

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: Ryan S. Nichols

Affiliation: NOAA Fisheries, Pacific Islands Fisheries Science Center

Permit Category: Research

Proposed Activity Dates: March 10 - August 30, 2010

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

Proposed Locations: Kure and Midway atolls (OTC Tagging), TBD NWHI (sustenance fishing)

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

3

Estimated number of days in the Monument: 54

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...

substantively increase the information necessary to effectively manage and conserve stocks of the endemic hapu'upu'u or Hawaiian grouper at minimal risk and impact to its populations (ecological resource of the P-MNM) or to P-MNM cultural/historical resources.

In addition, collect hard parts and gonads from discarded species caught aboard NOAA vessels for sustenance fishing.

b.) To accomplish this activity we would

Continue previous years collaborative study utilizing services and specimens provided by another P-MNM-permitted research study. Carl Meyer (HIMB) is proposing that, during summer 2010, a three-member dive team will capture and tag individual hapu'upu'u on the forereefs of Kure and Midway atolls using the same methods that their group successfully developed on cruises to Kure and Midway in 2008 and again in 2009. Our study's fish will be hand-lined/netted in situ, measured (total length, TL in cm), administered antibiotic oxytetracycline (OTC), and the fish marked with an external tag enabling recognition of prior-tagged individuals by divers underwater.

As a result of last years unsuccessful attempt to collect fish for the OTC tagging study, we herein propose that a maximum of ten (10) and five (5) subadult-adult grouper of a range of sizes (> 50 cm TL), at Kure and Midway atolls, respectively, be injected intraperitoneally using sterilized syringes loaded with 50 mg of the antibiotic oxytetracycline (OTC, Liquimycin® 200) per kg body weight. For fish ranging in size from about 50-100 cm TL, the respective body weights and OTC dosages would be 2.5-20 kg (Nichols and DeMartini 2009) and about 125-1,000 mg/75-500 mg (0.6-5.0 ml/0.3-2.5 ml). The proposed OTC fish will be a separate entity to the fish participating in the acoustic transmitter study.

Sustenance fish will be processed post cleaning for the galley, gonads will be removed and hard parts (ear stones, vertebrae and dorsal ray/spines) will be extracted.

c.) This activity would help the Monument by ... providing the validation of age estimates necessary for accurately describing the age and growth of hapu'upu'u. The management of the extracted (MHI) and the conservation of protected (NWHI) stocks of this species are dependent on our knowledge of sustainable levels of take in the MHI, and the latter require sound age-growth and related life history data.

Other information or background: This collaborative study between academia (HIMB) and federal fisheries biologists would contribute substantively to the growing need and mandate for sharing natural resource specimens and the costs involved in their research.