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: Dr. Isabella A. Abbott
Affiliation: UH Manoa

Permit Category: Research
Proposed Activity Dates: June 1- October 1, 2009
Proposed Method of Entry (Vessel/Plane): NOAA ship Hi'ialakai
Proposed Locations: TBD

Estimated number of individuals (including Applicant) to be covered under this permit:
3
Estimated number of days in the Monument: 30

Description of proposed activities: (complete these sentences):

a.) The proposed activity would…

Include collections of algae focused on crustose coralline species found in coralline algal reefs, and incidenal non-coralline macroalgae species

b.) To accomplish this activity we would ….

Examine and sample substrata from low intertidal to 100 ft depth (fewer CCA beyond this)

c.) This activity would help the Monument by …

Understanding the underpinnings (substrata types) around the older Hawaiian Islands

Other information or background: ecologically, Crustose Coralline Algae are calcifying organisms that are important for building reef structure and preventing reef erosion, as well as a prefered recruitment substrate for settling coral larvae. The species found in the NWHI are expected to change with the temperature gradient from the main Hawaiian Islands northward. Understanding the species composition of these foundation plants will offer further insight into the ecology of the reefs in the monument.

Section A - Applicant Information

1. Applicant

Name (last, first, middle initial): Abbott, Isabella A

Title: Professor Emerita, UH Manoa

1a. Intended field Principal Investigator (See instructions for more information):
Katherine Cullison

2. Mailing address (street/P.O. box, city, state, country, zip): [redacted]

Phone: [redacted]

Fax: [redacted]

Email: [redacted]

For students, major professor's name, telephone and email address:

3. Affiliation (institution/agency/organization directly related to the proposed project):
UH Manoa and Bishop Museum

4. Additional persons to be covered by permit. List all personnel roles and names (if known at time of application) here (e.g. John Doe, Research Diver; Jane Doe, Field Technician):
Katherine Cullison, Research Diver/Field PI
Jeffrey Kuwabara, research Diver

Section B: Project Information

5a. Project location(s):

		Ocean Based	
☒ Nihoa Island	☐ Land-based	☒ Shallow water	☐ Deep water
☒ Necker Island (Mokumanamana)	☐ Land-based	☒ Shallow water	☐ Deep water
☒ French Frigate Shoals	☐ Land-based	☒ Shallow water	☐ Deep water
☒ Gardner Pinnacles	☐ Land-based	☒ Shallow water	☐ Deep water
☒ Maro Reef			
☒ Laysan Island	☐ Land-based	☒ Shallow water	☐ Deep water
☒ Lisianski Island, Neva Shoal	☐ Land-based	☒ Shallow water	☐ Deep water
☒ Pearl and Hermes Atoll	☐ Land-based	☒ Shallow water	☐ Deep water
☒ Midway Atoll	☐ Land-based	☒ Shallow water	☐ Deep water
☒ Kure Atoll	☐ Land-based	☒ Shallow water	☐ Deep water
☐ Other			

NOTE: There is a fee schedule for people visiting Midway Atoll National Wildlife Refuge via vessel and aircraft.

Location Description:
Various Intertidal and subtidal benthos at reefs visited by HI`IALAKAI cruise

5b. Check all applicable regulated activities proposed to be conducted in the Monument:

☒ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource

☐ Drilling into, dredging, or otherwise altering the submerged lands other than by anchoring a vessel; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands

☐ Anchoring a vessel

☐ Deserting a vessel aground, at anchor, or adrift

☐ Discharging or depositing any material or matter into the Monument

☒ Touching coral, living or dead

☐ Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument

☐ Attracting any living Monument resource

☐ Sustenance fishing (Federal waters only, outside of Special Preservation Areas, Ecological Reserves and Special Management Areas)

☐ Subsistence fishing (State waters only)

☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

6 Purpose/Need/Scope ***State purpose of proposed activities:***
To collect limited samples of crustose coralline algae for examination and identification to species, for the purpose of comparison to the Main Hawaiian Islands and to determine the biogeographic distribution of species in the archipelago. Algal specimens will be collected and assigned preliminary IDs in the field. Follow up work will be conducted at the Department of Botany, University of Hawaii at Manoa.

7. Answer the Findings below by providing 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 Monument:

The Findings are as follows:

a. How can the activity be conducted with adequate safeguards for the cultural, natural and historic resources and ecological integrity of the Monument?
Samples taken will be as small as possible, with an attempt to minimize duplications at any site.

b. How will the activity be conducted in a manner compatible with the management direction of this proclamation, considering the extent to which the conduct of the activity may diminish or enhance Monument cultural, natural and historic resources, qualities, and ecological integrity, any indirect, secondary, or cumulative effects of the activity, and the duration of such effects?
The proposed sampling is not expected to have any impact on monument resources or ecological integrity. The algae will recover quickly from the sampling, which will have negligible effect on the ecosystem's health.

c. Is there a practicable alternative to conducting the activity within the Monument? If not, explain why your activities must be conducted in the Monument.
There is no alternative, since the goal of the research is to identify CCA species in the NWHI national monument. NWHI CCA species appear to be different in species or forms from those encountered in the main HI islands, and little is know about their distribution in the archipelago.

d. How does the end value of the activity outweigh its adverse impacts on Monument cultural, natural and historic resources, qualities, and ecological integrity?
It is not expected that the CCA collection will have any adverse impacts. The small bare patches of substrate exposed by collecting will provide a bare space for either regrowth of the CCA or settlement by anoher local benthic organism. The value of the research is significant, as there is no information on the CCA species present in the monument. CCAs rival live corals for their rate of calcification in reef habitats, making them an important builder and stabilizer of reef structure.

e. Explain how the duration of the activity is no longer than necessary to achieve its stated purpose.
Collections will be made as quickly and efficiently as possible, while attempting to minimize the need to repeat collections in the same locations.

f. Provide information demonstrating that you are qualified to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.
I am an algal taxonomist with 60+ years of experience. The conduct of this activity will require no mitigation.

g. Provide information demonstrating that you have adequate financial resources available to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.
NOAA has sponsored this assesment of crustose coralline algae species in the monument. No mitigation is expected.

h. Explain how your methods and procedures are appropriate to achieve the proposed activity's goals in relation to their impacts to Monument cultural, natural and historic resources, qualities, and ecological integrity.
Collections methods employed will involve minimum short-term and no long term impacts on Monument resources. We strive to diminish any related ecological effects both with our SCUBA techniques and our sampling strategy.

i. Has your vessel has been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of Presidential Proclamation 8031?
Yes (NOAA Ship Hi'ialakai)

j. Demonstrate that there are no other factors that would make the issuance of a permit for the activity inappropriate.
This study and its methods will have no negative effect on any monument resource, but will lead to a greater understanding of the ecology of its ecosystems.

8. Procedures/Methods:
CCAs will be hand collected by researchers on SCUBA using a chisel in 2x2cm pieces. CCA will be stored in bags or buckets, transported to the ship and preserved either by fixing in formaldehyde or ethanol, freezing, or drying. We will attempt to collect only a small sample per site that is representative of the diversity present at each site. No archaeological activities will be involved

NOTE: If land or marine archeological activities are involved, contact the Monument Permit Coordinator at the address on the general application form before proceeding, as a customized application will be needed. For more information, contact the Monument office on the first page of this application.

9a. Collection of specimens - collecting activities (would apply to any activity): organisms or objects (List of species, if applicable, attach additional sheets if necessary):

Common name:
Crustose Coralline Algae

Scientific name:
Various genera of corallinaceae, ex. Lithophyllum

& size of specimens:
approx. 5) 2x2cm samples per species per site

Collection location:
Various marine habitat from intertidal to 100 ft deep.

☐ Whole Organism ☒ Partial Organism

9b. What will be done with the specimens after the project has ended?
Deposited in Bishop Museum, Honolulu; and US Nat. Museum Herbarium

9c. Will the organisms be kept alive after collection? ☐ Yes ☒ No

• General site/location for collections:
Laboratory in St. John, UH Manoa

• Is it an open or closed system? ☐ Open ☐ Closed
N/A

• Is there an outfall? ☐ Yes ☐ No
N/A

• Will these organisms be housed with other organisms? If so, what are the other organisms?
N/A

• Will organisms be released?
N/A

10. If applicable, how will the collected samples or specimens be transported out of the Monument?
Preserved in Ethanol or Formalin, or dried

11. Describe collaborative activities to share samples, reduce duplicative sampling, or duplicative research:
Duplicative sampling may be done unintentionally, since CCA species in the field are often indistinguishable.

12a. List all specialized gear and materials to be used in this activity:
SCUBA

12b. List all Hazardous Materials you propose to take to and use within the Monument:
Formaldehyde 37%

13. Describe any fixed installations and instrumentation proposed to be set in the Monument:
None

14. Provide a time line for sample analysis, data analysis, write-up and publication of information:
Final Collections: Summer 2009
Species Identification and composition data finished by Jan 2010.

15. List all Applicants' publications directly related to the proposed project:

With knowledge of the penalties for false or incomplete statements, as provided by 18 U.S.C. 1001, and for perjury, as provided by 18 U.S.C. 1621, I hereby certify to the best of my abilities under penalty of perjury of that the information I have provided on this application form is true and correct. I agree that the Co-Trustees may post this application in its entirety on the Internet. I understand that the Co-Trustees will consider deleting all information that I have identified as "confidential" prior to posting the application.

_____ _____

Signature Date

SEND ONE SIGNED APPLICATION VIA MAIL TO THE MONUMENT OFFICE BELOW:

Papahānaumokuākea Marine National Monument Permit Coordinator
6600 Kalaniana'ole Hwy. # 300
Honolulu, HI 96825
FAX: (808) 397-2662

DID YOU INCLUDE THESE?

☐ Applicant CV/Resume/Biography
☐ Intended field Principal Investigator CV/Resume/Biography
☐ Electronic and Hard Copy of Application with Signature
☐ Statement of information you wish to be kept confidential
☐ Material Safety Data Sheets for Hazardous Materials