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## A Record 5,000 Sea Turtles Cold-Stunned in Florida

### TAGS

Bycatch | Cold-stun | Florida | Green sea turtle | Leatherback sea turtle | loggerhead sea turtle | NOAA | Sea turtles | wildlife

Frigid waters in Florida during the first two weeks in January shocked a record number of sea turtles into a coma-like state that would have killed nearly all of them -- had state and federal wildlife workers not come to the rescue.

Several officials interviewed for this article say that while it's too early to know the precise number of "cold-stunned" turtles rescued in the event, they all estimated that the number is at least 5,000. That is an order of magnitude larger than the worst previous incident (400 turtles in 2001).

While the cold-stun event itself was a natural occurrence, the potential impact on sea turtles -- all species are threatened or endangered -- has more to do with human activity.

"If populations were at normal levels, sea turtle species would do just fine with an event like this every thirty or forty years," says Allen Foley, a wildlife biologist with the [Florida Fish and Wildlife Conservation Commission \(FWC\)](#). But today's populations are a fraction of what they were historically.

Once numbering in the tens of millions, sea turtles were nearly hunted to extinction throughout the Caribbean, following the arrival of Europeans. Since the Endangered Species Act (ESA) of 1973, habitat loss and fisheries "bycatch" (accidentally catch in fishing gear) has replaced hunting as gravest threats to sea turtles in US waters.

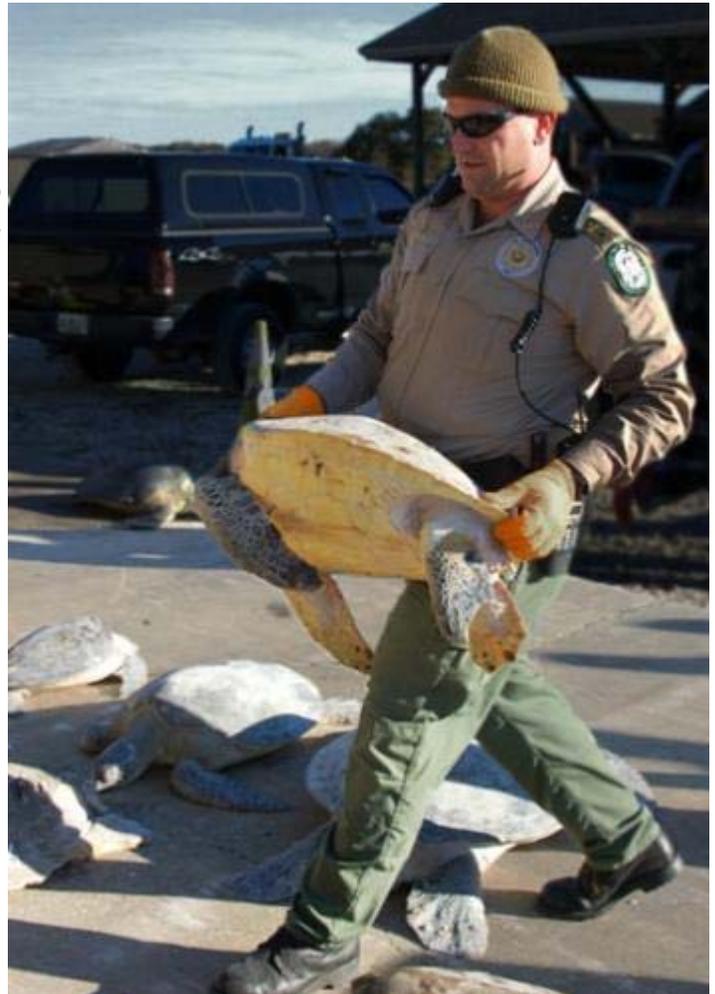
### Losing Ground: Sea Turtle Habitat

Part of the problem, says Foley, is identifying sea turtle habitat in the first place. For rainforest wildlife, researchers can use satellite imagery. Sea turtles present a much greater challenge.

"They migrate hundreds and even thousands of miles," Foley points out. "A turtle that nests here in Florida, could have a foraging area that's somewhere far off in the Gulf of Mexico."

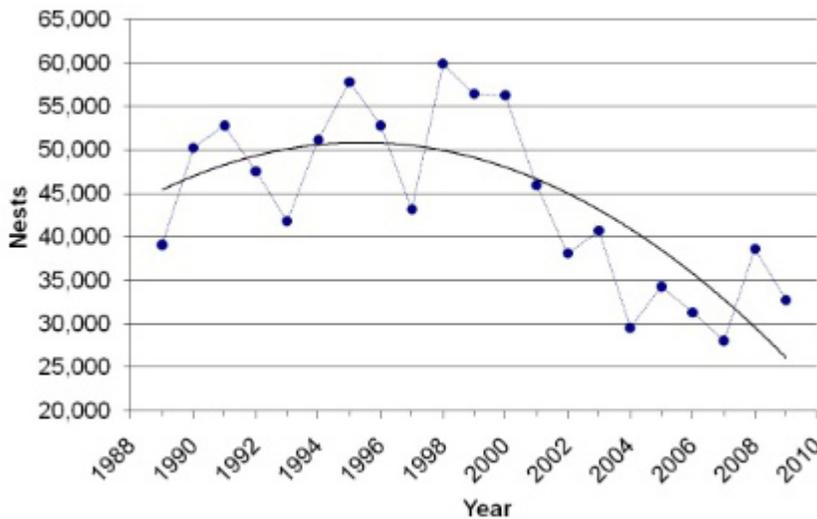
A renewed effort to open the Florida coastline to drilling for oil may also threaten turtle habitat, according to the [Caribbean Conservation Corporation \(CCC\)](#), which has been working to protect sea turtles and their habitat for fifty years:

Turtles not only depend on Florida's world class beaches for nesting, but also sea grass beds, unique coral and rock reefs, inshore lagoons, and estuaries are all important habitats utilized by different species of sea turtles during all their life stages. All these resources are at risk if Florida opens the doors to oil drilling near the coast.



## Net Losses

Most of the cold-stunned turtles were from the species commonly called the green sea turtle. Their numbers have been trending upwards for several years due to conservation efforts. For the loggerhead turtle, however, the trend has been in the opposite direction: a dramatic loss that troubles sea turtle biologist Anne Meylan, who during an interview, referred to the chart below.



After peaking in the mid-1990s, the number of loggerhead nests recorded on Florida beaches has been cut in half. This decline is significant for the species worldwide, since Florida is one of only two major nesting sites for loggerheads on the planet (the other site is in Oman).

"We don't really know what accounts for the decline," says Meylan, who is Research Administrator for the FWC. "But fisheries bycatch seems the most likely explanation from what we do know at this time."

## A (Possible) Major Step

Just as the cold-stunning event was starting in Florida, a possible major step in sea turtle conservation was taking place on the opposite side of the country. The National Oceanic and Atmospheric Administration (NOAA) proposed designating 70,000 square miles of the Pacific ocean off the coasts of California, Oregon and Washington as "critical habitat" for the largest of all sea turtles, the leatherback.

The proposal is open for public comment through March 5. If accepted, the rule would create the first marine critical habitat area in waters off the continental United States to protect sea turtles.

But even while welcoming the proposal, some biologists and environmental groups are saying that the designation doesn't go far enough.

Simply designating an area as "critical habitat" doesn't, in itself, exclude the kind of commercial fishing that has played a leading role in driving the leatherback to the edge of extinction (the population has been reduced by 90 percent.)

The Sea Turtle Restoration Project (STRP) recently started a petition calling on NOAA to include language that addresses the bycatch mortality. It begins:

"I urge NOAA to strengthen it by addressing the threats from commercial fisheries, especially longline fishing and drift-gill net fishing, both of which are deadly to sea turtles. Derelict gear from both these fisheries also directly impact habitat when leatherbacks become entangled, drown, or are seriously injured. These threats are direct and also impede safe passage for the species during their migration."



## Longlines May be the Problem

In Florida, too, there is action to force the government to close down longline fishing in areas that may be critical habitat for loggerheads -- albeit undesignated as such. The CCC filed a law suit in December charging that the National Marine Fisheries Service

(NMFS) had used "incomplete science" in writing a new assessment of the fishing industries effect on Loggerhead turtle populations.

In an email, CCC executive director, David Godfrey, wrote that his group believes there is adequate evidence proving that the longline fishery is "a major culprit in the decline of loggerheads."

The fact that the recent cold-stun event affected mostly green turtles should not be seen as a positive sign for loggerheads, says Godfrey. On the contrary, he writes, "the noticeable lack of sub-adult age class loggerheads may be an ominous sign."

Most of the cold-stunned turtles have already been returned to the ocean, after the cold-blooded reptiles had been warmed up. While clearly harmful in the shortrun, the unique event may have a positive outcome -- if the attention it brings to sea turtles translates into action to save from extinction, creatures that have existed since the age of dinosaurs.

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Osha Gray Davidson is the author of *Fire in the Turtle House: The Green Sea Turtle and the Fate of the Ocean*.

#### TAGS

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#### COMMENTS

Tod Young wrote on January 25, 2010, 04:45PM : ▶

A side story from a friend in the area:

one of the workers was transporting several of the "out cold" turtles in his nice, warm vehicle when the turtles, responding to the warmth, began moving about in the vehicle causing considerable consternation to the driver - and other drivers on the highway. "Was that a turtle I just saw driving the Hummer?"

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