Did Animals Sense Tsunami Was Coming? (pg 107 in textbook)

By Maryann Mott for National Geographic News January 4, 2005

Before giant waves slammed into Sri Lanka and India coastlines ten days ago, wild and domestic animals seemed to know what was about to happen and fled to safety.

According to eyewitness accounts, the following events happened:

- Elephants screamed and ran for higher ground.
- Dogs refused to go outdoors.
- Flamingos abandoned their low-lying breeding areas.
- Zoo animals rushed into their shelters and could not be enticed to come back out.

The belief that wild and domestic animals possess a sixth sense—and know in advance when the earth is going to shake—has been around for centuries.

Wildlife experts believe animals' more acute hearing and other senses might enable them to hear or feel the Earth's vibration, tipping them off to approaching disaster long before humans realize what's going on. The massive tsunami was triggered by a magnitude 9 temblor off the coast of northern Sumatra island on December 26. The giant waves rolled through the Indian Ocean, killing more than 150,000 people in a dozen countries.

Relatively few animals have been reported dead, however, reviving speculation that animals somehow sense impending disaster.

Ravi Corea, president of the Sri Lanka Wildlife Conservation Society, which is based in Nutley, New Jersey, was in Sri Lanka when the massive waves struck.

Afterward, he traveled to the Patanangala beach inside Yala National Park, where some 60 visitors were washed away.

The beach was one of the worst hit areas of the 500-square-mile (1,300-square-kilometer) wildlife reserve, which is home to a variety of animals, including elephants, leopards, and 130 species of birds. Corea did not see any animal carcasses nor did the park personnel know of any, other than two water buffalos that had died, he said.

Along India's Cuddalore coast, where thousands of people perished, the Indo-Asian News service reported that buffaloes, goats, and dogs were found unharmed.

Flamingos that breed this time of year at the Point Calimere wildlife sanctuary in India flew to higher ground beforehand, the news service reported.

Strange Animal Behavior

Accounts of strange animal behavior have also started to surface. About an hour before the tsunami hit, Corea said, people at Yala National Park observed three elephants running away from the Patanangala beach. World Wildlife Fund, an organization that leads international efforts to protect endangered species and their habitats, has satellite collars on some of the elephants in the park.

A spokeswoman said they plan to track the elephants on that fateful day to verify whether they did move to higher ground. She doesn't know, though, when the satellite data will be downloaded and analyzed. Corea, a Sri Lankan who emigrated to the United States 20 years ago, said two of his friends noticed unusual animal behavior before the tsunami.

One friend, in the southern Sri Lankan town of Dickwella, recalls bats frantically flying away just before the tsunami struck. Another friend, who lives on the coast near Galle, said his two dogs would not go for their daily run on the beach.

"They are usually excited to go on this outing," Corea said. But on this day they refused to go and most probably saved his life.

Alan Rabinowitz, director for science and exploration at the Bronx Zoo-based Wildlife Conservation Society in New York, says animals can sense impending danger by detecting subtle or abrupt shifts in the environment.

"Earthquakes bring vibrational changes on land and in water while storms cause electromagnetic changes in the atmosphere," he said. "Some animals have acute sense of hearing and smell that allow them to determine something coming towards them long before humans might know that something is there."

Did Humans Lose Their Sixth Sense?

At one time humans also had this sixth sense, Rabinowitz said, but lost the ability when it was no longer needed or used. Joyce Poole is director of the Savanna Elephant Vocalization Project, which has its headquarters in Norway. She has worked with African elephants in Kenya for 25 years. She said the reports of Sri Lanka's elephants fleeing to higher ground didn't surprise her.

Research on both acoustic and seismic communication indicates that elephants could easily pick up vibrations generated from the massive earthquake-tsunami, she said.

Poole has also experienced this firsthand. "I have been with elephants during two small tremors, and on both occasions the elephants ran in alarm several seconds before I felt the tremor," she said. One of the world's most earthquake-prone countries is Japan, where devastation has taken countless lives and caused enormous damage to property. Researchers there have long studied animals in hopes of discovering what they hear or feel before the earth shakes. They hope that animals may be used as a prediction tool.

Some U.S. seismologists, on the other hand, are skeptical. There have been documented cases of strange animal behavior prior to earthquakes. But the United States Geological Survey, a government agency that provides scientific information about the Earth, says a reproducible connection between a specific behavior and the occurrence of a quake has never been made.

"What we're faced with is a lot of anecdotes," said Andy Michael, a geophysicist at USGS. "Animals react to so many things—being hungry, defending their territories, mating, predators—so it's hard to have a controlled study to get that advanced warning signal."

In the 1970s a few studies on animal prediction were done by the USGS, "but nothing concrete came out of it," Michael said. Since that time the agency has made no further investigations into the theory.