Clownfish collection log including such as depth, species, and size from coastal reefs of Ormoc Bay, Leyte, Philippines, 2012-2018

Website: https://www.bco-dmo.org/dataset/781917
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
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Abstract
Clownfish collection log including such as species, size, and sex from coastal reefs of Ormoc Bay, Leyte, Philippines, 2012-2018

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Coverage

Spatial Extent: **N**:11.0165 **E**:124.8083 **S**:10.6299 **W**:124.555
Temporal Extent: 2012-05-05 - 2018-04-10

Dataset Description

Clownfish collection 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.

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

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

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 'fish_corr_date column to ISO_Date format (yyyy-mm-dd)

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Data Files

File
clownfish_log.csv (Comma Separated Values (.csv), 906.06 KB) MD5:6f12a2e9489b577acc3e69933610f0a4 Primary data file for dataset ID 781917

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Related Datasets

IsSupplementedBy

Pinsky, M., Stuart, M. (2020) **Codes used in 2018 data including anemone and clownfish species, clownfish tail color/shape and dive-type.** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2020-01-02 doi:10.26008/1912/bco-dmo.785633.1 [view at BCO-DMO]
Relationship Description: Taxon and dive-type codes used in 2018 sampling

IsRelatedTo

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: Clownfish log dataset taken in association with the "Clownfish photos" dataset.

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Parameters

Parameter	Description	Units
fish_table_id	unique identifier of fish observation	unitless
anem_table_id	unique identifier of observation event (whole number): links to the anemones table	unitless
fish_spp	species code of fish; can be APCL = Amphiprion clarkii; APOC = A. ocellaris; APPE = A. periderion; APSA = A. sandaracinos; APFR = A. frenatus or A. melanopus; APPO = A. polymnus; APTH = A. theillei; PRBI = Premnas biaculeatus	unitless
size	size of the fish - either estimated by eye or measured with calipers	centimeters
fin_id	tissue sample id: series begins with 1 at the beginning of the field season; reflects the number of tissue samples collected and the order except for 2015_05 field season where the last 6 digits of the pit tag were used for fish that were tagged and clipped.	unitless
sample_id	tissue sample id including species of fish and year collected	unitless
color	tail color code: can be O = a tail containing any orange color; YP = a tail that is yellow and pointed; YR = a tail that is yellow and rounded; W = a tail that contains white; B = tail that contains black; BW = a tail that is black and white	unitless
recap	indicates if the fish had a PIT tag when scanned: can by Y if tag was present or N if tag was not present; fish have only been scanned since 2015; previous years are null. The fish captured during Patrick's pilot study are only listed once and the recapture/size info is in their notes because there are not dive/anem_table_ids for these recapture events.	unitless
tag_id	tag number (including city) of PIT tag injected into fish	unitless
fish_notes	any notes pertaining to this fish	unitless
fish_collector	intials of person who filled out data sheet for this observation	unitless
fish_correction	Y indicates that a correction has been made to the data since data entry from the data sheet	unitless
fish_corr_date	the date of the most recent correction	unitless
fish_corr_editor	the editor of the most recent correction	unitless
fish_corr_message	comments on which field was changed from what old value to what new value and reason and based on what evidence. If another correction was already present then amend the message to include the date and correction editor of previous corrections	unitless
fish_obs_time	the time that the fish photo was taken or the fish was scanned with the pit scanner; recorded in the Asia/Manila time zone	unitless
sex	the sex of the fish with possible values of M = male F = female and J = juvenile	unitless

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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.

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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)

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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.

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Funding

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

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