

Sea turtle deaths alarm Central America

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An Olive Ridley sea turtle (*Lepidochelys olivacea*) swims at Ixtapilla beach, in Aquila municipality on the Pacific coast of Michoacan State, Mexico, on October 13, 2013

Hundreds of sea turtles are washing up dead on the beaches of Central America and scientists don't know why.

One hypothesis is that the killer is a potent neurotoxin that can be produced by algae during red tides, which are large accumulations of algae that turn sea water red or brown.

The puzzling thing, though, is that red tides have come and gone before without taking such a deadly toll on turtles.

Making things worse, some of the turtles dying are from endangered species.

In El Salvador, for instance, from late September to the middle of October, 114 sea turtles were discovered dead on Pacific coast beaches, according to the environment ministry.

They were black turtles (*Chelonia agassizii*), Olive Ridley turtles (*Lepidochelys olivacea*) and ones that are a cross between the two.

Scientists throughout Central America are alarmed, and the only laboratory that specializes in these creatures is taking tissue and organ samples to figure out what is going on.

The death toll in other countries is just as ugly—115 so far this year in Guatemala, 280 in Costa Rica and an undisclosed number in Nicaragua. Another 200 died in late 2012 in Panama.

And in Nicaragua there is yet another problem: turtles showed up weeks late, at the end of September, to crawl up onto the beach and lay their eggs.



An Olive Ridley sea turtle (*Lepidochelys olivacea*) make its way to the sea after being released at San Diego beach in La Libertad, 34 kms south of San Salvador, on August 17, 2013

"Some say it could be due to climate change, sea currents or the techniques used by fishermen," said biologist Ivan Ramirez of the Foundation for the Sustainable Development of Nicaragua (Fundenic).

The head of wildlife and ecosystems at the Salvadoran environment ministry, Nestor Herrera, said the strongest hypothesis over the death of the turtles is that they were killed by saxitoxin—which affects the nervous system and can be produced by a red tide.

In one area of El Salvador's coast, dogs that started eating dead turtles stopped breathing and died almost instantly.

In 2006, saxitoxin killed about 500 [sea turtles](#) in El Salvador, and four

years later, another 100 died of the same cause.

However, there is a [red tide](#) almost every year, while such widespread turtle deaths have never happened before, said Angel Ibarra, coordinator of Ecological Unity of El Salvador, who added more study is needed to shed light on the phenomenon.

Others worry that the recent spate of turtle deaths can be traced more directly to human activity.

In Guatemala, the National Council of Protected Areas said some turtles are caught up by industrial-size fishing boats that drag nets along the sea bed and capture everything in their path, a process called trawling.

And drift net fishing, in which very long nets float behind a ship and near the surface of the water, could also be a threat to turtles.

Jose Leonidas Gomez, who works with a sea turtle conservation project in El Salvador, said turtles discovered dead on one beach were found not to have eaten, so it is presumed they got caught in nets.

Biologist Fabio Buitrago of Nicaragua's Fundenic said turtles are also being killed by fishermen who use explosives, among other techniques.

"The fishermen themselves say so," he said.

Antonio Benavides, a veteran turtle conservationist in El Salvador, said protecting the creatures is all the more difficult because the mortality rate for juveniles is already high.

Only one out of a thousand babies that hatch and make it out into the sea ever returns to the beach as an adult to lay eggs.

Fertility is yet another issue: in September scientists in Honduras said [turtles](#) on one beach laid 40 percent fewer eggs.

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