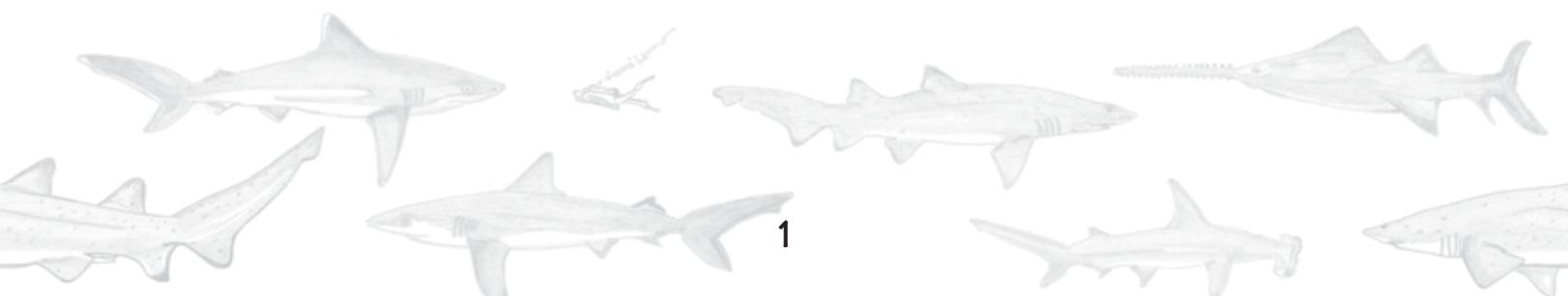


# The Cast of SHARKS

## EDUCATOR'S GUIDE

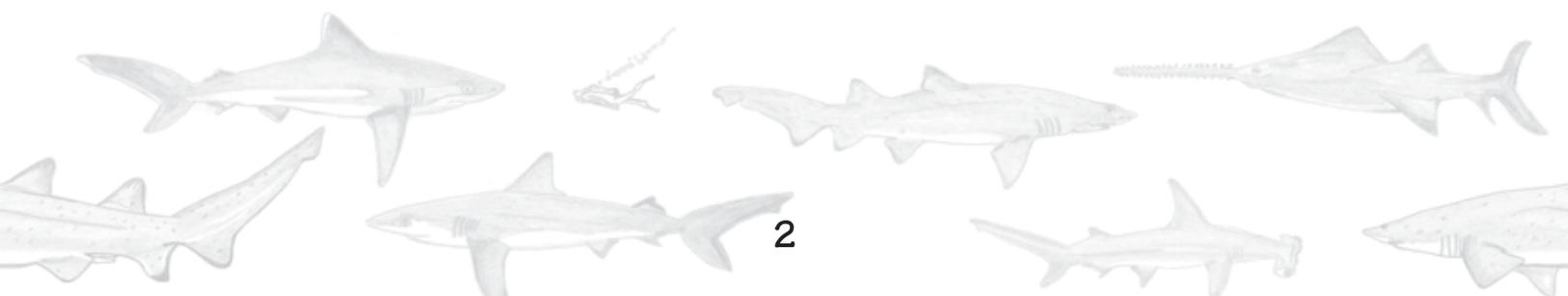


# Introduction

The Cast of SHARKS describes each species you will encounter in **SHARKS**, presenting some of its most important characteristics, such as average size, behavior (social, territorial, schooling, aggressive, gentle, etc.), fins, coloration, feeding habits, habitat, reproduction, potential danger to humans, endangered species.

## The Cast of SHARKS

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# SAND TIGER SHARK

**Carcharias taurus**  
**Average Size 3 m (10 ft)**  
***Endangered***

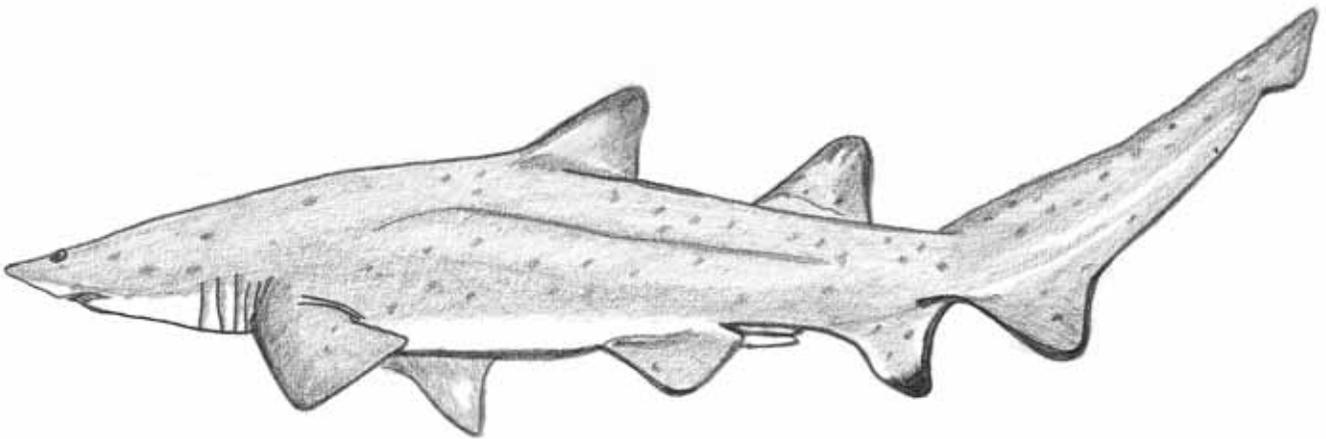
The **sand tiger shark** is a large, bulky shark that looks particularly threatening to humans because its mouth is almost always slightly open showing its large, ragged and pointy teeth, but it really is a harmless shark. The shape and size of its teeth simply make it easy to catch medium size prey and swallow it whole. Its maximum length is 3.6 meters (12 feet), although it is generally between 1.2 and 3 meters in length.

*Behavior* - It is a strong swimmer. Despite its clunky look, it is capable of quick accelerations. However, it lives in small groups close to large rocks and hardly moves during the day.

The sand tiger shark has developed a clever trick in order to move less. It breathes in water near the surface and conserves it in its stomach. This way it can float without having to swim around so much.

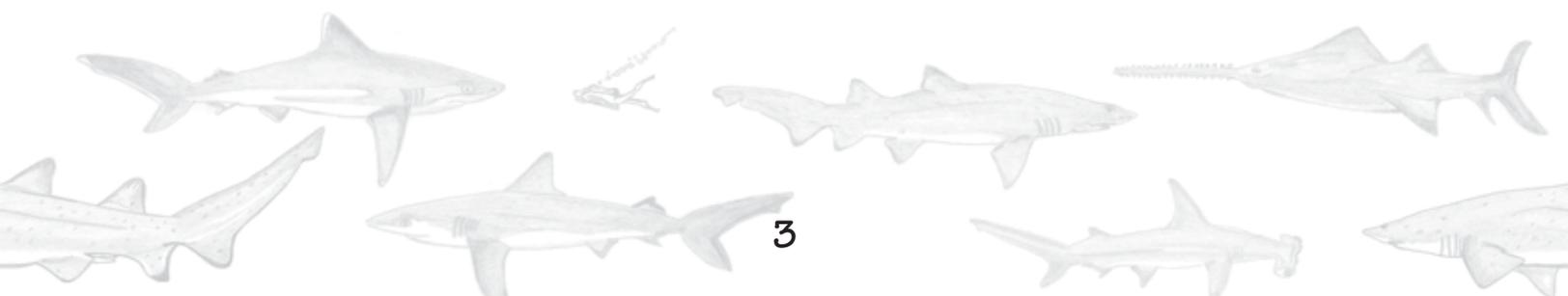
A life-saving aspect of this behavior is that the shark can push out the air in its stomach and make a loud noise (like a fart!), scaring off other predators, even man.

*Feeding Habits* - The sand tiger shark feeds off a wide range of small bony fish, squid and lobster. It is known to eat rays and other small sharks such as the silvertip. It will even steal fish off the spears of deep-sea divers.



*Reproduction* - The sand tiger shark has a very low breeding rate: it gives birth to only 2 pups at a time. It reproduces through ovoviviparity, which means that the eggs develop in the female's body. Since there is no placenta to feed the developing embryos, the embryos eat the other eggs and each other. To start with there are 16 to 23 eggs but, as a result of this form of cannibalism, only two pups are born, one from each of the two uteruses.

Another interesting aspect of the pregnant sand tiger sharks is that they will stay near a shallow reef without eating anything for a whole month. As seen in **SHARKS**, moss grows around their mouths because they don't eat for such a long period.

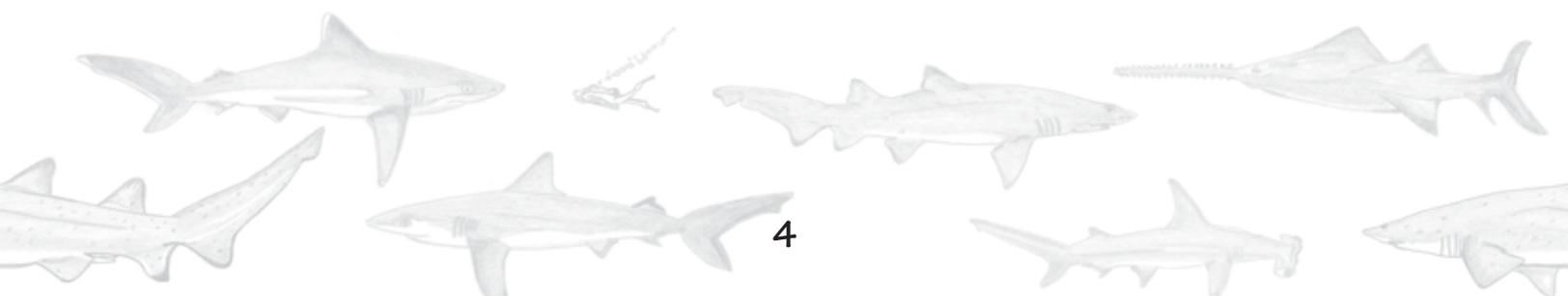


*Habitat* - The sand tiger shark likes warm seas and is commonly found near the coastlines or surf zones. It likes to swim in coral or rocky reefs, so it is often seen in shallow waters, but it does venture down to almost 200 m (656 ft). The sand tiger sharks in **SHARKS** are from Sodwana Bay, South Africa.

*Potential Danger to Humans* -This fierce looking shark has gotten a bad rap as a man-eater because it looks so ugly to humans. However, it is not aggressive and normally attacks only when provoked, especially when people are spear-hunting. There are few recorded attacks on humans.

*Endangered Species* - Sand tiger sharks have more to worry about on their end. It is commercially fished for food. The fins are sold to Asian markets for sharkfin soup while their jaws and teeth are used as trophies and ornaments. The sand tiger shark is relatively easy to kill because it is slow moving and does not mind divers around it. Its slow birth rate does not help either.

*DID YOU KNOW? Almost all sharks have an eye protection called "nictitating membranes." These membranes protect sharks' eyes while catching and eating a prey. Sharks without nictitating membranes, like sand tiger sharks, must roll their eyes to protect them.*



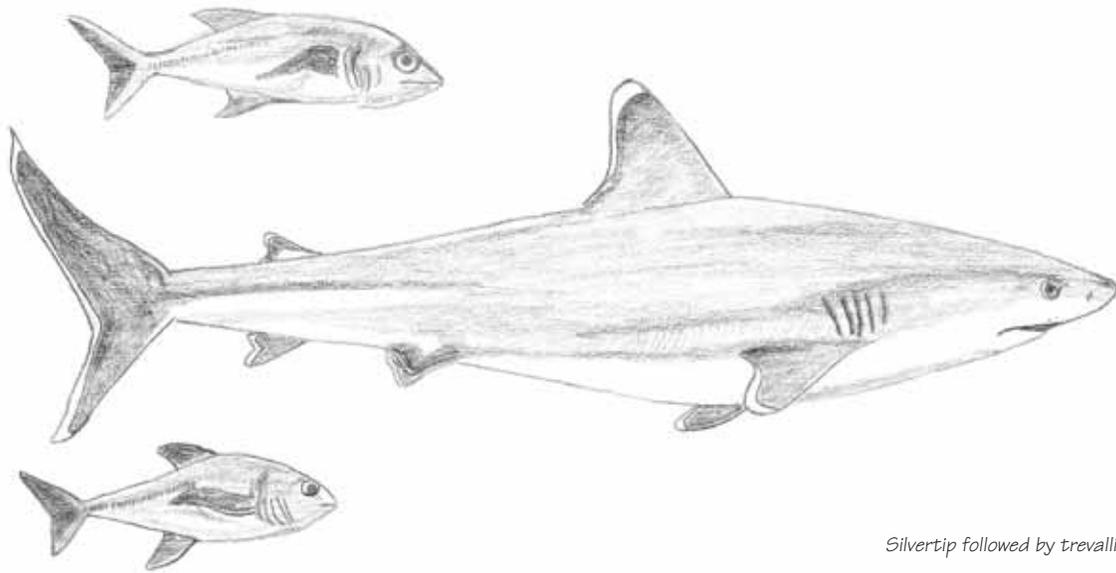
# SILVERTIP SHARK

*Carcharhinus albimarginatus*

Average Size 2 m (6.6 ft)

*Endangered*

The best way to distinguish a silvertip shark is to look at its fins. It is called a silvertip because each fin is white tipped! **The silvertip shark** is a beautiful and elegant shark. It is sleek and slender. It is quite average in length and size compared to other sharks (2-2.5 m/6.6 - 8.2 ft). The maximum-recorded length is 3 m (9.8 ft) and the maximum-recorded weight is 162.2 kg (358 lbs.) The silvertip shark has a broad round nose, large round eyes and very sharp pointy teeth.

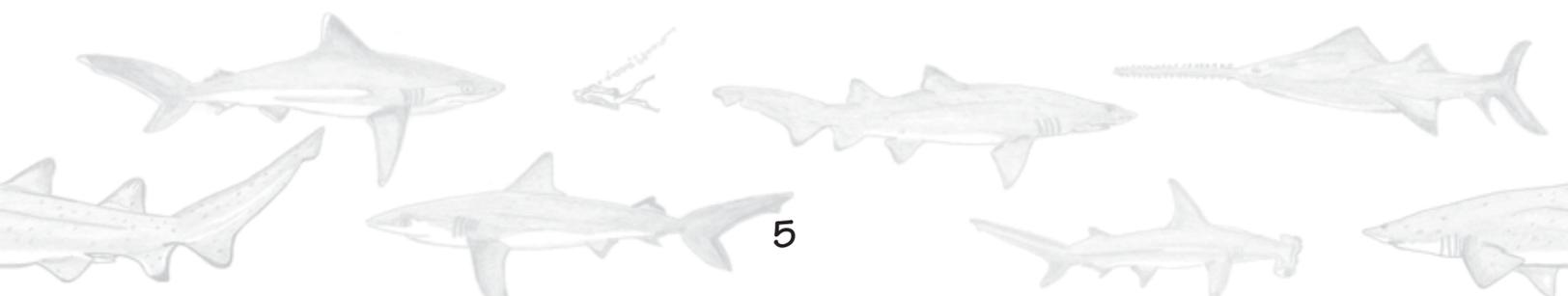


*Silvertip followed by trevallies*

*Behavior* - Silvertip sharks are especially territorial. It is a fast and precise swimmer and has even been seen swiping food from other sharks as it swims along with them. In fact, it is so fast that it can catch flying fish. Strangely enough it has some unusual companions. Look for these little sharks' companions in **SHARKS**. Fish such as trevallies and pilot-fish like to swim along with the silvertip. Scientists do not know why. They just hang around waiting for leftovers and will even rub up against the shark to get rid of their parasites. Scientists do not even know why sharks do not eat them!

*Feeding habits* - The silvertip shark likes to feed off tuna, wrasses, eagle rays, octopuses, squid and small sharks.

*Habitat* - Silvertips often live near reefs and are known to live in depths of 800m (2,625ft). The silvertips seen in **SHARKS** were filmed in the waters of Rangiroa, French Polynesia.



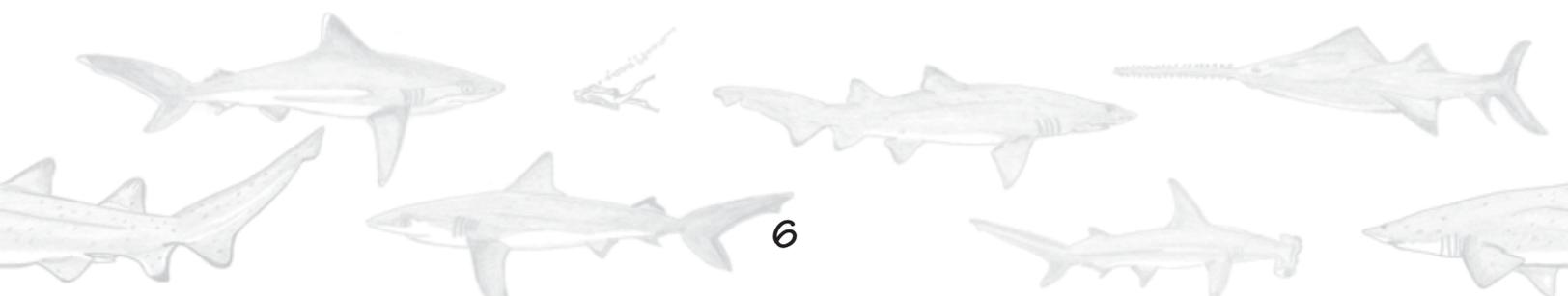
*Potential Danger to Humans* - As it lives near reefs, and is a large creature, the silvertip shark is a potential threat to humans. However, it normally keeps at a distance from divers and swimmers and is known for very few unprovoked attacks.

*Reproduction* - It reproduces through viviparity, meaning the eggs hatch inside the mother's body and the embryos are nourished by a placenta. It takes a full year for these to develop. The mother gives birth to one to eleven pups. They stay around shallow reefs, eating small fish until they get bigger. Once they have grown larger, they take more liberty and go back and forth from inshore to offshore.

*Interesting Fact!*

*70 % of all sharks are viviparous, i.e. they give birth to live sharks that are mini copies of their parents.*

*Endangered Species* - Silvertips are territorial and can live in groups of several dozen individuals dominating their territory from the surface down. This behavior, unfortunately, works against them by making them easy prey for humans who then know where they live. The meat from a silvertip is considered very good and the fins are used in shark fin soup. Man is known to also use its skin in tanneries.



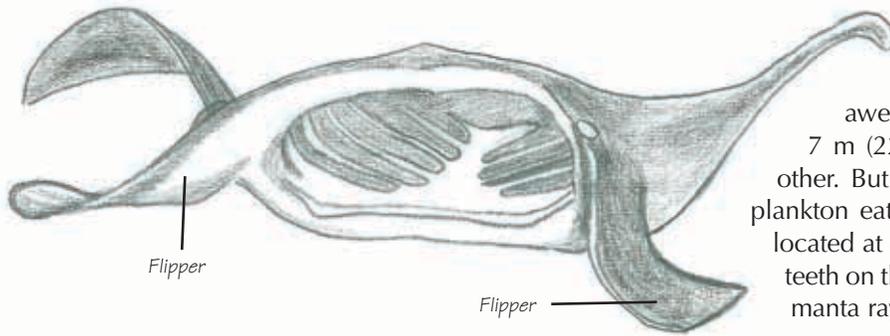
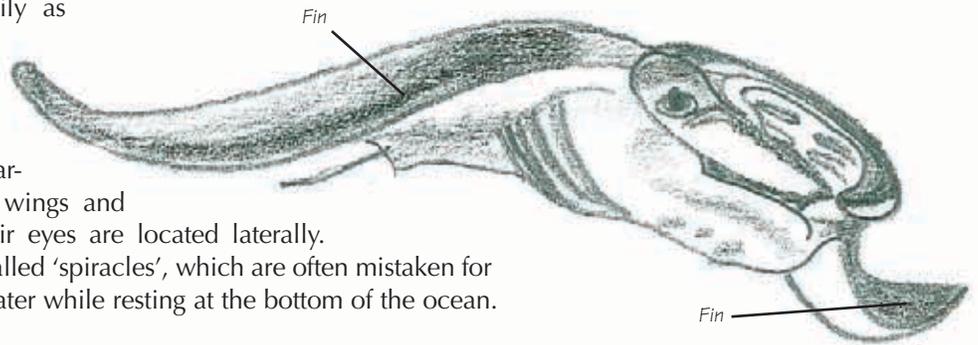
# GIANT PACIFIC MANTA RAY

## *Manta birostris*

Size - wingspan of nearly 7 m (22 ft) wide

*Endangered*

Rays belong to the same family as sharks. However, like some relatives, they do not look alike. Rays have a flat body shape with an enormous wingspan. In fact, their triangular-shaped pectoral fins look like wings and lead right up to the head. Their eyes are located laterally. Behind each eye are openings called 'spiracles', which are often mistaken for ears. These are used to inhale water while resting at the bottom of the ocean.

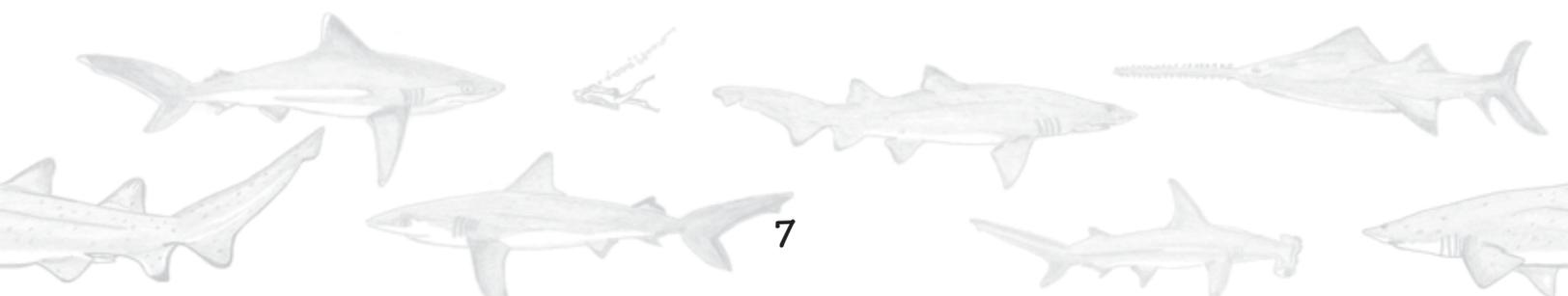


The **Manta ray** is the largest type of ray weighing in at 1,350 tons (3,000 lbs). It is awesome looking and has a wingspan of nearly 7 m (22 ft), that is wider than 4 cars next to each other. But just like the largest sharks, it is a harmless plankton eater! Its broad, rectangular terminal mouth is located at the front of its head and holds extremely tiny teeth on the bottom jaw. Because they are filter feeders, manta rays do not need large teeth.

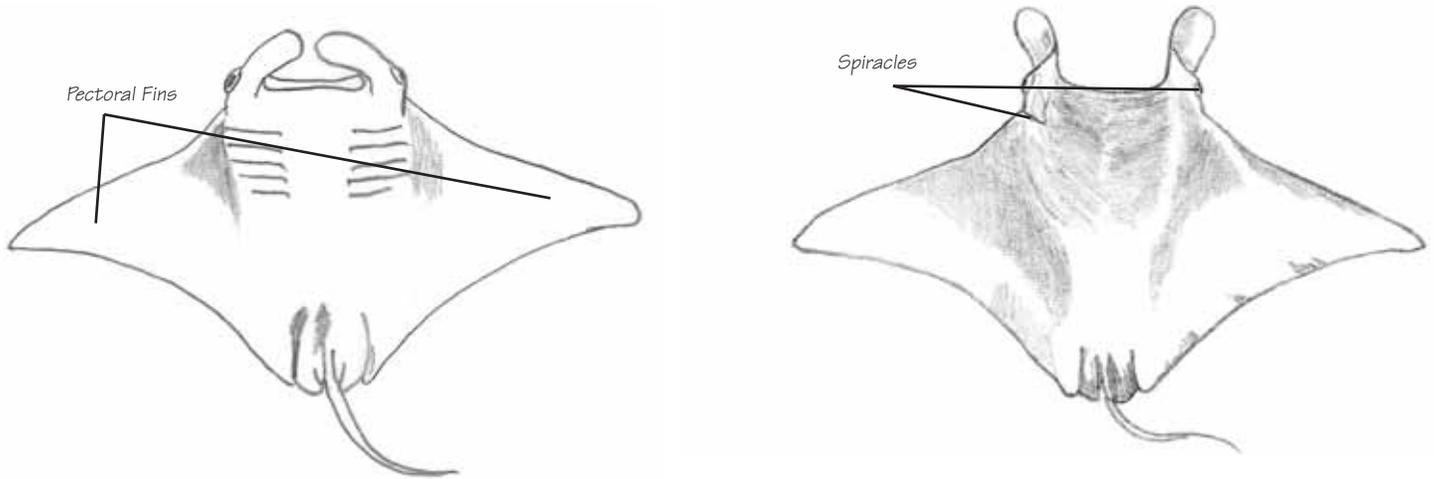
### *Did you know?*

*Plankton is a term that describes thousands of different types of microscopic creatures, which drift in the water. It includes certain types of algae, which are plants and use the sun's energy to create food. These are called phytoplankton. It includes also lots of animals, or larvae, which eat the phytoplankton, and even eat each other - these are called zooplankton.*

Manta rays have a small dorsal fin on their backs, just above the tail. Their tails do not have a spine and are slightly flattened.



*Behavior* - A big difference between mantas and sharks is the way they swim. A manta ray flaps its pectoral fins up and down like wings. They are very powerful swimmers that can leap up out of the water and somersault if they want. They have been recorded as jumping as high as 4.5 m (15 ft). The manta ray is a large fish and likes to swim alone, but will swim in loose aggregations.



*Habitat* - The manta is found worldwide in temperate, tropical and subtropical waters. Being a plankton eater, the manta is normally found at the surface of the ocean. However, it also swims in mid-waters near reefs, offshore islands and even near the seabed. The Manta Rays in **SHARKS** were filmed off the Socorro Islands, Mexico.

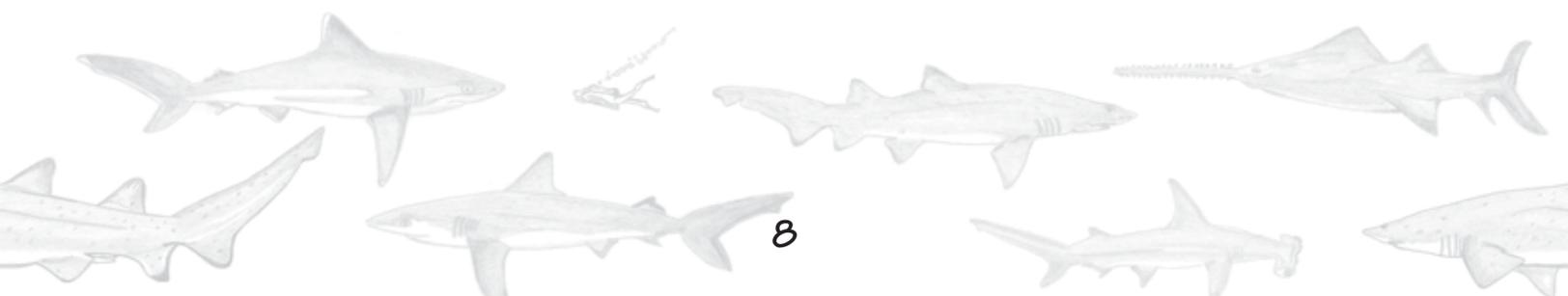
*Reproduction* - Mantas reproduce through ovoviviparity, which means that the eggs develop in the female's body. Since there is no placenta to feed them, the embryos eat the other eggs and each other. As a result very few pups are born. The manta gives birth to one or two pups at a time. Unfortunately, young mantas are easy prey for larger sharks, so it is a good thing they grow quickly.

*Potential Danger to Humans* - They are harmless to humans.

*Endangered* - For a long time, the manta ray was known as the "devil fish." This is probably because of its enormous size and the horn-like appendages on either side of its head. The word "manta" is Spanish and Italian for "cloak," which is quite fitting for the manta ray's shape, as it looks like a spread-out cape. As stated, mantas are harmless to man and rather indifferent to divers. However, their meat is considered a delicacy in some countries. The liver is also cherished and even its skin is used as an abrasive.

### **PIGGY-BACKING FISH!**

Like the silvertip shark, the manta ray often has companions. In **SHARKS** you will witness a remora fish "piggy-backing" on the big manta ray! Remora attach themselves to sharks and rays with the flat suction disk on top of their head. They ride sharks' hydrodynamic bow wakes. In addition, they finish off leftover fish as well as eat the parasites off the manta. So it is a win-win symbiotic relationship.



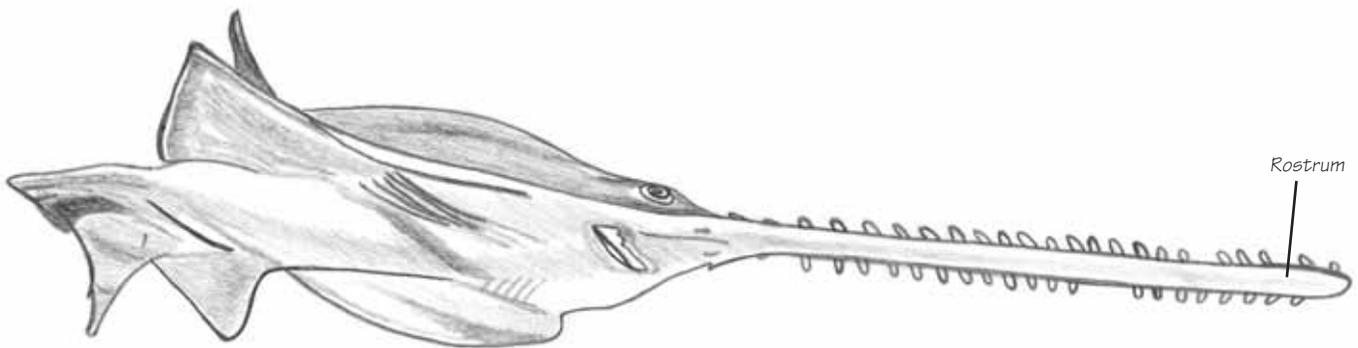
# LARGE TOOTH SAWFISH

***Pristis pectinata***

**Average Size - 5.5 m (18 ft)**

***Critically endangered***

**Sawfish** are not fish. Fish have bones, and sawfish have cartilage, like sharks and rays. Sawfish are related to rays; therefore, they are related to sharks. They appear to share similar traits with both. They have long fusiform bodies like sharks, but also have large triangular pectoral fins like rays. In short, sawfish are modified rays with shark-like bodies. Their flat head and body are characteristic of a fish living at the bottom of the sea and in shallow waters. As with other rays, their mouth, nostrils and gill slits are located on the ventral side. Large tooth sawfish can grow up to 6.4 m (21 ft).

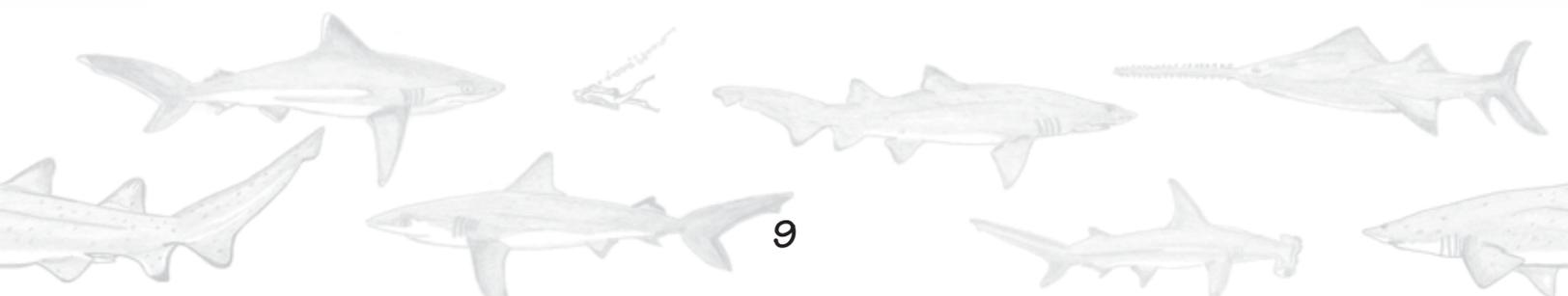


One thing that is different, for sure, is their long flattened snout, called a *rostrum*. This long snout, which represents 25% of the sawfish's entire length, has 14 to 22 teeth on either side, making it look like a saw. This remarkable snout is covered with sensors that can detect electric current emitted by all living creatures. The sawfish does not only feel the movements of other fish but it can also sense the heartbeat of buried animals.

*Feeding Habits* - Sawfish live near the bottom of the ocean and catch their food by slashing at their prey. When a sawfish finds its prey, it uses its snout to dig up the sandy seabed to find bottom-dwelling fish. If its prey tries to escape this agile predator, it attacks by hitting the prey with its long, sharp snout.

*Habitat* - Sawfish are normally found in tropical waters. They swim mostly in estuarine and coastal habitats, such as bays, lagoons and even rivers. The sawfish is one type of sharks that will venture into fresh water sources.

*Reproduction* - Sawfish reproduce through ovoviviparity. Embryos mature internally nourished by a yolk sac. Gestation lasts five months. Sawfish have a very low birth rate.



### ROSTRUM AND BIRTH

When the female sawfish gives birth an amazing thing happens. Her rostrum hardens and protects her while her long-nosed offspring come out. At the same time, a rubbery envelope covers the young's teeth. This is quite lucky as she can birth 8 to 15 pups at once. Like sharks and rays, sawfish mothers do not care for their pups. The newborn sawfish will lose right away its rubbery protection from its snout and will start hunting.

*Potential Danger to Humans* -Although the sawfish also uses its snout to defend itself, it is normally very gentle and attacks mostly when disturbed. Humans are not in direct danger with this docile fish that likes to lie quietly at the bottom of the water.

### SAWSHARK VS. SAWFISH

Sawfish are often confused with sawsharks. Among other differences, sawfish as a species of ray have their gill opening on their ventral side while sawsharks' gills open, as for all sharks, on the side of their body.

### Critically endangered species!

Of the 40 known species of sawfish, only seven are known to be alive today. The worldwide sawfish population has been severely depleted.

Sawfish have lots to worry about with man.

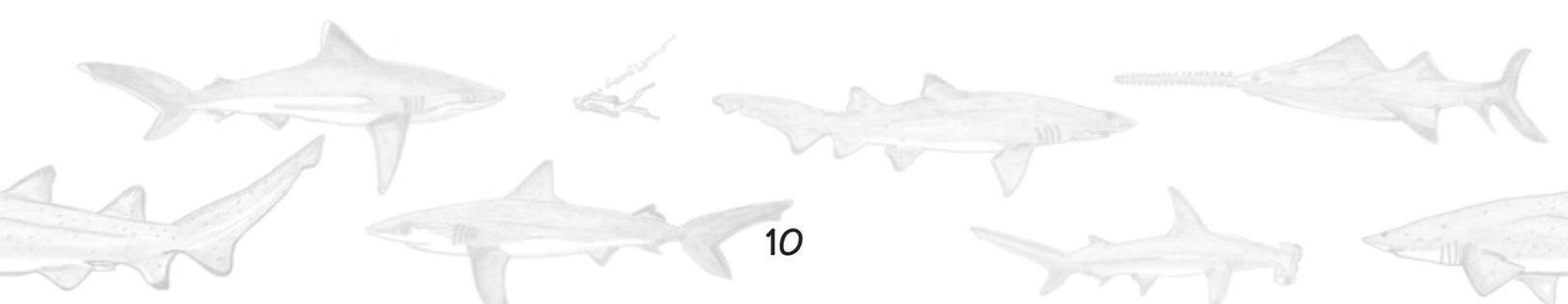
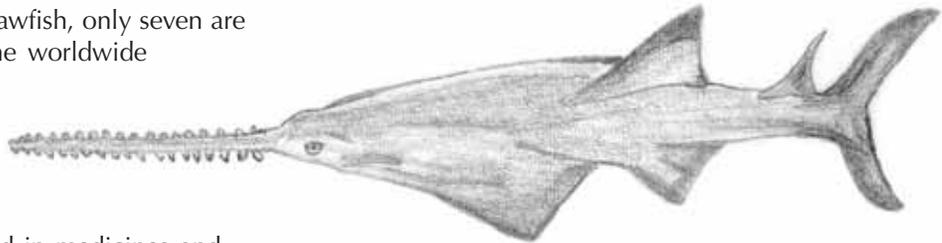
Their meat is valued as

food and their liver oil is used in medicines and

soaps as well as in leather tanning products. Its saw is sold for display and

adult sawfish are stuffed for display. Sawfish love muddy, shallow water making them easy to

catch. Also habitat destruction and over-fishing are eradicating its population. Their long rostrum often leads them to be caught in fishermen's net. Today, they are on the critically endangered species list.



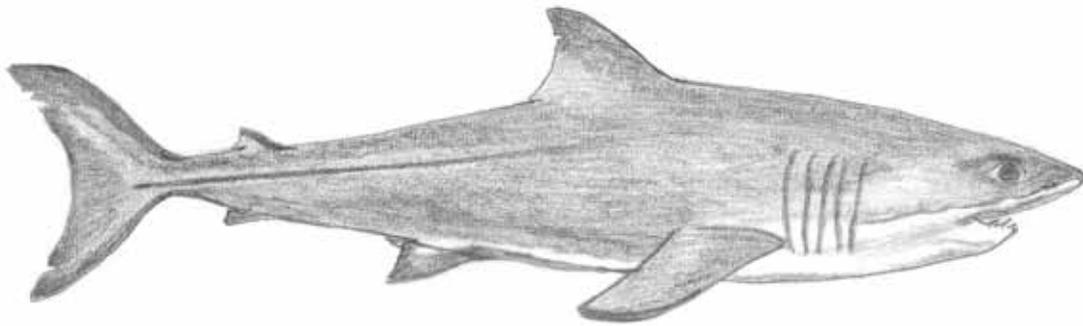
# GREAT WHITE SHARK

**Carcharodon carcharias**

**Average Size - 6 m (20 ft)**

***Endangered***

The **white shark**, also called the **great white**, is the best-known type of shark, and the largest predatory fish. It was also made world-famous by the movie "Jaws." Another name for this shark is "white death" because of its reputation as a man-eater. Great whites grow to be around 6 m (20 ft) long, just half the length of the largest shark. Their maximum length has provoked many debates among scientists who believe today that white sharks might reach about 6.8 m (22.3 ft).

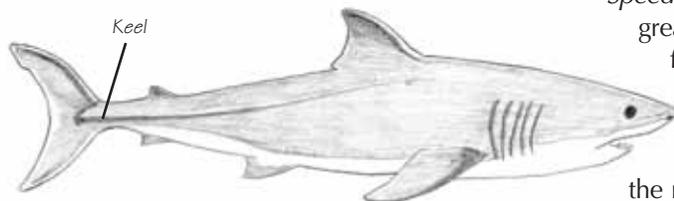


**Coloration** - The great white shark is not white! It can be a slate gray or gray-brown color on the dorsal side fading to white on the ventral side.

**Nose and Teeth** - The great white's nose is conical in form. It has a large mouth with triangular serrated teeth, that are razor sharp.

The great white shark is a solitary fish. It cruises around alone with a purposeful manner around offshore reefs, banks or small coastal lines inhabited by seals, sea lions and walruses.

It is known to be active during the day, so it can peek out to see what is happening at the surface, but it normally quietly swims up to its target from below, then gathers speed by charging up through the water and surprising its prey.



**Speed** - The near perfect shape and narrowness of the fin give the great white incredible force and the ability to move quickly. In fact, the great white is one of the fastest sharks. This is not surprising it has an additional feature called a *keel*.

The keel starts at the end of the gills and stretches down to the narrow base of the tail making the great white look sleeker than ever.

*Do you know? The great white's powerful body has amazing force and speed enabling it to leap right out of the water. It can literally stab through the surface to look around for its next meal. In fact, it is the only shark able to do so.*

The great white is the largest meat-eating shark. So it actually needs to swim quickly in order to attack faster prey such as squid or seals. Even though it is known to attack man, it much prefers seal meat to human flesh. This is because seals provide more energy due to their fatty flesh, which provides energy to pursue more prey. It also eats sea lions, elephant seals and dolphins.

The great white will bite its prey only once. After biting it, it moves off a distance and waits for its victim to weaken or die, before returning to eat it. This prevents the great white from getting any injuries in a struggle. Once the great white has had a good meal it may not eat again for weeks.

The great white in the film **SHARKS** is seen accompanied by a sea lion that playfully yet daringly swims around him.

*TEMPERATURE - Another clever trick the great white has up its pectoral fin is the ability to keep body temperature higher than the surrounding water. The great white's swimming muscles are on average 9° warmer than the water it swims in. Scientists believe that its warmer body temperature makes its muscles more agile and ready for action.*

*Reproduction - White sharks are ovoviviparous, where the eggs hatch inside the female body. There is no placenta to nourish the pups so they feed off the unfertilized eggs and the unfortunate smaller pups. It is thought that they even ingest their own sets of shedded teeth. Few of the pups are born and they swim away immediately after birth so as not to be eaten by their mother.*

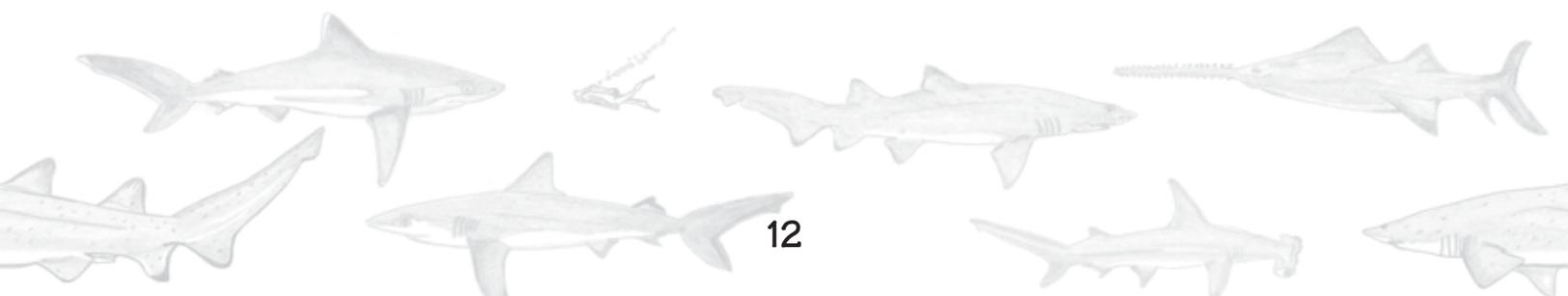
*Habitat - The great white lives in coastal waters in places like Australia, South Africa, the USA and the Mediterranean. It swims down to depths of 300 m (984 ft) and likes temperate and tropical waters. The great whites filmed in **SHARKS** live in the waters of Guadalupe, Mexico, 250 miles south west of San Diego.*

*Potential Danger to Humans - The great white is known to have attacked surfers, divers, and even boats. As a result, it has a terrible reputation of fierce man-killer. However, the white shark does not attack systematically when encountered. Despite all the bad press about white sharks they are rarely seen and are not very common. They are a protected species.*

*Endangered Species - The great white is at the top of the food chain so it does not have to defend itself against many predators. Killer whales and larger sharks can be a problem though. The biggest threat to a great white is, of course, man. Because of its reputation as a man killer, it is a great prize when caught. Some people will freeze them whole and put them on display. Otherwise, their teeth and jaws are highly valued. Their meat and fins are sold for food and the liver is taken for the oil. They also face many dangers from gill nets and other lines and hooks set up in the oceans, not to mention their weak birth rate and late maturity.*

**SAD FACT...**

*An average of 12 people are killed by sharks annually while 100 million sharks are slaughtered by men in that time.*



# SCALLOPED HAMMERHEAD

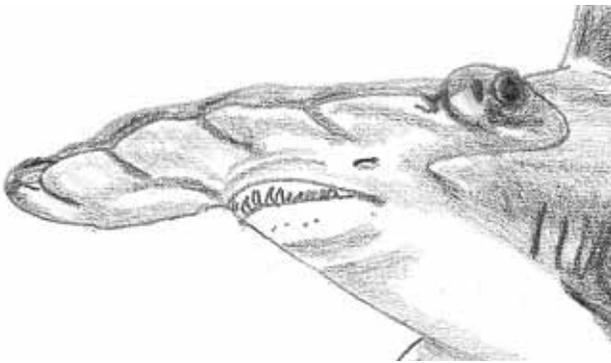
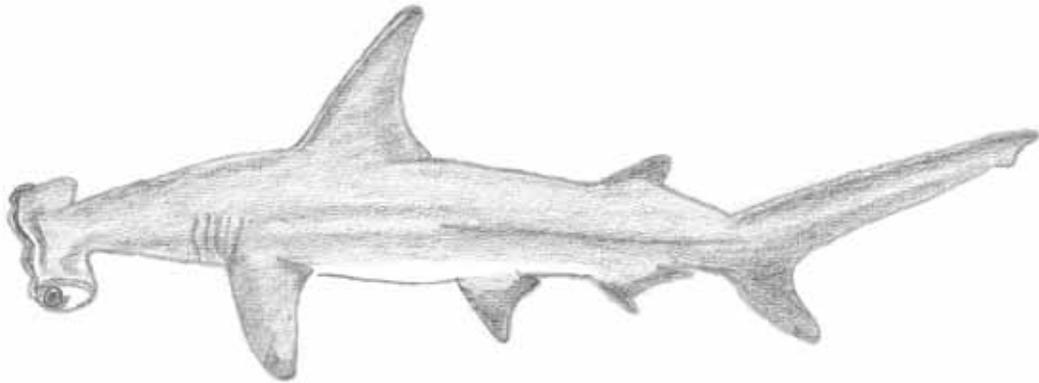
## *Sphyrna Lewini*

Average Size - 2.5 m (8.2 ft)

*Endangered*

**Hammerhead sharks** are the most easily recognizable fish around. Their wide flat heads resemble the top of a hammer. The average length is 2.5 m (8.2 ft). The scalloped hammerheads seen in **SHARKS** were larger than average.

**Scalloped hammerheads** are the most common of the nine different types of hammerheads.



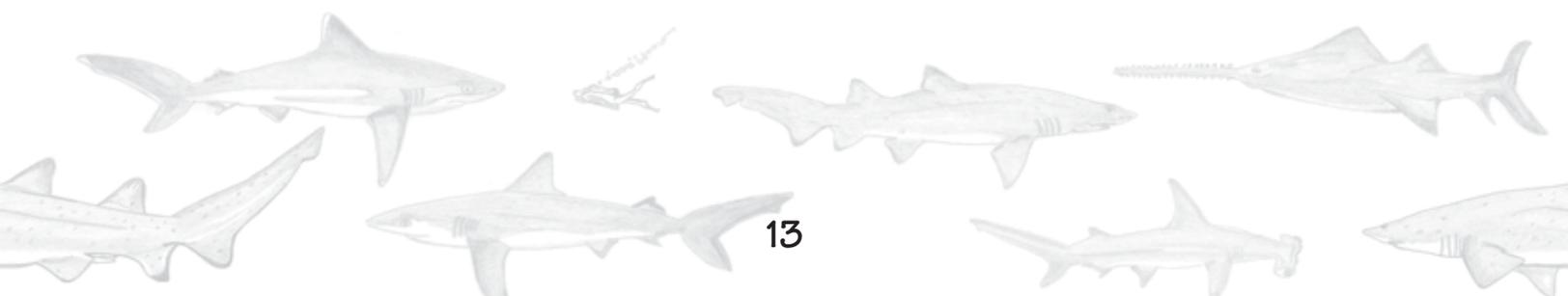
In addition to having a huge flat head, they also have bulging eyes located laterally on both sides of the snout. Talk about peripheral vision! To look straight ahead, they simply swing their heads from side to side. They get their name from the curves (scallops) they have on the front of their head.

*Behavior* - On top of their special physical characteristics, scalloped hammerheads are extremely social. They swim in schools of 200 or more. Scalloped hammerheads will even make synchronized movements when swimming together suggesting an incredible ability to communicate with each other. In the film you will come across a grand procession of scalloped hammerheads swimming together. It is

enough to scare any fish away. That could be why during the day they stick together but they hunt alone at night.

*Feeding Habits* - They especially like octopus, calamari, and shellfish. Thanks again to their big snout they are able to detect their prey under the sandy ocean bed. They will also eat other medium size sharks.

*Habitat* - They are often found in the wide-open ocean but can also be found near the coastlines at the surface around coral reefs. They like temperate and tropical waters but if the surface temperature gets too hot they will swim deeper down to depths of 300 m (984 ft). The scalloped hammerheads seen in **SHARKS** were filmed in Malpelo, Colombia, north of Galapagos.



*Reproduction* - They reproduce through viviparity meaning the eggs hatch inside the female body and feed off a yolk sac placenta. Quite large litters of 15 to 30 pups are born after a nine to ten month gestation period.

The pups' hammer-shaped heads are soft and flexible at birth to allow them to easily go through the birth canal.

**WATCH OUT!**

*Most of the scalloped hammerheads seen in SHARKS are pregnant females!*

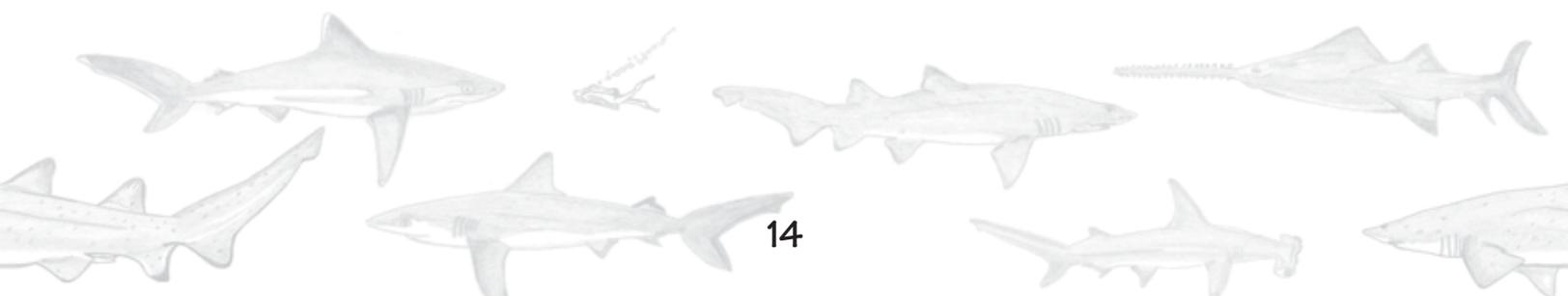
*Potential Danger to Humans* - Scalloped hammerhead are not particularly dangerous to humans unless provoked (chasing, spearing, touching). However, there have been reports of unprovoked attacks against man, two of which were fatal. Scalloped hammerhead can display threatening poses and do not like sudden movements. They seem to dislike divers because of the air bubbles created by their oxygen tanks.

*Endangered Species* - Scalloped hammerheads have no real predators once they reach adult size, but despite this and the large litter sizes they are **among the most threatened** species as they are fished for game and commercial use. Their meat is prepared in many different ways for humans and is also used as bait. The fins are valued and used in shark fin soup.

Their social behavior of grouping together puts them in danger by making them easy targets for longlines, bottom nets and trawls. The pups are especially vulnerable to fishing practices while they grow to adult size in shallow coastal nursery areas.

**VERY EFFECTIVE HUNTERS!**

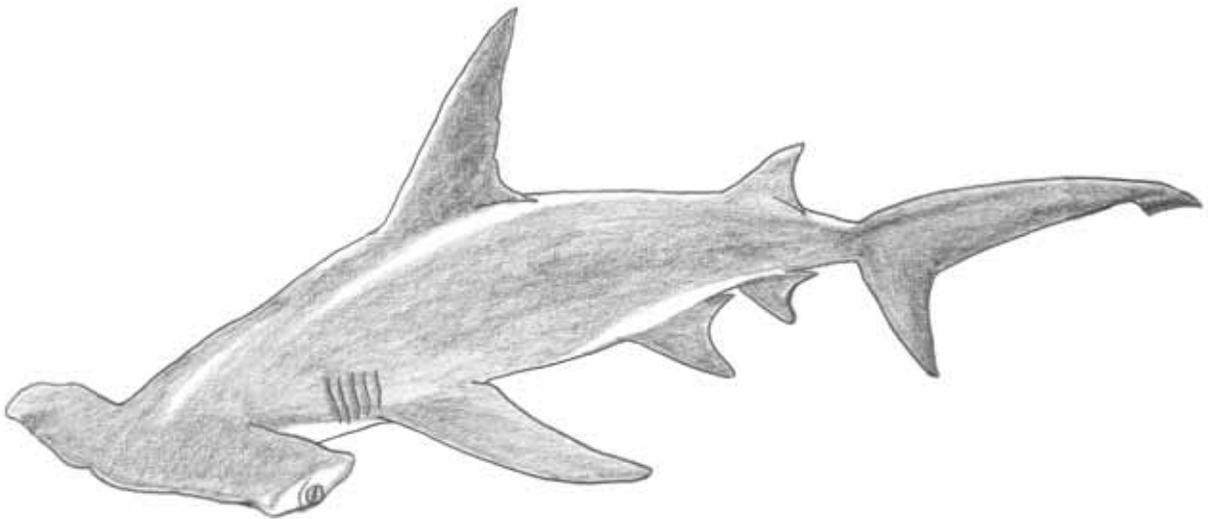
*Scalloped hammerheads may look strange but their form allows them to be very effective hunters. The shape of their head, in fact, helps them trap their prey as they attack. As well, there is a lot of space under that wide snout for holes, or pores called "ampullae of Lorenzini", that detect the electrical signals given off by other animals. The swinging motion they use to see also serve to test the waters for any signals given off by stingrays, their main prey. Thanks to all of these great traits scalloped hammerheads are highly effective hunters and can easily track down their prey.*



# GREAT HAMMERHEAD SHARK

**Sphyrna Mokarran**  
**Average Size - 3.5 m (11.5 ft)**  
***Endangered***

The **Great Hammerhead shark** is the largest of the 9 different species of Hammerhead sharks. It is one of the largest predatory sharks. It can grow up to a length of 6 m (20 ft) and weigh up to 450 kg (1,000 lbs). It inhabits shallow reefs and can be found in tropical waters around the world.



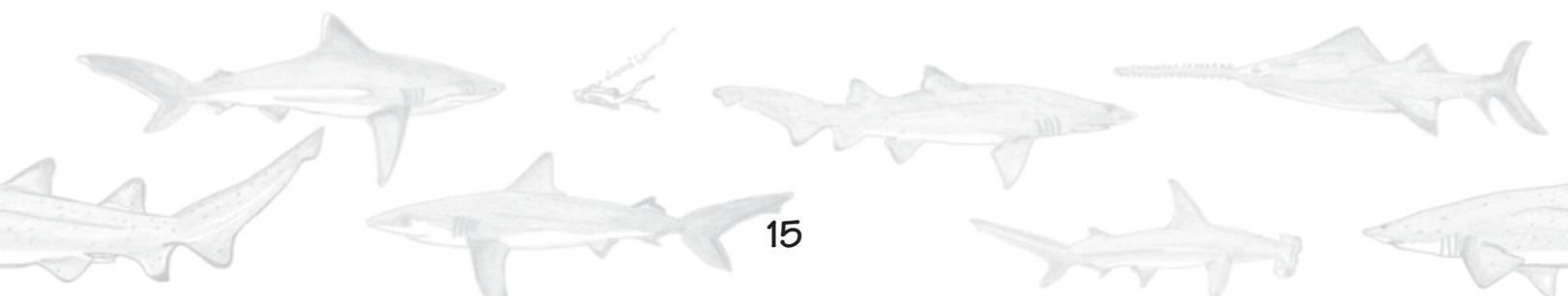
*Behavior* - Unlike scalloped hammerheads, the great hammerhead is a solitary creature. With its large snout, it has an excellent sense of smell and a greater concentration of ampullae de Lorenzini so it can easily sniff out its prey. However, it is very patient and will spend hours observing its prey before attacking. It then uses its snout to pin down the prey and takes a big bite.

*Feeding habits* - It eats a wide variety of food. Its favorite food is stingrays, but it also feeds on fish, squid, skates and other sharks. It has been known to be cannibalistic, i.e. eating individuals of its own species. In **SHARKS** a Great Hammerhead Shark is seen picking up the body of a dead female reef shark.

*Reproduction* - Great Hammerheads reproduce through viviparity. The eggs hatch inside the mother and feed off a yolk placenta. After an 11-month gestation period, 15 to 30 pups are born.

*Potential Danger to Humans* - The Great Hammerhead Shark had a terrible reputation as a highly dangerous man-eating shark because of its great size, its broad food taste and reports of a few attacks. However, recent encounters suggest that they are not inclined to attack people.

*Endangerment*: data deficient, i.e. not enough data to assess the risk of extinction - Great hammerheads are endangered even though their meat is usually not eaten by humans. Their fins are used in shark fin soup, their liver oil is used to make vitamins, and their carcasses ground into fishmeal. Great hammerheads are hunted for sport. Unfortunately, they are often caught in tropical regions and killed in longliners, bottom nets and trawls.



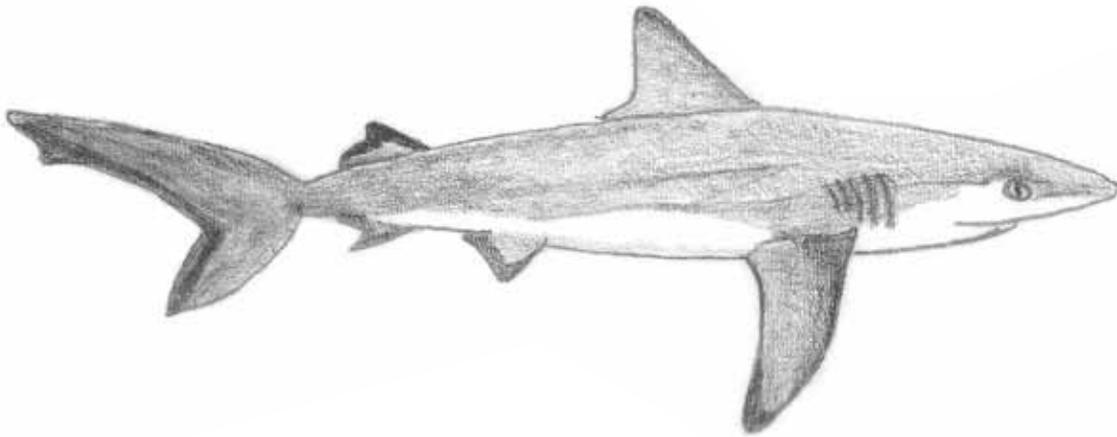
# GRAY REEF SHARK

**Carcharhinus amblyrhynchos**

**Average Size - less than 2 m (6.6 ft)**

***Endangered***

The **Gray reef shark** as its name indicates lives around coral reefs and is gray with the exception of its ventral side which is white! It is one of the most common reef sharks. Its average size is less than 2 m (6.6 ft) but it can grow up to 2.6 m (8.4 ft) in length. Even though they are still quite large animals, they are the smallest sharks your student will encounter during their dive with us.

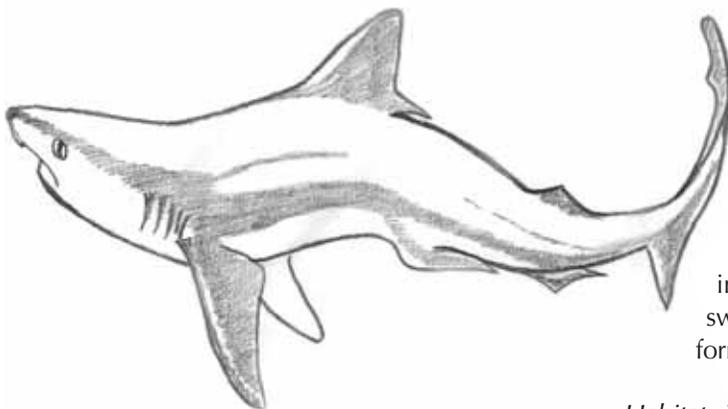


*Feeding habits* - The gray reef shark eats a lot of reef fish, of course. It likes crab, lobster, squid, octopus and shrimp. It will also eat bony fish like cowfish or butterflyfish. Not a bad diet! It is known to be cannibalistic as it eats young sharks of its own species. Their predators include the silvertip sharks and larger sharks.

*Behavior* - The gray reef shark is known to have a very peculiar behavior. In fact, it is a very curious shark, that likes to see what divers are doing, but if ever it feels threatened it reacts by warning the diver, or predator, to beware. It does

this by adopting an intimidating swimming style. It will raise its snout, arch its back and lower its pectoral fins.

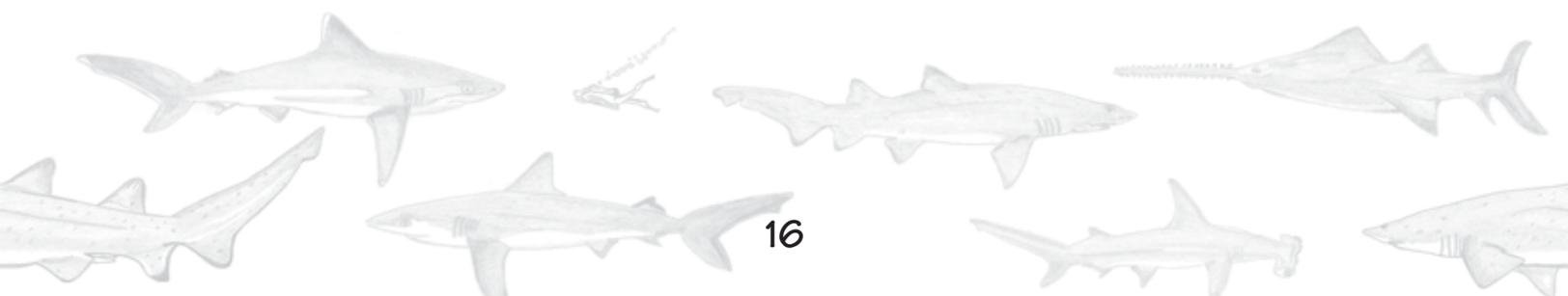
Then it will sway back and forth in an exaggerated motion. If it still feels threatened it will attack with lightning speed. It is the only shark species known to do this.



The gray reef shark is more active at night when it swims alone. During the day they are often seen swimming in small groups or schools. When they do this they swim fairly close to the bottom of the ocean. They also form small groups that lurk near reef drop-offs.

*Habitat* - The gray reef shark likes warm waters. It lives primarily in shallow tropical waters. It likes to swim around the outer edges

*Gray reef shark's intimidating postures*

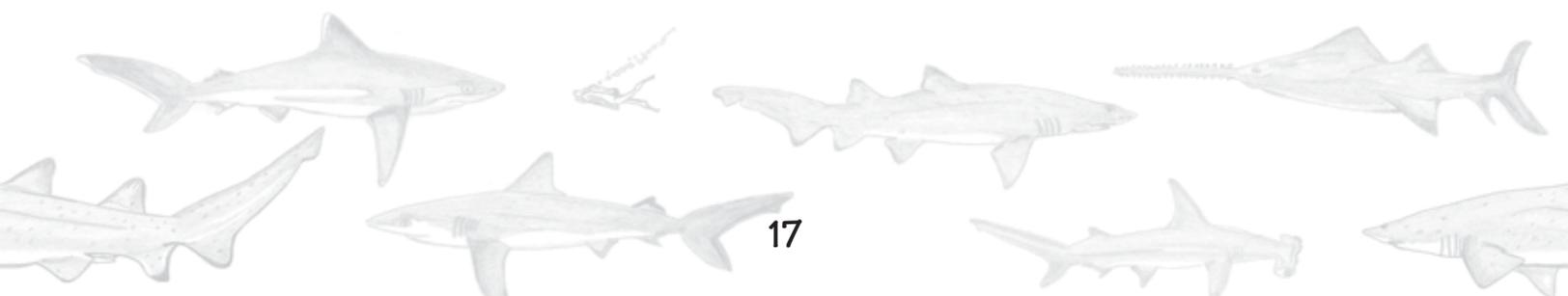
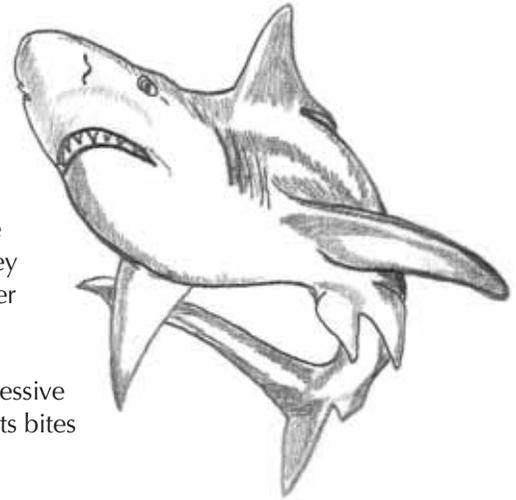


of the coral reefs and quite likes atolls and lagoons adjacent to reef habitats. It sticks mainly to the surface of the ocean but can be found at depths reaching 280 m (980 ft). The gray reef sharks in **SHARKS** were filmed in Rangiroa, French Polynesia.

*Reproduction* - When it comes to love it can be a “shark eat shark” world! Sometimes the mating gets so violent that the females die in the process. The overly excited males bite the females too many times as they pursue them. Gray reef sharks are viviparous and births one to six pups per litter. The gestation period is about 12 months.

*Potential Danger to Humans* - Although this shark is among the most aggressive sharks, it only attacks humans when it is provoked. The majority of times its bites are not fatal.

*Endangered Species* - The Gray reef shark is quite vulnerable to over-fishing due to its restricted habitat and small litter. Once again the fins are used for shark fin soup. It is also used for fishmeal.



# WHALE SHARK

**Rhincodon typus**

**Average Size - 12 m (39 ft) long**

***Critically endangered***

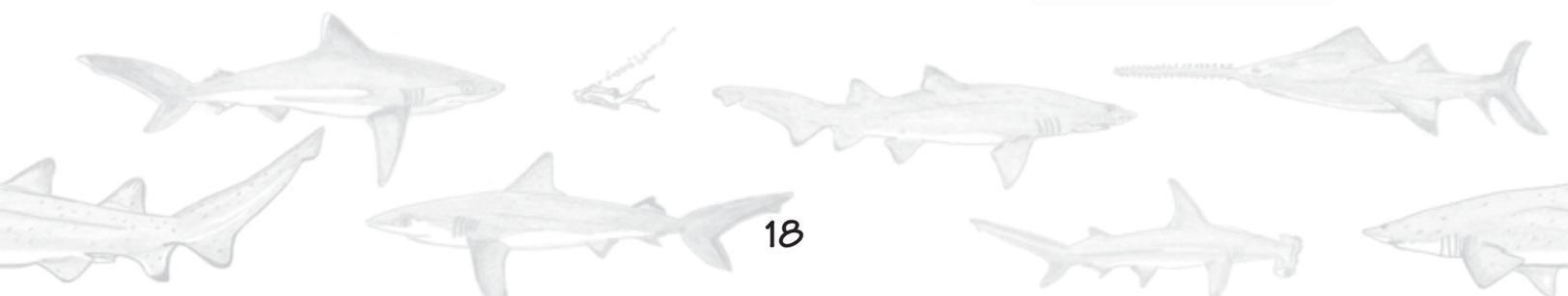
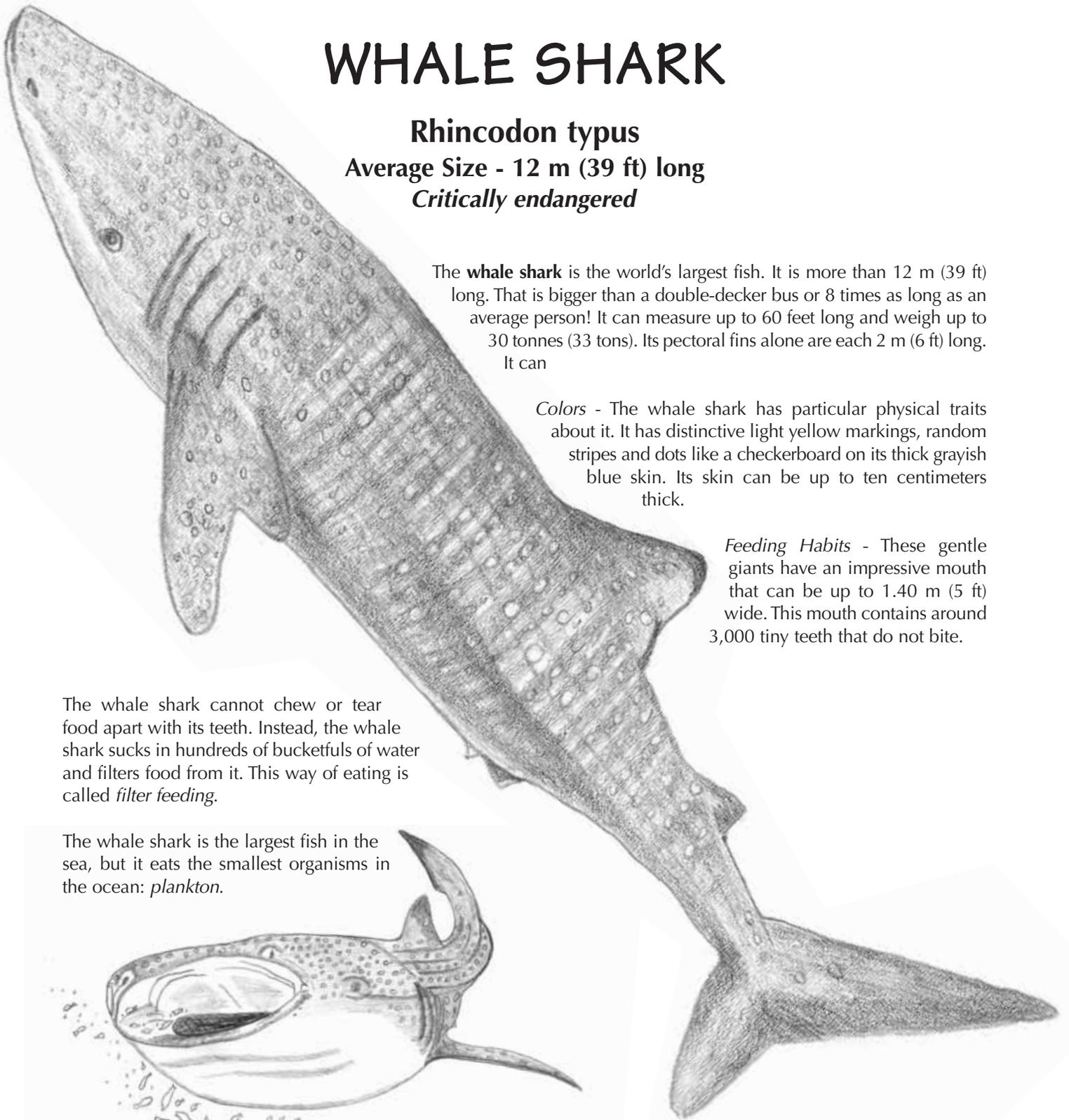
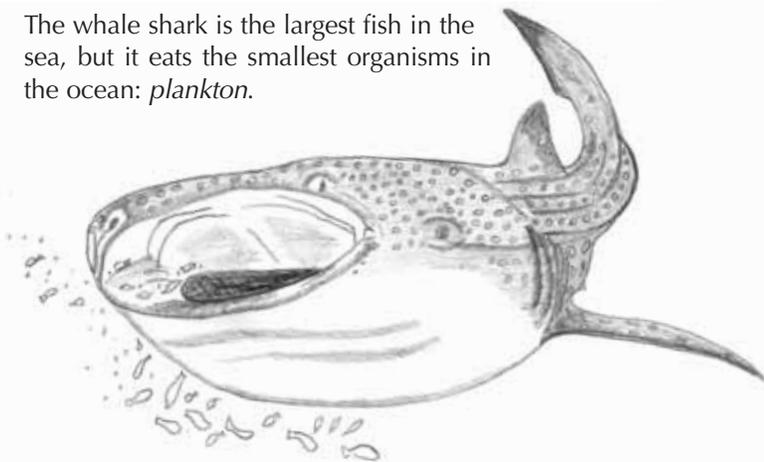
The **whale shark** is the world's largest fish. It is more than 12 m (39 ft) long. That is bigger than a double-decker bus or 8 times as long as an average person! It can measure up to 60 feet long and weigh up to 30 tonnes (33 tons). Its pectoral fins alone are each 2 m (6 ft) long. It can

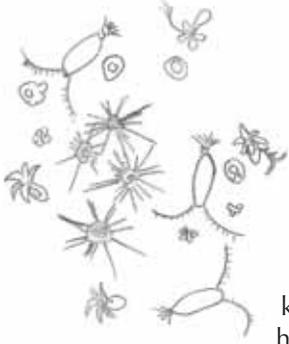
*Colors* - The whale shark has particular physical traits about it. It has distinctive light yellow markings, random stripes and dots like a checkerboard on its thick grayish blue skin. Its skin can be up to ten centimeters thick.

*Feeding Habits* - These gentle giants have an impressive mouth that can be up to 1.40 m (5 ft) wide. This mouth contains around 3,000 tiny teeth that do not bite.

The whale shark cannot chew or tear food apart with its teeth. Instead, the whale shark sucks in hundreds of bucketfuls of water and filters food from it. This way of eating is called *filter feeding*.

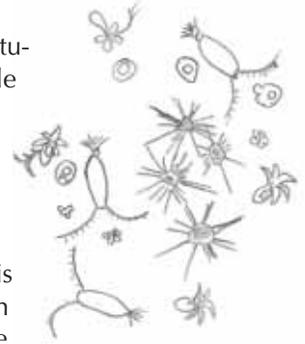
The whale shark is the largest fish in the sea, but it eats the smallest organisms in the ocean: *plankton*.





Plankton

A whale shark has meshlike filters in front of their gills. These filters capture food by trapping any plankton floating in the seawater that the whale shark sucks in. The whale shark swims horizontally, very slowly, so it can continuously scoop up food. It also catches fish such as sardines, maquerel and trevallies.



Plankton

*Habitat and Behavior* - Whale sharks live in tropical waters. They are rather solitary but have been seen in larger groups. In fact not much is known about their behavior. They feed at the surface but it is not known how far down they venture. It is thought to be quite far. Whale sharks like deep marine currents where they let themselves be carried away by the currents. The whale sharks in **SHARKS** were filmed in the ocean waters off Mozambique.

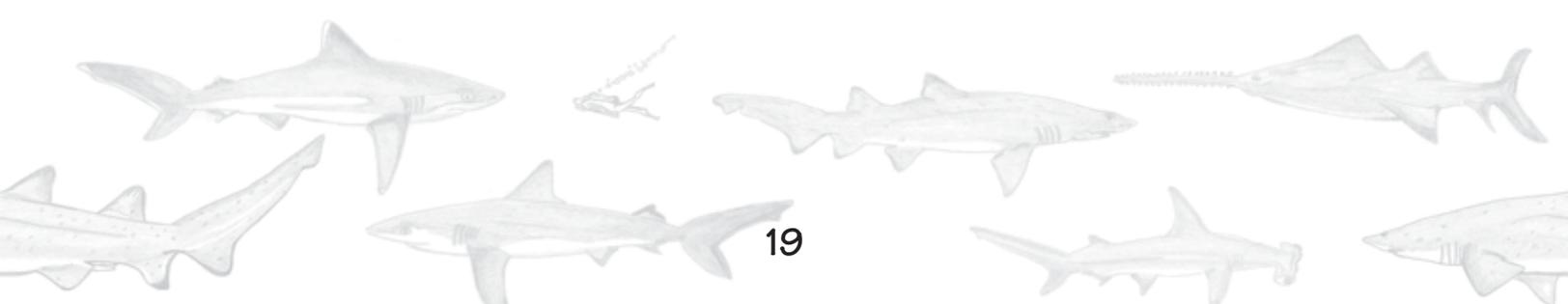
*Reproduction* - For the longest time people thought that the whale fish reproduced through oviparity, expelling the eggs from the body to hatch on the ocean floor. Recently, though, a pregnant female was killed revealing eggs in the mother's uterus. So a whale shark's reproduction method is actually ovoviviparity.

*Potential Danger* - The whale shark is a placid fish. It lets divers swim up beside it and even lets them hold on to its fins. Probably the most dangerous aspect of a whale shark is its teeth and rough skin. Even though a whale shark's teeth are not big compared to its size, a diver can easily bruise an arm or a leg if she or he accidentally touches them. It is also dangerous for humans if the whale shark accidentally hits a sea vessel!

*Critically Endangered Species* - Once again, man is this shark's only threat. Whale shark meat is becoming popular and, of course, so are the fins. Unfortunately, the oil from its liver is used to waterproof wooden fishing boats.

**DID YOU KNOW?**

*A whale shark has the largest eggs in the world. One egg can measure up to 40 times the size of a chicken egg and the embryo may grow to be over 35 cm (14 in) long.*



# The Theme Song

## STILL BE BLUE

*Dark and light  
All the shades of gray  
Colors overbright  
We can make them fade away*

*If we respect the balance  
of life upon the planet  
The sea will still be blue*

*Sail away to another place  
You can feel the air  
Feel the wind upon your face  
The sea is far below you  
It seems to still be blue*

*If we reject the balance  
of life upon the planet  
The predator becomes the  
prey and so it goes  
Everybody knows that  
the sea will still be blue.*

**Lyrics by Claudia Phillips**

