



## Whale Shark - *Rhincodon typus*

The Whale Shark (*Rhincodon typus*) is not only the largest fish in the sea, it is the largest non-cetacean animal in the world, reaching up to 20m and weighing over 20 tonnes. The name “whale shark” comes from the fish’s morphology, being as large as many whales and also a filter feeder like many whale species, even though it is a fish, not a mammal. Primarily pelagic, the Whale Shark inhabits all tropical and warm-temperate seas.

The Whale Shark has a bluish-grey body with a white belly. The skin, which can be 10cm thick, is marked with a checkerboard of white spots and stripes that are unique to each individual. Two small eyes are located towards the front of the shark’s wide, flat head. It has a large mouth which can be up to 1.5m wide and contain 300 rows of tiny teeth. It has five large pairs of gills. The shark has a pair each of dorsal fins and pectoral fins. The tail, or caudal fin, has a larger upper lip than bottom lip.

The Whale Shark is a filter feeder – one of only three known filter feeding shark species (along with the basking shark and the megamouth shark). It feeds on zooplankton (small animals such as krill floating in the water column), but has also been seen to feed on Christmas Island red crab larvae and small fish.

Whale Sharks migrate to feed and annual feeding aggregations are seen at various places around the world. The Ningaloo Reef aggregation is one of the most predictable and it occurs after the mass coral spawning in March and April. Coral spawning sets off a food chain in the sea and creates nutrient rich waters that support the growth of plankton.

Whale Sharks also possibly migrate to breed, although neither mating nor pupping of Whale Sharks has been observed. The capture of a female in July 1996 who was pregnant with 300 pups indicates that Whale Sharks are ovoviviparous. The eggs remain in the body and the females give birth to live young which are 40 to 60 centimetres long. There is evidence that the pups are not all born at once, but rather that the female retains sperm from one mating and produces a steady stream of pups over a prolonged period. It is believed that they reach sexual maturity at around 30 years.

The Whale Shark is listed as ‘vulnerable to extinction’ on the International Union for the Conservation of Nature (IUCN) 2010 Red List of Threatened Species. It is also listed on Appendix II of the Convention on International trade in Endangered Species (CITES) and Appendix II on the Bonn Convention for the Conservation of Migratory Species (CMS). Although now protected in some countries, the migratory nature of the threatened Whale Shark may result in their moving from a protected area to a hunting zone. Human induced habitat destruction is also a major threat to this filter-feeder, which is dependent upon food pulses and critical habitats to survive. Humans interfering with the natural behaviour of the sharks (boating / tourism) can also cause disruption and drive this species from critical habitats.

### Did you know?

The Whale Shark holds many records for sheer size in the animal kingdom, most notably being by far the largest living non-mammalian vertebrate, rivaling many of the largest dinosaurs in weight.