

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: Dr. Andrew Rossiter: Director, Waikiki Aquarium

Affiliation: Waikiki Aquarium, and Department of Zoology, University of Hawaii at Manoa

Permit Category: Education

Proposed Activity Dates: June 1, 2009-October 31, 2009

Proposed Method of Entry (Vessel/Plane): Vessel and Plane

Proposed Locations: Nihoa Island, Mokumanamana, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Neva Shoal, Pearl and Hermes Atoll, Midway Atoll and Kure Atoll.

Estimated number of individuals (including Applicant) to be covered under this permit: (8) Eight, but most likely no more than (6) six on any one trip

Estimated number of days in the Monument: Maximum of three separate trips covering seven days each for a total of 21 days

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...
involve the collection and removal of a limited number of target live fishes and corals from the Papahānaumokuākea Marine National Monument. These specimens will be collected with extreme care by highly experienced professional biologists. There will be no accidental by-catch, no incidental mortalities, and care will be taken to not damage the habitat. All specimens collected will be returned alive to the Waikiki Aquarium, where they will be maintained and put on public display in a new exhibit highlighting the fauna and ecosystem of the Papahānaumokuākea Marine National Monument.

b.) To accomplish this activity we would
use SCUBA and snorkeling techniques within the Papahānaumokuākea Marine National Monument, specifically around the island of Midway Atoll. A small boat or vessel may be used to reach those few collecting sites where shore access is not possible.

The target organisms will be collected by experienced biologists using non-destructive and non-lethal collecting methods, namely handnets, barrier nets, geological picks, fishkeeps and other small collection containers. Specimens will be targeted individually to avoid the accidental capture or incidental mortality of unwanted specimens that can occur during non-targeted netting activities. To minimize post capture trauma, emphasis will be placed on collecting smaller, juvenile fish specimens so as to avoid the stress-related issues that sometimes occurs with larger specimens during transportation and introduction to captivity. Additionally, this protocol avoids the removal of larger, reproductively mature animals from the population.

Priority will be given to collecting coral fragments which have become detached naturally from parent colonies. Fragmentation of intact colonies will be undertaken as a last resort only when naturally occurring fragments are not available, and will be done with utmost care so as to minimize impact to the parent colony. Waikiki Aquarium biologists are highly experienced and extremely competent in this procedure and any deleterious effects from sampling will be minimal and short lived.

c.) This activity would help the Monument by ...
presenting to our 320,000 visitors annually, a living reef habitat representative of that found in the Monument. Viewing this ecologically accurate exhibit and associated graphic and video educational messaging will result in increased public awareness of the Monument. Furthermore, it will also give rise to an improved understanding of the unique nature of the marine faunas found there, and why it is so important to protect and preserve them. Additionally, our education programs, which reach over 32,000 schoolchildren annually, will be revised to incorporate accurate scientific and cultural information about the Monument, using the exhibit as a dynamic living tool to underline the education and conservation message.

Other information or background: The Waikiki Aquarium has a long and successful history in maintaining, breeding, and propagating both local and non-local species of marine fishes and invertebrates. This includes uncommon and previously described "hard to keep" species, endangered species, and species of concern. The Aquarium is internationally renowned for its pioneering and successful programs in this area and holds many records for 'firsts' in public exhibiting or breeding of species, and many records for longevity in captivity. For example, it was the first aquarium within the United States, and second worldwide, to successfully breed the Chambered Nautilus, and continues to breed these animals to this day. One of the signature fish species which we have applied to collect under this permit, the Masked Angelfish *Genicanthus personatus*, has only been bred in captivity at the Waikiki Aquarium. The Aquarium's Coral Ark program seeks to maintain at the Aquarium rare corals from around the Main Hawaiian Islands, as a precautionary measure should these corals disappear from their natural environment. Currently, rare species such as *Montipora dilatata* (Kaneohe Bay, Oahu) and *Acropora cytherea* (Kauai), are currently being successfully grown and propagated as part of this program. Many other examples exist, and the Aquarium continues to be at the forefront in maintaining successfully, exhibiting or breeding newly discovered, rare, and challenging species.