LTR - Vermetid Counts

Website: https://www.bco-dmo.org/dataset/645222
Version: 23 May 2016
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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
Osenberg, Craig	University of Georgia (UGA)	Principal Investigator, Contact
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Dataset Description

Vermetid gastropods were counted were calculated on the 192 reefs in 2007, 2009, 2012 and 2014. Beginning in 2012, reefs 129-144 and 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. For each reef, the number of *Ceraesignum maximum* were counted. These data are meant to begin a census of the vermetids present in each site and on each reef to examine spatial and temporal variation in vermetid abundances.

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

Methods & Sampling

Sampling and Analytical Methodology:
A diver swims up to one of the patch reefs and counts all of the vermetids present on each of the 192 reefs; starting in 2007, *Dendropoma maximum* (vermetid snail) were counted.

Materials: snorkel gear and dive slate

Data Processing Description

Data Processing:
(NA)

BCO-DMO Processing Notes

- Generated from original file "LTR_VermetidCounts.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_VermetidCounts.csv (Comma Separated Values (.csv), 21.19 KB) MD5:90da6e321378cbc68f839d3b1d8d38b4 Primary data file for dataset ID 645222

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Parameters

Parameter	Description	Units
DATE	Date data collected	DD-MMM-YYYY
OBSERV	Initials of observer (Craig Osenberg; Jeff Shima) (CWO; JS)	text
SITE	Site name (VOW; VIW; VOM; VIM; VOE; VIE; MOE; MIE; TOW; TIW; TOE; TIE)	text
REEF	Reef # (1-198)	dimensionless
LATITUDE	Latitude (South is negative)	decimal degrees
LONGITUDE	Longitude (West is negative)	decimal degrees
TREATMENT	Does not apply to this dataset	NA
C_maximum_counts	Counts of D. maximum by JS (0-230)	number of individuals
NOTES	Notes	text

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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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