

Peyssonnelia abundance along the south shore of St. John, US Virgin Islands from surveys during 2015

Website: <https://www.bco-dmo.org/dataset/750036>

Data Type: Other Field Results

Version: 1

Version Date: 2018-11-26

Project

» [RUI-LTREB Renewal: Three decades of coral reef community dynamics in St. John, USVI: 2014-2019](#) (RUI-LTREB)

Contributors	Affiliation	Role
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Abstract

Peyssonnelia abundance along the south shore of St. John, US Virgin Islands from surveys during 2015. The abundance of the peyssonnelid algal crust was measured using 50 m video transects (recorded with a GoPro Hero 3) at 3, 5, and 7 m depth at five sites, haphazardly selected between Cabritte Horn and White Point on the south shore of St. John.

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Coverage

Spatial Extent: Lat:18.32 Lon:-64.723

Temporal Extent: 2015 - 2015

Dataset Description

The abundance of the peyssonnelid algal crust was measured using 50 m video transects (recorded with a GoPro Hero 3) at 3, 5, and 7 m depth at five sites, haphazardly selected between Cabritte Horn and White Point on the south shore of St. John. Still images (n = 20 transect-1, each ~ 250 cm²) were randomly extracted and analyzed for percentage cover of peyssonnelids using a grid of 25 squares that were scored for dominance by this alga (i.e., 4% resolution).

Data Processing Description

BCO-DMO Processing Notes:

- added conventional header with dataset name, PI name, version date
- modified parameter names to conform with BCO-DMO naming conventions

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Data Files

File
peysonella_abund.csv (Comma Separated Values (.csv), 3.18 KB) MD5:f29e44660a9138f514a88365199ad2ea Primary data file for dataset ID 750036

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Related Publications

Bramanti L, Lasker HR, Edmunds PJ (2017) An encrusting peyssonnelid preempts vacant space and overgrows corals in St. John, US Virgin Islands. Reef Encounter. 32:68–70
Results

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Parameters

Parameter	Description	Units
Site	identifier for the site	unitless
Transect_Number	identifier for the transect	unitless
Depth	depth of observation	meters (m)
Cover	percent cover	percent (%)

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Instruments

Dataset-specific Instrument Name	GoPro Hero 3
Generic Instrument Name	Camera
Dataset-specific Description	recorded with a GoPro Hero 3
Generic Instrument Description	All types of photographic equipment including stills, video, film and digital systems.

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Project Information

RUI-LTREB Renewal: Three decades of coral reef community dynamics in St. John, USVI: 2014-

2019 (RUI-LTREB)

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

Coverage: USVI

Describing how ecosystems like coral reefs are changing is at the forefront of efforts to evaluate the biological consequences of global climate change and ocean acidification. Coral reefs have become the poster child of these efforts. Amid concern that they could become ecologically extinct within a century, describing what has been lost, what is left, and what is at risk, is of paramount importance. This project exploits an unrivalled legacy of information beginning in 1987 to evaluate the form in which reefs will persist, and the extent to which they will be able to resist further onslaughts of environmental challenges. This long-term project continues a 27-year study of Caribbean coral reefs. The diverse data collected will allow the investigators to determine the roles of local and global disturbances in reef degradation. The data will also reveal the structure and function of reefs in a future with more human disturbances, when corals may no longer dominate tropical reefs.

The broad societal impacts of this project include advancing understanding of an ecosystem that has long been held emblematic of the beauty, diversity, and delicacy of the biological world. Proposed research will expose new generations of undergraduate and graduate students to natural history and the quantitative assessment of the ways in which our planet is changing. This training will lead to a more profound understanding of contemporary ecology at the same time that it promotes excellence in STEM careers and supports technology infrastructure in the United States. Partnerships will be established between universities and high schools to bring university faculty and students in contact with k-12 educators and their students, allow teachers to carry out research in inspiring coral reef locations, and motivate children to pursue STEM careers. Open access to decades of legacy data will stimulate further research and teaching.

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Funding

Funding Source	Award
NSF Division of Environmental Biology (NSF DEB)	DEB-1350146

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