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Pew Launches Tool to Advance Marine Protected Areas in High Seas

Interactive mapping technology uses best available science to help decision-makers develop conservation strategies.

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VANCOUVER, British Columbia—The Pew Charitable Trusts today released an innovative, data-driven mapping tool—called "Protect High Seas"—that enables United Nations delegates, government decision-makers, and the public to address the urgent need to safeguard waters outside of any country's purview, regions that are critical to the health of the ocean, climate, planet, and people.

With just a few clicks, users can create a map that highlights high seas areas that would be important to preserve based on their conservation priorities—for example, protecting areas rich in biodiversity, or focusing on spaces with a great density of seamounts. Users needn't choose only one attribute but instead can set levels of importance for each one.

"This new tool helps decision-makers and the public zero in on priority areas for protection and see how those decisions could help deliver a network of high seas protected areas," said Liz Karan, who leads Pew's ocean governance work.

Though a final text has not been agreed on yet, the new high seas treaty could offer a pathway to create a legal mechanism that would allow nations to establish effective marine protected areas (MPAs) and ensure rigorous assessments of the environmental impacts that human activities have on the high seas.

An interactive visualization of a Pew report, "A Path to Creating the First Generation of High Seas Protected Areas," the Protect High Seas tool is powered by an algorithm created by researchers at the University of California, Santa Barbara. It relies on a conservation software—called prioritizr R—to identify protected area solutions that most efficiently meet conservation goals.

The tool analyzes 55 different data layers, including data for 11,900 marine species. The data includes forecasts of where species may move as climate change alters the ocean, and the results can highlight high seas protections that would benefit biodiversity now and under future climate change scenarios.

The release of the interactive tool took place at the Fifth International Marine Protected Areas Congress in Vancouver, British Columbia, where the world's leading ocean conservationists gathered to discuss how to enhance and strengthen the conservation of marine biodiversity globally.

The high seas are located beyond any nation's jurisdiction, making up roughly two thirds of the ocean and covering nearly half of the planet's surface. The high seas and their biodiversity are critical to the health and ecosystem function of the global ocean and should be protected and used sustainably.

Scientists have found that MPAs—especially no-take reserves—are effective conservation tools that safeguard biodiversity, protect top predators, maintain ecosystem balance, and build resilience to climate change. In the high seas, networks of MPAs that create meaningful links across habitats could benefit highly migratory species, such as whales and turtles.

This global-level analysis is intended to be a first step in identifying future high seas MPAs. However, the tool does not delineate or propose specific boundaries for future high seas MPAs, nor is it intended to replace the important stakeholder engagement process that would be needed to develop specific site proposals.