# Enhancing protections for the Pacific Remote Islands with a new National Marine Sanctuary

## Protecting Ecological Diversity and Resilience

Photo credit: USFWS/lim Maragos

Pacific Remote Islands is among the last wild and healthy marine ecosystems in the world, largely isolated from human activity.

#### **Interconnected Ecosystems**

The proposed area for enhanced protections is home to a healthy and abundant populations of wildlife including coral, fish, sharks, turtles, rays, whales, dolphins, birds, and other invertebrates that are intricately connected to nearshore and island systems.

For instance, research has shown seabirds that forage on pelagic fish bring vital nutrients back to their nesting grounds, fertilizing the remote islands with their guano. Coral reefs and their communities use the seabird nutrients, allowing corals to grow 4x faster in reefs with seabirds than those without. Leaving seabirds' offshore hunting grounds unprotected leaves the already protected terrestrial and reef environments vulnerable.

#### **Deep Sea Discoveries**

The deep sea floor in the proposed area for increased protections has 98 seamounts, which serve as ecological hot spots for biodiversity and

#### **Diversity Thriving**

The diversity and abundance of life that PRI supports is worth protecting. In the area, scientists have documented the following species with more being discovered:



- 50+ seabird species
- and ray species
- 20 dolphin and whale species
- 5 turtle species (4 endangered)
- 15 endangered/vulnerable shark Ancient deep-sea corals and resilient shallow reefs
  - Deep sea species found nowhere else on Earth

In a single expedition from the broader region, over 80% of species observed were new to science, including at least 14 new species of deep sea corals.

remain largely unexplored. With new species being catalogued every dive, the deep sea in this area is rich with opportunity for discovery of unique species, many of which are slow-growing and endemic only to this area. The deep sea also holds the potential to advance biomedicine. Compounds isolated from deep-sea organisms using noninvasive techniques have promise in cancer treatment and drug delivery, and merit further research.

#### **Climate Change and the Value of Expansion**

The ocean is hotter, more acidic and rising. Climate change will continue to have significant impacts on the ocean-- increased sea surface temperatures, decreased biodiversity, and shifting currents and weather patterns to name a few. Protecting areas like PRI that are most resilient in the face due to their remote location and natural features may be our best chance to preserve intact ecosystems and, by extension, the species that live there. Enhancing protections for PRI is a meaningful step the U.S. can take toward climate action and would protect key habitats for breeding, foraging, and resting, specifically for grey reef sharks, green sea turtles, bottlenose dolphins, red-footed boobies, manta rays, melon-headed whales, and frigatebirds, among other species.



Photo credit: USFWS/Amanda Pollock

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