

College of Marine Science
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Curriculum Vitae

Sean T. Beckwith

Education

- 2016 M.S. Geological Oceanography, University of South Florida College of Marine Science, Saint Petersburg, FL, 3.73 GPA. Thesis: Abundance of *Archaias angulatus* on the West Florida Coast Indicates the Influence of Carbonate Alkalinity over Salinity. Advisor: Pamela Hallock Muller
- 2002 B.S. Environmental Science, University of Florida, Gainesville, FL

Relevant Work and Research Experience

- 2019-present Graduate student researcher, CMS Ocean Technology Group. Work with past data sets to apply salinity corrections to sensor data exhibiting thermal lag. Also assist in deployment and recovery of autonomous underwater gliders.
- 2017-present Science communicator, USF College of Marine Science (CMS). Communicate scientific work of CMS researchers using multimedia (Adobe Creative Suite) and written articles targeted to a general audience. Participate in cruises and conferences.
- 2015-2016 Volunteer, USGS St. Petersburg Coastal and Marine Center. Performed spectrometric measurements of total alkalinity and coulometric measurements of dissolved inorganic carbon in the CO₂ System Laboratory (Dr. Kimberly Yates). Modified TA method for freshwater influenced carbonate system chemistry.
- 2014-2016 Student researcher, USF College of Marine Science. Operated small research vessels to collect sediment and water samples. Measured carbonate system seawater variables using spectrometry, spectrophotometry, and coulometry. Sorted and picked foraminifera to identify symbiont bearing specimens and to recognize dissolution characteristics. Mapped species distribution and oceanographic characteristics using a GIS. Statistically analyzed CO₂ system end-members and spatial distribution of foraminifera.
- 2007-2008 Beckwith Electric Research member, Beckwith Electric Co., Inc., Largo, FL. Research work compared ULF/ELF signals detected by an underground antenna to voltage-over-time graphs to locate concurrent indicators of earthquake precursors in pursuit of an earthquake early warning system.
- 2001 Laboratory assistant, paleoceanographic laboratory, Dr. Benjamin Flower, USF CMS. Sorted and labeled core samples for mass spectrometer analysis and identified microfossils for interpretation of glacial cycles.
- 2001 Assistant crew member, Florida Institute of Oceanography. Assisted scientists researching red tide on monthly cruises.

Publications

Beckwith ST, Byrne RH and Hallock P (2019) Riverine Calcium End-Members Improve Coastal Saturation State Calculations and Reveal Regionally Variable Calcification Potential. *Front. Mar. Sci.* 6:169. doi: 10.3389/fmars.2019.00169

Beckwith, Sean Thomas, "Abundance of *Archaias angulatus* on the West Florida Coast Indicates the Influence of Carbonate Alkalinity over Salinity" (2016). Graduate Theses and Dissertations.

<https://scholarcommons.usf.edu/etd/6463>

Published Abstracts

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| AGU 2016 | Refugia for Carbonate Producing Organisms in High Carbon Dioxide Environmental Conditions (Poster) |
| GSA 2016 | Abundance of <i>Archaias angulatus</i> on the inner west Florida shelf suggests the influence of carbonate alkalinity over salinity (Oral) |
| GSA 2015 | Distribution of <i>Archaias angulatus</i> on the inner west Florida shelf: substrata and water chemistry versus temperature (Poster) |

Awards and Honors

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| 2015 | Joseph A. Cushman Award for Student Research, Cushman Foundation for Foraminiferal Research |
| 2001 | Presidential Recognition- student senator at the University of Florida |
| 2001 | Award for Silent Leadership within Theta Chi fraternity, University of Florida |

Teaching and Mentoring Experience

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| 2016 | Laboratory mentor to undergraduate student from USFSP. Instructed mentee on methods for washing and picking sediment samples for foraminiferal research. |
| 2011 | Primary education assistant teacher, grades 3 – 12, International Calvary Academy, Yamato, Japan. Instructed multiple grades in English, literature, math, and sciences. |
| 2009-2011 | Foreign Language Instructor, Gaba Corporation, Tokyo, Japan. Taught English to students ages 5 to senior citizen focusing on individual needs. |
| 2005-2007 | Assistant Language Teacher and cultural liaison, Yamagata City Board of Education, Yamagata, Japan. Sole foreign teacher in a junior high school of 900 students and 50+ teachers. Team-taught five English classes per day and mentored students. |
| 2003-2005 | Foreign Language Teacher, Aeon Language Corporation, Yamagata, Japan. Taught conversational English to students ages 3 to senior citizen. |

Community Engagement

- Judge, junior chemistry division: 2017 State Science and Engineering Fair of Florida
- GSA 2015, 2016 Technical session coordinator
- Treasurer of the Japan Exchange and Teaching Alumni Association, Florida Chapter
- St. Petersburg Science Festival floating volunteer and videographer