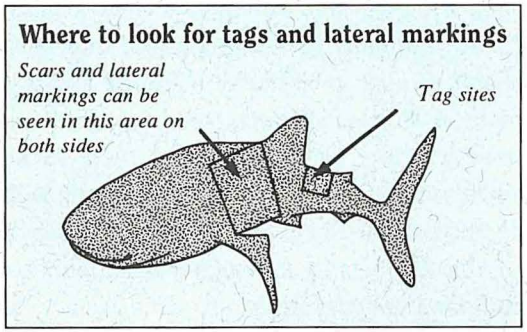
## HOW YOU CAN HELP?

The Department of Conservation and Land Management (CALM) is interested in any information you can obtain about whale sharks. You can help researchers by recording the following details when you next see a whale shark;

- date, time and location
- weather and sea conditions
- number of sharks seen
- sex of each animal
- their behaviour
- approximate length of each shark
- lateral markings and scars* (located 2 to 3 feet behind the gill slits. Note both sides if possible)
- tags* (these resemble marlin tags and are thin strips of plastic about 30 cm long, often covered in weed).

**Photographs provide a useful method of recording these details and assist in the identification of individual sharks.* ***(Please do not use flash as this may upset the sharks)***

**Where to look for tags and lateral markings**




## WHO TO CONTACT

Details of whale shark observations can be left at;

**Department of Conservation and Land Management**

**District Office**
Thew Street
EXMOUTH WA 6707
PH (099) 491 676

**Milyering Visitor Centre**
Cape Range National Park
PH (099) 491 808

**Regional Office**
SGIO Building
Welcome Road
KARRATHA WA 6714

**Fisheries Department of WA**

**District Office**
Lot 375 Maidstone Crescent
EXMOUTH WA 6707
PH (099) 491 755

**Head Office**
108 Adelaide Terrace
EAST PERTH WA 6004
PH (09) 220 5333

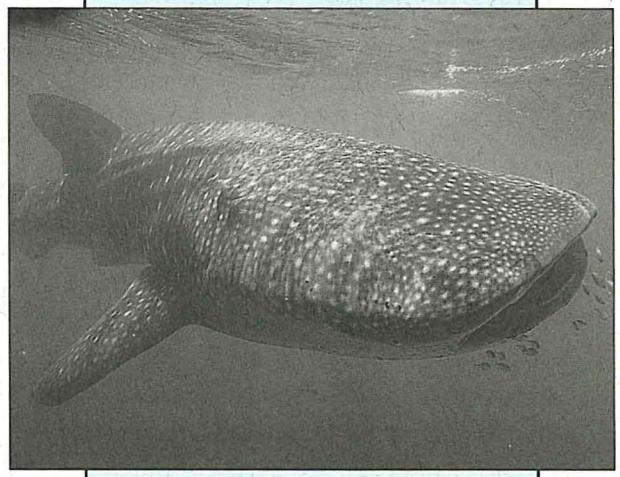
Department of Conservation
and Land Management
50 Hayman Road
COMO WA 6152

Photo - Geoff Taylor/Lochman Transparencies
3021 0393 2M

# PROTECTING WHALE SHARKS

IN

## NINGALOO MARINE PARK



Department of Conservation
and Land Management

## WHALE SHARKS

The mass spawning of more than 200 species of coral in March and April is part of a chain of biological events that heralds the arrival, in Ningaloo Marine Park, of the world's largest fish, the whale shark *(Rhiniodon typus)*.

These gentle giants cruise the world's oceans in search of concentrations of zooplankton. They have thousands of tiny teeth arranged in more than 300 rows, but they neither bite nor chew their food. Water is drawn into their large mouths and strained through gills, where a fine mesh of gill rakers extract the tiny plankton. They are also thought to supplement their diet periodically with squid and small fish such as anchovies and sardines.

Whale sharks are found in a band around the equator between about 30° north and 35° south. They prefer surface water temperatures between 22° and 27°C, where cool, nutrient-rich currents mingle with warm plankton-laden waters. Their backs are darker in colour than their bellies, but both have white spots almost two inches in diameter. They have been known to reach 18 metres in length, but are more commonly between 4 and 12 metres. They can weigh up to 40 tonnes and are long-lived, but just how old they get is unknown.

Ningaloo Reef is the only place in the world where whale sharks are known to appear regularly, in any numbers, in near-shore waters, easily accessible to observers.

## WATCHING WHALE SHARKS

Whale sharks are fully protected under the Wildlife Conservation Act. The increasing public interest in whale shark watching has resulted in an emergence of commercial tours. To prevent the animals from being harmed or disturbed, the following code of conduct has been prepared.

CONTACT ZONE

- An exclusive contact zone of 250 m radius applies around any whale shark.
- Only one vessel at a time may operate within the zone for no more than 90 minutes, at a speed of 8 knots or less.
- The first vessel within that zone will be deemed to be 'in contact'. The second vessel to arrive must keep a distance of 250 m from the shark, and any others must be 400 m from the shark.

**Boat Operators in the contact zone;**

- must not approach closer than 30 m from a shark,
- should approach from ahead of the shark's direction of travel when dropping people in the water,
- must display flags when divers are in the water.

**Swimmers in the contact zone;**

- must not attempt to touch or ride on a whale shark or approach closer than 1 m from the head or body and 4 m from its tail,
- are limited to a maximum of 10 people in the water at any one time.

## RESEARCH

Very little is known about whale shark numbers, their behaviour patterns, or how much human contact they will tolerate before being disturbed and perhaps leaving the area. Care must be taken to ensure that we do not lose the best known whale shark observation area in the world.

There is almost no scientific information about whale sharks' migratory patterns, breeding behaviour or even precisely what species of zooplankton they eat.

During the past ten years, information on whale sharks has been collected at Ningaloo Reef by researchers, including former Exmouth medical practitioner, Dr Geoff Taylor. One of the very interesting things to have been discovered is that most of the whale sharks that visit the area during March and April are immature males.

In the past, researchers have looked at whale shark distribution and abundance patterns along the Ningaloo Reef. Plankton sampling has been carried out to try and identify the shark's food species further. New initiatives include identification programs to help recognise individual sharks through their lateral markings and scar patterns. Further research is required to determine whether, like finger prints, these varied white spots and lines on their backs, along with distinctive scars, help to identify individuals. If so, this will help to determine population sizes and shark growth rates.