



# CONSERVATION POLICY IN BRIEF

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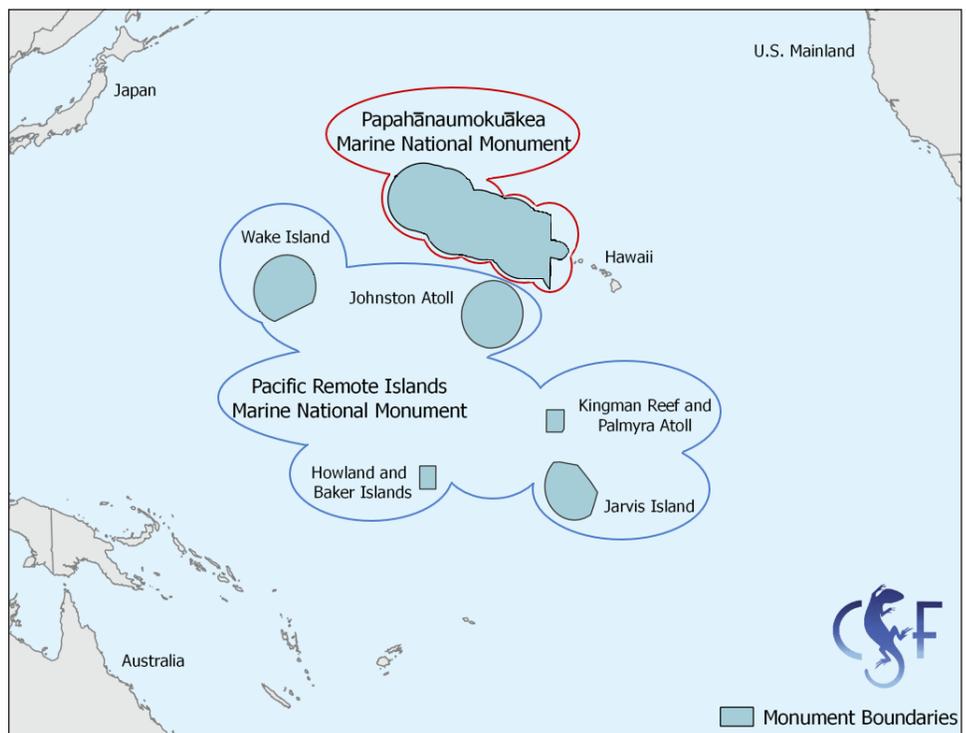
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## EXPANSION OF PACIFIC MARINE MONUMENTS DOES NOT HURT AMERICAN FISHERMEN

The Pacific Remote Islands and Papahānaumokuākea Marine National Monuments were created by President George W. Bush and then more than quadrupled in size by President Barack Obama in 2014 and 2016, respectively. Cumulatively, they protect more than one million square miles of ocean, an area larger than Alaska, Texas and California combined, providing a pristine refuge for corals, fish, birds, sharks, whales, and other marine life.

The proposed expansion of Papahānaumokuākea met with stiff resistance from the fishing industry, with the Western Pacific Regional Fishery Management Council claiming that “the potential loss [from the expansion] is approximately \$10 million annually in wholesale landed value from Hawaii longline fishery, translating in approximately \$30 million across Hawaii’s retail seafood market.”<sup>1</sup> Conservation Strategy Fund analyzed this claim using multiple data sources and found no evidence of any losses. In fact, after the expansions of both Monuments catch and revenue are higher and distance traveled by the fishing fleet appears unaffected.



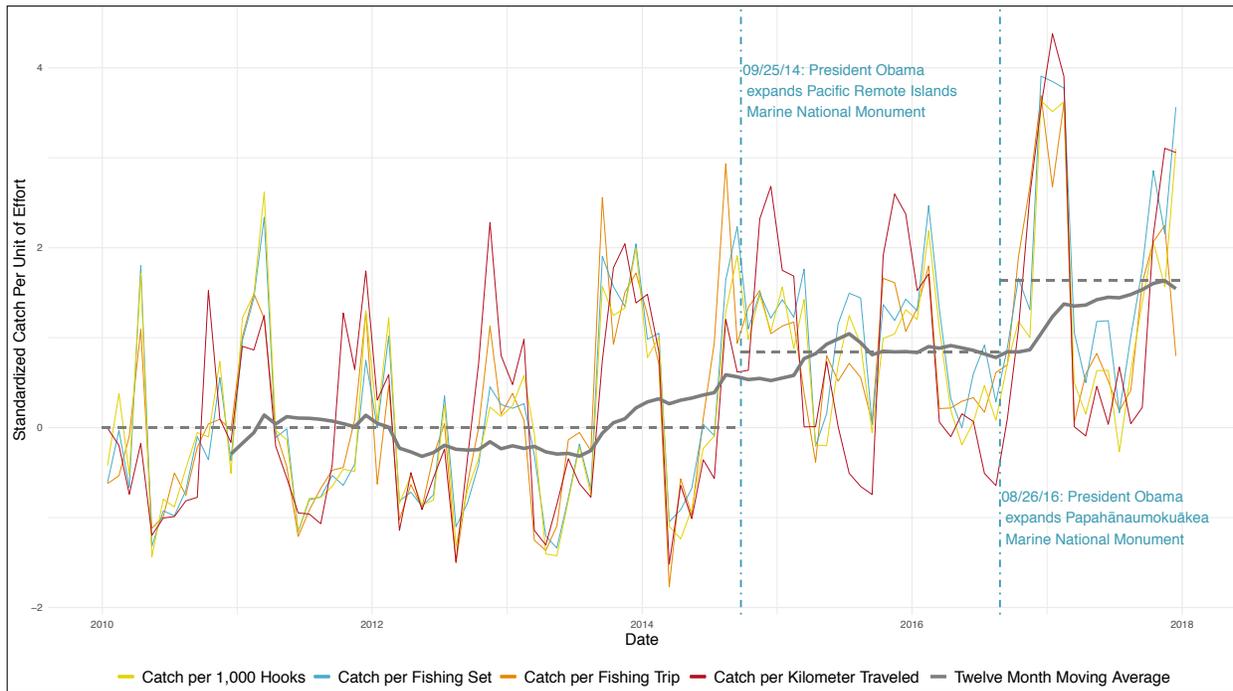
*U.S. National Marine Monuments, CSF 2018.*

Our analysis used the following data: 1) summary fisher logbook reports, 2) observer records of individual fishing events, and 3) ship-tracking satellite data. Findings highlight that since the monument expansions:

**1. Fishermen have caught *more* fish:** Fishers’ logs show that the Honolulu-based longline fleet caught more fish per year in the four years after the expansions began than in the four years prior. Total gross revenue from the fishery has also increased since the expansions began in 2014.

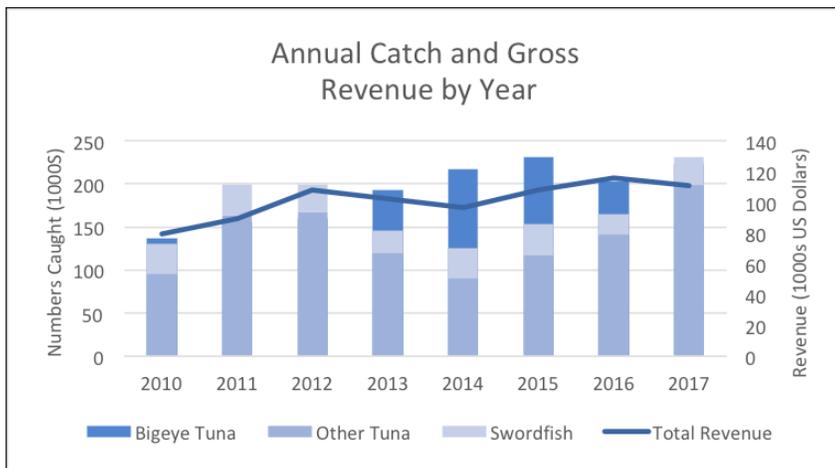
**2. Productivity has gone *up*:** Catch-per-unit-effort (CPUE) is often used by economists to assess fishery productivity as it relates to fishing effort. Contrary to

<sup>1</sup><http://www.wpcouncil.org/wp-content/uploads/2016/06/2.13-wprmc-letter-to-president-obama.pdf>



Catch Per Unit Effort Pre- and Post-Expansions, CSF 2018.

claims by the industry, NOAA observer data demonstrate that the expansions are correlated with an increase in CPUE. In other words, fishermen appear to be catching more fish with a similar level of effort in terms of distance traveled, hooks used, catch per trip, and other metrics.



Catch and Revenue by Year. CSF 2018.

**3. The fleet is *not* traveling further to fish:** Global Fishing Watch, which uses satellites to track fishing boats around the world, provided real-time information on 128 ships in the longline fishery, with nearly 6 million observations of ship locations. These data show that fishermen are not travelling any further following the Papahānaumokuākea expansion. We know from observer data that fishermen spent 90% or more of their time fishing outside of the Monument waters prior to the expansion. With these areas outside of the Monuments still open to fishing, it is no surprise that the fleet has not been forced to travel further following Monument expansion.

As a point of comparison, catch productivity went up in

neighboring fisheries as well, but not as much as for the longline tuna fleet potentially affected by the expansions. This suggests that our findings are not simply due to positive global changes; instead, if Monument expansion has had any impact on fishermen, it has been positive.

How is it possible that such large protected areas in the Pacific Ocean have not hurt fishermen? One possibility is that the main species targeted (tunas and swordfish) are so highly mobile that fleets can still target these populations when they swim into open fishing areas. This explains, in part, why multiple other studies have predicted that closing the high seas to fishing could have minimal negative economic impacts and might even benefit the global fishing industry by protecting spawning grounds. This study adds to the body of evidence, providing the first ever data-based evaluation of the two monuments specifically, and of large MPAs more generally.

What do our results imply for ocean policy? That creating large, remote protected areas may be a remarkably cost effective opportunity to preserve our natural heritage. For the Pacific Remote Islands and Papahānaumokuākea Marine National Monument expansions, it is clear that permanent protection of nearly 1% of the world's oceans cost the fishing industry close to nothing.

