

**Papahānaumokuākea Marine National Monument**  
RESEARCH Permit Application

**NOTE:** *This Permit Application (and associated Instructions) are to propose activities to be conducted in the Papahānaumokuākea Marine National Monument. The Co-Trustees are required to determine that issuing the requested permit is compatible with the findings of Presidential Proclamation 8031. Within this Application, provide all information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Papahānaumokuākea Marine National Monument (Monument).*

**ADDITIONAL IMPORTANT INFORMATION:**

- Any or all of the information within this application may be posted to the Monument website informing the public on projects proposed to occur in the Monument.
- In addition to the permit application, the Applicant must either download the Monument Compliance Information Sheet from the Monument website OR request a hard copy from the Monument Permit Coordinator (contact information below). The Monument Compliance Information Sheet must be submitted to the Monument Permit Coordinator after initial application consultation.
- Issuance of a Monument permit is dependent upon the completion and review of the application and Compliance Information Sheet.

**INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED**

Send Permit Applications to:  
NOAA/Inouye Regional Center  
NOS/ONMS/PMNM/Attn: Permit Coordinator  
1845 Wasp Blvd, Building 176  
Honolulu, HI 96818  
nwhipermit@noaa.gov  
PHONE: (808) 725-5800      FAX: (808) 455-3093

**SUBMITTAL VIA ELECTRONIC MAIL IS PREFERRED BUT NOT REQUIRED. FOR ADDITIONAL SUBMITTAL INSTRUCTIONS, SEE THE LAST PAGE.**

## **Papahānaumokuākea Marine National Monument Permit Application Cover Sheet**

This Permit Application Cover Sheet is intended to provide summary information and status to the public on permit applications for activities proposed to be conducted in the Papahānaumokuākea Marine National Monument. While a permit application has been received, it has not been fully reviewed nor approved by the Monument Management Board to date. The Monument permit process also ensures that all environmental reviews are conducted prior to the issuance of a Monument permit.

### **Summary Information**

**Applicant Name:** Eric Conklin, Ph.D

**Affiliation:** Marine Science Director, The Nature Conservancy

**Permit Category:** Research

**Proposed Activity Dates:** May 1, 2016 - April 30, 2017

**Proposed Method of Entry (Vessel/Plane):** Vessel - Makani Olu

**Proposed Locations:** Nihoa

**Estimated number of individuals (including Applicant) to be covered under this permit:** 18

**Estimated number of days in the Monument:** 10

**Description of proposed activities:** (complete these sentences):

a.) The proposed activity would...  
engage teams from The Nature Conservancy (TNC), Office of Hawaiian Affairs (OHA) and other trained participants aboard the vessel Makani Olu to conduct nearshore reef fish surveys (0-30 ft. depth) in order to collect and analyze data on the status of marine resources within the Papahānaumokuākea National Monument (PMNM). Data will be collected in a manner consistent with methods used in TNC's community-based marine conservation and monitoring efforts throughout the Main Hawaiian Islands (MHI). The information gathered will fill a data gap between monitoring efforts resulting from the annual Reef Assessment & Monitoring Program cruises (30-100 ft. depth) and annual intertidal cruises (rocky intertidal zone) in PMNM.

In addition, TNC is proposing to partner with PMNM/Office of National Marine Sanctuaries and OHA to conduct a ciguatera study at Nihoa. Initial data for this study was collected previously, and the data collected under this permit will enhance that data set. For this study, divers will collect a small number of one species of reef fish for laboratory analysis of the level of ciguatoxins present in select reef fish within PMNM, focusing on islands at which higher levels of consumption may occur, such as Nihoa.

TNC has partnered with OHA to be participants in a broad-scale effort at Nihoa that will focus on both land activities (covered under separate permits - PMNM-2016-001 & PMNM-2015-014) and shallow water fish surveys (covered by this permit application).

b.) To accomplish this activity we would ....  
use transect survey methods and timed-swims to survey a random selection of sites at Nihoa for fish, coral, macro invertebrates and benthic habitat.

Surveys would be conducted using groups of 2 or 3 surveyors per team, including trained scientific diver(s) to collect survey data and community member(s) with experience in marine monitoring within their respective community. The teams will: (a) conduct a basic reef fish presence/absence survey, (b) document their observations of near shore ecosystems within PMNM in a way that is analogous to their home community's survey methods and techniques, (c) conduct 5-minute timed swims to quantify resource fish following TNC science protocols, (d) collect comprehensive data on fish and benthic communities along 25-m transects following TNC science protocols, and (e) deploy water quality instruments at survey sites for short time periods to map spatial patterns in water quality parameters.

In addition, surveyors would opportunistically collect 25 whole fish specimens of one selected, edible reef fish species for ciguatera toxin (CTX) analysis in support of management and to establish a better understanding of CTX levels in fish at select sites within PMNM, including Nihoa. The species to be collected would be determined after the surveys above have been completed, allowing surveyors to select a species that has been documented to be locally abundant. The team would then collect no more than 25 specimens of the selected species for the CTX study.

Upon return to the Main Hawaiian Islands, all data will be entered in a database for analysis by The Nature Conservancy's science team.

c.) This activity would help the Monument by ...  
providing baseline knowledge of an area of nearshore habitat (0-30 ft. depth) where a data gap currently exists for PMNM. This information would be obtained and shared with Monument managers to improve decision-making for long-term conservation and management of nearshore habitat and resources within PMNM. It will also provide a dataset that can be used to compare resource abundance and distribution within PMNM and the MHI. This activity directly supports MMP Activity MCS-1.1: "Continue to characterize types and spatial distributions of shallow-water marine habitats to inform protection and management efforts" and MMP Activity MCS-1.2: "Continue monitoring of shallow-water coral reef ecosystems to protect ecological integrity."

**Other information or background:**

Working with communities is the cornerstone of The Nature Conservancy's Hawai'i Marine Program. TNC uses a community-based approach to marine research and management,

recognizing that the long-term success of efforts to protect Hawai‘i’s nearshore environment is dependent upon the support of local communities living in and around the resources.

TNC seeks to strengthen local capacity by empowering communities that already have a deep understanding of their area’s marine resources and providing support with the management tools needed to care for them. In the process, TNC also partners with these on-the-ground and in-the-water stewards to build public support for increased marine protection, improved resource stewardship, and stronger enforcement statewide.

TNC's works with local communities and conservation partners in four key areas:

- Science and conservation planning to monitor the health and abundance of Hawaii’s marine resources, identify major threats and develop strategies for protection.
- Community-based marine conservation to build local community capacity for marine stewardship.
  - Development of new innovative technologies to control the spread of harmful invasive marine species.
  - A Marine Conservation Fellowship Program to build the next generation of marine resource stewards for Hawai‘i.