

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:

Papahānaumokuākea Marine National Monument Permit Coordinator

6600 Kalaniana'ole Hwy. # 300

Honolulu, HI 96825

nwhipermit@noaa.gov

PHONE: (808) 397-2660 FAX: (808) 397-2662

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: Simon Yung Wa SIN

Affiliation: Department of Organismic and Evolutionary Biology,
Museum of Comparative Zoology,
Harvard University

Permit Category: Research

Proposed Activity Dates: January 2016 - February 2016

Proposed Method of Entry (Vessel/Plane): Plane

Proposed Locations: Land-based habitat on Midway atoll

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

3

Estimated number of days in the Monument: 15

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...

We will use the Black-footed albatross (*Phoebastria nigripes*) and Laysan albatross (*P. immutabilis*) as a model for investigating mate choice based on a diverse gene family called major histocompatibility complex (MHC) genes, which plays a crucial role in the adaptive immune system.

b.) To accomplish this activity we would

We would collect a small amount of blood from mated pairs of black-footed and Laysan albatross and from their chicks for genomic DNA extraction.

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

In addition to filling in an important gap in our understanding of albatross biology, this project would help the Monument determine proper translocation strategies for these two protected seabird species. With increasing risk of sea level rise and colony loss due to climate change, it is important to understand how these species select their mates based on their genetic constitution,

and how possessing different genotypes (e.g. MHC genes, genome-wide diversity) affects the offspring survival. The findings from this project would provide valuable information that would aid in decisions about which pairs to eventually translocate and how the birds maximize their fitness through optimal mate choice.

Other information or background: