JACQUELINE S. LONG

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EDUCATION

2016 Master of Science, Marine Science

Univ. of South Florida, College of Marine Science, St. Petersburg, FL.

MS Thesis: "Whiting events off southwest Florida: remote sensing and field observations."

Advisor: Dr. Chuanmin Hu

2011 Bachelor of Science, Physics

Florida State University, Tallahassee, FL.

Senior Project: "Optimization modeling for electric car fueling stations."

POSITIONS HELD

2018 – Present:

Research Technician, Marine Biogeochemistry Group

Monterey Bay Aquarium Research Institute, Moss Landing, California

Fall 2017:

Research Assistant, Cooperative Institute for Marine & Atmospheric Studies

University of Miami Rosenstiel School of Marine and Atmospheric Science, Miami, FL

Spring 2017:

Adjunct Instructor, Microbiology Laboratory

University of South Florida St. Petersburg, St. Petersburg, FL

2017:

Research Assistant, Remote Sensing and Optical Oceanography Laboratory

University of South Florida College of Marine Science, St. Petersburg, FL

Remote detection of chlorophyll-*f* using MERIS reflectance data.

2013-2016:

Graduate Research Assistant, Remote Sensing and Optical Oceanography Laboratory

University of South Florida College of Marine Science, St. Petersburg, FL

Optical oceanography, remote sensing, and *in situ* biochemical characterization of CaCO₃ precipitation (whitings) in southwest Florida. Long-term satellite observations of whitings in Cuba and southwest Florida using MODIS, MERIS, and Landsat data.

Aug 2012-Dec 2012:

Internship, Florida Fish and Wildlife Research Institute

Florida Fish & Wildlife Conservation Commission, St. Petersburg, FL

Analysis of dissolved inorganic and organic carbon fluxes through Tampa Bay and Sarasota Bay to coastal waters.

May 2012-July 2012:

Internship

Mote Marine Laboratory, Sarasota, FL

Data management, archival research, and fieldwork in water quality analysis through Sarasota County estuaries and rivers.

HONORS AND AWARDS

- 2018 Sackett Prize for Innovative Research, \$2,500
- 2018 Ocean Carbon & Biogeochemistry Travel Support
- 2017 Astrobiology Science Conference 1st Place Student Poster Competition, \$1,000
- 2015 Carl Riggs Fellowship in Marine Science, \$10,000
- 2014 Southern Kingfish Association's Fellowship, \$10,000
- 2011 Florida State University Grant, \$1,800
- 2010, 2011 Science and Mathematics Access to Retain Talent Grant, \$8,000
- 2009 Dean-Whitton Science and Mathematics Scholarship, \$1,000

PUBLICATIONS

- **Long JS,** Hu C & Wang M. 2018. Long-term spatiotemporal variability of southwest Florida whiting events from MODIS observations. International Journal of Remote Sensing 39(3):906-923 https://doi.org/10.1080/01431161.2017.1392637.
- **Long JS**, Hu C, Robbins L, Byrne RH, Paul JH & Wolny JL. 2017. Optical and biochemical properties of a southwest Florida whiting event. Estuarine, Coastal and Shelf Science 196:258-268 https://doi.org/10.1016/j.ecss.2017.07.017.
- Moyer RP, Powell CE, Gordon DJ, **Long, JS** & Bliss CM. 2015. Abundance, distribution, and fluxes of dissolved organic carbon (DOC) in four small sub-tropical rivers of the Tampa Bay Estuary (Florida, USA). Applied Geochemistry 63:550-562 https://doi.org/10.1016/j.apgeochem.2015.05.004.
- Long J, Hu C & Robbins L. 2014. Whiting events in SW Florida coastal waters: A case study using MODIS medium-resolution data. Remote Sensing Letters 5:539-547 https://doi.org/10.1080/2150704X.2014.933275.

PUBLISHED ABSTRACTS AND PRESENTATIONS

- **Long JS** & Hu C. 2017. Chlorophyll-f: Earth's unseen production and habitability under red light. Astrobiology Science Conference (Poster #3472).
- **Long JS** & Hu C. 2016. Exploring the whiting events of SWFL through remote sensing and field measurements. Ocean Sciences Meeting (Poster).
- Moyer RP, Powell C, Grier S, Long JS & Bliss CM. 2013. Distribution and fluxes of dissolved and particulate forms of organic carbon (DOC, POC) in small tropical rivers, estuaries, and coastal

waters of Tampa Bay, Florida (USA). Geological Society of America Abstracts with Programs 45:215 (Oral Presentation).

Moyer RP, Bliss CM, Amin-Arsala R, & Long JS. 2012. Distribution and fluxes of dissolved forms of carbon (DOC, DIC) in small sub-tropical rivers, estuaries, and coastal waters of west-central Florida (USA). Geological Society of America Abstracts with Programs 44:504 (Oral Presentation).

INVITED TALKS

2018 "Carbonate: from AUVs to space" Seminar Guest Speaker, College of Marine Science, University of South Florida St. Petersburg, FL.

2015 "From Wormholes to Warp Drive." Panelist, Sci-Café. St. Petersburg, FL.

ARTICLES & MEDIA HIGHLIGHTS

Voiland A. 2018. *Making Sense of Whiting Events*, media release, 7 March, <u>NASA Earth Observatory</u>, Goddard Space Flight Center, Washington D.C.

OCEANOGRAPHIC EXPERIENCE

2018	EXPORTS OSP, R.V. Sally Ride, Seattle, Washington, 31 days
2017	GO-SHIP P6, R.V. Nathaniel B. Palmer, Tahiti - Chile, 41 days, TCO ₂ analyst
2016	DEEPEND 03, R.V. Point Sur, Mississippi, 3 weeks, CTD operator, optical package deployment,
	in situ remote sensing reflectance measurements, filtering for phytoplankton pigment absorption
2015	Harmful Algal Boom Response Cruise, R.V. Bellows, Florida, 1 week, optical characteristics of a
	harmful algal bloom created by Karenia Brevis (known as "red tide")

WORKSHOPS & TRAINING

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Cornell Satellite Remote Sensing Workshop, Ithaca, NY, June 4 – 15.	2018
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MEMBERSHIP

Astrobiology and Astronomy Club of USFSP - Founder	est. 2015
Florida Aquarium - Diver	2015-2017
Surfrider Foundation - Member	2016-2017
Marine Science Advisory Committee - Social Chairperson	2014-2016
St. Petersburg Science Festival - Marketing Committee Board Member	2014

OUTREACH

- NASA Astrobiology Institute demonstrator for MarsFest, Death Valley National Park, 2018
- BLUE Ocean Film Festival, St. Petersburg, 2016
- Astrobiology and Astronomy Club of USFSP outreach manager, St. Petersburg Science Festival "Biosignatures, Extremeophiles, and Craters", 2016 "Cryovolcanoes of Icy Moons", 2015
- Oceanography Camp for Girls, 2014

Science Mentor

Lab Coordinator

• Girl Scouts, 2014 *Lab Coordinator*

RELATED SKILLS & CERTIFICATIONS

Laboratory Skills

- Working knowledge with: marine carbonate system measurements, Scanning Electron Microscopy (SEM) + EDS, *in situ* and laboratory-based measurements of IOPs, AOPs, and R_{rs} , basic microbiology techniques
- Experience using: spectrophotometry, coulter counters, fluorometry, flowcytometry

Field

- Experience leading field campaigns (3+ yrs)
- Operating and trailering boats up to 17' (3+ yrs)
- Motorboat Operator Certification Course, MOCC
- American Academy of Underwater Scientists, AAUS
- Diving First Aid for Professional Divers, DAN
- NITROX, 2012
- Open Water, 2002, with skills in night, cave, navigation, deep dives and bail-out
- Intermediate in Spanish

Computational

- Knowledge in Python, MatLab, IDL, ENVI, SeaDAS, VI editor, Microsoft Office Suite
- Experience processing and analyzing MODIS, MERIS, and Landsat images
- Basic knowledge of GIS applications and HTML/CSS-based web design