No part of ocean untouched by humans, study says

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A scuba-diving tourist on the Ocean Freedom is helped into the water by a crew member at Australia's Great Barrier Reef, September 22, 2014. According to an Australian government report, the outlook for Earth's largest living structure is "poor," with climate change posing the most serious threat to the extensive coral reef ecosystem. Photo by: William West/AFP/Getty Images

Some parts of the ocean are far from where people live, but all of the ocean is affected by humans. That information comes from the first complete mapping of ocean wilderness.

Only about 13 percent, just over one-tenth of the ocean, fits the study's definition of "wilderness."

"Nowhere is safe," said James Watson of Australia's University of Queensland in a video about the report. He is one of the study's writers.



Humans Have Changed The Ocean

The study was published in a science journal. Scientists classified the ways humans have changed the ocean and put it on a map. Humans have changed the oceans through fishing, shipping and pollution.

The study scored each ocean based on the effect of human activity. It made a map of the ocean and gave each location a standing or level. To be called "wilderness," the study said the area had to be "mostly free of human disturbance."

The stresses on the ocean can be compared to human health. "If you've got a low-grade fever and a knife wound on your arm and a broken leg, and you start adding these things up, each one is pretty bad, but together you're in really bad shape. You need to hurry to the doctor. And that's the same idea as what we're talking about going on in the ocean," said Ben Halpern. He is an author of the study. Halpern is also a professor at the University of California in Santa Barbara.

"We Really Go Everywhere Now"

"To me it is depressing," said Kendall Jones, the study's main writer. "Often you have a picture in your head of these wild places where people don't really go, and actually that's not the case. We go really everywhere now."

Coastal areas are the most disturbed by humans, Halpern said. They're also the most productive, he said. For example, coral reefs and mangrove trees are near many cities. They provide food and protection from waves and are full of underwater life.

Almost half of the world's population lives near the ocean and depends on its resources.

Only a few places can be considered wild today, said Terry Hughes. He is a professor at James Cook University in Australia. He was not involved in the study.

Those places include "coral reefs in the tropical Pacific and both poles," Hughes said. However, he added that the North Pole, South Pole and coral reefs are at risk. They are more likely to be harmed by global warming than other places. Those places could be affected by the heating up of Earth's climate.

Scientists say the burning of fossil fuels heats up the Earth. Fossil fuels are natural fuels like oil, gas and wood. Burning them creates greenhouse gases, which cause global warming.

Most wilderness areas were far from areas claimed by countries, the study said.

"Nowhere in the sea is entirely free of human impacts," the authors said.



No Worldwide Agreements

Jones said wilderness areas are important for people, animals and the planet. He added that right now, no worldwide agreements are working to protect them.

"We depend on the ocean" for food, and ocean animals need wilderness areas, he said.

Sea ice is disappearing. Areas that now count as wilderness could be lost, the authors said.

"We really need to do something about climate change. Its fingerprint on the ocean is vast and pretty much everywhere, and that's already creating all sorts of changes in the ocean," Halpern said. Those changes are having an effect, not just on nature, but on people, too, he said.

The authors called for better enforcement of fishing laws. They also said mining in the ocean should be limited. This includes governments and companies who drill for oil and other resources in the ocean.

"There still is time to make a difference. I still have hope for the oceans. It's not too late," Halpern said. The wilderness left might not seem like much, but it's a large area that's still fairly untouched, he said. "It just comes down to the will of the people and the politicians to care enough about the ocean to make these changes."