

JIMAR FY 1999 REPORT

P.I. Kim Holland

PROJECT TITLE: Hawaii Tuna Tagging Project.

FUNDING AGENCY: NOAA

1. Purpose:

To use tag-and-release and recapture methods to elucidate the movement patterns of yellowfin and bigeye tuna in the waters surrounding the Hawaiian Archipelago.

2. 1999 progress.

During 1998/99, Approximately 14,000 tuna were tagged and released. In our attempt to achieve as broad a coverage as possible, releases occurred along the entire length of the archipelago from Cross Seamount south of Hawaii to Midway atoll at the extreme NW end of the chain.

Also during this period, the number of recaptured tagged fish began to increase significantly. The increase in size of the recapture data base permitted the initiation of the first statistical analyses of recapture patterns in terms of both spatial movements of the tuna and the types of fishing gear involved in the recaptures.

3. Plans for 1999/2000

Future emphasis will be placed on increasing the number of tuans tagged and released at near-shore locations (such as the around the Hawaii state FAD system). This emphasis is intended to compliment the offshore releases that have dominated the first two years of the program.

4. Papers Published

Holland, K. N., P. Kleiber and S.M. Kajiura. 1999. Different residence Times of yellowfin tuna, *Thunnus albacares*, and bigeye tuna, *T. obesus*, found in mixed aggregations over a seamount. **Fish. Bull.** 97:392-395.

5. Other reports.

In addition to the published article, several papers describing the results of this project were presented at scientific meetings. These included:

Holland, K.N. and S.M. Kajiura. *Movements of tunas around a mid-ocean archipelago.* XVIII International Week of Fisheries. March 1999, Horta, Azores

Holland, K.N. *Attaching the tag to the task: The convictions of a stalker*. 50th Tuna Conference, May 1999, Lake Arrowhead, California.

Itano, D. and K.N. Holland . *Hawaii Tuna Tagging Project – where we are*. 50th Annual Tuna Conference, May 1999, Lake Arrowhead, California.