

**Written Statement of William J. Aila, Jr.**  
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**U.S. House of Representatives Oversight and Investigations Committee**  
**Hearing on Examining Barriers to Access in Federal Waters: A Closer Look at the Marine**  
**Sanctuary and Monument System**

**September 19th, 2023**

**Introduction**

Aloha and good morning, Chairman Gosar, Ranking Member Stansbury, and distinguished subcommittee members. Thank you for the opportunity to join you today to express my support for marine protected areas (MPAs).

I am a Native Hawaiian fisherman who has fished commercially, recreationally, and for cultural/religious ceremonies; a public servant who has held leadership positions at the Hawai'i State Department of Land and Natural Resources and the Hawai'i Department of Hawaiian Homelands; a member of the Pacific Remote Islands (PRI) Coalition; and a longtime supporter of MPAs in the Pacific. I have served on the Papahānaumokuākea Marine National Monument (PMNM) advisory committee for more than 20 years, and was Chairman for half of that time. I am also a founding member of the Native Hawaiian Cultural Working Group, serving as its First Chair. The working group provides advice to the state of Hawai'i, Office of Hawaiian Affairs, and the PMNM Advisory Committee. I have been fortunate to spend most of my life living on the Waianae Coast on Oahu, engaging in cultural, personal, and professional activities related to the ocean.

In my various roles within my community and with the government, I have come to understand the importance of MPAs in providing economic benefits to communities, while protecting our precious ocean resources. This protection honors our ancestors and recognizes our stewardship obligations for future generations.

There is much about the Marine Sanctuary and Monument System that we could discuss in this hearing, but I have focused my remarks on the economic, scientific, and cultural facts. These facts clearly demonstrate the increased access to ocean resources that monuments and sanctuaries provide, as well as the unequivocal value of MPAs for the prosperity of people and places across the United States.

**Overall Value of Marine Protected Areas**

Billions of people worldwide depend on our ocean economically, ecologically, and culturally. Americans in particular care deeply about the ocean and its health. Regardless of demographics, political party, or geographic location, more than 80% believe we should do more to protect the ocean and ensure activities do not harm ocean life.<sup>1</sup> In addition to preserving specific areas, habitats, or resources in the marine

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<sup>1</sup> Nat'l. Marine Sanctuary Found., *Ocean Protection in the United States: Exploring the Public's Thoughts*, NORC AT THE UNIV. OF CHICAGO (Sept. 2022),

environment, MPAs are a proven tool to support the sustainability of ocean fisheries and all who depend on them.

### **Economic Value of Marine Protected Areas**

The United States exclusive economic zone is the largest in the world, encompassing over 13,000 miles of coastline and 3.4 million square nautical miles of ocean—greater than the land area of all fifty states combined.<sup>2</sup> Marine protected areas can provide economic benefits through tourism, fishing, biodiversity protection, and a range of ecosystem services (e.g., climate mitigation). In 2021, the market-based marine economy accounted for \$432.4 billion of United States gross domestic product. Tourism and recreation accounted for the most significant portion - \$231.8 billion - of the gross output, a 27.3 percent increase from the 2020 gross output. According to the office of National Marine Sanctuaries, about \$8 billion annually is generated in local economies from diverse activities, jobs, and businesses in the commercial fishing, research, and tourism/recreation sectors across all National Marine Sanctuaries.<sup>3</sup>

Despite clear economic benefits of MPAs, fishing communities often fear short-term income losses associated with area closures, and thus may oppose MPAs. However, studies have shown that the value of a fully protected<sup>4</sup> MPA (as measured by increased tourism and fishing in adjacent areas) often exceeds the pre-protection value, and that economic benefits can offset the costs in as little as five years.<sup>5</sup>

Specifically, in areas with high fishing effort, protected areas have been found to provide fishery benefits and subsequent revenue gain. For example, a recent study from PMNM showed a “spillover effect”<sup>6</sup> occurring outside of the MPA. Catch rates of yellowfin and bigeye tuna increased by 54% and 12% just outside of the monument’s boundaries, respectively, benefitting the ecosystem and commercial fishermen as well.<sup>7</sup> In California, a 35% reduction in fishing area resulting from MPA designation was compensated for by a 225% increase in total catch after 6-years.<sup>8</sup> These examples are not limited to the United States. In the Galápagos Marine Reserve, findings showed that protection positively impacted the productivity of yellowfin and skipjack tuna fisheries. Together, these data demonstrate that large MPAs can benefit both slow moving and highly migratory species, and that the trade-off of fishing ground for no-fishing zones can benefit the fishery.

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<https://marinesanc.wpenginepowered.com/wp-content/uploads/2022/09/National-Marine-Sanctuary-Foundation-Survey-Report-FINAL-1.pdf>.

<sup>2</sup> Office of General Counsel, *Map of the U.S. Exclusive Economic Zone*, NAT’L OCEANIC AND ATMOSPHERIC ADMIN., [https://www.gc.noaa.gov/documents/2011/012711\\_gcil\\_maritime\\_eez\\_map.pdf](https://www.gc.noaa.gov/documents/2011/012711_gcil_maritime_eez_map.pdf) (last visited Sept. 18, 2023).

<sup>3</sup> *National Marine Sanctuaries and Local Economies*, NAT’L OCEANIC AND ATMOSPHERIC ADMIN., <https://sanctuaries.noaa.gov/science/socioeconomic/factsheets/welcome.html> (last visited Sept. 18, 2023).

<sup>4</sup> *Using the MPA Guide*, PROTECTED PLANET, [https://mpa-guide.protectedplanet.net/UsingTheMPAGuide\\_2pp.pdf](https://mpa-guide.protectedplanet.net/UsingTheMPAGuide_2pp.pdf) (last visited Sept. 18, 2023).

<sup>5</sup> Enric Sala et al., *A General Business Model for Marine Reserves*, 8:4 PLOS ONE (2013), <https://doi.org/10.1371/journal.pone.0058799>.

<sup>6</sup> A “spillover effect” occurs when the population of a particular species inside a protected area becomes so abundant that it “spills over” the protected area boundaries and can be targeted by fishermen.

<sup>7</sup> Sarah Medoff et al., *Spillover benefits from the world’s largest fully protected MPA*, SCIENCE (Oct. 20, 2022), <https://www.science.org/doi/10.1126/science.abn0098>.

<sup>8</sup> Hunter S. Lenihan et al., *Evidence that spillover from Marine Protected Areas benefits the spiny lobster (*Panulirus interruptus*) fishery in southern California*, 11 SCIENTIFIC REPORTS (2021), <https://doi.org/10.1038/s41598-021-82371-5>.

At the *ahupua'a*, or village level, it is hard to comprehend large scale commercial fisheries because the intent of the local fishermen is to feed his family and the village. With that mindset, sustainable fishing is the custom or rule - do not take more than your village needs. I heard this from several elder Samoan fishermen during the PRI scoping session in American Samoa. I have also heard them state that since the development of the purse seine fishery, their catch rates, and thus their ability to feed the village, have declined. In the many one on one meetings with Samoans from different villages, once the distance of more than 1,000 miles to the proposed sanctuary was understood, they all indicated that the proposed sanctuary would not impact their cultural practices.

A similar situation occurred in the 1990's in Hawai'i when there was a large influx of longline fishing vessels to territorial waters. The pelagic species fisheries have improved recently due to new regulations that separated the longline fleet from the local fishermen by moving the longlines out to beyond 70 miles from shore. There was a lot of talk that the longline fishery would collapse, but it did not. The expansion of the boundaries of PMNM brought the same cries from longliners, but they continue to fill their annual quotas, including the quotas that they purchased from American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands. Longline fishing near the new boundary in PMNM has resulted in an increase in yellowfin tuna catch, indicating that the protected area works.

### **Scientific Value of Marine Protected Areas**

Marine protected areas provide many biological and ecological benefits. A meta-analysis on 124 marine reserves in 29 countries showed that, on average, marine reserves cause increases of 21% in the number of species, 28% in the size of organisms, 166% in number of individuals per unit area, and 446% in biomass, relative to unprotected areas nearby.<sup>9</sup> In predatory fish, biomass increases can be even greater than the average values,<sup>10,11,12</sup> rehabilitating a degraded state typical of intensely fished sites and enhancing ecosystem resilience by promoting the recovery of populations of functionally important species. While some pelagic predator species found in these areas appear to be at a fraction of their historical norms, likely due to regional fishing pressure (e.g., yellowfin tuna, oceanic whitetip, and bigeye tuna), other parts of the predator community are still relatively intact with high biomass of top predators, especially reef sharks and some tuna species (e.g., skipjack).<sup>13,14</sup> The PRI are providing critical information on baseline functioning of reef and pelagic systems with robust predator communities.

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<sup>9</sup> Sarah E. Lester et al., *Biological Effects Within No-Take Marine Reserves: A Global Synthesis*, 384 MARINE ECOLOGY PROGRESS SERIES (2009), <https://doi.org/10.3354/meps08029>.

<sup>10</sup> Paolo Guidetti & Eric Sala, *Community-wide effects of marine reserves in the Mediterranean Sea*, 335 MARINE ECOLOGY PROGRESS SERIES (2007), <https://www.int-res.com/abstracts/meps/v335/p43-56/>.

<sup>11</sup> Fiorenza Micheli et al., *Trajectories and Correlates of Community Change in No-Take Marine Reserves*, 14:6 ECOLOGICAL APPLICATIONS: ECOLOGICAL SOC. OF AM. (2004), <https://doi.org/10.1890/03-5260>.

<sup>12</sup> Garry R. Russ & Angel C. Alcala, *Marine reserves: long-term protection is required for full recovery of predatory fish populations*, 138 OECOLOGIA (2004), <https://doi.org/10.1007/s00442-003-1456-4>.

<sup>13</sup> Stuart A. Sandin et al., *Baselines and Degradation of Coral Reefs in the Northern Line Islands*, 3:2 PLOS ONE (2008), <https://doi.org/10.1371/journal.pone.0001548>.

<sup>14</sup> Douglas J. McCauley et al., *On the prevalence and dynamics of inverted trophic pyramids and otherwise top-heavy communities*, 21:3 ECOLOGY LETTERS (2018), <https://doi.org/10.1111/ele.12900>.

Fisheries benefit from protected areas when they help replenish nearby habitats through spillover of adult organisms and dispersal of larvae.<sup>15</sup> By providing a safe haven for organisms to reach maximum size and reproductive output,<sup>16,17</sup> protected areas actually contribute to increasing seafood supply while simultaneously achieving many other benefits (e.g., habitat protection and climate resilience). In fact, fishermen's behaviors are changing to demonstrate MPAs work. Historically, the waters surrounding PRI were lightly fished by commercial fishers. Before 2014, the catch from these waters accounted for less than 5% of the longliners' total annual harvest according to Western Pacific Regional Fishery Management Council's 2013 annual report. Since the PRI boundaries were expanded in 2014, the longliners have exhausted their quota every year, and effectively zero percent of the Hawai'i longline fishing effort comes from the area. The area also accounts for less than 5% of effort and catch for the purse seine fleet. In four of the last six years, the area accounted for less than 0.5% of purse seine effort.<sup>18</sup>

MPAs offer a proven solution to rehabilitating declining populations and remediating adverse climate impacts. They can protect settings that store massive amounts of carbon; buffer coastlines and coastal communities from storm impacts; provide a refuge for resources that may be harmed by consequences of a changing climate; and, depending on their size and layout, protect species moving due to climate impacts. They can also protect some of the last healthy, remote ocean places on the planet. For example, the waters of the PRI are home to an array of threatened, endangered, and critically endangered species including sharks, rays, whales, seabirds, and turtles. The unprotected areas are home to 98 seamounts, which are known to be ecological hotspots with species never seen before. Protecting this area will safeguard swaths of open ocean ecosystems that are intricately connected to nearshore coral reefs and protect habitats for endangered and threatened species, such as sharks and birds, who travel far beyond the current boundaries to breed, forage, and rest. This setting meets all 8 criteria for implementing an MPA: location; content (ecological, cultural, economic); size; remoteness; time; connections; compliance; and enforcement.

As climate change impacts continue to increase as a result of global warming, it becomes ever more critical to identify the locations best suited for adding to the Pacific inventory of MPAs. The expansion of the Western Pacific Warm Pool is pushing migratory pelagic fishes to the east, hence the PRI are ideally located to provide a suitable area for enhancement of these populations as the "principal" that will generate the reproductive output, or interest, that can be sustainably harvested by fishing the line.

### **Cultural Value of Marine Protected Areas**

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<sup>15</sup> Sarah E. Lester et al., *supra* note 9.

<sup>16</sup> Michelle J. Paddock & James A. Estes, *Kelp Forest Fish Populations in Marine Reserves and Adjacent Exploited Areas of Central California*, 10:3 *ECOLOGICAL APPLICATIONS: ECOLOGICAL SOC. OF AM.* (2000), [https://doi.org/10.1890/1051-0761\(2000\)010\[0855:KFFPIM\]2.0.CO;2](https://doi.org/10.1890/1051-0761(2000)010[0855:KFFPIM]2.0.CO;2).

<sup>17</sup> Trevor J. Willis et al., *Protection of exploited fish in temperate regions: high density and biomass of snapper *Pagrus auratus* (Sparidae) in northern New Zealand marine reserves*, 40:2 *J. OF APPLIED ECOLOGY* (2003), <https://doi.org/10.1046/j.1365-2664.2003.00775.x>.

<sup>18</sup> Environmental Markets Lab, *Analysis of historic fishing activity within the proposed National Marine Sanctuary for the Pacific Remote Islands*, UNIVERSITY OF CALIFORNIA, SANTA BARBARA, [https://emlab.ucsb.edu/sites/default/files/documents/pri\\_proposed\\_sanctuary\\_report.pdf](https://emlab.ucsb.edu/sites/default/files/documents/pri_proposed_sanctuary_report.pdf), (last visited Sept. 18, 2023).

As Native Hawaiians, there is an ancient cultural mandate to conserve and it has served us well. Preserving biocultural resources is a responsibility passed down from one generation to the next. Preventing overharvesting perpetuates culture by having fish, birds, and other species that show no fear of humans. This allows practitioners to observe their natural behavior and record this behavior in *oli* (prayers), *mele* (songs), and *hula* (dances). These cultural ways of passing on knowledge (i.e., the values that bind and maintain our culture) are inclusive of our relationship with the fish, birds, and other species that we relate to.

As Pacific Islanders, we all come from the same genealogy - one of care for people, place, and resources. It is because of this practice that we have been able to subsist from, and live in harmony with, our ocean. Historically, however, our communities have been excluded from conversations related to protection. Now, there is a growing awareness and desire for conservation in Pacific Islanders, likely caused by a resurgence of ocean voyaging. For centuries, remote ocean waters have been used for passage by Polynesians, Micronesians and possibly Melanesians who relied on the intact ecosystems for voyaging. To navigate wide expanses of open ocean, seafarers in the region had a deep and nuanced understanding of ocean currents, winds, skies, and wildlife. They used marine corridors to reach remote islands throughout the Pacific, including those of the PRI. As stopping points for resources, temporary shelter, and cultural practice, the PRI have a deep legacy of voyaging and the potential to perpetuate its practice into the future.

*Hōkūle'a*, the Polynesian voyaging canoe, is currently on a pacific-wide voyage to educate and collect examples of Indigenous resilience so that these examples may be shared with current and future generations. As part of this awakening, Pacific Islanders want to have a part in the management of their marine resources. Marine protected areas are a natural management tool because most island cultures have experience with resource protection and protected areas. It is a part of their cultural traditions. Resource management is critical so that future generations always have access to biocultural resources. And, sometimes it means that the current generation has to harvest less, ensuring that future generations have biocultural resources to perpetuate their way of life. Not all natural resources need to be removed and converted into capital. Instead, and more importantly, we need to maintain cultural capital and the rich history woven into it.

This history, and the service and sacrifice of Pacific Islanders, is captured in several places, including the *Hui Panalā'au*. From 1935 to 1942, 130 young men from Kamehameha School were sent to Howland, Baker, and Jarvis Islands to colonize them for the United States. These Native Hawaiian men meticulously documented the environmental conditions of the islands and their waters, recorded weather patterns, and surveyed seabirds, laying the foundation for future discoveries. With limited medical access and exposure to bombings during World War II (WWII), three members of *Hui Panalā'au* lost their lives as a result of their service.

The PRI and its surrounding waters also hold the final resting places of shipwrecks and other abandoned historic sites ranging from the whaling era in the 19th century to WWII. Expanding protection of this area would allow for further exploration and potential discovery of wrecks, WWII-era ordnance, and other artifacts of historic and cultural value.

Ocean protection not only honors and preserves the history of lands, waters, and the people who cross them, but allows for continued exploration, discovery, and perpetuation of culture.

## **Conclusion**

The security and growth of our ocean economy are dependent upon the health and well-being of our ocean ecosystem and the communities reliant upon it. Monuments and sanctuaries increase access to people, businesses, and communities beyond the fishing fleets, allowing ongoing access to biocultural resources for the generations that follow us. As such, it is critical that we continue to protect and restore marine habitats while investing in communities.

Efforts to protect our ocean, and the derivative value to the economy, ecosystem, and community, are not new. Since the creation of the PRI Marine National Monument by President Bush in 2009, support for expansion has continued to grow. This support resulted in President Obama expanding protections in 2014 after the United States government's public consultation saw strong public support for expanding and fully protecting these waters. More than 135,000 United States citizens, including Hawaiian residents, business owners, and nonprofit organization representatives, sent messages supporting the plan. Many Hawaiian and Pacific leaders also voiced strong support. Once again, the government opened a public comment period in the spring of 2023 to scope the possibility of creating a National Marine Sanctuary that expands protections to the PRI. The comments offered broad, deep, and overwhelming support from communities across the Pacific and the country for the designation of the new National Marine Sanctuary, with over 80% of the posted comments expressing strong support. The support continues to grow from cultural practitioners across the Pacific, scientists, elected officials, businesses, recreational fishing organizations, youth organizations, zoos and aquariums, and local, regional and national organizations.

We must give thanks to the things we care about, so that they may continue to provide for current and future generations and continue to support traditional ways of knowing and being.