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Warming Waters Put Florida Coral on 'Threatened' List

Global Warming, Pollution, Disease and Hurricane All Blamed

By CLAYTON SANDELL

The large and stately elkhorn and staghorn coral off the coast of Florida were once two of the most dominant species on Caribbean reefs.

But now for the first time, the U.S. government has designated the two species "threatened" under the Endangered Species Act.

Disease, higher water temperatures, sewage pollution and hurricanes have caused a 97 percent decline in some areas.

Officials with the Center for Biological Diversity, which led the lobbying effort to protect the coral species, said the "threatened" designation would require the federal government to come up with a recovery plan and provide protection for coral habitats.

The group also said the new listing would require the United States to start grappling with climate changes brought on by global warming.

"Global warming is the ultimate engine that's driving the threats

that coral reefs face throughout the Caribbean," said Brent Plater, an attorney with the center.

Massive Die-Off Last Year

Plater said the Endangered Species Act would oblige the government to consider the impact of greenhouse gases — released by the burning of fossil fuels — on the health of the coral and force it to take action to prevent further harm.

Experts say record-high sea temperatures in the Caribbean have caused many corals to expel the colorful, nutrient-providing algae that live within the coral tissue, creating a "bleached" look. The elevated temperatures can eventually kill the coral and in turn eliminate habitat for a variety of sea creatures.

Last year was the worst bleaching event ever recorded in the Caribbean, according to the National Oceanic and Atmospheric Administration. For the first time ever recorded, nearly half of the elkhorn coral surveyed in the U.S. Virgin Islands underwent bleaching.

Thirteen percent of the colonies died partially, and 8 percent died completely, according to NOAA.

"You can have a relatively low increase in temperature over a long period of time, and it causes stress, or you can have a three or four degree increase in a very short period of time and it will still cause stress," said Jennifer Moore, a natural resource specialist with the U.S. National Marine Fisheries Service, a division of NOAA.

Moore acknowledged that increasing sea-surface temperatures were causing coral bleaching, but did not say the reason was global warming.

A growing body of science points to global warming caused by humans as a major threat to the world's oceans, however.

In 2005, climate researchers at the Scripps Institute of Oceanography reported that 84 percent of total heating of the Earth system over the past four decades had gone into the oceans. The warming "cannot be explained by natural internal climate variability," their

report said.

And last month, NOAA researchers said that the ocean has become more acidic as it absorbs carbon dioxide released as a result of burning fossil fuels.

The increased acidity can dissolve the calcium exoskeletons of coral and plankton, which experts say could substantially alter the biodiversity and productivity of the oceans.

“Coral reefs are known to provide billions of dollars in economic benefit to Florida alone. By protecting our shorelines from storm damage, by serving as habitats to fisheries, and by providing medicines,” said Plater.

“And once they’re gone, we can’t bring those species back from extinction.”