



**NOAA Teacher at Sea  
Kimberly Pratt  
Onboard NOAA Ship MCARTHUR II  
July 5 – 24, 2005**

**Interview 3**

“Making a Difference, One Survey at a Time”

Conservation, helping our oceans and educating others is Karin Forney’s goal. As a young girl, she was mystified by the ocean, but moved overseas to Germany. Missing the ocean, she knew she had to return and when she did she became one of the leading experts in the field of whales and porpoises on the West Coast. Karin is one of a few scientists in the Coastal Marine



Mammal Program which focuses on determining the numbers of marine life, human impact and what influences their population. During the CSCAPE (Collaborative Survey Cetacean Abundance Pelagic Ecosystem) project, she is serving as Chief Scientist. Her position while on the ship for 3 legs is that of Cruise Leader who is responsible for all aspects of the research program while under way. In port, at her home base in Santa Cruz, California, her job responsibilities are to assess marine mammal populations in the EEZ, (exclusive economic zone) of CA/OR/WA and Hawaii. To do this she conducts surveys to estimate abundance and trends, studies stock structures and sub-populations. She also estimates the human caused mortality of marine mammals by the fishing industry and ship strikes. This she does by applying a formula to evaluate the level of human take that will still sustain a population. If the level is too high she then works with the fisheries to bring down the mortality rates caused by humans.

Karin’s broad background in marine science has given her the skills and knowledge that she needs to make a difference. Karin received her BA in Ecology Behavior and Evolution, her MA in Biology both from UC San Diego, and her PhD. in Oceanography, studying at the Scripps Institution of Oceanography. Her dissertation focused on the variability of marine ecosystems and how it affects abundance, using environmental data to predict when and where marine mammals will be found.

Married, to another Marine Biologist, Karin spends extensive amounts of time working in the field. She loves seeing the animals, yet sometimes it's difficult when the weather is bad and observations can't be made.

Karin has had many accomplishments, but she's been personally moved by the fact that 18 years ago, she didn't know anything about marine mammals, and now she's a leading expert in her field. She's grateful for the opportunities she's had to learn about cetaceans and most importantly always tries to teach others about conservation efforts to help our marine environment. She advises to never underestimate the potential to do damage to our oceans, every meal, fish, and trash has implications for species.

For a person interested in becoming a Marine Scientist, she recommends that you develop a broad knowledge base, learn physics, chemistry and math. You may like dolphins and whales, but you need to develop good skills. Karin's computer programming skills got her this job, even though she was a Marine Biologist. She also recommends that you follow your heart, and do a good job at whatever you do. Also be flexible and seize opportunities when they become available to you.

Answers to students questions:

Elijah – 3rd grade: How deep is the ocean?

Karin: The deepest parts are over 30,000 feet, (10,000 meters), but most of the oceans are about 12,000 feet (400 meters) deep. That's about 2.5 miles deep.

Jennie 5th grade: Where do you find dolphins, whales, sea otters and seals?

Karin: All in the ocean. (Ha) Some prefer closer to shore like the otters and Bottlenose Dolphins, some are far from shore like Sperm Whales. Essentially, you can find marine mammals everywhere.

Amber – 5th grade: What do jellyfish eat?

Karin: Jellyfish are fierce predators. They capture zooplankton, little fish and larval crabs. Because Jellyfish are clear, you can look into their stomachs and see what they've been eating,

Sana – 5th grade: Why are most small fish skinny and thin?

Karin: Actually it's hydrodynamic, they are like little torpedoes. If they swim a lot they are long and thin, whereas; bottom dwellers are rounder. Also the little fish need to swim fast to get away.

Sana – 5th grade: Do sharks eat anything else but fishes?

Karin: Sharks also eat marine mammals, including; seals, sea lions, squid, Blue sharks eat krill too.

Haleermah – 5th grade: How much do dolphins weigh?

Karin: The littlest ones weigh about as much as a fifth grader, (90 lbs). The biggest ones- a male Killer Whale, can weigh over 8 tons.

Haleermah – 5th grade: Do whales ever bite?

Karin: Baleen whales have no teeth, they swallow things whole, toothed whales – the dolphins will bite, sort of like a “bad dog”. Killer Whales generally don’t bite people, but they will bite each other.

Vince Rosato – 4th/5th grade Teacher – How many varieties of dolphins are there? What is the percent of Bottlenose Dolphins? What are the differences between porpoises and dolphins?

Karin: There are approximately 40 different dolphin species. The Bottlenose is the most abundant near shore, yet they are a small fraction of the total dolphin population. Less than 10% of all dolphins are Bottlenose. The difference between porpoise and dolphins are:

1. Their skull shape – the porpoise has a blunt head,
2. Teeth – tooth shape in a dolphin is conical, the porpoise is spade like.
3. Porpoises are in smaller groups – less social.
4. Porpoises are generally found in the higher latitudes except the Finless porpoise.

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