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In rough year for sea turtles — cold, oil spill — biologists are surprised to find more nests

By [Craig Pittman](#), Times Staff Writer

This has been a particularly rough year for sea turtles. In January a cold snap killed hundreds. Then in April the Deepwater Horizon oil rig blew up, and the resulting oil spill killed hundreds more turtles and forced the unprecedented relocation of thousands of eggs.

Yet when state biologists tallied up the number of turtle nests that were charted on Florida's beaches this year, they got a surprise.

They found more loggerhead turtle nests than before — they were above the 10-year average. Green turtles and leatherbacks were on the upswing too; the number of nests by green turtles and leatherbacks nearly set a record.

"It was quite a good jump," said Anne Meylan, a research scientist who coordinates the program that documents nesting activity on the state's 800 miles of coastline.

What happened? Nobody can say for sure. But it may be because 30 years ago people in Florida began trying to protect sea turtles, Meylan said.

"They certainly enjoy better protection in Florida and around the Caribbean than they used to," she said.

Female sea turtles return to the beaches where they were born 25 to 30 years later to dig a nest and lay their eggs. So whatever happened to affect the turtle population 25 to 30 years ago, either good or bad, would not show up to affect their nesting habits until now.

By the same token, the full impact of this year's cold stress and oil spill deaths may not show up in the nesting numbers for three decades, she said.

And no one can say whether next year's nesting numbers will be like this year's.

"One year does not a trend make," cautioned Gary Appelton of the Sea Turtle Conservancy. "But the numbers this year are definitely encouraging."

The biggest surprise came with the loggerhead numbers, Meylan said. State biologists have been charting sea turtle nesting for 22 years. During that time, loggerhead nesting

has been going downhill, and the decline has been steepest since a high of 59,918 nests were counted in 1998.

That's a development with potentially dire consequences for the species, since 90 percent of the world's loggerhead population lays its eggs on Florida's beaches. The U.S. Fish and Wildlife Service announced in March that the loggerhead population that nests on Florida's Atlantic coast beaches qualified to be listed as an endangered species.

At the same time the loggerhead nesting declined, green turtles and leatherbacks nested in greater numbers — sometimes while nesting on some of the same beaches as the loggerheads. Between 1989 and 2010, for instance, the green turtle nesting numbers increased by a factor of 10, and this year topped 8,000. Leatherbacks, meanwhile, topped 500 for the second year in a row.

However, last January's long cold snap spelled trouble for all sea turtles in Florida. More than 900 were killed by the cold, according to numbers compiled by Allen Foley of the Florida Fish and Wildlife Research Institute.

Then, in April, the Deepwater Horizon rig exploded near Louisiana and spilled oil into the Gulf of Mexico through July. Across the gulf 600 turtles washed ashore, dead. State and federal officials launched an unprecedented rescue effort, digging up and relocating thousands of turtle eggs to save the hatchlings from swimming into the spill and dying.

Despite those setbacks, this year the loggerhead numbers suddenly jumped back up near 50,000 again — the first gain since 2008, and the most nests to turn up since 2001. However, everyone should hold off celebrating, said Elizabeth Wilson of the environmental group Oceana.

"Sea turtle nesting is highly variable from year to year," she said. "We need several years of increased nesting to reverse the trend of the past decade."

Sea turtles, which routinely swim thousands of miles, face many threats. Artificial lighting on nesting beaches causes hatchlings to crawl inland rather than toward the water. On developed beaches, sea walls block the turtles from coming ashore to nest near dunes.

Meylan said one threat that particularly concerns turtle biologists is a proposed \$30 million taxpayer-funded project to build 11 rock walls about 200 feet off a Palm Beach County beach that's been one of the most productive loggerhead, hawksbill and green turtle nesting areas in the country.

Condominium owners on Singer Island say the walls — known as a breakwater — are necessary to slow the pace of erosion that's threatening to topple their buildings into the sea. However, the walls would block some turtles from reaching the beach to nest, and hamper hatchlings swimming back out to the ocean, biologists say.

Although the U.S. Army Corps of Engineers has questioned whether the rock walls would really prevent beach erosion, as county officials contend, the corps is on the verge of issuing the permits to build the walls, said Appelson.

Even if it doesn't help with the erosion, Meylan said, "this is permanent. If it doesn't work, they're still not pulling it out."

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