

# Benthic invertebrate taxonomy, species and codes - St. John USVI survey 1988-2007 (St. John LTREB project)

**Website:** <https://www.bco-dmo.org/dataset/523731>

**Data Type:** Other Field Results

**Version:** 1

**Version Date:** 2014-08-20

## Project

» [LTREB Long-term coral reef community dynamics in St. John, USVI: 1987-2019](#) (St. John LTREB)

Contributors	Affiliation	Role
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## Dataset Description

15 years of photoquadrats from St. John, USVI, were used to assess the abundance of benthic invertebrates on shallow reefs of St. John, USVI from 1988-2007. This dataset includes the 30 species surveyed, their taxonomic hierarchy, and their assigned codes.

These data were used in Colvard NB, Edmunds PJ. (2011).

## Data Processing Description

### BCO-DMO Processing Notes:

- original file: Colvard and Edmunds Data for JEMBE 2011.xlsx
- added conventional header with dataset name, PI name, version date
- combined 'Taxonomy' and 'Species Code in Manuscript' pages
- replaced spaces with underscores
- changed Millepora phylum/class from Bryozoan/Gymnolaemata to Cnideria/Hydrozoa

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## Data Files

## File

**species\_codes.csv**(Comma Separated Values (.csv), 2.58 KB)

MD5:620dfd48d4d4f858fc6c62a35efaab8e

Primary data file for dataset ID 523731

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## Supplemental Files

### File

**Colvard\_Edmunds\_Data\_for\_JEMBE\_2011\_BCODMO.xlsx**

(Octet Stream, 318.32 KB)

MD5:edab5399ff9e039c05c4a92bae5ea902

Complete data for publication Colvard, N. B., & Edmunds, P. J. (2011). Decadal-scale changes in abundance of non-scleractinian invertebrates on a Caribbean coral reef. *Journal of Experimental Marine Biology and Ecology*, 397(2), 153-160.  
<https://doi.org/10.1016/j.jembe.2010.11.015>.

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## Related Publications

Colvard, N. B., & Edmunds, P. J. (2011). Decadal-scale changes in abundance of non-scleractinian invertebrates on a Caribbean coral reef. *Journal of Experimental Marine Biology and Ecology*, 397(2), 153-160.  
<https://doi.org/10.1016/j.jembe.2010.11.015>  
*Results*

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## Related Datasets

### IsRelatedTo

Edmunds, P. J. (2022) **Benthic invertebrates from 6 sites pooled, USVI: 1992-2007 (St. John LTREB project)**. Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2014-08-20 doi:10.26008/1912/bco-dmo.525499.1 [[view at BCO-DMO](#)]

*Relationship Description: Benthic invertebrates from 6 sites pooled, USVI: 1992-2007*

Edmunds, P. J. (2022) **Benthic invertebrates from Tektite site, USVI: 1988-2007 (St. John LTREB project)**. Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2014-08-20 doi:10.26008/1912/bco-dmo.523747.1 [[view at BCO-DMO](#)]

*Relationship Description: Benthic invertebrates from Tektite site, USVI: 1988-2007*

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## Parameters

Parameter	Description	Units
species_code	species code assigned to species	unitless
phylum	taxonomic phylum	unitless
class	taxonomic class	unitless
order	taxonomic order	unitless
family	taxonomic family	unitless
genus_species	taxonomic binomial: genus and species	unitless
common_name	common name	unitless

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## Deployments

### Edmunds\_VINP

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/523357">https://www.bco-dmo.org/deployment/523357</a>
<b>Platform</b>	Virgin Islands National Park
<b>Start Date</b>	1987-01-01
<b>End Date</b>	2016-09-01
<b>Description</b>	Studies of corals and hermit crabs

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## Project Information

### LTREB Long-term coral reef community dynamics in St. John, USVI: 1987-2019 (St. John LTREB)

**Website:** <http://coralreefs.csun.edu/>

**Coverage:** St. John, U.S. Virgin Islands; California State University Northridge

### Long Term Research in Environmental Biology (LTREB) in US Virgin Islands:

*From the NSF award abstract:*

In an era of growing human pressures on natural resources, there is a critical need to understand how major ecosystems will respond, the extent to which resource management can lessen the implications of these responses, and the likely state of these ecosystems in the future. Time-series analyses of community structure provide a vital tool in meeting these needs and promise a profound understanding of community change. This study focuses on coral reef ecosystems; an existing time-series analysis of the coral community structure on the reefs of St. John, US Virgin Islands, will be expanded to 27 years of continuous data in annual increments. Expansion of the core time-series data will be used to address five questions: (1) To what extent is the ecology at a small spatial scale (1-2 km) representative of regional scale events (10's of km)? (2) What are the effects of declining coral cover in modifying the genetic population structure of the coral host and its algal symbionts? (3) What are the roles of pre- versus post-settlement events in determining the population dynamics of small corals? (4) What role do physical forcing agents (other than temperature) play in driving the population dynamics of juvenile corals? and (5) How are populations of other, non-coral invertebrates responding to decadal-scale declines in coral cover? Ecological methods identical to those used over the last two decades will be supplemented by molecular genetic tools to understand the extent to which declining coral cover is affecting the genetic diversity of the corals remaining. An information management program will be implemented to create broad access by the scientific community to the entire data set.

The importance of this study lies in the extreme longevity of the data describing coral reefs in a unique

ecological context, and the immense potential that these data possess for understanding both the patterns of comprehensive community change (i.e., involving corals, other invertebrates, and genetic diversity), and the processes driving them. Importantly, as this project is closely integrated with resource management within the VI National Park, as well as larger efforts to study coral reefs in the US through the NSF Moorea Coral Reef LTER, it has a strong potential to have scientific and management implications that extend further than the location of the study.

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## Funding

Funding Source	Award
<a href="#">NSF Division of Environmental Biology (NSF DEB)</a>	<a href="#">DEB-0841441</a>
<a href="#">NSF Division of Environmental Biology (NSF DEB)</a>	<a href="#">DEB-0343570</a>

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