

**FISHERIES DISASTER RELIEF PROGRAM (FDRP)  
ANNUAL REPORT FOR FY 2007**

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**FDRP Project Title and Project No.:** Hawaiian Archipelago Bottomfish Sampling  
Program--#657787

**Funding Agency:** NOAA

**1. Purpose of the Project (one paragraph)**

With the funds requested, the Pacific Islands Fisheries Science Center (PIFSC) will (a) contract eight fishermen for one year to provide samples of five bottomfish species caught during regular fishing trips and (b) implement a bottomfish fishery dependent sampling program at the local auction. Samples of the five species of bottomfish will be collected as available from the three different management zones in the Hawaiian Archipelago, Ho'omaluu, Maui, and Main Hawaiian Islands (MHI), by two-three fishermen designated to each zone. The bottomfish species of interest include four snappers (opakaopaka *Pristipomoides filamentosus*, onaga *Etelis coruscans*, ehu *Etelis carbunculus*, and uku *Aprion virescens*), and hapu'upu'u grouper (*Epinephelus quernus*). The zonal collection of samples will enable comparison of growth and maturation curves, as well as a robust appraisal of bottomfish connectivity among reefs (or groups of adjacent reefs) throughout the archipelago. Viewed collectively, these estimates will provide the necessary data to evaluate possible stock structuring between NWHI subregions, as well as between the NWHI and the MHI. This information will greatly enhance the spatial resolution of stock assessments for these species. The purchase of these specimens directly from bottomfish fishers in Hawai'i also helps support the local industry

**2. Progress during FY 2007 (One-two paragraphs, including a comparison of the actual accomplishments to the objectives established for the period and the reasons for slippage if established objectives were not met):**

To date, five fishermen of the originally proposed eight are on contract to collect bottomfish samples. Three are NWHI fishermen of which one is a Hoomalu Zone permittee. The slippage in the number of participants from the proposed eight was the result of two fishermen elected not to participate because of personal and business concerns and the selling of vessel by the third fisherman. Two fishery technicians were hired to process biological samples and provide support to the staff.

Each contractor is requested for each trip to retain 10-15 pieces of each of the five species which should include a wide range in size and spatially diverse as possible. The project thus far has received 15 hapu'upu'u, 29 ehu, 49 uku, and 25 opakaopaka for a total of 118 individual bottomfish specimens from two trips to the Hoomalu and two

trips Mau Zones in the NWHI. Biological samples collected thus far included 118 pairs of otoliths, 118 extracted gonads, and 118 dorsal and 86 anal fin clippings for mDNA analysis at HIMB. Disparity in the fin counts was due to the size of anal fin on the smaller fishes that prevented proper extraction.

Due to the five month closure of the bottomfishing grounds in the MHI no specimens will be received from this zone until October 1. The Auction sampling portion of the project will commence shortly.

**3. Plans for project completion:**

The project will include participation by the MHI bottomfish fishermen once the bottomfish fishery in the MHI is opened. Efforts are underway to implement a bottomfish fishery dependent sampling program at the local auction.

**4. List of papers published in refereed journals during FY 2007.**

None

**5. Other papers, technical reports, meeting presentations, etc.:**

None