

Pomacentrids survey data from long-term vermetid removal reefs in Moorea, French Polynesia from 2013-2015

Website: <https://www.bco-dmo.org/dataset/645861>

Data Type: Other Field Results

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Project

» [Spatial patterns of coral-vermetid interactions: short-term effects and long-term consequences](#)

(Vermetids_Corals)

Contributors	Affiliation	Role
Osenberg, Craig	University of Georgia (UGA)	Principal Investigator, Contact
Frazer, Thomas	University of Florida (UF)	Co-Principal Investigator
Shima, Jeffrey	Victoria University of Wellington	International Collaborator
Gegg, Stephen R.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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Coverage

Spatial Extent: Lat:-17.47499 Lon:-149.79251

Temporal Extent: 2013-02-20 - 2015-07-09

Dataset Description

Pomacentrid identity, size and abundance were enumerated around the Long Term Vermetid Removal (LTVR) Reefs 129-144 and 193-198 beginning in 2012. Common Pomacentrids were recognized and size class determined. Together all of these data provide information about the factors that may influence (or be influenced by) *Thalassoma* and Vermetid.

Long Term Vermetid Removal (LTVR) Reef sites in this project are manipulated reefs characterized in the [Long Term Reef Physical Characteristics](#) dataset.

Reefs numbered 129-144, are a subset of a larger number of Long Term Reefs (LTR) that were monitored as part of the project "Cryptic density dependence: the effects of spatial, ontogenetic, and individual variation in reef fish" beginning in 2003. This long term study continues to monitor those reefs in addition to reefs 193-198 starting in 2012. Data for these reefs between the years 2003 and 2009 can be found on the project site <http://www.bco-dmo.org/project/540423>.

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

Other associated LTVR datasets:

[LTVR - Fate of Reefs](#) - Contains latitude and longitude of reefs used in this dataset

[LTVR - Physical Characteristics](#) - Contains characteristics of reefs used in this dataset.

- [LTVR - Fish Survey](#)
- [LTVR - Percent Cover Point Contact](#)
- [LTVR - Percent Visual Cover](#)
- [LTVR - Thalassoma](#)
- [LTVR - Vermetid Counts](#)
- [LTVR - Vermetid Removal](#)
- [LTVR - Vermetid Sizes in Quadrat](#)

Methods & Sampling

Sampling and Analytical Methodology:

A single snorkeler approaches one of the patch reefs (for size of reef, see the “physical characteristics” file in the project “Cryptic density dependence: the effects of spatial, ontogenetic, and individual variation in reef fish”). 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, dive slate

Data Processing Description

Data Processing:

(NA/No Processing notes)

NA- Not applicable (never recorded) to this data set

NR- Not recorded at certain times throughout the data set

BCO-DMO Processing Notes

- Generated from original file "LTVR_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
LTVR_Pomacentrids.csv (Comma Separated Values (.csv), 10.92 KB) MD5:1191937d0371b0aa9b6efeb17c283ba5 Primary data file for dataset ID 645861

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Parameters

Parameter	Description	Units
DATE	date	month
Observer	Name of Observer (JS-Jeff Shima)	text
Time	Time of survey	HH:MM
Reef	Number (129-144; 193-198)	dimensionless
Treatment	Vermetid Presence/Absence (Control/Removal)	text
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
Chromis_vir_15plus	Chromis vir 15+ - Chromis viridis above 15mm	Number observed
Pom_pavo_10to15	Pom pavo 10-15 - Pomacentrus pavo (sapphire damsel; "yellow tail chromis"); between 10-15mm	Number observed
Pom_pavo_15plus	Pom pavo 15+ - Pomacentrus pavo (sapphire 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	Count of Vermetids	Number observed

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.

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

Project Information

Spatial patterns of coral-vermetid interactions: short-term effects and long-term consequences (Vermetids_Corals)

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

Description from NSF abstract:

Ecological surprises are most likely to be manifest in diverse communities where many interactions remain uninvestigated. Coral reefs harbor much of the world's biodiversity, and recent studies by the investigators suggest that one overlooked, but potentially important, biological interaction involves vermetid gastropods. Vermetid gastropods are nonmobile, tube-building snails that feed via an extensive mucus net. Vermetids reduce coral growth by up to 80%, and coral survival by as much as 60%. Because effects vary among coral taxa, vermetids may substantially alter the structure of coral communities as well as the community of fishes and invertebrates that inhabit the coral reef.

The investigators will conduct a suite of experimental and observational studies that: 1) quantify the effects of four species of vermetids across coral species to assess if species effects and responses are concordant or idiosyncratic; 2) use meta-analysis to compare effects of vermetids relative to other coral stressors and determine the factors that influence variation in coral responses; 3) determine the role of coral commensals that inhabit the branching coral, Pocillopora, and evaluate how the development of the commensal assemblage modifies the deleterious effects of vermetids; 4) determine how vermetid mucus nets affect the local environment of corals and evaluate several hypotheses about proposed mechanisms; and 5) assess the long-term implications of vermetids on coral communities and the fishes and invertebrates that depend on the coral.

Note: The Principal Investigator, Dr. Craig W. Osenberg, was 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](#)).

Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-1130359