

- Female gives birth to about 300 live young though many may not survive.
- The smallest free-living whale shark that has been measured was 55 cm (1.8 feet) long, which is believed to be their approximate size at birth.

### Habitat and Ecology

- ❖ The whale shark is a pelagic species that prefer warm waters, with a surface temperature around 21-30° C.
- ❖ Found in both coastal (inshore) and oceanic (offshore) habitats, marked by high primary productivity.
- ❖ Whale sharks are solitary creatures, highly migrant, travels on an average 24-28 km/day.
- ❖ They spend majority of time in the epipelagic zone and are found feeding at the surface.

### Threats

- The population of the whale shark has declined rapidly over the past 20 years and hunting being the major factor.
- The whale shark is occasionally caught as bycatch in trawl, purse-seine, ring-seine and large mesh gillnets.
- Vessel strikes at shipping lanes routed close to whale shark feeding areas also pose a serious threat.
- A small-scale opportunistic fishery for whale sharks is also present in some places.
- Marine pollution events such as oil spill near whale shark hot spots and climate change may lead to displacement from preferred habitats or mortality.

*Based on scientific observations, it is understood that an overall decline of 63% in Indo-Pacific Ocean and more than 30% in the Atlantic Ocean has occurred over the last 75 years (three-generation). The overall global decline of whale shark population is inferred to be >50%.*

### Protection from threat

Whale shark (*Rhincodon typus*) is declared as an **Endangered Species (EN)** by the International Union for Conservation of Nature and Natural Resources (IUCN) in the Red List of Threatened Species. Government of India has placed the animal under **Schedule 1 of the Indian Wildlife (Protection) Act, 1972** to ensure a high degree of protection.

*The guilty of an offence against this Act (Hunting the animal, trade of meat, animal article, trophy or uncured trophy derived from such animal), is punishable with imprisonment for a term which shall not be less than 3 years but may extend to 7 years and also with a fine of Rs. 10,000/- to 25,000/-.*



Whale shark being released back to the sea

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# Save the Whale Shark



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## Introduction

- ❖ The whale shark (*Rhincodon typus*) unlike whales is a shark belonging to a group of cartilaginous fishes, earned the name “whale” solely because of its large size.
- ❖ The whale shark is the largest species of any fish, known to reach more than 40 feet (12 meters) in length.
- ❖ Adults are often found feeding at the surface but may dive to >1000 m depth.
- ❖ Their life span is known to be 60-100 years.

## Systematics

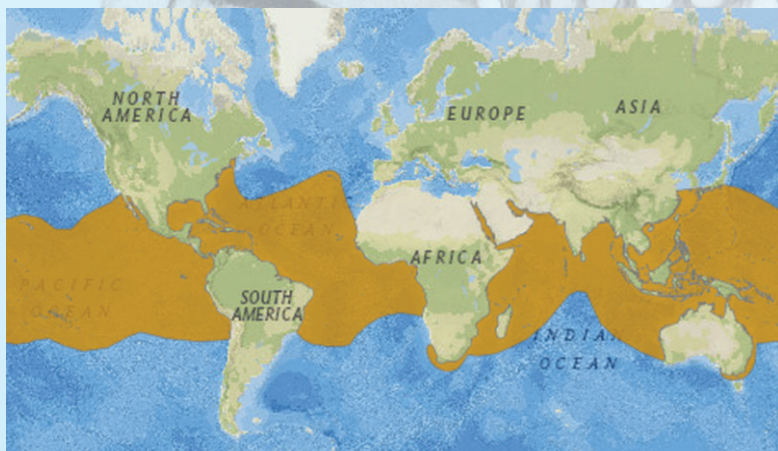
- ❖ The whale shark is the sole species of the Family Rhincodontidae, belongs to the order Orectolobiformes and subclass Elasmobranchii in the class Chondrichthyes.

### Common names in India

|                                  |                        |
|----------------------------------|------------------------|
| Whale shark (English)            | Vhali (Gujarati)       |
| Behiri (Marathi)                 | Thimingal sura (Tamil) |
| Thimingala sharku (Kannada)      | Timi-hanger (Bengali)  |
| Thimingila sora (Telugu)         | Timi-macha (Odia)      |
| Pulli-Udumban shravu (Malayalam) |                        |

## General Distribution

- The whale shark is known for circum-tropical distribution.
- Distributed throughout the Indian Ocean, the Pacific Ocean and the Atlantic Ocean.
- Mainly distributed between ~30°N and 35°S.

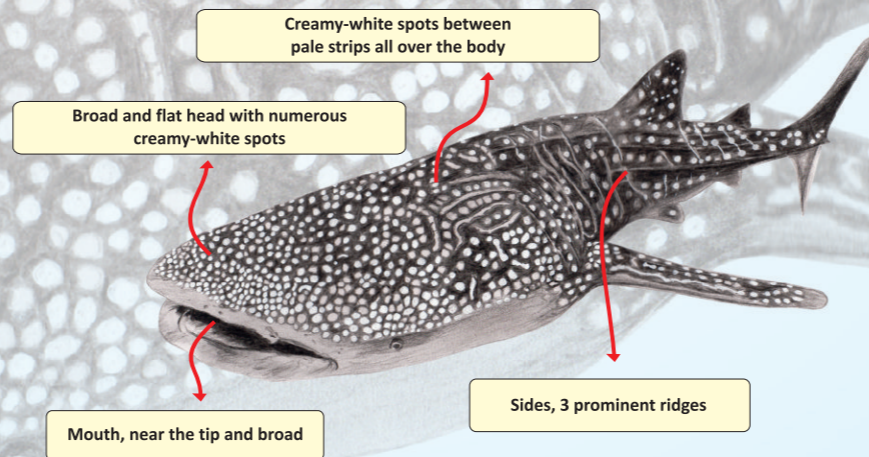


Whale shark distribution map (IUCN)

- Most whale sharks (~75%) are found in the Indian and Pacific Oceans and 25% in the Atlantic Ocean.
- Rare sightings in sea water < 21°C sea surface temperatures imply that the distribution is likely to be temperature limited.

## Identification

- Head:** Broad and flat with a blunt snout with numerous creamy-white spots.
- Mouth:** Almost terminal and wide (can be up to 5 feet in larger fish) with rows of over 300 tiny teeth. Short barbels protrude from nostrils.
- Colour:** Blue-grey to brown in colour with an upper surface pattern of creamy-white spots between pale, vertical and horizontal stripes. The belly (lower surface) is white.
- Body:** Sides have three prominent ridges. Each whale shark exhibit a unique pattern of spots, much like human fingerprints.

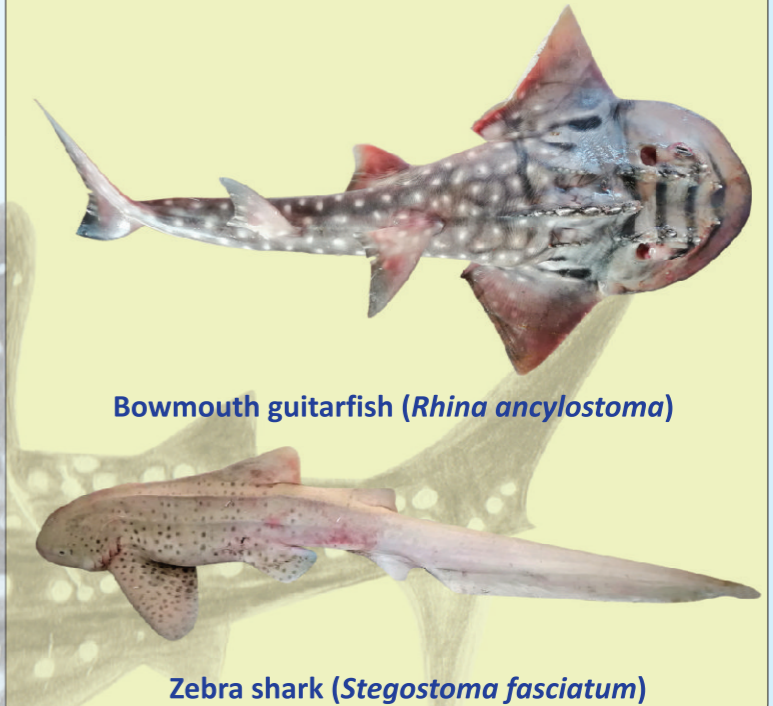


Whale shark (*Rhincodon typus*)

## Gigantic but gentle

Though whale shark grows to approximately 12 m TL and 42 t in weight and despite their name “shark”, these giants are harmless to human, and often interact docilely with scuba divers and snorkelers to the extent of allowing the divers to grab on to a fin and hitch a ride.

### Fishes that are often confused with whale shark :



Bowmouth guitarfish (*Rhina ancylostoma*)

Zebra shark (*Stegostoma fasciatum*)

## Diet

Whale sharks are filter feeders, often swimming near the surface of the open sea. They open their wide mouth, gulping in water and filter out everything in its path similar to the baleen whales and release the water and any debris back into the ocean.

- ❖ Plankton is the main diet, includes zooplankton, phytoplankton and fish eggs.
- ❖ They also feed on small size shoaling fishes viz., sardines, anchovies, mackerels, crustaceans, molluscs and occasionally larger species of squid, tuna and albacore.
- ❖ The occurrence of whale sharks also indicate the abundance of plankton and the overall health of our oceans.

## Reproduction

- The male sharks mature at approximately 9 m TL (~17 years) and females are ready to have offspring at the age of 19-22 years in the Indo-Pacific Ocean.
- Whale sharks are ovoviviparous (young hatch inside the mother) and give birth to fully formed young.