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Sonia Fernandez

The Last Wild Ocean

The ocean, long a source of inspiration for exploration and discovery as well as a place to test the limits of humans, is no longer the wild frontier it once was. An international study published in the journal Current Biology demonstrates that only 13 percent of the ocean can still be classified as wilderness.

“The idea of wilderness is powerful for people, as well as for nature,” said UC Santa Barbara professor Ben Halpern, director of the National Center for Ecological Analysis and Synthesis and a contributing author on the study. “Just knowing wilderness exists provides a sense of existential value to many people, that nature still exists somewhere in a relatively untouched form, even if they never actually visit the wilderness.” However, thanks to human activity, the vast majority of the world’s oceans can no longer be considered untouched.

“Those marine areas that can be considered ‘pristine’ are becoming increasingly rare, as fishing and shipping fleets expand their reach across almost all of the world’s oceans, and sediment runoff smothers many coastal areas,” said Kendall Jones, a researcher at the University of Queensland, and lead author of the paper.

According to the study, “The location and protection status of the Earth’s diminishing marine wilderness,” most remaining marine wilderness is unprotected, leaving it vulnerable to being lost.

“Improvements in shipping technology mean that even the most remote wilderness areas may come under threat in the future, including once ice-covered places that

are now accessible because of climate change," Jones said.

The authors used fine-scale global data on 19 human stressors to the ocean, including commercial shipping, sediment runoff and several types of fishing, to identify Earth's remaining marine wilderness — areas devoid of intense human impacts.

They found that most wilderness is located in the Arctic and Antarctic or around remote Pacific island nations such as French Polynesia. Because human activities are concentrated near land, very little wilderness remains in coastal habitats such as coral reefs, salt marshes and kelp forests.

James Watson, a professor at the University of Queensland, director of science at the Wildlife Conservation Society and senior author of the research paper, said the findings highlight an immediate need for conservation policies to recognize and protect the unique values of marine wilderness.

"Marine wilderness areas are home to unparalleled levels of life — holding massive abundances of species and high genetic diversity, giving them resilience to threats like climate change," he said.

Watson argues that the need to focus attention and resources on preserving the ocean's remaining wilderness is more urgent than ever.

"We know these marine wilderness areas are declining catastrophically, and protecting them must become a focus of multilateral environmental agreements," he said. "If not, they will likely disappear within 50 years."

The authors said that preserving marine wilderness also requires regulating the high seas, which has historically proven difficult since no country has jurisdiction of these areas. However, Jones noted that a recent United Nations resolution could change this.

"Late last year the United Nations began developing a legally binding high seas conservation treaty — essentially a Paris Agreement for the ocean," Jones said. "This agreement would have the power to protect large areas of the high seas and might be our best shot at saving some of Earth's last remaining marine wilderness."

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