

NOAA Pacific Islands Fisheries Science Center

Small Boat Mission Report

Mission Number: SB1505

Operator-in-Charge: John Rooney

Small Boat ID/Type: *Koholā* R3603 (11.6 m AMBAR), *Kākū* (6.4m Workskiff)

Mission Title: TOAD optical data collection in the vicinity of Kapalua, Maui and Waikoloa, Hawai‘i.

Mission Area: Kapalua and Waikoloa areas and surrounding waters, Island of Maui and Hawai‘i respectively

Mission Dates: May 1- June 3, 2015

1. Mission Plan

Mission Objective

The NOAA Pacific Islands Fisheries Science Center’s Coral Reef Ecosystem Division (CRED), EcoSpatial Information (ESI) Team conducted three weeks of optical benthic habitat mapping operations aboard the Hawai‘ian Islands Humpback Whale National Marine Sanctuary (HIHWNMS) R/V *Koholā* around the islands of Maui and Hawai‘i in May 2015 and five days aboard The Nature Conservancy (TNC) M/V *Kākū* from May 29-June 2 around the island of Hawai‘i. The goal of this survey was to collect optical data that will allow the distribution of key benthic fauna, such as hard coral, to be mapped, as well as providing ground-truthing data to integrate with acoustic multibeam data for habitat mapping purposes.

2. Schedule

- | | |
|------------|--|
| 1 May | ESI personnel arrived on Maui, retrieved equipment shipped via Young Brothers, installed davit and survey equipment on the R/V <i>Koholā</i> and moved the vessel to Lahaina Harbor. |
| 2 May | Onboard training for ESI team operation of R/V <i>Koholā</i> and tested deployment of TOAD equipment. |
| 3 – 14 May | 102 optical tows completed between Honolua Bay and Lahaina in depths ranging between 10 m - 150 m. |
| 15 May | All equipment packed and shipped to island of Hawai‘i. All ESI personnel return to Oahu. |

- 16 – 20 May ESI personnel prepared for continuing operations on Hawai‘i. Rooney departed for Maui on 20 May.
- 21 May Rooney and DeFazio along with Ed Lyman, the Large Whale Entanglement Response Coordinator for HIHWNMS transited the ‘Alenuihāhā channel from Maui to Hawai‘i aboard the R/V *Koholā*. Suka and Golmon arrived on Hawai‘i island and retrieved vehicle and equipment from Young Brothers. All personnel prepared vessel for continued surveying.
- 22-28 May Completed 76 optical tows aboard the R/V *Koholā* between Kawaihae and Mahaiula Bay in depths ranging from 10 m – 120 m. Tested drop camera system.
- 29 May Removed all equipment from the R/V *Koholā*. Launched the M/V *Kākū* with TNC’s Hank Lynch and completed 5 drop camera surveys near Kawaihae.
- 30 May – 2 June Completed 67 drop camera surveys in depths ranging from 10 m – 110 m between Kawaihae and Mahaiula Bay aboard the M/V *Kākū* with TNC’s Hank Lynch or Chad Wiggins as coxswain. Packed all equipment for shipping. Suka returned to Oahu.
- 3 June Rooney and Golmon shipped all equipment and returned to Oahu. End of mission.

3. Field Party

Name	Role	Organization
John Rooney	Chief Scientist/ Vessel Operator	JIMAR
ENS Carmen DeFazio	Vessel Operator-in-Charge	NOAA/HIHWNMS
Rhonda Suka	Scientist, Vessel Operator	JIMAR
LTJG Kristin Golmon	Scientist, Vessel Operator	NOAA/NMFS
LTJG Kell Bliss	Scientist, Vessel Operator	NOAA/NMFS

4. Results

- (a) Completed 102 Benthic Habitat Optical Data tows for Maui.
- (b) Completed 143 Benthic Habitat Optical Data tows for Hawai‘i.
- (c) Built, tested and successfully implemented 72 surveys with drop camera system for Hawai‘i.

5. Approvals

_____ Date _____
John Rooney
Chief Scientist
Pacific Islands Fisheries Science Center

_____ Date _____
Michael Seki
Science Director
Pacific Islands Fisheries Science Center