Project Location

The host agency for the 2003-2005 Coral Management Assistantship in Hawai'i is the Division of Aquatic Resources (DAR) located within the Department of Land and Natural Resources. DAR has offices in Honolulu, Hawai'i.

Hawai'i is the most isolated population center on the face of the earth. Hawai'i is 2,390 miles from California, 3,850 miles from Japan, 4,900 miles from China, and 5,280 miles from the Philippines. It has been referred to as the "Oasis of the Pacific Desert," as well as the "Nutrient Basket of the Northern Pacific Ocean." Hawai'i includes about 137 islands, many of which are uninhabited. The eight major islands are Hawai'i (the "Big Island"), Oʻahu, Maui, Kauaʻi, Molokaʻi, Lānaʻi, Niihau, and Kahoolawe. Each island has its own unique topographical and cultural features, including hundreds of endemic flora and fauna.



Program/Agency Background

The mission of DAR is to manage, conserve, and restore the state's unique aquatic resources and ecosystems for present and future generations. DAR manages the state's aquatic resources and ecosystems through programs in commercial fisheries and resource enhancement, aquatic resources protection, habitat enhancement and education, and recreational fisheries. Major program areas include projects to manage or enhance fisheries for long-term sustainability of the resources, protect and restore the aquatic environment and native and resident aquatic species and their habitat, and provide facilities and opportunities for recreational fishing.

Land uses have a potential to contribute pollutants, such as sediment, nutrients, pesticides, heavy metals, and hydrocarbons to the near-shore environment. Under certain conditions, these contaminants are retained by associated reef communities resulting in degradation. Many agencies and organizations are involved in land and water management within watersheds, and their activities can affect downstream coral reef communities. In order to build a more comprehensive watershed approach to

managing land use to reduce or prevent impacts to coral reef health, DAR is working with a core committee to implement the Land-Based Sources of Pollution local action strategy that addresses marine and nonpoint source pollution, sedimentation, and marine debris throughout Hawai'i.

Coral Reef Fisheries in the Main Hawaiian Islands is another local action strategy currently being developed that addresses the issue of over-fishing. Hawai'i is currently conducting an extensive Hawai'i Marine Recreational Fishing Survey (HIMRFS) to obtain data on pelagic recreational fishing activities. The survey will be conducted by handing out questionnaires to boaters and fishermen at boat launch ramps and small boat harbors. Shoreline creel surveys and recording random shoreline intercepts on the islands of Oahu, Maui, and Hawai'i are other components of the HIMRFS. The information collected from this project will allow DAR and its partner agencies to develop a comprehensive, integrated coral reef fisheries management plan.

Numerous objectives have been identified for developing the *Coral Reef Fisheries in the Main Hawaiian Islands* local action strategy. One of the initial tasks is to identify the information gaps in stock assessment and data collection activities. The group working to develop the local action strategy has decided to host a series of workshops with fishermen and other stakeholders in all four counties to gain insight into how they feel about the resources, and to provide them with preliminary information about current data and research. Findings from these workshops will be used as the basis of designing Hawai'i's fisheries regional workshop and will also be incorporated into the development of the management plan.

There also is a strong need for Hawai'i to develop a recreational over-use strategy. With over 1,000 ocean recreation operators in Hawai'i, there is ample opportunity for the 7 million tourists who visit each year to participate in some form of ocean recreation activity. The majority of this activity takes place within a half-mile of shore and is concentrated in the near-shore coral reef ecosystem. Managing the diverse and often competing uses that occur in the near-shore region is a challenge. There is a need to balance the opportunities to participate in ocean recreational activities with the impacts that may occur from high levels of use at some sites. In addition, Hawai'i's Marine Protected Areas, locally called Marine Life Conservation Districts, are marketed as "must see" destination spots by the tourist industry because of their beauty and abundance of marine and wild life. Managing the amount of use and limiting the impacts to Marine Life Conservation Districts has proven to be difficult because they are open access resources. There is a need to choose a few Marine Life Conservation District sites where management actions designed to balance resource use and protection can be implemented and monitored to measure their effectiveness.

Project Goals and Objectives

The goal of this assistantship project is to assist in the coordination and implementation of local action strategies relating to land-based pollutants and coral reef fisheries in Hawai'i, as well as to assist in the initial development of a local action strategy for recreational over-use. These local action strategies will:

Identify and prioritize land-based pollution sources that affect coral reefs

- Identify coral reef fisheries management strategies that promote sustainable harvesting of fish
- Identify visitor use management strategies that balance the opportunities to participate in recreational activities with the impacts from those activities.

Other overarching objectives of this project include:

- Creating a communication and coordination system among those who manage, study, or work to restore terrestrial freshwater and coral reef ecosystems
- Promoting effective use of resources to prevent or repair impacts to coral reefs

Project Description

As a participating member of the DAR staff, the assistant will network with partner organizations and agencies to complete this multifaceted project. Some of these tasks will be accomplished concurrently.

Phase I (2 months) Orientation

The assistant will be introduced to staff and management of DAR and partner agencies, and will review background information regarding Hawai'i's coral reef initiative and other coastal management issues. The assistant also will participate with program staff in field visits, interagency meetings, and outreach activities. After participating in these activities, the assistant, with input from their mentor, will write a project work plan that will be reviewed and revised after the first year of the assistantship.

Outcomes:

- Familiarity with staff, operations, and resources of state coastal and aquatic resource management programs
- Integration into DAR and clarification of role in project
- Develop a project work plan

Phase II (On-going)

Assist in administering coral grants

The assistant will assist in coordinating the coral grants that DAR receives in-house and from subcontractors. This includes tracking expenditures, processing invoices, and integrating all relevant information into reports in a timely manner.

Outcomes:

- Overview and familiarity with grant funded coral reef activities in Hawai'i
- Familiarity with the grant process

Phase III (1 vear)

Coordinate with stakeholders to implement the Coral Reef Fisheries in the Main Hawaiian Islands local action strategy

The assistant will review materials from lead agencies and private interests collaborating on the *Coral Reef Fisheries in the Main Hawaiian Islands* local action strategy. In addition, the assistant will coordinate local meetings of relevant stakeholders in Hawai'i

to facilitate sharing of priorities, programs, activities, and successes. During these meetings, the group will develop a framework and implementation strategies for an integrated coral reef fisheries management plan to prevent non-sustainable harvest of these resources.

Outcomes:

- Assist in finalizing local action strategy
- Coordinate with partners to implement the local action strategy
- Work with project partners to identify funding sources and acquire funds

Phase IV (1 year)

Coordinate with stakeholders to implement the land-based sources of pollution local action strategy

The assistant will review materials from the core committee, which includes representatives from several federal and state agencies. In addition, the assistant will coordinate local meetings of relevant stakeholders in Hawai'i to allow sharing of priorities, programs, activities, and successes. During these meetings, the group will develop a strategy to address land-based sources of pollution of coral reef ecosystems.

Outcomes:

- Coordinate with partners to implement the local action strategy
- Work with project partners to identify funding sources and acquire funds

Phase V (6 months)

Coordinate initial development of a local action strategy for recreational over-use The assistant will work with local partners to coordinate the initial development of a local action strategy for recreational over-use based on their understanding of the process employed for the two previously described local action strategies. The assistant will reach out to communities and user groups most affected by recreational over-use and other interested stakeholder groups. The assistant will work with a core committee to facilitate discussions between DAR and the public through focus groups, community meetings, and public workshops. They also will consult with agencies that have management responsibilities that could influence the effectiveness of a recreational over-use strategy to explore opportunities for collaboration and seek their recommendations.

Outcomes:

- Identify stakeholder groups
- Identify priority issues related to recreational over-use
- Work with partners to draft a framework and implementation strategies for a local action strategy

Assistant Mentoring

The assistant will be mentored by Athline Clark, DAR Special Projects Program Manager. Athline works in the DAR's Honolulu office. Athline will be the primary point of contact for administrative questions and project guidance. Athline and the assistant will communicate regularly to review timelines and evaluate progress.

The assistant will be considered part of the DAR, and will be expected to attend staff meetings and participate in program discussions. They will be provided opportunities to join staff on field visits and in internal and external meetings. The assistant will have ample opportunities to meet land-based pollution, coral reef fisheries, and recreational uses points of contact from all levels of government, nonprofit groups, and academic institutions. This project will provide an opportunity to learn about aspects of a natural resource management program and a wide range of island management issues.

The assistant will receive assistance in identifying key individuals with whom to meet and important sources of background information. They will be provided with the necessary resources to carry out the project.

Project Partners

DAR works actively with other agency staff, community organizations, government agencies, universities, and non-governmental organizations on land-based pollutant and coral reef fisheries issues.

Potential partners include:

- Hawai'i Association of Conservation Districts
- Hawai'i Department of Agriculture
- Hawai'i Department of Business, Economics Development and Tourism (DBEDT)
 - Hawai'i Coastal Zone Management Program
 - Ocean Resources Branch
- Hawai'i Department of Health
- Hawai'i Department of Land and Natural Resources (DLNR)
 - Commission on Water Resource Management
 - Division of Aquatic Resources (DAR)
 - Division of Conservation and Resources Enforcement (DOCARE)
 - Division of Forestry and Wildlife (DOFAW)
 - Division of Land Management
 - Engineering Division
- Hawai'i Institute of Marine Biology
- Kahoolawe Island Reserve Commission
- National Marine Fisheries Service (NMFS)
- National Oceanic and Atmospheric Administration (NOAA)
- National Park Service
- The Nature Conservancy
- Sierra Club
- Soil and Water Conservation Districts
- U.S. Department of Agriculture (USDA)
 - Farm Services Administration
 - Natural Resources Conservation Service (NRCS)
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

- U.S. Geological Survey
- University of Hawai'i
 - Agricultural Extension Service
 - Sea Grant Program
 - Social Science Research Institute
 - Hawai'i Coral Reef Initiative Research Program
- Western Pacific Regional Fishery Management Council

In Kind Support

The assistant will have access to all of the amenities and services of agency staff, including office space and equipment, personal computer, telephone, fax, and e-mail access. Use of agency vehicles will be permitted.

In addition, DAR will provide funds for inter-island administrative travel, purchases of supplies and software, as well as printing, photocopying, mailing, and incidental costs for project products.

Eligibility Requirements

- Bachelors in resource management planning or related field with 4 years experience
 OR a Master's in resource management planning or related field with 2 years experience
- Valid driver's license

Desired Background and Skill Sets

- Demonstrated oral, written, and interpersonal communication skills
- A proven ability to be well organized, and able to manage and prioritize multiple tasks
- Experience, through an internship, fellowship, or part-time job, in tropical habitats and coral reefs
- Public speaking, events planning, and meeting facilitation experience
- Ability to work independently
- Creative, flexible, adaptable
- Experience living and working in another culture or in an island community
- Experience working with different user groups
- Experience in natural resource planning and policy implementation
- Project management experience