LTR - Percent Cover Point Contact

Website: https://www.bco-dmo.org/dataset/645000
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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
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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Dataset Description

Reef composition was surveyed on all 192 reefs between years 2003-2005. The Focal Point Contact (Point Contact) method was used to determine the major substrate types that occupy each reef. Beginning in 2012, reefs 129-144 were used for a manipulative experiment; data beginning in 2012 for these reefs can be found in the project “Spatial patterns of coral-vermetid interactions: short-term effects and long-term consequences.” These data are meant to verify visual cover estimates at each reef (found in the dataset “Percent Visual Cover”).

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

Methods & Sampling

Sampling and Analytical Methodology:
Three transects were laid out over the right, middle and left side of each reef. The diver recorded the substrate every 10 cm, yielding at least 50 fixed-point contacts for every reef. Corals and algae that are commonly observed are divided by genera. Porites spp are further distinguished as ridged, smooth or columnar.

Materials: transect tape and slates

Data Processing Description

Data Processing:
To obtain “TOTPOINTS”: Sum all species points from the reef.

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 "LTR_PercentCoverPointContact.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_PercentCoverPointContact.csv (Comma Separated Values (.csv), 9.16 KB) MD5:2e5c4403ea6de0163473bcce65eee473 Primary data file for dataset ID 645000

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Parameters

Parameter	Description	Units
DATE	Date Data Collected	DD-MMM-YYYY
Time_In	Time observer entered the water	HH:MM
Time_Out	Time observer exited the water	HH:MM
OBSERV	Initials of observer (JSW-Jada Simone White)	text
SITE	Location of reefs (TOW)	text
REEF	Reef # (two representative reefs chosen from each site) (1-192)	dimensionless
TREATMENT	Treatment (does not apply to this data set)	NA
PSPSMOO	Porites sp. (Smooth) (Range: 0 - TOTAL POINTS)	number of individuals
PSPRIDG	Porites sp. (Ridged) (Range: 0 - TOTAL POINTS)	number of individuals
PSPCOLUM	Porites sp. (Columnar) (Range: 0 - TOTAL POINTS)	number of individuals
PRUS	Porites rus (Range: 0 - TOTAL POINTS)	number of individuals
MONTIP	Montipora spp. (Range: 0 - TOTAL POINTS)	number of individuals
POC	Pocillopora spp. (Range: 0 - TOTAL POINTS)	number of individuals
ACROP	Acropora spp. (Range: 0 - TOTAL POINTS)	number of individuals
OTHCORAL	Total coverage of other live coral (Range: 0 - TOTAL POINTS)	number of individuals
TURF_steg	Stegastes sp. turf (does not apply to this dataset- see “TURF” below)	number of individuals
TURF_surg	Turf grazed by Acanthurids (does not apply to this dataset)	number of individuals

TURF	Stegastes sp. turf (Range: 0 - TOTAL POINTS)	number of individuals
TURBINAR	Turbinaria sp. (Range: 0 - TOTAL POINTS)	number of individuals
CCA	CCA (crustose coraline algae) (does not apply to this data set)	number of individuals
Bare	Bare substrate; including coralline algae (Range: 0 - TOTAL POINTS)	number of individuals
Bare_plus_CCA	(does not apply to this data set)	number of individuals
PIRREG	Porites irregularis? Unidentified branching species of coral common on reefs (Range: 0 - TOTAL POINTS)	number of individuals
LEPTASTR	Leptastrea spp. (Range: 0 - TOTAL POINTS)	number of individuals
PAVONA	Pavona cactus (Range: 0 - TOTAL POINTS)	number of individuals
FUNGIA	Fungia spp.	number of individuals
MUSSIDAE	Corals from the family Mussidae (difficult to i.d. to genera) (Range: 0 - TOTAL POINTS)	number of individuals
CAULERPA	Caulerpa spp. (Range: 0 - TOTAL POINTS)	number of individuals
DICTYOTA	Dictyota spp. (Range: 0 - TOTAL POINTS)	number of individuals
HALIMEDA	Halimeda spp. (Range: 0 - TOTAL POINTS)	number of individuals
PADINA	Padina spp. (Range: 0 - TOTAL POINTS)	number of individuals
CYANO	Various growth forms of cyanobacteria (Range: 0 - TOTAL POINTS)	number of individuals
GALAXAUR	Galaxaura sp. (Range: 0 - TOTAL POINTS)	number of individuals
AMANSIA	Amansia rhodantha (Range: 0 - TOTAL POINTS)	number of individuals
SPONGE	Fleshy grey sponge (Range: 0 - TOTAL POINTS)	number of individuals
VERMETID	Vermetid spp. (does not apply to this data set)	number of individuals
TRIDACNA	Tridacna Spp. (does not apply to this data set)	number of individuals
SPIROBRANCH	Spirobranch Spp. (does not apply to this data set)	number of individuals
CORALGAE	Coraline algae (Range: 0 - TOTAL POINTS)	number of individuals
OTHER	Other Corals (Range: 0 - TOTAL POINTS)	number of individuals
TOTPOINTS	Sum of FPC points measured for that reef (Total points)	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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