

# Vermetid counts from long-term vermetid removal reefs in Moorea, French Polynesia from 2012-2016

**Website:** <https://www.bco-dmo.org/dataset/645936>

**Data Type:** Other Field Results

**Version:** 2

**Version Date:** 2017-12-05

## Project

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

(Vermetids\_Corals)

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## Coverage

**Spatial Extent:** Lat:-17.47499 Lon:-149.79251

**Temporal Extent:** 2012-01-24 - 2016-08-06

## Dataset Description

This dataset contains counts of the vermetid species *Ceraesignum maximum* at each Long Term Vermetid Removal (LTVR) Reef at the "TOW" site in Moorea, French Polynesia (-17.4745,-149.7925). The surveys were conducted between 2012 and 2014 as part of an ongoing census. These data are meant to provide contextual information for how vermetids affect reef communities.

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

Reefs labeled "TOW" in this dataset, 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 - Pomacentrids](#)  
[LTVR - Thalassoma](#)  
[LTVR - Vermetid Removal](#)  
[LTVR - Vermetid Sizes in Quadrat](#)

## Methods & Sampling

### Sampling and Analytical Methodology:

At each of the reefs monitored for the vermetid removal study, *Ceraesignum maximum* (vermetid snail) were counted by a diver swimming up to each of the 22 patch reefs.

**Materials:** snorkel gear, 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 **nd** stands for "no data" and is the default missing data identifier in the BCO-DMO system.

### BCO-DMO Processing Notes

- Generated from original file "LTVR\_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

Current data version 2: 2017-12-05 replaces version 1: 2016-05-23 and extends the dataset time range to 2016

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## Data Files

File
<b>LTVR_VermetidCounts.csv</b> (Comma Separated Values (.csv), 4.84 KB) MD5:0f0cf2f2aa50a5891a50117d4bdfd6ba
Primary data file for dataset ID 645936

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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 (TOW)	text
REEF	Reef # (129-144; 193-198)	dimensionless
TREATMENT	Treatment type (Control/Removal)	text
C_maximum_counts_JS	Counts of D. maximum by JS (0-230)	number of individuals
C_maximum_counts_CWO	Counts of D. maximum by CWO (0-230)	number of individuals
Notes	Notes	text

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## Instruments

<b>Dataset-specific Instrument Name</b>	Mask and snorkel
<b>Generic Instrument Name</b>	Diving Mask and Snorkel
<b>Generic Instrument Description</b>	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.

<b>Dataset-specific Instrument Name</b>	Transect Tape
<b>Generic Instrument Name</b>	Measuring Tape
<b>Dataset-specific Description</b>	Materials: transect tape and slates
<b>Generic Instrument Description</b>	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.

<b>Dataset-specific Instrument Name</b>	Slate
<b>Generic Instrument Name</b>	Underwater Writing Slate
<b>Dataset-specific Description</b>	Materials: transect tape and slates
<b>Generic Instrument Description</b>	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

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/644752">https://www.bco-dmo.org/deployment/644752</a>
<b>Platform</b>	Osenberg et al Moorea
<b>Start Date</b>	2003-05-19
<b>End Date</b>	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

<b>Funding Source</b>	<b>Award</b>
<a href="#">NSF Division of Ocean Sciences (NSF OCE)</a>	<a href="#">OCE-1130359</a>