



## Expedited Approval for NPS- Sponsored Public Surveys

1. Project Title | **Fisheries Harvest Survey in two Hawaiian National Parks** | 30 Oct 2008  
Submission Date:

2. Abstract: The project is designed to provide estimates of fisheries catch and effort in two Hawaiian national parks: Kaloko-Honokohau National Historical Park and Kalaupapa National Historical Park. The project is a component of the protocol development for fisheries harvest, a vital sign identified by the NPS Inventory and Monitoring Program. The goal of this project is to survey adult fishers and acquire data that will be analyzed for calculation of estimates of fisheries catch and effort in both parks. Surveys conducted during this project will be anonymous. The survey has been reviewed and approved by resource managers in the parks. The fisheries parameter estimates will be used in analyses needed for standardized NPS protocol development.

(not to exceed 150 words)

### 3. Principal Investigator Contact Information

First Name: Jim | Last Name: Beets

Title: Professor, Marine Science

Affiliation: University of Hawaii at Hilo

Street Address: 200 W. Kawili St

City: Hilo | State: HI | Zip code: 96720

Phone: 808-933-3493 | Fax: 808-974-7693

Email: beets@hawaii.edu

### 4. Park or Program Liaison Contact Information

First Name: Sallie | Last Name: Beavers

Title: Marine Ecologist

Park: Kaloko-Honokohau National Historical Park

Park Office/Division: Resource Management

Street Address: 73-4786 Kanalani St., #14

City: Kailua Kona | State: HI | Zip code: 96740

Phone:

Fax:

Email:

## Project Information

5. Park(s) For Which Research is to be Conducted:
6. Survey Dates:  (mm/dd/yyyy) to  (mm/dd/yyyy)
7. Type of Information Collection Instrument (Check ALL that Apply)
- Mail- Back Questionnaire       On- Site Questionnaire       Face- to- Face Interview       Telephone Survey       Focus Groups
- Other (explain)
8. Survey Justification: (Use as much space as needed; if necessary include additional explanation on a separate page.)
- Social science research in support of park planning and management is mandated in the *NPS Management Policies 2006* (Section 8.11.1, "Social Science Studies"). The NPS pursues a policy that facilitates social science studies in support of the NPS mission to protect resources and enhance the enjoyment of present and future generations (National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq.). NPS policy mandates that social science research will be used to provide an understanding of park visitors, the non-visiting public, gateway communities and regions, and human interactions with park resources. Such studies are needed to provide a scientific basis for park planning, development, operations, management, education, and interpretive activities.
- Survey data are needed for development of the Inventory and Monitoring Protocol of the Fish Harvest Vital Sign identified by the by the Pacific Island Network . Estimates of fish catch and effort are essential for this effort.
- The objectives of this project are to: 1) gather data on the fishing pressure on marine resources within Kaloko-Honokohau National Historical Park (KAHO) and Kalaupapa National Historical Park (KALA) in Hawaii; 2) gather information on fisher catch and effort by gear type, and 3) gather data on the diversity of fisheries resources harvested in both parks.
- These parks are in the process of developing monitoring programs to evaluate their natural resources. The marine resources are exposed to numerous impacts. All Pacific parks are experiencing differing degrees of marine resource exploitation. Monitoring the status of these resources and their use is critical for future resource evaluation and management actions. Fisheries surveys are a standard fisheries-dependent method for obtaining resource information for management.
- No previous fisheries surveys have been conducted in the national parks in Hawaii.
9. Survey Methodology: (Use as much space as needed; if necessary include additional explanation on a separate page.)
- (a) Respondent universe:  
Adult (18 and older) fishers intercepted along the ocean shoreline at KAHO and KALA between October 1, 2008 and December 31, 2010.
- (b) Sampling plan/procedures:  
The surveys will represent a sample of shoreline anglers fishing in the park during the survey period. Preliminary observations suggest that the greatest fishing activity is from shore access. Survey sampling will be based on a stratified random sampling design. Higher-activity periods (weekend days, holidays) will have a greater sampling proportion than lower activity periods (weekdays). Methods will be similar to those conducted in other Pacific Network parks, including the National Park of America (NPSA) and War and the Pacific National

Historical Park (WAPA). During the selected sampling days, all shoreline fishers encountered in designated access areas within the parks--and who are 18 years old and older-- will be approached by interviewers and asked to participate in the survey. Refusals will be recorded in a survey log. Sampling will be conducted during daylight hours. Night fishing activity will be observed and recorded by NPS staff, but will not be included in the survey.

(c) Instrument administration:

Interviews will only be administered to willing participants. A trained graduate student and assistants will conduct all surveys in both parks. Interviewers will walk assigned shoreline segments and approach all fishers encountered. If a fisher does not wish to participate, or is not 18 years old or older, then a record will be made of the fisher and activity (observed gear/fish), and the interviewer will continue along the shoreline. Willing participants will be asked all relevant questions on the survey, and the interviewer will record responses. Only survey questions will be asked, including asking permission to measure the catch.

(d) Expected response rate/confidence levels:

The plan is to survey 200 fishers at KAHO and 100 at KALA. We expect to obtain a response rate of 80% based on other NPS fisheries studies (National Park of American Samoa, War in the Pacific NHP). The margin of error for the overall sample is +/- 6.3 percentage points at a confidence level of 95%.

(e) Strategies for dealing with potential non-response bias:

Observations will be made on fisher activity, including gear type, group size, gender, juvenile fisher activity, and other conditions. If a reason for refusal is given, the reason will be recorded. Respondents and non-respondents will be compared and the data will be evaluated for non-response bias and discussed in the final report.

(f) Description of any pre-testing and peer review of the methods and/or instrument (recommended):

The survey instrument has been reviewed by resource managers and marine ecologists in all parks and PIs for the protocol development project. The survey instrument has been review by faculty at the university and NPS collaborators.

10.	<b>Total Number of Initial Contacts   Expected Respondents:</b>	300	240	ii.	<b>Estimated Time to Complete Initial Contact   Instrument (mins.):</b>	3	15	12.	<b>Total Burden Hours:</b>	75
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13.	<b>Reporting Plan:</b>	Survey data summary and analysis will be incorporated into the Protocol Development Report which reviewed and approved by Pacific Network,. Analysis will include statistical methods used in other NPS reports (NPSA, WAPA). ANOVA, t-tests, and their non-parametric equivalents will be used to determine statistical differences in activities, gear types, catch per unit effort, etc.
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