Dive log from coastal reefs of Ormoc Bay, Leyte, Philippines, 2012-2018

Website: https://www.bco-dmo.org/dataset/781671
Data Type: Other Field Results
Version: 1
Version Date: 2019-11-06

Project
» RAPID: Mega-typhoon impacts on the metapopulation resilience of coral reef fishes (Reef Fish Resilience)

Contributors	Affiliation	Role
Pinsky, Malin	Rutgers University	Principal Investigator
Stuart, Michelle	Rutgers University	Co-Principal Investigator, Contact
Copley, Nancy	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Abstract
Dive log from coastal reefs of Ormoc Bay, Leyte, Philippines, 2012-2018

Table of Contents

Coverage

Spatial Extent: **N**:11.0165 **E**:124.8083 **S**:10.6299 **W**:124.555
Temporal Extent: 2012 - 2018

Dataset Description

Dive log from the west coast of Leyte, the Philippines in the municipalities of Albuera (10.91667, 124.69667) and Bay Bay City (11.07611, 124.87528), 2012-2018.

Methods & Sampling

Anemone surveyor:
- searches adjacent area for anemone tag (anemone could have moved a few feet since last encounter)
- records time, species, size of anemone, tag number if present
- watches anemone and counts number of fish and estimate sizes (same procedure regardless of species)
- records species of fish, estimate sizes
- adds tag after the fact if one was missing or if there was only one zip tie tag (old system tag)
- flags anemone with flagging tape that it is ready to be hunted if APCL were present.

Fish catcher:
- waits for flagging tape to indicate anemone is ready for fish capture, ok to chase fish if they fled the area

- catches all fish of desired size range and places in holding vessel adjacent to anemone
- can move on to next anemone if anemone surveyor has flagged it

For dive-type codes, see: https://www.bco-dmo.org/dataset/785633

Data entry was made with Excel or Google sheets, depending on the internet connection.
Data cleaning was performed in R using the tidyverse package.

Data Processing Description

BCO-DMO Data Processing:
- refomatted 'time' column to ISO_DateTime format (yyyy-mm-ddTHH:MM:SS)

[table of contents | back to top]

Data Files

File
dive_log.csv (Comma Separated Values (.csv), 134.23 KB) MD5:8ddcbb222c566787b2b6c95d5bb31975 Primary data file for dataset ID 781671

[table of contents | back to top]

Related Datasets

IsRelatedTo

Pinsky, M., Stuart, M. (2022) **Benthic cover quadrat observations and photos from the West coast of Leyte, the Philippines in the municipalities of Albuera and Bay Bay City, 2014-2017.** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2022-11-08 doi:10.26008/1912/bco-dmo.862410.1 [view at BCO-DMO]
Relationship Description: Data from the same dives.

Pinsky, M., Stuart, M. (2022) **Clownfish photos from the West coast of Leyte, the Philippines in the municipalities of Albuera and Bay Bay City between 2015 and 2018.** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2022-11-21 doi:10.26008/1912/bco-dmo.862334.1 [view at BCO-DMO]
Relationship Description: Data from the same dives.

Pinsky, M., Stuart, M. (2022) **Fish and invertebrate transect survey dataset from the West coast of Leyte, the Philippines in the municipalities of Albuera (10.91667, 124.69667) and Bay Bay City (11.07611, 124.87525), 2014-2017.** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2022-11-22 doi:10.26008/1912/bco-dmo.862405.1 [view at BCO-DMO]
Relationship Description: Data from the same dives.

[table of contents | back to top]

Parameters

Parameter	Description	Units
dive_table_id	unique identifier of dive; links to anemones table as "dive_table_id"	unitless

dive_num	dive number within field season	unitless
dive_type	dive type options: A - anemone survey dive B C - clownfish collection dive D - clownfish collection with transect (2012) E - clownfish collection with transect and mapping fish survey (2012) F - fish transect with quadrats for coral survey G H I J K L M - mapping fish survey with transect (2012) N O P Q R - recapture survey S T U V W X Y Z 0 - none of the above	unitless
date	date of the dive	unitless
site	site where dive occurred	unitless
municipality	municipality where dive occurred (Albuera or BayBay)	unitless
gps	number of GPS unit	unitless
divers	divers who participated in the dive regardless of role	unitless
start_time	time began objective: searching for clownfish/anemones/transect; recorded in Asia/Manila timezone	unitless
end_time	time ended objective as described in start_time; recorded in Asia/Manila timezone	unitless
duration	end time minus start time	unitless

discontinuous	1 if objective was interrupted for some reason; like returning to the surface to change gear or stopping to watch a cuddlefish; 0 if there were no interruptions	unitless
pause_start	the beginning time of the interruption; recorded in Asia/Manila timezone	unitless
pause_end	the end of the interruption; recorded in Asia/Manila timezone	unitless
weather	a one or few word description of the weather conditions	unitless
current_knots	an estimation of the current speed	knots
wave_height_cm	an estimation of the height in cm of the waves	centimeters
visibility_m	an estimation of how far one can see underwater at reef depth	meters
wind_mph	an estimation of wind speed	miles/hour (mph)
tide	the phase of the tide: rising/falling/high/low	unitless
topo_m	the distance from depth_top to depth_bottom	unitless
depth_top_m	the shallowest part of the survey in meters	meters
depth_bottom_m	the deepest part of the survey in meters	meters
cover	a brief discription of survey seascape	unitless
dive_notes	any notes pertaining to the dive	unitless
dive_correction	if a Y is present then a correction has been made to the data since data entry from the data sheet	unitless
dive_corr_date	the date of the most recent correction	unitless
dive_corr_editor	the editor of the most recent correction	unitless

dive_corr_message	which field was changed from what old value to what new value and why; based on what evidence. If another correction was already present; amend the message to include the date and correction editor of previous corrections	unitless

[table of contents | back to top]

Instruments

Dataset-specific Instrument Name	Biomark 601 PIT tag reader
Generic Instrument Name	tracking tag
Dataset-specific Description	Passive Integrated Transponder (PIT) tags help scientists track individual organisms by providing a reliable lifetime 'barcode' for an individual animal. PIT tags are dormant until activated; they therefore do not require any internal source of power throughout their lifespan.To activate the tag, a low-frequency radio signal is emitted by a scanning device that generates a close-range electromagnetic field. The tag then sends a unique alpha-numeric code back to the reader (Keck 1994). Scanners are available as handheld, portable, battery-powered models and as stationary, automated models that are usually used for automated scanning.
Generic Instrument Description	Devices attached to living organisms with the purpose of determining the location of those organisms as a function of time after tagging and release.

[table of contents | back to top]

Deployments

SCUBA_Pinsky_Leyte

Website	https://www.bco-dmo.org/deployment/642952
Platform	SCUBA Pinsky Leyte
Start Date	2012-05-05
End Date	2018-04-10
Description	Field seasons (SCUBA) in Leyte, Philippines to study coral reef fish resilience. West coast of Leyte, Philippines in the municipalities of Albuera (10.91667, 124.69667) and Bay Bay City (10.676940, 124.799170)

[table of contents | back to top]

Project Information

RAPID: Mega-typhoon impacts on the metapopulation resilience of coral reef fishes (Reef Fish Resilience)

Coverage: West coast of Leyte Island, Visayas, Philippines

Description from NSF award abstract:
When Typhoon Haiyan hit the Philippines it had sustained winds of 305 to 315 kph and was the strongest storm ever to make landfall. Storms are one of the most important disturbances to coral reef ecosystems. Previous research has primarily emphasized that habitat recovery is important for the recovery of reef fish communities after disturbance. We understand little, however, about the role of larval dispersal in mediating species responses to disturbance. Reef fish function as metapopulations connected by larval dispersal among reefs, and larval connectivity is therefore a critical process for their dynamics. A field site directly in Typhoon Haiyan's path provides an ideal opportunity to address the role of larval dispersal during recovery. Over the course of four field seasons (2008 to 2013), nearly two thousand clownfish were surveyed along 20km of coastline. Clownfish possess the same basic life history as most reef fish (sedentary adults and pelagic larvae), but are sufficiently rare and visible that genetic parentage methods can be used to follow larval dispersal. This study site is therefore a unique location in which to understand the metapopulation impacts of a massive storm. This project will focus on three hypotheses: 1) Habitat destruction determines the short-term impacts of storms disturbance, 2) Metapopulation processes shape recolonization after disturbance, and 3) Disturbance allows rare competitors to increase in abundance. The project will address these questions with a combination of fixed and random transects to assess reef habitat and reef fish abundance and diversity, as well as detailed, spatially explicit surveys of anemones and clownfish. Genetic mark-recapture and parentage methods with yellowtail clownfish will pinpoint the origin of new recruits that recolonize the reef post-typhoon.

[table of contents | back to top]

Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-1430218

[table of contents | back to top]