

# **Surrounded by Sharks**

## **DIVE Presentation** (updated April/2007)

The following information is not intended to be a “memorized” script but rather an outline for presentations. Each diver will have various levels of knowledge and expertise and it is important that this is incorporated in their presentations.

### **Example Script** (bold type indicates key points)

#### *Introduction:*

**Good afternoon everyone and welcome to the Newport Aquarium. My name is \_\_\_\_\_, this is my safety diver, \_\_\_\_\_, and we’re volunteer divers. At the end of this presentation, I will take some time to answer your questions,** so you can be thinking of those for the next few minutes. I’m speaking to you today from inside of our *Surrounded by Sharks* exhibit. **This is our largest exhibit with over 385,000 gallons of saltwater.** The temperature in this tank is about 75° F and it ranges in depth from 10 to 20 feet. The windows and tunnels of this exhibit are made of a super strong acrylic about 2½ inches thick, while the see-through floor in the shark tunnel is 9½ inches thick and can hold nearly 50 tons. **All total, this exhibit supports several hundred fish, including 12 sharks, and our 2 shark rays, Sweet Pea and Scooter.**

#### *Exhibit information:*

**There are five species of sharks that live in our exhibit; the nurse sharks** (the brown sharks which can often be seen resting on the bottom), **the sandbar sharks** (which are quick-swimming with tall dorsal fins), **the sandtiger sharks** (the large, slow-moving sharks who can easily be identified by their long, pointed teeth), **the zebra sharks** (which, despite their name, have beautiful leopard spots), and the small and slender **whitetip reef sharks**. **The most famous animals in this tank, of course, are the shark rays Sweet Pea and Scooter.** Shark rays are cousins of sharks and rays. **They are very rare and only a small number are displayed in aquariums around the world. Both Sweet Pea and Scooter are over 5½ feet long and weigh about 150 pounds. You can tell them apart by their markings – Scooter has more white spots than Sweet Pea. In addition to our sharks, we also have some large Southern Stingrays, two honeycomb whiptail stingrays, a variety of schooling fish, several large groupers, a large green moray eel, and Denver our loggerhead sea turtle.**

**How many of you have heard sharks referred to as “eating machines”? Well, the sharks in this exhibit only eat once a week. They get trout, salmon, mackerel, and other restaurant-quality fish.** Each shark is fed about 3-5% of its total body weight, which keeps everyone well fed, and we all get along. The large sharks are fed with the use of a very long pole, while the smaller sharks and stingrays are fed by hand. **The rest of the fish in the exhibit are fed 3 times a week. They get shrimp, clams, krill, and veggies. Denver the sea turtle gets whole fish, squid, and clams.**

A tank of this size requires a lot of maintenance to keep it clean. Especially with all this feeding going on. The filtration unit for this tank can filter the tank’s entire volume (that’s over 1/3 of a million gallons) every 2 hours. The pumps that drive the filters can generate enough horsepower to power a small car. In addition to these filters, we also have volunteer divers who enter this tank almost every day of the week to scrub algae off the rockwork and glass, as well as observe the animals.

#### *Shark information:*

**While we do take precautions, like using a safety diver, we’re in no great danger of the sharks in this tank.** These sharks are like most of the 400 species of sharks in that they eat small fish and are relatively harmless to humans. Although shark bites have received a lot of media attention in recent years, realize that **you actually have a 50 times greater chance of being struck by lightning than you do of being bitten by a shark. And of the very few bites that do occur, most are cases of mistaken identity.** A foot or a hand, splashing around in the surf, can look like a small fish to a bull shark. Or the silhouette of a surfer can look like a sea lion to a great white. Fortunately for us, we are not on a shark’s menu. Usually when a shark bites a human, it realizes immediately that what it has is not its natural food source and lets go.

Let me put something in perspective for you. Every year in the U.S., an average of 1 person will die from a shark bite. In the same year, an average of 100 people will die from tipping a vending machine on themselves. So go ahead, go to the beach and have a great time! But if those Doritos don't come down on the first try, just let them go!

Despite all of this, a lot of people worry about how we can protect ourselves from sharks. But **the reality is its sharks that need protection from us. Every year, millions of sharks are killed by people. They're killed for their meat, their cartilage, and for sport.** Not to mention the horrific practice known as "shark finning" in which all the fins are sliced from a living shark and then the helpless animal is tossed back into the ocean to die. Shark rays, like Sweet Pea and Scooter, are among the species of sharks targeted for the soup fin trade.

**This overfishing is devastating, not only to shark populations, but also to the ocean ecology as a whole.** That's because **sharks are apex predators.** Their job is **to hunt down the weak, sick, and injured animals of the ocean** to keep the gene pools of those populations strong and healthy. In a way, **sharks maintain the health of our world's oceans.** And this is a job that sharks have been doing for hundreds of millions of years.

*Conservation:*

**It is our hope at the Newport Aquarium that you can experience these magnificent animals up close, so you can learn about them, learn to love them, and want to protect them.** We hope that through Sweet Pea's fame and popularity that we can bring to light the problem that many shark species face from finning and over fishing. We also hope to dispel myths about sharks. We want you to see that sharks are not the maneating monsters portrayed in the movies and in the media, but rather they are beautiful and mysterious creatures that deserve our respect and protection.

**You may think that being landlocked here in the Midwest that there's not much you can do help animals out in the ocean. But you can, and it's easy! The next time you're out on the river, don't let your sandwich bag blow into the water. Plastics like that can drift down the river and out into the ocean where they can be mistaken for food by animals like seaturtles, dolphins and manatees. Ingesting plastics can be fatal to animals. Say the next time you go fishing, don't throw your tangled fishing line overboard. Fishing line and fishing nets can trap and entangle seaturtles, sharks, and scuba divers – and we can drown. And please don't buy products made from these animals like shark fin soup, shark cartilage pills, and sea turtle meat, skin and shells.** By working together we can save magnificent animals such as sea turtles, sharks, and shark rays and protect our planet for future generations.

**Now for the next few minutes, I will gladly answer any questions you might have** about the exhibit and the animals that live here.

*Info to add when certain animals swim by:*

**Denver:** Here's Denver, our loggerhead sea turtle. He was rescued as a stranded hatchling off the coast of NC and was rehabilitated by aquarium biologists. He spent his early years at the Ocean Journey aquarium in Colorado before coming here to the Newport Aquarium. He is 12 years old, so he's still a youngster. Although he's already 3 feet long and 170 pounds, he can live to be 75 and grow to be 4 feet long and weigh 350 pounds!

**Grouper:** If you didn't think fish had personality, then you've never met a grouper. Scuba divers love finding groupers because they're gregarious fish that will often follow divers and hang out around ship wrecks. You can't be sure who's watching whom. Many species of grouper are declining in number because fishing companies target their predictable breeding aggregations.

**Shark rays:** Here's the famous Sweet Pea the Shark ray [or Scooter as the case may be]. Sweet Pea and Scooter were caught in a fisherman's net near Taiwan. By acquiring her, Newport Aquarium became the first institution in North America to display this very rare fish. It is our hope that Sweet Pea will help to make the

public aware of the pressures that certain shark species are facing from the shark fin trade. Despite the rarity of the shark ray, their fins are among the most prized for shark fin soup. It is also our hope that this endearing and fascinating creature will help to dispel many of the myths about sharks.

## **F.A.Q.**

### **Sea Turtles**

**How many species of sea turtles are there in the world?** : There are 8 species: the Loggerhead, Green, Black, Olive Ridley, Kemp's Ridley, Flatback, Hawksbill, and Leatherback.

**What does the sea turtle eat?** : They are given a varied diet of squid, fish, clams and lettuce.

**Why does the turtle have a shorter back flipper?** : When he was a young hatchling, his flipper was bitten and injured by another sea turtle. It does not affect his ability to swim.

**Is the sea turtle a boy or girl?** : Boy.

**Didn't we used to have 2 sea turtles?** Yes, our other turtle, Fisher, was released back into the wild in the summer of '04. He was outfitted with a small tracking device, so that researchers might learn more about sea turtle behavior and further their efforts towards conservation.

**Why does the sea turtle bite onto the corals and the gravel?** : It is thought that this behavior helps them to file down their beak-like mouths.

**How big is the sea turtle in the exhibit?** : 3 feet long (shell length); 200 pounds.

**How old is the sea turtle?** : 14 years old (in 2006)

**How big will the sea turtle get?** : Loggerheads can weigh up to 350 pounds and reach lengths of more than 4 feet.

**What is the biggest sea turtle?** : The biggest sea turtle is the leatherback. It can weigh over 2000 pounds and reach lengths of 10 feet.

### **Sharks**

**How big will the sharks grow?** : Sandtigers 10-12 ft; sandbars 7-9 ft.; nurse sharks 12-14ft; zebras 10-12ft; shark ray 9-10ft.

**Where did we get the sharks?** : The sandbars came from Florida, and the sandtigers came from New Jersey, the zebra sharks and honeycomb rays came from Australia, and the Shark ray came from Taiwan. All species were caught in the wild. Nurse sharks came from various zoos and aquariums.

**What kinds of fish are in the tank?** : Blue Runner Jacks, Spadefish, Grunts, Schoolmasters, Nassau Grouper, Goliath Grouper, Porkfish, Green Moray, Southern stingrays, Honeycomb whiprays, Sandtiger sharks, Sandbar sharks, Nurse sharks, Zebra sharks, Shark rays.

**How many teeth do sharks have?** It depends on species, but some sharks may have up to seven rows of teeth and go through as many as 30,000 teeth in their lifetime.

**Is it true that sharks don't sleep?** No, they "sleep" but not like humans do. They go into something like an energy conserve mode where they are not as active, similar to a computer when it goes into its screensaver mode.

**Is the tank really big enough for them all?** : Yes, these animals were selected because they are shallow dwelling creatures. They choose to be in shallow areas in the wild.