



University-National Oceanographic Laboratory  
System  
~UNOLS~  
DeSSC New User Participants

Part I  
Robert Aaron to Matthew Kupchik



# Robert Aaron

- University of Washington, 2016
  - BS in Mechanical Engineering
- University of Colorado, Virginia Tech
  - Masters in Aerospace & Ocean Engineering
- **Previous:** NASA Mechanical Design Engineering Trainee, commercial fishing, assorted Aerospace projects
- **Interests:** Deepwater exploration and documentation (geologic, biologic, etc.), vehicle operations, at-sea engineering, and sustainability
- **Looking For:** Short term technical internships & research opportunities



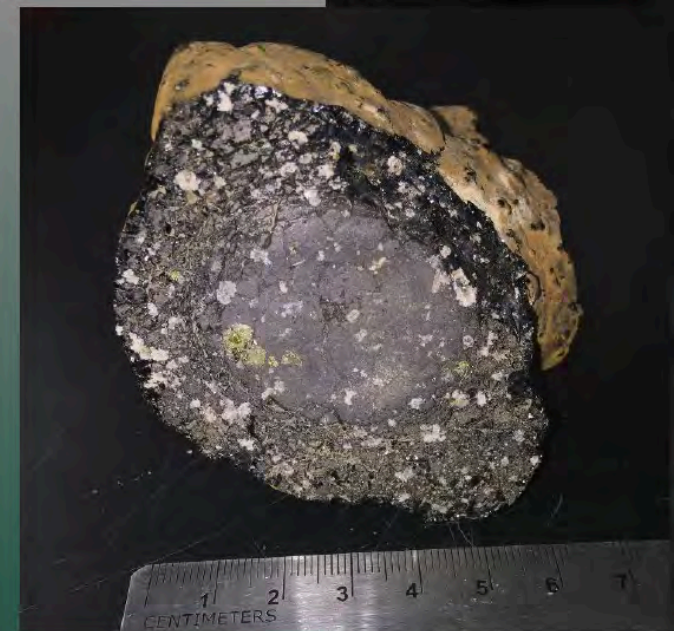


# Molly Anderson

M.S. Geoscience student

## Geochemistry

- Olivine on Mars  
(Terra Sirenum, Mars)
- Submarine lava flows  
(Fernandina, Galápagos)
- Off-axis seamount chain  
(8°20 N, East Pacific Rise)





# Oliver Ashford

**Current position:** Postdoctoral Scholar, Scripps Institution of Oceanography.

**Current major research project:** ‘A comparison of biodiversity – ecosystem functioning relationships between cold seep and background deep-sea ecosystems’

**General interests:** Deep-sea; benthic ecology; community ecology; cold seeps; Vulnerable Marine Ecosystems; biodiversity – ecosystem functioning relationships; phylogenetics; taxonomy and systematics; Peracarida; Anthropogenic impacts on deep-sea ecosystems; conservation.

Please come and say hello if you have any shared interests!

## Contact information

**Email:** [oashford@ucsd.edu](mailto:oashford@ucsd.edu)

**Mobile:** 858-405-4298

**Mail:** 2270 Sverdrup Hall, Kennel Way,  
Scripps Institution of Oceanography, La  
Jolla, CA, 92037.



# Collin Brandl

## Masters Student – Marine Geology and Geophysics (Active Source Seismology)

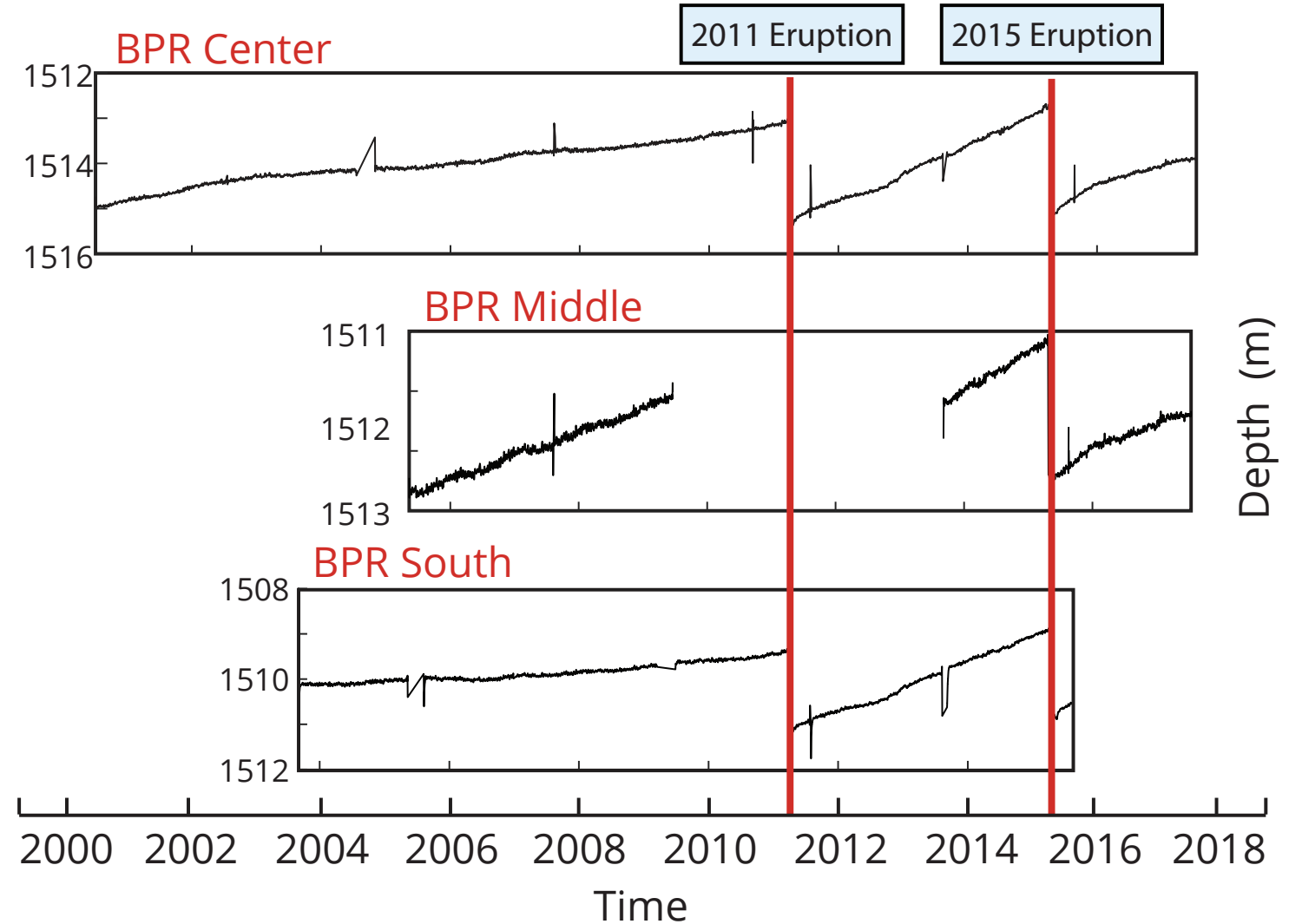
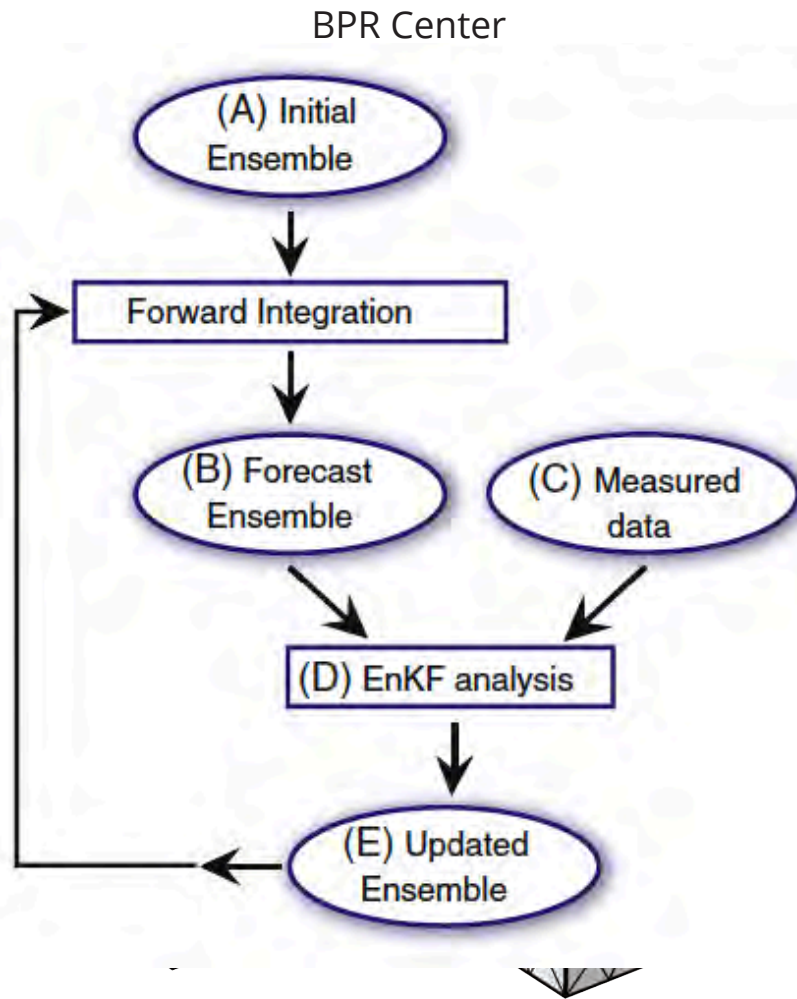
- Currently pursuing M.S. in Earth and Planetary Science at **The University of New Mexico** (Adv: Lindsay Worthington)
- B.S. in Geophysics from **Texas A&M University** (Adv: Bobby Reece)

### I'm Here To:

- Gain exposure to Deep Submergence science and the ROV facilities
- Better understand how ROV's can supplement geophysical work
- Network with a broad spectrum of scientists



# Forecasting Eruptions of Axial Seamount Using Data Assimilation Techniques





# Tyler J. Carrier

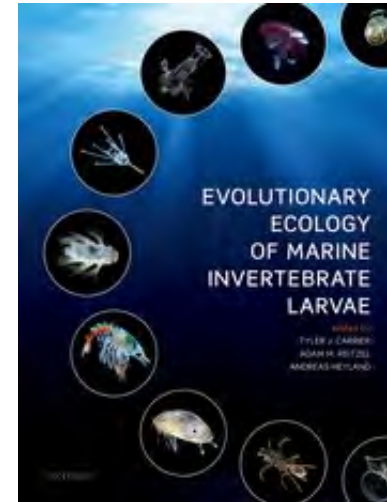
Ph.D. Student, NSF Grad Fellow  
UNC Charlotte

*tcarrie1@uncc.edu*



## *Research Themes*

- Marine invertebrate larvae
- Animal-microbe interactions
- Oceanography



## *Dissertation*

- If microbes are biologically coupled to phenotypic plasticity and life-history evolution

## *DeSSC Attendance*

- Long interest in the deep-sea
  1. Networking
  2. Grant writing



# Adrienne Copeland

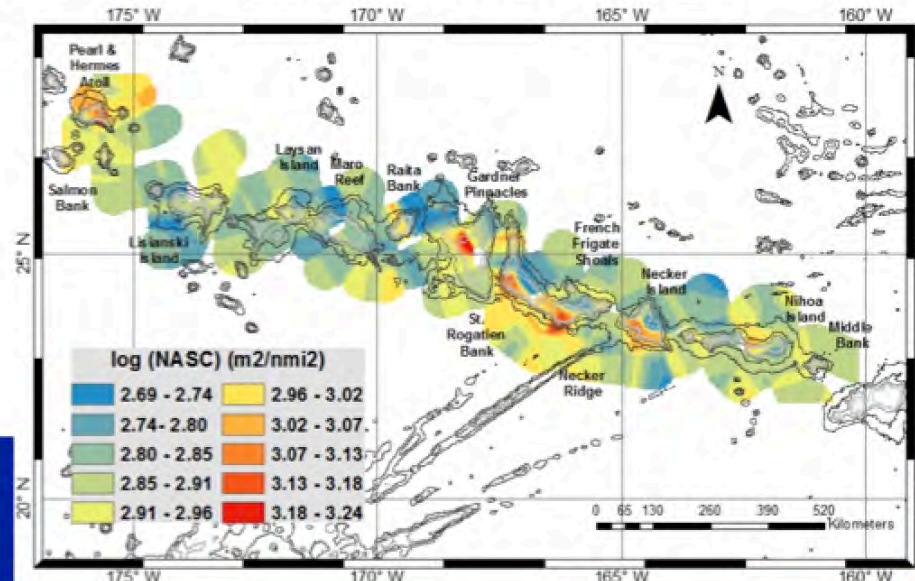
Knauss Fellow

NOAA Office of Ocean Exploration and Research

[adrienne.copeland@noaa.gov](mailto:adrienne.copeland@noaa.gov)

Area of Acoustics: Bioacoustics

Research Interests: Spatial and Temporal  
Variability of Odontocetes and Micronekton

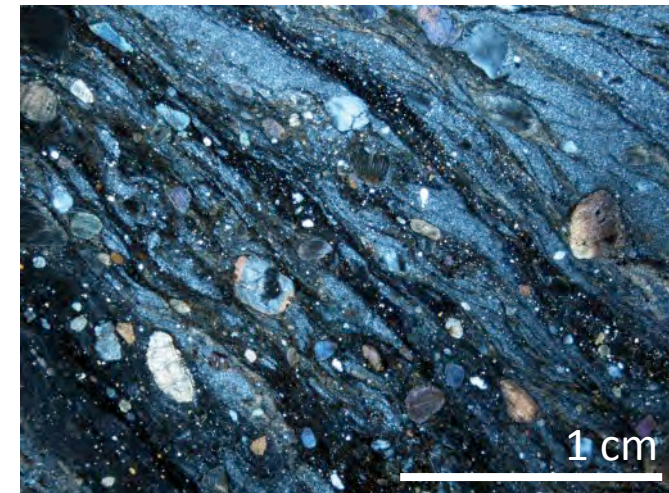
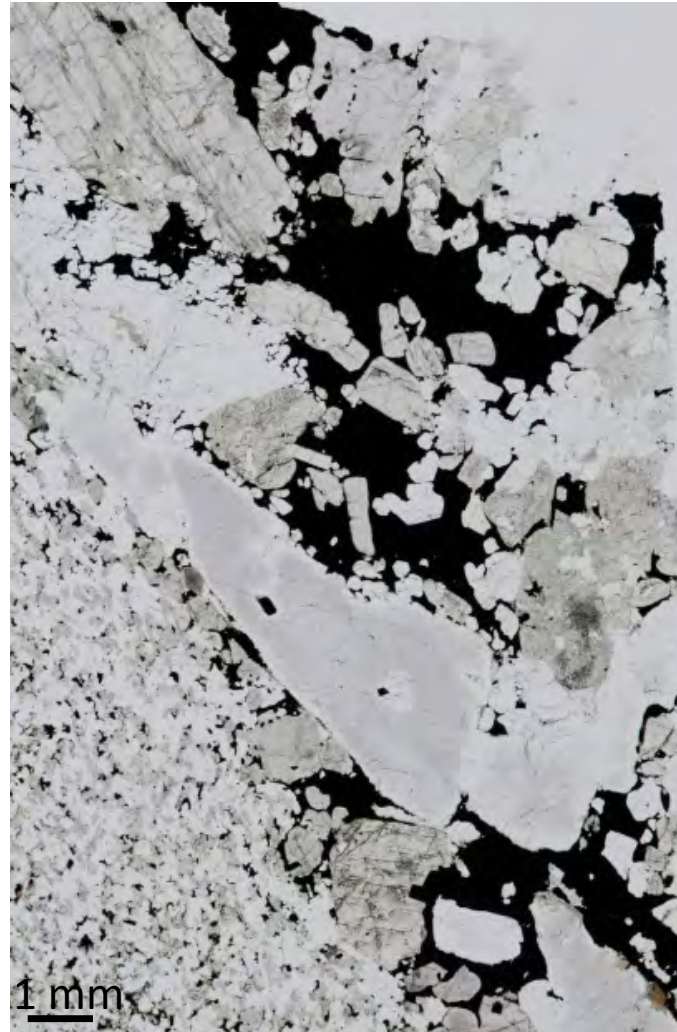




# Dr. Jeremy Deans

Assistant Professor, University of Southern Mississippi

- Formation and deformation of the lower oceanic crust.
- Magma chamber processes to brittle fracturing.
- Orientation of deformation fabrics.
- Fe-Ti oxides.
- EBSD, CT imaging, core-log integration, geochemistry.





Justin Estep

Texas A&M University

Ph.D. Candidate – Geophysics

Dissertation: Evolution of  
Oceanic Crust in the South  
Atlantic

### Research Interests:

- Marine geophysics
- Mid-Ocean Ridge Processes
- Oceanic Crust Evolution
- Seismic imaging of geodynamic processes

### Interests in Submersibles:

- Geologic ground truth for geophysics
- Application and logistics of deployment
- Range of problems that can be addressed
- Interdisciplinary collaboration





# Kay L. Gemba

Marine Physical Laboratory of the Scripps Institution of Oceanography  
University of California at San Diego, [gemba@ucsd.edu](mailto:gemba@ucsd.edu)

## Research Interests:

- using transiting surface ships as sources of opportunity for the purpose of array and environmental parameter characterization
- signal and array processing in the presence of environmental noise

# K.ASHLYN GIDDINGS

- Graduate student at Scripps Institution of Oceanography, UCSD
- Research Interests:
  - Influence of fronts and eddies on mesopelagic biomass and distribution
  - Physical-biological interactions
  - Climate impacts on pelagic food webs



# Dr. Jeroen INGELS

Florida State University Coastal and Marine Laboratory

Research Faculty



## *Education/positions*

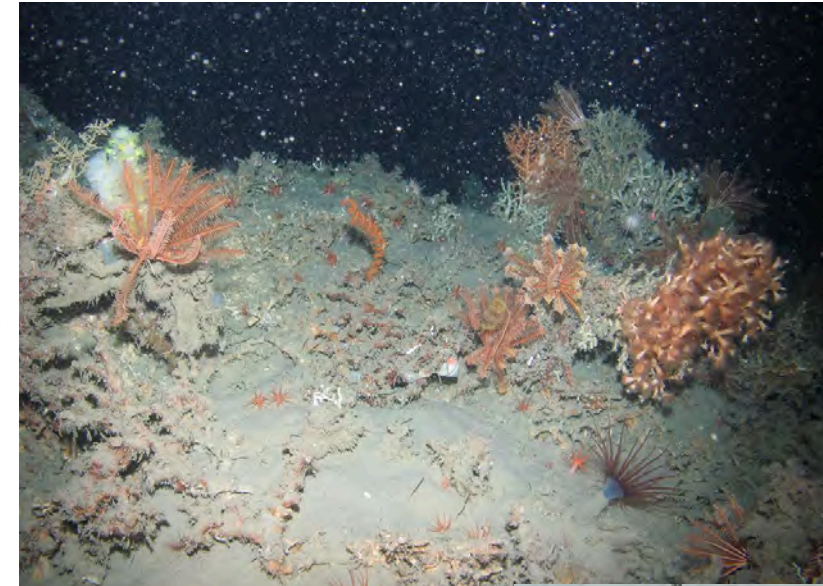
- PhD (2009): **deep-sea ecology; canyons; benthic ecology and biodiversity**
- Postdocs in Belgium (international deep-sea and Antarctic projects), UK (Plymouth Marine Laboratory/Exeter University; Marie Curie IE)
- Research Faculty since Feb 2017 at the FSU CML

## *Deep-Sea Research Experience*

- >6 months at sea (Atlantic, North Sea, Southern Ocean – RV Polarstern, Belgica, RRS Discovery, James Cook, Charles Darwin - ROVs ISIS, Genesis)
- Chief Scientist RV Belgica on two occasions (incl. ROV Genesis canyon survey)
- Biodiversity, ecological processes, biogeochemistry, environmental and anthropogenic impact. International projects since 2003. Work focuses on benthos, particularly meiofauna/nematodes incl. in/ex-situ experiments
- Member of INDEEP community and Deep-Sea Biological Society

## *What am I doing here?*

- Understanding the USA's deep submergence facilities landscape in terms of **funding and usage options**
- **Building collaborative network** to engage more in US deep-sea science
- Interested in **Gulf of Mexico** in particular, but also Western Atlantic and Pacific deep sea ecological research

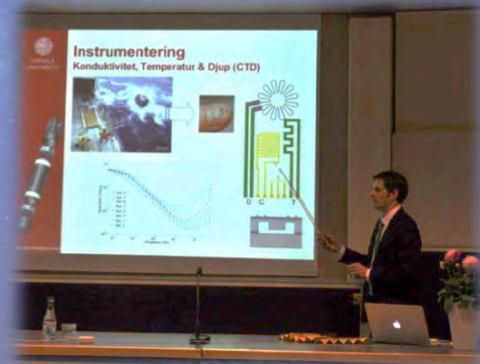
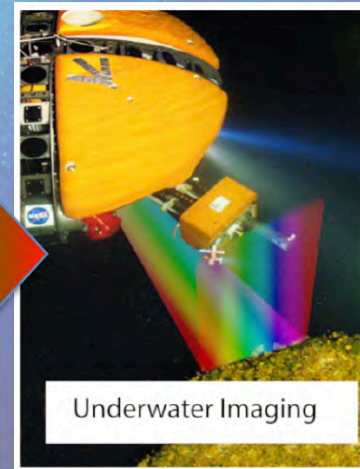
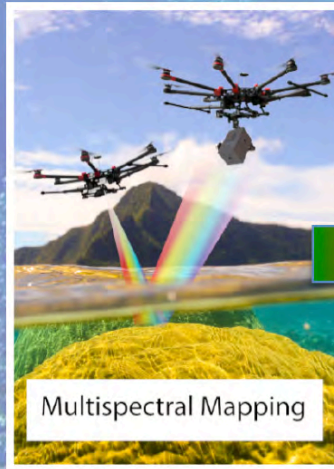
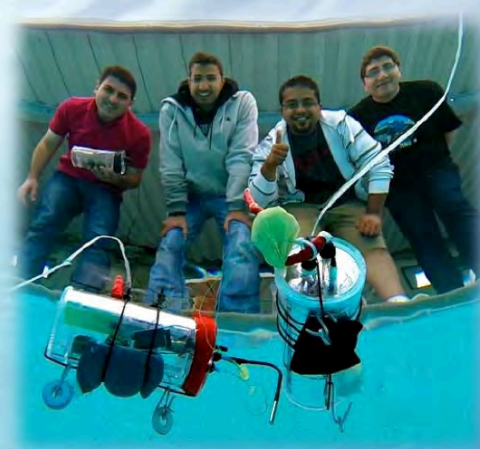






# JONAS JONSSON

- MSc - *NASA JPL Hydrothermal Vent Bio-sampler*
- PhD - *Microsystems Technology for Underwater Vehicle Applications*
- NASA Ames Research Center
  - Research Engineer
  - NASA Scientific Diver
  - NASA UAS (and ROV) pilot
- NASA Ames Laboratory for Advanced Sensing (LAS)
  - MiDAR





# Matthew J. Kupchik



## Research Experience

- Gulf of Mexico Methane Seep Communities
- Gulf of Mexico Scientific and Environmental ROV Partnership using Existing Industrial Technology (Gulf SERPENT) Project
- Larval Recruitment and Connectivity
- Microplastics and Distribution
- Post-DeepWater Horizon Community Structure
- Red Snapper (*Lutjanus campechanus*) habitat and community structure

## Research Interests

- Species Distributions
- Community Structure
- Microplastics
- Bioenergetics
- Modelling
- Connectivity

I'm currently a Postdoc at LSU and actively looking for a job, as well as collaborators and potential partnerships for research.

Matthew J Kupchik, PhD MApStat  
2143 Energy, Coast, & Env't Bldg.  
College of Coast & Environment  
Louisiana State University  
Baton Rouge, LA 70803  
Cell: +1 (856) 264-5505  
Office: +1 (225) 578-2279  
Email: [mkupch1@lsu.edu](mailto:mkupch1@lsu.edu)  
Website: [www.mjkupchik.com](http://www.mjkupchik.com)  
Twitter: @Dr\_Kup  
Instagram: dr\_kup