

Papahānaumokuākea Marine National Monument
CONSERVATION AND MANAGEMENT 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: T. Todd Jones Ph.D.

Affiliation: NOAA/NMFS Pacific Islands Fisheries Science Center (PIFSC), Protected Species Division, Marine Turtle Biology and Assessment Program

Permit Category: Conservation and Management

Proposed Activity Dates: 1 May – 31 August 2017

Proposed Method of Entry (Vessel/Plane): Vessel (NOAA Ship Oscar Elton Sette and NOAA Ship Hi'ialakai)

Proposed Locations: French Frigate Shoals

Estimated number of individuals (including Applicant) to be covered under this permit: 3

Estimated number of days in the Monument: up to 175 (mid-April through mid-October)

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...

The proposed activity would conduct surveying and tagging of Hawaiian green turtles (*Chelonia mydas*) within French Frigate Shoals (FFS), adding to over 40 years of green turtle population assessment data. The main rookery for the population is at East Island (23°47'12.50" N, 166°12'32.80" W) within FFS (Tiwari, 2010). The turtles' migratory pattern between FFS and the main Hawaiian Islands (MHI) for reproductive purposes has been previously documented (Balazs, 1976), and research has shown that approximately 90% of all Hawaiian green turtle breeding occurs at FFS (Balazs, 1980).

b.) To accomplish this activity we would ...

To accomplish this activity we would conduct systematic monitoring at East and Tern Islands. A 3 person turtle team will camp at Tern and East and rotate weekly. Two staff will camp on East and 1 on Tern with the Monk Seal Team. Opportunistic day trips to Gin, Little Gin, and Trig Islands for day of tracks, body pits, and basking turtles will take place throughout the season. Turtles would be marked with temporary paint or a light shell etching (mototool) filled in with paint to visually distinguish one individual from another (Balazs, 1992). Time and activity of the turtle would also be noted. As time

allows, turtles are checked for existing tags, new tags are applied when applicable, measurements are taken, and a visual assessment of the turtles' overall health (with focus on symptom of fibropapillomatosis) is performed. Once all information is collected for an individual, these data are not collected again so as to minimize disturbance, but all encounters with an individual are recorded and their activity level noted throughout the season (Humburg and Balazs, 2014). During the late season nests will be excavated to estimate hatching success. We will also place sand temperature loggers in up to 40 nests to monitor nesting temperature to elucidate the effects of changing climatic conditions on temperature-dependent sex ratios and embryonic death. Up to 8 turtles will be deployed with satellite transmitters to understand intra-nesting movements and habitat use and well as post-nesting migrations.

c.) This activity would help the Monument by ...

This activity would help the monument by providing a comprehensive population assessment of a critically important green turtle nesting site (East Island) within Papahānaumokuākea Marine National Monument (PMNM), in the Northwestern Hawaiian Islands (NWHI). Data from this program would assist monument managers by providing them with information on peak nesting times, numbers of green turtles nesting within FFS, hatching success and productivity, health assessment information, climatic impacts on nesting, and habitat use and migratory patterns. The work has been ongoing for nearly 30 years and is a flagship project for understanding nesting ecology of marine turtles.

Other information or background:

An important part of the PIFSC research mission is to provide the scientific foundation for conservation and management actions to recover depleted populations of sea turtles. Actions to protect turtles began with the 1973 Endangered Species Act, and in the 1978 revision of the Act sea turtles were listed as threatened or endangered species. Along with these events, in the mid-1970s the Marine Turtle Research Program (MTRP) was founded by scientists at the Honolulu Laboratory, precursor to the PIFSC, and the group began studies of marine turtles in Hawai'i, other U.S. territories in the central and western Pacific, and around the Pacific Rim. The primary focus was on the threatened green turtle population in the Hawaiian Islands. The program launched biological investigations of many aspects of green turtle life history and ecology including assistance with nesting surveys at FFS (in support of the U.S. Fish and Wildlife Service); surveys of turtles in their nearshore feeding and resting habitats around the main Hawaiian Islands; rescue, rehabilitation and release of turtles stranded on beaches due to injury; studies of turtle health and disease; and much more. The MTRP, with the active collaboration of research partners, has produced valuable long-term time series of data on Hawaiian green turtles and numerous contributions to the peer-reviewed scientific literature.

Much of the data is used by the Center's Marine Turtle Biology and Assessment Program (MTBAP) (which was formed in 2015 and combines the two previous turtle programs) to investigate the biology of turtles in Hawai'i and across the U.S. Pacific

Island Territories and focus on the quantitative analysis of turtle populations, their ecosystems, and the effects of climate and environmental factors on turtle population dynamics.

Section A - Applicant Information

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