

## **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:** Jacob Marcus Asher

**Affiliation:** NOAA PIFSC Coral Reef Ecosystem Division

**Permit Category:** Research

**Proposed Activity Dates:** August/September/October 2013

**Proposed Method of Entry (Vessel/Plane):** R/V Searcher

**Proposed Locations:** Nihoa Island, Necker Island (Mokumanamana), French Frigate Shoals

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

**Estimated number of days in the Monument:** 12

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

a.) The proposed activity would...

collect shallow water (0-30m) and deeper water (30-100m) videographic surveys of coral reef fishes using baited remote underwater stereo-video systems (stereo-BRUVs).

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

use a stratified random sampling approach (two levels: depth and habitat) to deploy multiple stereo-BRUVs units. Data generated would include relative abundance, biomass, and size of priority species using the BRUV.

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

providing diver-independent and deep-water survey data on abundance and size distribution of reef fishes species including apex predators. Such information will complement the visual survey data gathered from SCUBA-accessible depths (0-30m) and provide a means to test for impacts of diver presence on estimated apex predator densities in the PMNM. Similar surveys (already

conducted and additional ones planned) in the Main Hawaiian Islands will allow for meaningful comparative analysis of PMNM and NWHI apex predator densities.

**Other information or background:**