NOAA Pacific Islands Fisheries Science Center

Small Boat Mission Report

***Mission Number*:** SB-12-16

Operator-in-Charge: Pago Pago Marine Charters (PAL Inc.)

***Small Boat ID/Type*:** *Bonavista II*, contracted 40-ft sport fishing boat

Chief Scientist: John Rooney

***Mission Title*:** Survey of Mesophotic Coral Reefs in the Manu‘a Islands, American Samoa

***Mission Area*:** Ofu, Olosega, and Ta`u, American Samoa

***Mission Dates*:** October 29–November 15, 2012

1. Objectives

To survey habitats and communities of mesophotic coral reef ecosystems around the Manu‘a Islands in American Samoa with an optical camera system.

2. Schedule

October 29	Arrived in Pago Pago, American Samoa.
October 30-31	Mobilization days.
November 1	Transited to Ofu, American Samoa.
November 2-11	Conducted day optical surveys (8-12 tracks per day) around the Manua Islands from the *Bonavista II.*
November 12	Transited to Pago Pago, American Samoa.
November 13-14	Demobilized.
November 15	Returned to Honolulu, Hawaii.

3. Field Party

Name	Role	Organization
John Rooney	Chief Scientist	PIFSC/CRED
Marie Ferguson	Science Lead	PIFSC/CRED
Jeremy C Taylor	Technician	PIFSC/CRED
Tee Jay Letalie	Scientist	DMWR

4. Results

The scientists found a number of areas with diverse, well-developed coral reefs. Many of these reefs had abundant fish populations with communities of jacks and snappers, in particular, at several spots around these islands at the edge of steep ledges, generally at depths of 90–100 m. Abundant sea fans also were observed along these steep ledges. Around the islands of Ofu and Olosega, 65 camera sled dives were completed, covering 30.8 km of seafloor. Another 27 dives were made around the island of Ta'u and covered 11.5 km of seafloor.

Over the next year, seafloor substrates and the organisms growing on them, as recorded in video imagery from the survey, will be classified through the use of a standardized method that Coral Reef Ecosystem Division (CRED) has used for imagery collected across the Pacific Islands Region. Local partners from the Department of Marine and Wildlife Resources are particularly interested in fish communities at mesophotic depths, so fish species observed in the imagery will be identified to the lowest taxonomic resolution possible, their lengths will be estimated, and this information will be entered in a database.

Results of these classification efforts will be made available for download along with other data that CRED has collected in American Samoa. In time, other products, such as benthic habitat maps and scientific publications, may be created as well.

5. Attachments

Photos
Survey tracks

6. Approvals

Submitted by: _____ 12/11/2012

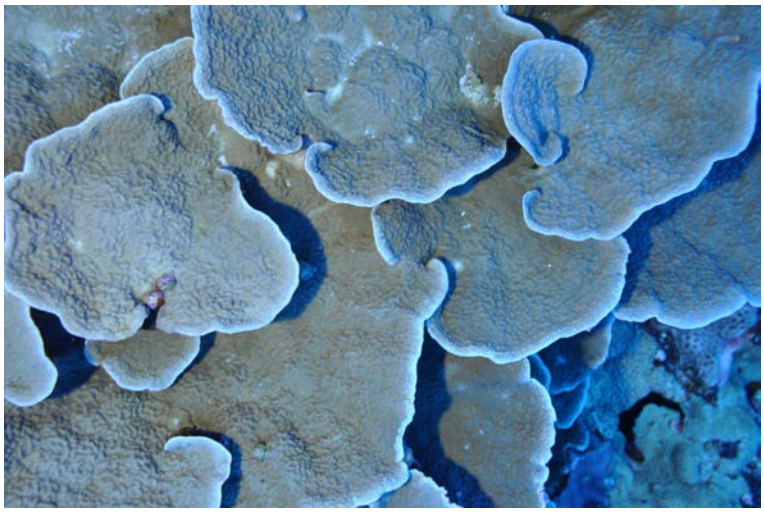
John Rooney
Chief Scientist
Pacific Islands Fisheries Science Center

Date

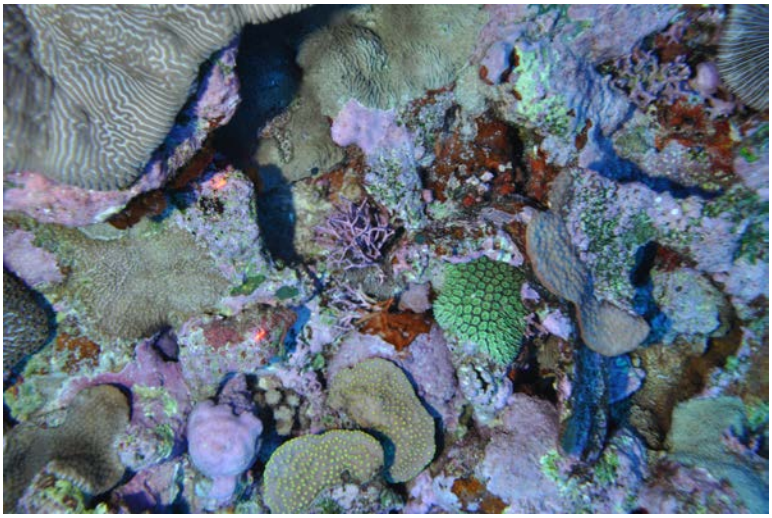
Approved by: _____ 12/14/2012

Samuel G. Pooley
Science Director
Pacific Islands Fisheries Science Center

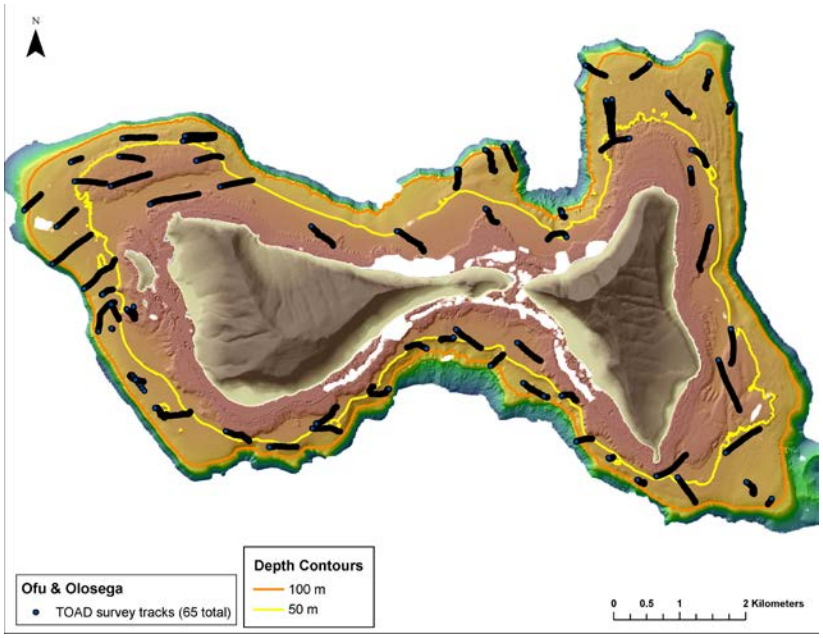
Date



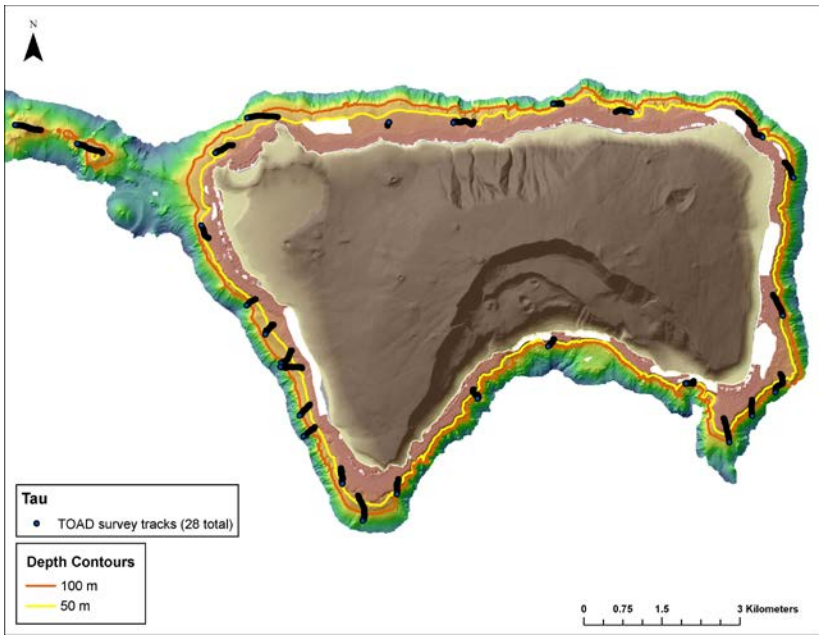
1. Still photo from Ofu.



2. Still photo from Ofu.



3. Survey tracks around Ofu and Olosega.



4. Survey tracks of Ta`u.