FORMAT for Annual Progress Report

A. Grant Number: Internship

B. Amount of Grant: Tuition & Salary

C. Project Title: Benthic maps protect habitats within Marine Corps Base-Hawaii

D. Grantee: Hawaii Coral Reef Initiative Program

E. Award Period: Sept. 1, 2010- August 1, 2011


G. Summary of Progress and Expenditures to Date:

l. Work Accomplishments: (as related to project objectives and schedule for completion)
   a. Provide a brief summary of progress, including results obtained to date, and their relationship to the general goals of the grant; and

   As a HCRI intern, I am assisting the Coastal Conservation Program of U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office (Service). My primary task is to produce usable marine benthic habitat maps within the 500 yard security zone, seaward of Marine Corps Base-Hawaii (MCBH). The benthic habitat maps will be included in a report that will be transmitted from the Service to MCBH. The purpose of the report is to assist resource managers to develop planned projects and respond to unplanned accidents in a manner to avoid or minimize impacts to fish and wildlife resources, such as coral reefs. For instance, benthic habitat maps may be used to respond to vessel groundings or aircraft crashes to take actions to protect surrounding marine resources. Also, information provided by maps may be used as background material when preparing NEPA or EIS documents. Our specific goals are to produce maps that spatially locate important resources (e.g., coral reefs and sea turtles) and invasive species (e.g., algae and sponges) within the MCB-Hawaii. In addition, resources will be photo documented and described in a written report.

   A number of benchmarks have been reached in the mapping project. We clarified our goals for the project, developed a protocol, and organized a team of divers. We have started
to survey in five of the eleven areas that surround the base. Survey area #9 that sits in front of the waterfront ops is near to complete and a preliminary map has been made of this site.

Habitats are defined based upon visual cover of the most abundant living organism or in the case of an absence of living organism by the dominant substrate. Habitats that we have encountered include: coral reefs, seagrass, algae, soft sediment and a mix of habitat types. We have also observed a number of healthy sea turtles either swimming or resting as well as coral disease and marine debris. These features and habitats have been spatially located and photographed. They are included in a database where managers can scroll over the map and link to photographs that describe observed resources at a specific location.

b. Provide a brief summary of work to be performed during the next year of support, if changed from the original proposal; and indication of any current problems or unusual developments that may lead to deviation of research directions or delay of progress toward achieving project objectives.

For the remainder of HCRI supported internship I will be continuing to work on the mapping project. We will survey the remaining stations around the base and prepare the written report. The project I am working on is not directly related to the State of Hawaii and for legal reasons it was necessary for me to become a certified as a Service diver. This was not anticipated by myself or management and required a few weeks of effort as I had to get a medical physical, complete a swim test, and a checkout dive. Nevertheless, we have made good progress on the surveys and feel we should complete the majority of the project during the supported internship. The biggest obstacle for future work will likely be weather and coordinating access to survey sites located adjacent to the Mokapu Firing Range with MCBH. Sites on the exposed side of the base are difficult to survey except under ideal flat conditions and some are located near fire ranges. We will need specific permission to enter these areas on days when the swell is small.
2. Applications:

This section should describe specifically the outputs and management outcomes achieved. Outputs are defined as products (e.g. publications, models) or activities that lead to outcomes (changes in user knowledge or action). In cases where proposed management outcomes are not fully achieved, indicate the progress made during the reporting period. Also, indicate expected outputs and management outcomes for the next year of support.

a. Outputs & b. I. Management outcomes

These maps will provide managers knowledge of the spatial location of resources and photo-documentation of important habitats and protected species (e.g. sea turtles). These maps are intended to specify areas that may need further protection or active measures to protect. To date, we have identified areas near the waterfront operations facilities where we would recommend to managers that they take efforts to remove invasive algae and that they protect nearby seagrass and coral reef habitats as green sea turtles were observed to feed and rest in these areas. Not only will this project provide maps and information for managers at the base but the refined methods will be included in a report to the Army Corps of Engineers. This report is being prepared to clarify the approach federal and state agencies use to determine the biological function of habitats that may be impacted in planned projects.

c.II Societal condition improved due to management action resulting from output; examples

The survey will not directly result in improved societal conditions, however, the manager at the base will now have the necessary tools to take action and improve habitat conditions. She has already expressed interest in organizing algal cleanups and removing large debris identified by our mapping. In this manner the benthic habitat maps will protect the marine resources in the bay.
d. Partnerships established with other federal, state, or local agencies, or other research institutions (other than those already described in the original proposal).

We are collaborating with several resource partners. Dr. Thierry Work from the U.S. Geologic Survey/Biological Resources Division (USGS), who has expertise in marine infectious disease, dives with us to assist in identification of coral disease. Dr. Wendy Wiltse from the Environmental Protection Agency (EPA) has joined us to share her knowledge of invasive species that occur within the MCBH security zone. We coordinate directly with Ms. Diane Drigot, Environmental Office, MCBH and members from the Marine Corps Base to conduct surveys. I am a state employee and a student at the University of Hawaii. Mr. Dave Gulko, State of Hawaii Division of Aquatic Resources will join us on during field work in the coming months.

3. Expenditures: Not applicable

Prepared By:

Signature of Principal Investigator Date

NOAA COP Annual Progress Report Form

7/16/2007
Subsequently, all NOAA COP recipients with approved grants will be asked to file a COP Annual Progress Report in the specified format. The first section of the proposed format is taken from the COP implementation plan and has some advantages in that previously-funded investigators will be familiar with the format. Consistency in reporting requirements for competitive research grant programs is desirable and this is behind COP’s efforts in proposing a standardized format. This annual report format will enable COP program staff to monitor each project supported by an award.

Public reporting burden for this collection of information is estimated to average 300 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information.

Send comments regarding this burden estimate or any other aspects of this collection of information, including suggestions for reducing this burden, to the National Ocean Service, CSCOR/COP Office, 1315 East-West Highway, Silver Spring, MD 20910. Grant files are subject to the Freedom of Information Act (FOIA). Confidentiality will not be maintained—the information will be made available to the public. However, unpublished research results shall not be published without prior permission from the recipient.

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