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Department of Biodiversity,
Conservation and Attractions

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*The Ningaloo Marine Park coastline.
Photo - Department of Conservation
and Land Management, Exmouth ©*

Dubbed the 'gentle giants' of the sea, whale sharks visit the waters of Ningaloo Marine Park on the Western Australian coast between the months of March and June to feed on plankton.

During this time, we are privileged to be able to swim with these magnificent animals for an exhilarating and truly memorable experience.

Experiencing **Whale Sharks** in Ningaloo Marine Park

WHO TO CONTACT

If you would like more information, or can provide details about sightings or interaction with whale sharks, you can contact the Department at the:

EXMOUTH DISTRICT OFFICE

Nimitz Street
PO Box 201
Exmouth, WA 6707
Ph: (08) 9949 1676 Fax: (08) 9949 1580
Email: exmouth@calm.wa.gov.au

MILYERING VISITOR CENTRE

Cape Range National Park
Ph: (08) 9949 2808
Fax: (08) 9949 2541

PILBARA REGIONAL OFFICE

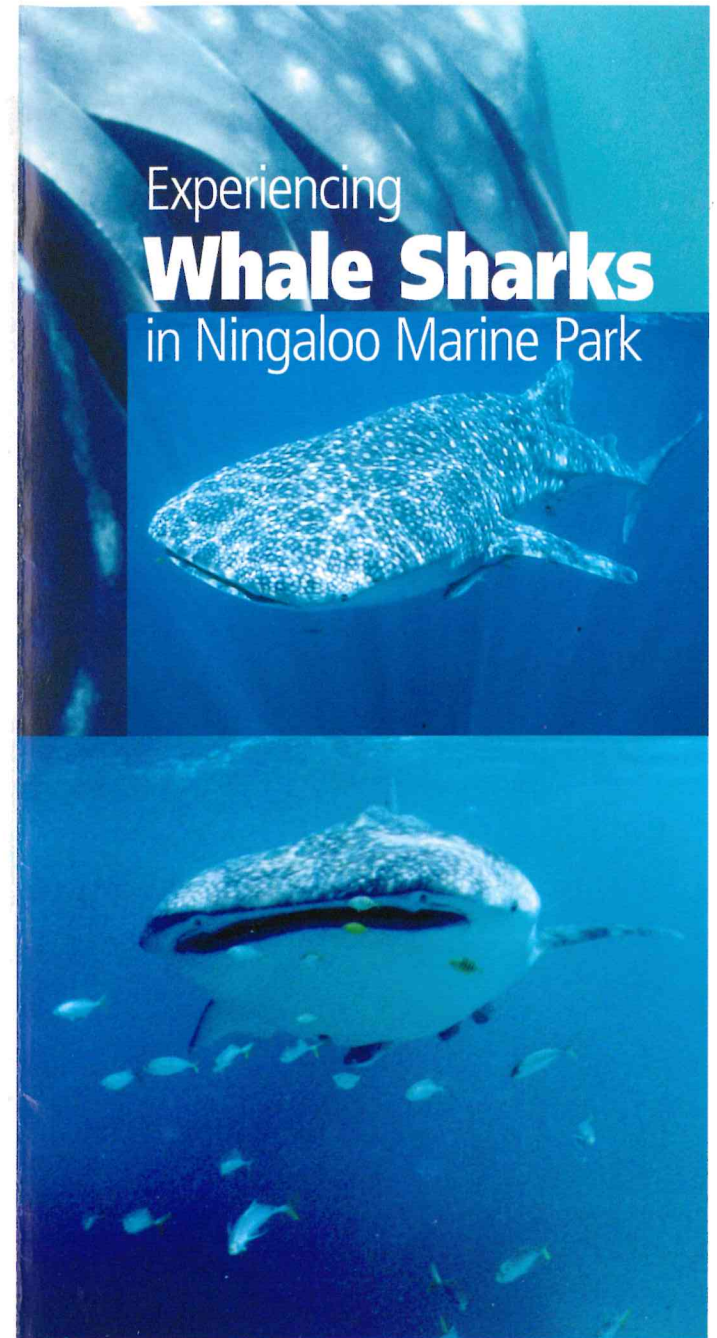
Mardie Road
Karratha Industrial Estate
Karratha WA 6714
Ph: (08) 9143 1488 Fax: (08) 9144 1118

You may also wish to visit the Department of Conservation and Land Management web site at www.naturebase.net

INDEMNITY

In participating in the whale shark watching tour, the participant acknowledges and assumes all associated risks and will hold the Executive Director, his employees, servants and agents free from any and all liability, causes of action, debt, claims and demands of every kind and nature whatsoever which may arise out of or in connection with participation in the tour.

*Cover Photos - Ron Campbell, Darryl Leniuk
and Department of Conservation and Land
Management, Exmouth ©*



Experiencing **Whale Sharks** in Ningaloo Marine Park



Swimmers interacting with whale sharks

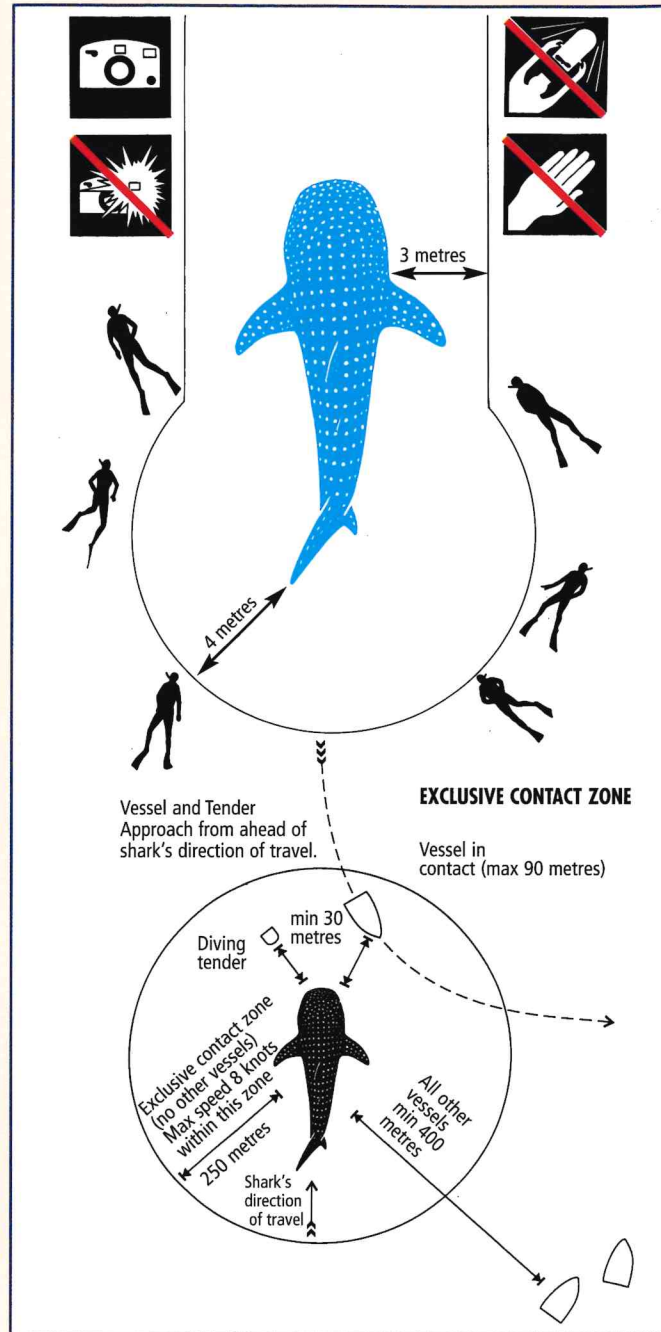
Whale sharks are fully protected under the Wildlife Conservation Act and the Conservation and Land Management Act. Although they appear to be 'gentle giants', they are wild animals that can inflict serious injury if they strike a swimmer with their body, tail or fins. To ensure that you have a safe, enjoyable experience and to prevent the animals from being harmed or disturbed, the following Code of Conduct applies when interacting with whale sharks.

SWIMMERS IN THE CONTACT ZONE MUST NOT:

- attempt to touch or ride on a whale shark,
- restrict the normal movement or behaviour of the shark,
- approach closer than 3 metres from the head or body and 4 metres from the tail,
- undertake flash photography,
- use motorised propulsion aids, or
- exceed 10 people in the water at any one time.



The Whale shark flag which commercial operators must display while the vessel is in the exclusive contact zone.



Whale shark interaction code for vessels

There is a Closed Season Notice published under the Wildlife Conservation Act, which sets out rules that have been developed for the protection of whale sharks. Both commercial and private vessels are bound by these rules which must be adhered to whilst within the 'exclusive contact zone'.

EXCLUSIVE CONTACT ZONE:

- An exclusive contact zone of a 250 metre radius applies around any whale shark.
- Only one vessel at a time may operate within the zone for a maximum time of 90 minutes and at a speed of eight knots or less.
- The first vessel within that zone is deemed to be 'in contact'. The second vessel to arrive must keep a distance of 250 metres from the shark, and any other vessels must be 400 metres from the shark.

VESSEL OPERATORS IN THE CONTACT ZONE:

- must not approach closer than 30 metres to a shark,
- should approach from ahead of the shark's direction of travel when dropping swimmers into the water, and
- must display both whale shark (commercial vessels only) and dive flags when swimmers are in the water.



Experiencing **Whale Sharks** in Ningaloo Marine Park

Photo - Ron Campbell ©

A Whale shark feeding on plankton. Photo - Darryl Leniuk

Whale sharks

The mass spawning of more than 200 species of coral in March and April each year is part of a chain of biological events that heralds the arrival of the world's largest fish, the whale shark (*Rhincodon typus*) to Ningaloo Reef. These gentle giants cruise the world's oceans in search of concentrations of plankton.

A fully grown whale shark can reach up to 18 metres in length, but more commonly, individuals encountered at Ningaloo Reef are between 4 and 12 metres long. A 12 metre whale shark may weigh as much as 11 tonnes and have a mouth more than a metre wide.

Distribution

Whale sharks are found in a band around the equator between about 30° north and 35° south, in water temperatures of 18°C to 30°C. They prefer areas with surface water temperatures between 21°C and 25°C, where cool nutrient-rich upwellings mingle with warm plankton-laden waters.

Occurrences of the whale shark are patchy and unpredictable. Ningaloo Reef is one of only a few places in the world where they appear regularly in any numbers, in near-shore waters where they are easily accessible to observers.

Feeding

Whale sharks have thousands of tiny teeth arranged in more than 300 rows, but they neither bite nor chew their food. They are filter feeders, either actively sucking water into their mouths or by cruising along near the surface of the water with their large mouths agape. Planktonic organisms, including small crustaceans like krill and copepods, are strained from the water through the whale sharks gills by a fine mesh of gill rakers. They are also thought to supplement their diet periodically with squid and small fish such as anchovies and sardines.

Life cycle and reproduction

Little is known about the whale shark's life cycle or exactly how long they live. It is speculated, that whale sharks have a life span of more than 100 years, reaching maturity at around 30 years. They are ovoviviparous, bearing live young which hatch from an eggcase while inside the mother's body before being expelled. The period of gestation is unknown and the number of live born also remains unclear.



Photo - Darryl Leniuk ©



Department of Conservation and Land Management staff monitoring the whale shark tours. Photo - Darryl Leniuk ©



Close encounters . . . A diver interacting with a whale shark in the Ningaloo Marine Park. Photo - Department of Conservation and Land Management, Exmouth ©

Conservation

The Department of Conservation and Land Management's role

The Department of Conservation and Land Management is entrusted to conserve and manage Western Australia's wildlife, lands, waters and resources for the benefit of present and future generations.

The Department ensures that access to natural attractions is well managed, is ecologically sustainable, and only occurs where appropriate. To do this requires a diverse range of skilled professional staff including scientists, rangers, wildlife officers, recreation planners and commercial operations administrators.

The Department tries to recover the cost of management and research activities through a system of licence charges on tour operators. By doing this, commercial whale shark watching can be managed to be both ecologically and economically sustainable.

Tour operators are expected to provide their passengers with a safe, interactive tour with the whale sharks without causing harm to the animals.

Participation in whale shark tours, therefore, provides a direct benefit to further research into whale shark behaviour and ensures that future generations will also have the opportunity to swim with whale sharks at Ningaloo.

Research

Very little is known about whale shark numbers, behaviour patterns or how much human contact they will tolerate before becoming disturbed and perhaps avoiding any contact. Care must be taken to ensure that we do not lose this unique opportunity for interaction. Scientific information about whale shark migratory patterns, breeding and life history is limited. Exactly why the annual aggregation at Ningaloo occurs and the reasons for any seasonal fluctuations in shark numbers are not yet fully understood.

Scientific research continues to be conducted into the relationship between coral spawning events, upwellings, and the yearly aggregation of whale sharks to Ningaloo Reef.

The Department supports various research programmes including the effects of ecotourism on whale sharks and also CSIRO tagging research.

Two forms of tags, the Pop-off Archival Tags (PAT tags) and satellite tags, are being used to record information on depth, temperature, light and movement patterns. To protect the welfare of the sharks, tagging is conducted strictly in accordance with regulations of Animal Ethics Committees.

How can you help

The Department is interested in any information you can provide on whale shark behaviour while interacting with them. You can assist tour operator skippers by helping to record the following responses by the sharks:

- **Agitated** – (flighty, reacted adversely, timid, intimidated, avoided swimmers)
- **Banked away** – (turned away, swam away)
- **Banked toward** – (turned toward, swam toward, approached swimmers)
- **Circled or swam under** – (swam around or circled swimmers, swam underneath swimmers)
- **Dived** – (descended)
- **Investigated** – (showed interest, attracted to bubbles, investigated swimmers, inquisitive)
- **No reaction** – (continued as normal, showed no interest, meandered, did nothing, took no notice, undisturbed)
- **Physical contact** – (touched, bumped into swimmers)
- **Decreased speed** – (slowed down on contact with swimmers)
- **Increased speed** – (bursts of speed, sped off, sped up on contact with swimmers)