

Update on the Orote Seafood Advisory Phase 2 Study



June 2003

This Fact Sheet describes the investigation of potential human health risks from the consumption of seafood caught in the Orote Seafood Advisory Area under the Installation Restoration (IR) Program. This is No. 1 in a series of informational flyers that will be issued periodically throughout the Orote Seafood Advisory Ph 2 Study.

INTRODUCTION

This fact sheet provides updated information regarding the investigation of potential human health risk from the consumption of seafood caught from within the Orote Seafood Advisory Area. Phase I seafood sampling, which included sampling of nearshore territorial fish, and limited mid and deep water fish sampling, as well as a seafood consumption survey and analysis, was conducted in June 2001 and November/December 2001. Based on the results of the Phase I efforts, the waters between Nimitz Beach and Rizal Beach have been removed from the initial Agat Bay Seafood Advisory. The Agat Bay Seafood Advisory was reduced and renamed the Orote Seafood Advisory in May 2002. The current Orote Seafood Advisory includes the area from Orote Point to the southern portion of Rizal Beach (COMNAVMARIANAS fenceline). As a precaution, Guam Public Health has advised people not to eat seafood (e.g. octopus, seaweed, crabs, lobsters, fish, etc.) caught from within the Advisory area. A separate seafood advisory was issued for Gabgab Beach in May 2002 (see Fig. 1) and it will be addressed in a later study.

To address the potential health effects from consuming seafood from the mid and deep water regions (120-600 foot depth contour), a fish sampling effort was conducted in May 2003. This effort included collecting fish samples from within the Orote Seafood Advisory Area at the locations depicted in Fig. 1. Selected fish samples will be analyzed for polychlorinated biphenyls (PCBs), dioxins/furans and chlorinated pesticides. A human health risk assessment on the results of the mid and deep water fish sampling will be completed in October 2003.

MID AND DEEP WATER FISH SAMPLING

The mid and deep water fish sampling effort was conducted in May 2003 with oversight from Guam EPA, EPA Region 9, Department of Aquatic and Wildlife Resources (DAWR), and assistance from local fishermen (see Fig. 3). Fish were collected during day and night sampling periods.



Fig. 1. Orote Seafood Advisory Area and mid and deep water fish sampling locations



Fig. 2. Fish collected for analysis – Lehi or silvermouth

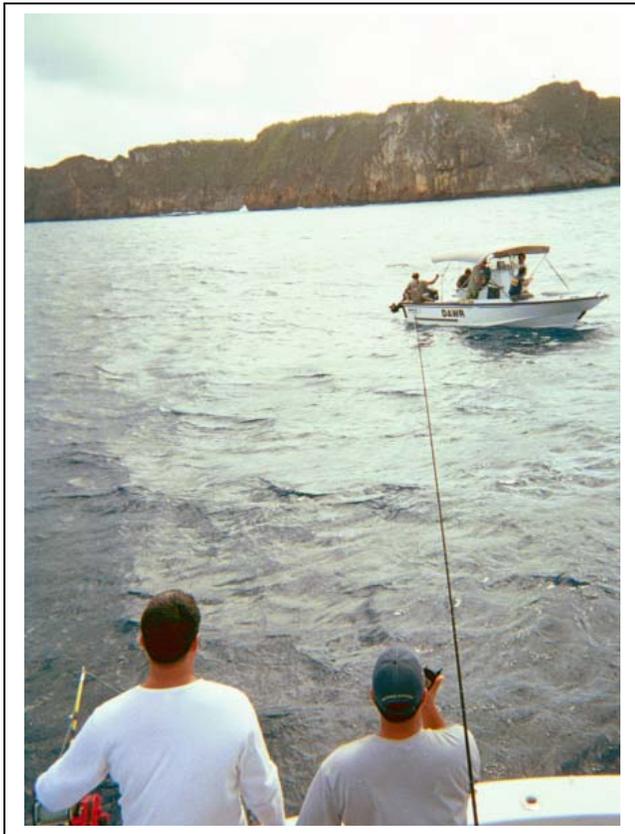


Fig. 3. Navy and GEPA Fishermen

The selection of the commonly caught and consumed fishes for analyses was based on specific recommendations provided by local experts such as the DAWR, Guam EPA and USEPA. The criteria used in the selection for testing included prevalence, location and variety of available fish, local consumption data from the Phase I survey, and published technical information for particular fish types.

A total of 16 different mid and deep water fish species were caught for analysis (see Fig. 2 and 4). They include:

- “Opakapaka,” a bunina (*Pristipomoides flavipinnis*)
- “Gadao,” blacktipped grouper (*Epinephelus fasciatus*)
- “Gindai,” oblique banded snapper (*Pristipomoides zonatus*)
- Yellowtail “Kalikali,” gold flagged jobfish (*Pristipomoides auricilla*.)
- “Lililok,” long faced emperor (*Lethrinus olivaceous*)
- “Buninas,” blue stripped snapper (*Pristipomoides argyrogrammicus*)
- “Funai,” blue lined snapper (*Lutjanus kasmira*)
- “Satmoneti,” cinnabus goatfish (*Parupeneus heptacanthus*)
- “Ehu,” ehu (*Etelis carbuncules*)

- “Gadao,” flagtail grouper (*Cephalopholis urodeta*)
- “Onaga,” onaga (*Etelis coruscans*)
- “Mafute,” large eyed bream (*Gymnocranius microdon*)
- “Gadao,” lyretail grouper (*Variola louti*)
- “Gadao,” orange grouper (*Cephalopholis analis*)
- “Saksak,” shoulderbar soldierfish (*Myripristis kuntee*)
- “Lehi,” silvermouth (*Aphareus rutilans*)



Fig. 4. Fish collected for analysis - Opakapaka

NAVY PUBLIC OUTREACH PROGRAM

The Navy has diligently worked to provide the public and regulatory agencies with information regarding new developments pertaining to the Orote Seafood Advisory. The outreach program has included advertisements/notices in local papers and radio, warning/advisory signs at fishing locations within the advisory areas, such as local sport fishing areas and diving businesses, and at public meetings in local communities and Restoration Advisory Board meetings. Through this phased approach, the Navy will continue with outreach efforts during Phase II of the investigation to ensure proper public awareness implemented for the Orote Landfill Site.

FUTURE ACTIVITIES

The Navy, in collaboration with Guam EPA and other regulatory agencies, are currently conducting the Phase II investigation of the Orote Marine Operable Unit. Results from the mid and deep water fish sampling and human health risk assessment will be available in October 2003.

FOR MORE INFORMATION

Contact the Commander, U.S. Naval Forces Marianas (COMNAVMARIANAS) at (671) 339-5207 or Guam EPA at (671) 475-1658. Past studies and reports on Orote Landfill are currently available at the Information Repository at Nieves M. Flores Library in Hagatna.