



EMERALD KEEPERS

Making Coronado Emerald Green, Ocean Blue

EMERALD READ KICK-OFF

In Partnership with the Coronado Public Library

Pick up your copy of *The Death and Life of Monterey Bay, A Story of Revival* by Stephen R. Palumbi and Carolyn Sotka. Check out our July events in



partnership with the Coronado Public Library related to this beautifully written book. Books are available at the Coronado Public Library and for purchase at Bay Books. Read about how a stunningly thriving ocean environment became threatened to destruction as humans invaded the sea, scooping up and marketing sea life was turned around.

JULY EMERALD READ EVENTS

July 9: Book Talk

Bring your beach chair and join us to talk about the book. Spreckels Park at 10am

July 16: Discussion with author Dr. Stephen R. Palumbi, Director, Hopkins Marine Station, Stanford University (Online details to follow) 7pm

July 21: Screening of *Saving Otter 501*. Discussion with SeaWorld Rescue Team. 7pm



SHARK WORD SEARCH

L Y W H A O P S A A D E K G W
L J W U K P A Z D N N Z F Q X
I C E N U I S T U L T Q T P A
G O R T S T J O S P Q N J B H
N U B A I N H L M Q G K T L F
E L I M B H A R A I B R E F O
V D E Q T S W E L L Q O C A G
E S E O M I B R C D P G B X U
S H O R T F I N M A K O I W V
E M O F S L V U R T T L E K L
S W K Q I L B D H O O S S S Q
O O K A U A Y R U C W A U V O
N B B C Y M E Q A F O C H R V
D Z M O F S O U P F I N O W C
A G R P H J Z B L D C G G R K
O Q G E L T V L V B D I X U P
R E R D A E W E Y R S O C O K
B Y V U P U E K D G Y Z D K E

LEOPARD
BLUE
WHITE
SMOOTHOUN
SWELL
SOUPFIN
BROADNOSE
SEVENGILL

THRESHER
SHORTFIN MAKO
CLAMS
CRUSTACEANS
WORMS
CRABS
SMALL FISH

SHARKS

Sharks inhabit all the world's oceans and seas. Some even venture into fresh and brackish water. When you enter the ocean, you are entering their home. They are predatory and opportunistic by nature and designed for efficiency. Seeing one in the ocean can be exhilarating. Here are a few sharks you may see in our waters:

GREAT WHITE SHARK Most famously known for their size, growing to an average length of 15 to 16 feet, and weighing up to 4000 to 5000 pounds, they enjoy water temperatures ranging from 54 to 75 degrees, making our coastal waters the perfect environment for them. Adults are known to eat large fish, seal, squid, sea lion, and even other sharks. Juveniles tend to be bottom feeders. Their favorite food is sting rays. While juvenile sharks are typically not a threat to humans, they like to be close to shore.



Photo courtesy of MA Marine Fisheries

LEOPARD SHARK One of the most recognizable sharks be-



Photo courtesy of NOAA

cause of their spotted "leopard" appearance, leopard sharks are usually less than 6 feet in length and are primarily bottom feeders dining on small fish, crustaceans, and small rays. Leopard sharks are quite skittish. La Jolla Shores is an ideal place to try to see these beautiful animals.



Photo courtesy of UCSD

PACIFIC SHORTFIN MAKO SHARK Predominately found off the coast of California, short-

fin makos or "makos" as most people call them, have pointed snouts and long gill slits. Their average length is 6 to 7 feet. Due to a protruded jaw, their pointy teeth are visible even when their mouth is closed. They feed on squid and pelagic (deep water) fish. Shallower waters off Southern California are an important feeding and nursery area for makos.

Q&A

WITH
CORONADO
LIFEGUARD
CAPTAIN
SEAN CAREY



In April 2008, when there was a fatality at Swami's Beach, lifeguards took a step back and reviewed their shark incident guidelines. The San Diego Regional Aquatics Lifesaving Emergency Response Task Force (SDR ALERT) — comprised of Lifeguard Captains, Coast Guard, Harbor Police, and Border Patrol — developed a shark incident policy and regional guidelines.

Q. How did you arrive at your current guidelines?

A. We formed the California Marine Safety Chiefs Association with Lifeguard Captains from as far north as Santa Cruz. Partnering with premiere shark scientist, Dr. Chris Lowe of the Cal State Long Beach Marine Lab, we revised and developed more appropriate shark incident guidelines. These included a decision tree —a simple algorithm of "yes" and "no"

answers to questions about a shark's size, activity, and location. The guidelines are based on science and drive the decision making process. We haven't had to close the beach since the new standards have been in effect.

Q. Tell us about the shark sighting signs recently posted on our beach.

A. On Memorial Day, we posted shark advisory signs. Two Lifeguards spotted a 12 foot white shark in the surf line where they were training on rescue boards. Both confirmed they saw a 12 foot white shark, longer than the board they were paddling. The size took us to Response Level 1 — an advisory level. The shark was not engaging. Dr. Lowe explains engaging behavior as circling, bumping, rushing, or gaping. This shark was just cruising slowly and seemed docile. We posted signs to let people know there was a shark seen in the water.

Q. What do you do when you see a shark?

A. We will launch the jet ski to try to get eyes on the shark and confirm size,

SHARK INCIDENT RESPONSE LEVELS

0 Under 8 feet; not engaging
1 Over 8 feet; not engaging
2 Over 8 feet; engaging
3 Over 8 feet; bite to a person, paddle board, or paddle

species, and activity. Very often when you get close to them on the ski, they swim away very quickly. We want to know where they are and what they are doing. We post signs to inform the public of the sighting. We have a different sign for each Response Level. We can also make announcements. We then notify the Shark Lab at Cal State Long Beach so they catalog the data.

Q. Any final words about sharks?

A. Sharks live in the ocean. Any time you go into the ocean it is like going into the wilderness. You don't know what you are going to come across — sharks, stingrays, jellyfish, sealions, and all could potentially be a hazard. You just need to have awareness, education, and understanding.

For more information visit **EMERALDKEEPERS.ORG**