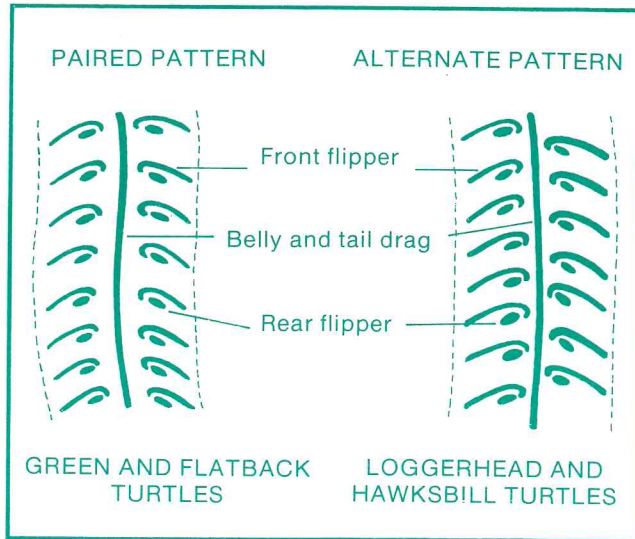
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Department of Biodiversity,  
Conservation and Attractions

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## How to find Nesting Turtles

1 Walk the beach at about high tide mark, looking for the turtle tracks. These will be about 1 m wide, and the turtle species can be identified by the tracks adults make on beaches. Two types of track can be distinguished, the paired and alternate patterns.



2 Lights can disturb turtles so keep lights off while walking on the beach. Turtle tracks are easily seen without lights.

3 Follow the tracks carefully and quietly up onto the dune to locate the turtle. Try to avoid excess movement, especially in front of the turtle.

4 Wait quietly, sitting behind the turtle until she has started laying her eggs, i.e. when she is sitting still after a long period of throwing sand forward off the hind flippers. Once the turtle is actually laying she is not normally disturbed by lights, gentle touching or noise.

5 Dig out gently behind the turtle to observe the eggs as they drop. Now is the time to turn on your lights to examine the turtle closely. Flashlight photography can be taken at this time without fear of disturbing the turtle.

## Successful Turtle Watching

Turtles are easily disturbed by lights, noise and movements — especially when they are leaving the water, crossing the beach and digging the nest.

Keep the use of lights to a minimum while you are walking along the beach.

Do not approach closely or shine lights on the turtle when it is leaving the surf or moving up the beach.

Wait until the turtle is laying her eggs before shining lights on her, or touching her.

Avoid access noise and sudden movements.

The larger the crowd that gathers, the more likely the turtle will be disturbed. Please be patient while the turtle performs her nesting ritual.

Dogs are prohibited on the nature reserves. If turtle watching in other areas, keep dogs away from turtles.



Hatchling Hawksbill Turtles

## Further Information

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50 Hayman Road, Como, W.A. 6152  
(09) 367 0333

### Pilbara

Welcome Road, S.G.I.O. Building, P.O. Box 835,  
Karratha, 6714. (091) 86 8222.

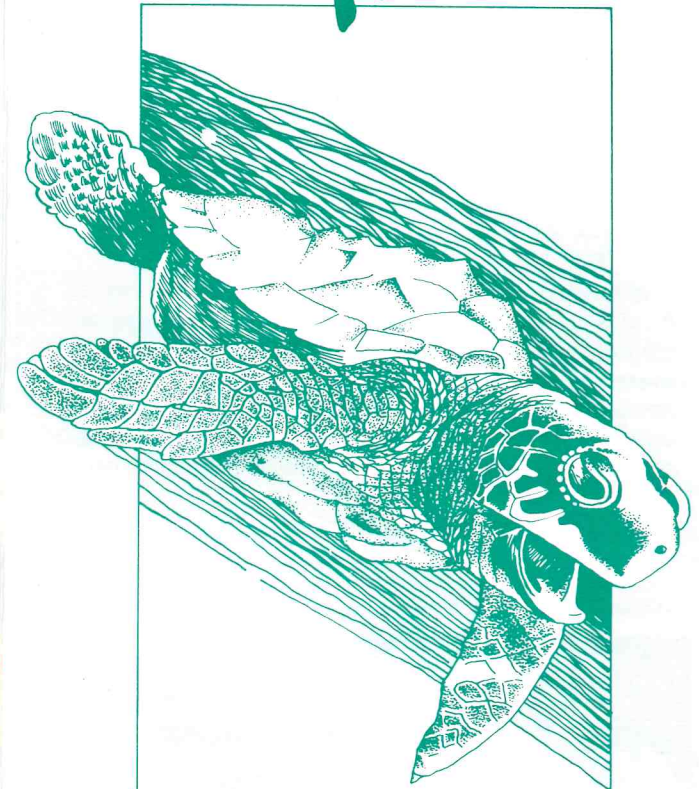
### Greenough

7th Floor, Town Towers, P.O. Box 72,  
Geraldton, 6530. (099) 21 5955.



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CONSERVATION & LAND MANAGEMENT  
50 Hayman Road, Como, WA 6152  
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# Marine Turtles





## Marine Turtles

Marine turtles are often seen in the waters off the north-west coast of Western Australia.

Islands, in particular, provide important nesting sites for four species,

the Green (*Chelonia mydas*),

Flatback (*Chelonia depressa*),

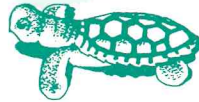
Loggerhead (*Caretta caretta*)

and Hawksbill (*Eretmochelys imbricata*).



## Breeding

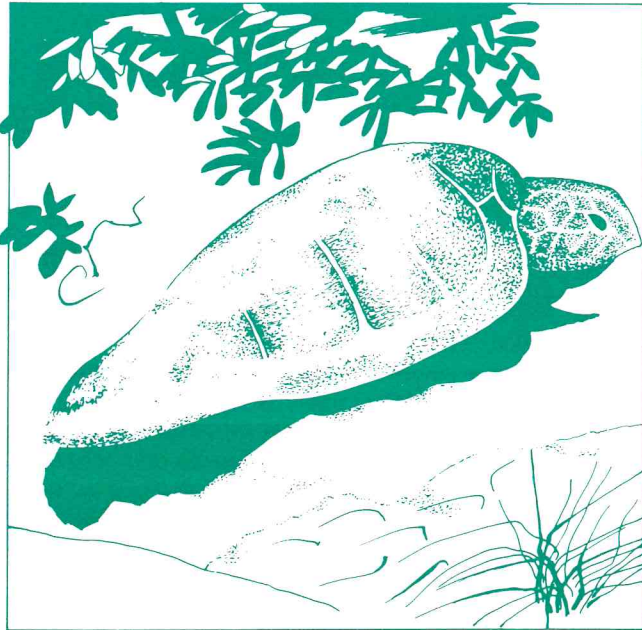
Turtles usually nest between September and April, although they are seen in north-west waters throughout the year. They are long-lived, and are thought to be 40-50 years old before they breed. Mating occurs in shallow protected waters and females come ashore at night on a high tide to lay their eggs. Nesting is a lengthy process and may take two hours to complete. A nesting site is selected above high water mark and usually near the first line of beach vegetation.



## Status

The Flatback turtle is believed to nest only on Australian coasts; the other species also nest in tropical areas elsewhere in the world. In many of these areas populations have suffered drastic declines primarily through human exploitation for eggs, meat, soup and shell. In Australian waters all marine turtles are fully protected. Exception is made for Aboriginals whose diet traditionally included turtles.

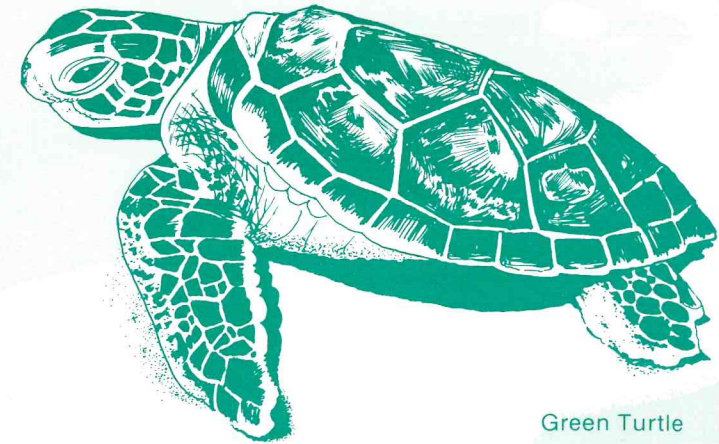
Loggerhead Turtle leaving nesting site



The female first digs a depression with her front flippers and then digs a nesting chamber, which may be 0.6 m deep, with her rear flippers. Up to 160 soft-shelled eggs are laid, then covered and left to incubate in the warm sand. The female returns to the sea, but may return four to six times in a season to nest again. Interestingly, the sex of a turtle hatchling is determined by the incubation temperature. At incubation temperatures of 24°-27° C most develop into males, while between 28°-32° C most develop into females. Outside this temperature range of 24°-32° C no egg development will occur and this, to some extent, determines the nesting season of the turtles. After eight to ten weeks of incubation in the sand, the eggs hatch and the hatchlings make their way to the sea.



Even though large numbers of eggs are laid each season (each female may lay 500 eggs in a season), mortality is high. Foxes and lizards dig up nests and consume eggs, and occasional cyclonic tidal surges wash nests away. Some females unwittingly destroy other nests while digging their own. Of the turtles that do hatch some die before they reach the surface of the nest and others are taken by crabs and sea-birds before they reach the water. Once in the water, predation by fish continues. Human predation adds to this mortality in some parts of the world.



Green Turtle

## Living with Turtles

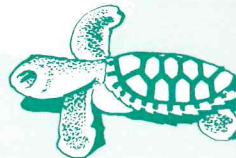
The furthest south that turtles have been observed nesting in W.A. is Dirk Hartog Island in Shark Bay.

Turtles nesting is a nightly occurrence during the warmer summer months, with a peak in activity from November-February. Nesting turtles are most likely encountered one or two hours before or after the night high tide. More turtles can be expected on nights when the high tide occurs near midnight.

Adult turtles are timid animals, and are easily disturbed at any stage during nesting, from leaving the water until actually laying the eggs. Consideration is needed for these animals which for most of their lives do not leave the sea.



Hatchling Flatback Turtles



## Hatchling Turtles

The emergence of hatchling turtles from their nests and their rush to leave the sea can be witnessed from November until April. They usually leave their nests at night to avoid predators such as Silver Gulls and Terns. Bright lights attract the hatchlings away from the sea and hence increase their mortality.