LTR - Pomacentrids

Website: https://www.bco-dmo.org/dataset/645149
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Project
» Cryptic density dependence: the effects of spatial, ontogenetic, and individual variation in reef fish (CDD_in_Reef_Fish)

Contributors	Affiliation	Role
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Dataset Description

Pomancentrids identity, size and abundance were enumerated around 192 patch reefs. Data were collected in 2003-2006, 2009, 2012, and 2014 at 192 reefs. Beginning in 2012, reefs 129-144 and added reefs 193-198 were manipulated for a project studying the effects of vermetid removals; information pertaining to this manipulation can be found in the project “Spatial patterns of coral-vermetid interactions: short-term effects and long-term consequences”. All data collected on reefs 129-144 and 193-198 beginning in 2012 can also be found under that project. In 2012, additional data were collected – the number of vermetids on each patch reef at the time of this survey. Common Pomancetrids were recognized and size class determined. These data are part of the larger data set describing the biological and physical conditions of the 192 reefs. Together all of these data provide information about the factors that may influence (or be influenced by) *Thalassoma* and Vermetid.

Location: Moorea, French Polynesia (17.48 degrees S, 149.82 degrees W)

Methods & Sampling

Sampling and Analytical Methodology:
A single snorkeler approaches one of the 192 patch reefs (for size of reef, see the physical characteristics file). He or she swam around the reef, recognized and estimated the size of all the common *Pomacentrids* in broad size categories depending on the species. The rare species were just counted.

Materials: snorkel and dive slate

Data Processing Description

Data Processing:
(NA)

BCO-DMO Processing Notes
- Generated from original file "LTR_Pomacentrids.csv" contributed by Rebecca Atkins
- Parameter names edited to conform to BCO-DMO naming convention found at Choosing Parameter Name
- Any blank rows removed

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Data Files

File
LTR_Pomacentrids.csv (Comma Separated Values (.csv), 113.61 KB) MD5:ae1771250cd110963776c0498c1a3c29 Primary data file for dataset ID 645149

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Parameters

Parameter	Description	Units
DATE	date	month
Observer	Name of Observer (Jeff Shima)	text
Time	Time of survey	HH:MM
Reef	Number	dimensionless
Treatment	Does not apply to this dataset	NA
STEG_10to30	STEG 10-30 - Stegastes nigricans between 10-30mm; unless otherwise noted	Number observed
STEG_30to40	STEG 30-40 - Stegastes nigricans from 30-40mm; unless otherwise noted	Number observed
STEG_40plus	STEG 40+ - Stegastes nigricans; above 40mm unless otherwise noted	Number observed
D_flav_10to15	D flav 10-15 - Dascyllus flavicaudus from 10-15mm	Number observed
D_flav_15to40	D flav 15-40 - Dascyllus flavicaudus from 15-40mm	Number observed

D_flav_40plus	D flav 40+ - Dascyllus flavicaudus above 40mm	Number observed
D_arua_10to15	D arua 10-15 - Dascyllus aruanus from 10-15mm	Number observed
D_arua_15plus	D arua 15+ - Dascyllus aruanus above 15mm	Number observed
D_trimac_10to15	D trimac 10-15 - Dascyllus trimaculatus from 10-15mm	Number observed
D_trimac_15to40	D trimac 15-40 - Dascyllus trimaculatus from 15-40mm	Number observed
D_trimac_40plus	D trimac 40+ - Dascyllus trimaculatus above 40mm	Number observed
Chromis_vir_10to15	Chromis vir 10-15 - Chromis viridis between 10-15mm	Number observed
Chroimis_vir_15plus	Chroimis vir 15+ - Chromis viridis above 15mm	Number observed
Pom_pavo_10to15	Pom pavo 10-15 - Pomacentrus pavo (saphire damsel; "yellow tail chromis"); between 10-15mm	Number observed
Pom_pavo_15plus	Pom pavo 15+ - Pomacentrus pavo (saphire damsel; "yellow tail chromis"); above 15mm	Number observed
Chrysiptera_brow_10to15	Chrysiptera brow 10-15 - Chrysiptera brownriggii (surge damsel; "yellow-blue damsel"); between 10-15mm	Number observed
Chrysiptera_brow_15plus	Chrysiptera brow 15+ - Chrysiptera brownriggii (surge damsel; "yellow-blue damsel"); above 15mm	Number observed
Chromis_margar_10to15	Chromis margar 10-15 - Chromis margaritifer (white tail damsel; bicolor chromis); between 10-15mm	Number observed
Chromis_margar_15plus	Chromis margar 15+ - Chromis margaritifer (white tail damsel; bicolor chromis); above 15mm	Number observed
Other	Other - rare species	Number observed
cleaner_wrasse	cleaner wrasse - either species of cleaner wrasse	Number observed
Yellow_Angle	Yellow Angle	Number observed

Piano_fang_blenny	Piano fang blenny - Plagiotremus tapeinosoma	Number observed
Notes	Notes	text
vermetids	Vermetids	Number observed

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Instruments

Dataset-specific Instrument Name	Mask and snorkel
Generic Instrument Name	Diving Mask and Snorkel
Generic Instrument Description	A diving mask (also half mask, dive mask or scuba mask) is an item of diving equipment that allows underwater divers, including, scuba divers, free-divers, and snorkelers to see clearly underwater. Snorkel: A breathing apparatus for swimmers and surface divers that allows swimming or continuous use of a face mask without lifting the head to breathe, consisting of a tube that curves out of the mouth and extends above the surface of the water.

Dataset-specific Instrument Name	Transect Tape
Generic Instrument Name	Measuring Tape
Dataset-specific Description	Materials: transect tape and slates
Generic Instrument Description	A tape measure or measuring tape is a flexible ruler. It consists of a ribbon of cloth, plastic, fibre glass, or metal strip with linear-measurement markings. It is a common tool for measuring distance or length.

Dataset-specific Instrument Name	Slate
Generic Instrument Name	Underwater Writing Slate
Dataset-specific Description	Materials: transect tape and slates
Generic Instrument Description	Underwater writing slates and pencils are used to transport pre-dive plans underwater, to record facts whilst underwater and to aid communication with other divers.

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Deployments

Osenberg_et_al_Moorea

Website	https://www.bco-dmo.org/deployment/644752
Platform	Osenberg et al Moorea
Start Date	2003-05-19
End Date	2015-07-12

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Project Information

Cryptic density dependence: the effects of spatial, ontogenetic, and individual variation in reef fish (CDD_in_Reef_Fish)

Coverage: Moorea, French Polynesia (-17.48, -149.82)

Description from NSF award abstract:
Ecologists have long been interested in the factors that drive spatial and temporal variability in population density and structure. In marine reef systems, attention has focused on the role of settlement-the transition of pelagic larvae to a benthic stage-and on density-dependent processes affecting recently settled juveniles. Recent data suggest that co-variance in settlement and subsequent density-dependent survival can obscure the patterns of density dependence at larger scales, a phenomenon called cryptic density dependence. This research will explore the mechanisms that underlie the spatial covariance of settlement and site quality - a process that has received little attention in the standard paradigm. These mechanistic studies of cryptic density dependence will facilitate the development of new frameworks for fish population dynamics that incorporate larval ecology, habitat quality, density dependence, life history, and the patterns and implications of spatial covariance among these factors. More generally, the work provides a specific empirical context, and a general theoretical treatment, of cryptic heterogeneity (hidden individual variation in demographic rates).

Note: Drs. Craig W. Osenberg and Ben Bolker were at the University of Florida at the time the NSF award was granted. Dr. Osenberg moved to the University of Georgia during the summer of 2014 (current contact information). Dr. Bolker moved to McMaster University in 2010 (current contact information).

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-0242312

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