



The whale shark is Western Australia's new marine faunal emblem.

by Dani Rob



GENTLE **GIANTS**

Officially an icon

On 12 November 2013 the state government named the whale shark (*Rhincodon typus*) as Western Australia's new marine faunal emblem. The whale shark was chosen following a statewide competition between primary schools that encouraged students to nominate their preferred marine emblem, and learn more about the field of marine science. The whale shark will join the red and green kangaroo paw (floral emblem), the black swan (faunal bird emblem), the numbat (faunal terrestrial emblem) and the gogo fish (fossil emblem).

Ningaloo Marine Park is an excellent location to view these magnificent animals, typically from mid-March to early August each year, generating a world-class ecotourism industry.

GIANTS OF THE DEEP

The world's largest fish—the whale shark—grows 15 to 18 metres long and visits Ningaloo in large numbers to feed on zooplankton and phytoplankton blooms caused by the annual coral spawn. This event usually occurs seven to 10 days after

the full moons in March and April. The reef comes alive during this time and the whole food chain is affected; coral spawns lead to plankton blooms, which attract birds as well as schools of baitfish, tuna and whale sharks. Whale shark diets can vary across the world, but at Ningaloo their preferred food is tropical krill (*Pseudeuphausia latifrons*), copepods and other zooplankton such as gastropod larvae.

Passive feeding is where the shark cruises through the water with its mouth slightly agape, relying on the forward motion to pass water through its gills. Plankton is collected on gill rakers before being funnelled down into the stomach. Active feeding involves the shark pumping high volumes of water through its gills at speed, often gulping, causing the gills to flair out. The shark employs a suction filter-feeding method where it draws water into its mouth and can often open its mouth to a width greater than one metre while doing this. Vertical feeding is where the shark hangs vertically in the water and feeds by sucking in prey-rich water.

Although whale sharks can grow to 18 metres, those at Ningaloo are generally between three and 12 metres with the

average length being 5.5 metres. About 80 to 85 per cent of the whale sharks that visit Ningaloo are juvenile males.

STILL A MYSTERY

There is still plenty to learn about whale sharks, with many questions to be answered about where and how they mate, birthing numbers and areas, as well as population size and migration patterns.

Researchers have been tagging whale sharks for many years and are refining their methods and equipment. By deploying a combination of acoustic, archival and satellite tags, researchers hope to track whale shark migrations and discover information about shark movements. More summer sightings

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Main The majestic whale shark.

Photo – Hayley Versace/Oceanwideimages.com

Inset A painting of the state marine faunal emblem by DPaW's Gooitzen van der Meer.

Below Photos of the left-hand side of a whale shark can help researchers profile individuals.

Photo – Axel Passeck

How you can help

Whale sharks have a unique pattern of spots and stripes, much like our human fingerprint. This pattern can be used to identify individuals and track their movements. To help us identify them you can submit photos of the left hand side of the shark (including the gill slits and pectoral fin) online at www.whaleshark.org.

One of the threats to whale sharks is boat strike and injuries caused by propellers. DPaW encourages skippers to become familiar with the whale shark vessel and swimmer codes of conduct, available on the DPaW website (www.dpaw.wa.gov.au). You can also help by reducing the speed of your boat in marine parks, and keeping a lookout for these most gentle of giants.

To report statewide whale shark sightings, contact DPaW's whale shark conservation officer Dani Rob. Dani can be contacted on (08)9947 8006 or by email (whaleshark@dpaw.wa.gov.au).

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are being reported, posing yet another question—are whale sharks possibly at Ningaloo all year round?

CONSERVING THE SPECIES

The whale shark is a protected species within all Western Australian state waters. They have recently been listed as ‘other specially protected fauna’ under the *Wildlife Conservation Act 1950*. Nationally, they are listed as ‘vulnerable’ under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*, and internationally they have been recognised as ‘vulnerable’ on the International Union for the Conservation of Nature’s ‘Red List’, which means they have declining populations worldwide and a threat of extinction in the medium-term future.

The Department of Parks and Wildlife (DPaW) has recently completed an updated whale shark management program, which outlines the direction the department will take for the next 10 years to work to conserve the species. The plan outlines management, research, monitoring techniques and education strategies needed to ensure that whale sharks continue to visit Ningaloo now and into the future.

Right Snorkellers are required to stay three metres away from the whale shark’s body and four metres from its tail.

Photo – Cameron Skirving

Below Whale shark from below.

Photo – Axel Passeck



Dani Rob is the Department of Parks and Wildlife’s whale shark conservation officer based out of the Exmouth District Office. She can be contacted on (08) 9947 8006 or by email (whaleshark@dpaw.wa.gov.au).

Picturing an icon

DPaW senior graphic designer and *LANDSCOPE* veteran Gooitzen van der Meer was charged with the task of painting the whale shark for use as the state’s official emblem. Gooitzen used water colours to achieve the whale shark’s intricate spots and stripes and the look of water shimmering on the fish’s body.

“The key was getting the light and shading correct to show that the whale shark was underwater, with light streaming in from above,” he said.

Right Gooitzen van der Meer at work on the painting.

Photo – Emma van der Meer

Below The whale shark joins the other WA emblems—numbat, red and green kangaroo paw, black swan and the gogo fish.

