

**Sherry L. Palacios, Ph.D.**  
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**Research Interests**

- Phytoplankton Biodiversity
- Ocean Color Algorithm Development
- Seagrass Biology

**Educational Background**

Ph.D., University of California – Santa Cruz, Ocean Science, (2012) Optical properties of evolving water masses in complex aquatic environments, Advisor: Raphael M. Kudela

M.S., Moss Landing Marine Laboratories, (2003) Eelgrass response to CO<sub>2</sub> enrichment: Possible impacts of climate change, potential for remediation of coastal habitats, Advisor: Richard C. Zimmerman

Provisional Teaching Certificate, Teach for America, (1992), Secondary Science

B.A., Smith College (1992) Biological Science (major), Marine Science (minor)

**Professional Background**

Assistant Professor, Biological Oceanography, California State University,  
Monterey Bay (2019 – Present)

Research Scientist, Biological Oceanography, Bay Area Environmental Research  
Institute/NASA (2015 - 2019)

Data Scientist, Engineering, TiVo, Inc. (contract) (2017 - 2019)

NASA Postdoctoral Program (NPP) Fellow, NASA (2013 – 2015)

**Manuscripts in Preparation**

**Palacios, SL**, LS Guild, RM Kudela, M Kacenenbogen, K Knoebelspiess, SB Hooker, HF Houskeeper, (in prep), Improved Accuracy of Retrieved Coastal Water Radiometry Using an Airborne Sun Photometer and Two Different Atmospheric Correction Models. Likely submission to *Remote Sensing of Environment*.

**Palacios, SL**, HM Sosik, TD Peterson, KK Hayashi, MG Jacox, CL Scrivner, and RM Kudela. (in prep) Discrimination of phytoplankton taxa in an optically complex aquatic environment. Likely submission to *Remote Sensing of Environment*.

Kudela, RM., **SL Palacios**, MD Peacock, N Taylor. Estimating Phytoplankton Food Quality Using a Hyperspectral Phytoplankton Functional Type Model for San Francisco Bay, California. In Prep for *Frontiers in Environmental Science*.

**Peer-Reviewed Publications (> denotes contributions from undergraduate researcher)**

Guild LS, RM Kudela, SB Hooker, **SL Palacios**, HF Houskeeper. (2020) Airborne Radiometry for Calibration, Validation, and Research in Oceanic, Coastal, and Inland Waters. *Frontiers in Environmental Science: Environmental Informatics and Remote Sensing*.

Muller-Karger, FE, E Hestir, C Ade K Turpie, DA Roberts, D Siegel, RJ Miller, D Humm, N Izenberg, M Keller, F Morgan, R Frouin, AG Dekker, R Gardner, J Goodman, B Schaeffer, BA Franz, N Pahlevan. AG Mannino, JA Concha, SG Ackleson Kyle C. Cavanaugh Anastasia Romanou Maria Tzortziou Emmanuel S. Boss Ryan Pavlick A Freeman, CS Rousseaux, J Dunne, MC Long Eduardo Klein GA McKinley J Goes, R Letelier, M Kavanaugh, M Roffer, A Bracher, KR Arrigo H Dierssen Xiaodong Zhang Frank W. Davis Ben Best Robert Guralnick John Moisan HM Sosik, R Kudela, CB Mouw, AH Barnard , **S Palacios**, C Roesler, EG Drakou, W Appeltans, W Jetz. (2018) Satellite sensor requirements for monitoring essential biodiversity variables of coastal ecosystems. *Ecological Applications*, 28(3), 2018, pp. 749–760.  
<https://doi.org/10.1002/eap.1682>

**Palacios, SL**, (2017) Observations on Earth Science in the Coming Era. *Pantsuit Nation Book*. Ed. Libby Chamberlain. New York: Flatiron Books. Pp. 288. Print.

Thompson, DR, DA Roberts, B-C Gao, RO Green, LS Guild, K Hayashi, R Kudela, **S Palacios** (2016) Atmospheric correction with the Bayesian empirical line. *Optics Express*. 24(3):2134 – 2144. doi: 10.1364/OE.24.002134

**Palacios, SL**, RM Kudela, LS Guild, KH Negrey, J Torres-Perez, & J Broughton (2015) Phytoplankton Functional Types in the Coastal Ocean. *Remote Sensing of Environment*. 167: 269 – 280.

➤Kudela, RM, **SL Palacios**, DC Austerberry, EK Accorsi, LS Guild, JL Torres-Perez (2015) Application of hyperspectral remote sensing to cyanobacterial blooms in inland waters. *Remote Sensing of Environment*. 167: 196 – 205.

**Palacios, SL**, RM Kudela, LS Guild, KH Negrey, J Torres-Perez, & J Broughton (2014) Remote sensing of phytoplankton functional types in the coastal ocean from the HypsIRI Preparatory Flight Campaign. *Ocean Optics XXII Extended Abstract*.

**Palacios, SL**, TD Peterson, & RM Kudela (2012) Optical characterization of water masses within the Columbia River Plume. *Journal of Geophysical Research – Oceans*, 117, C11020, doi:10.1029/2012JC008005.

**Palacios, SL** (2012) Identifying and tracking evolving water masses in optically complex aquatic environments. PhD Dissertation. University of California – Santa Cruz.

Kudela, RM, AR Horner-Devine, NS Banas, BM Hickey, TD Peterson, RM McCabe, EJ Lessard, E Frame, KW Bruland, DA Jay, JO Peterson, WT Peterson, PM Kosro, **SL Palacios**, MC Lohan, EP Dever (2010) Multiple trophic levels fueled by recirculation in the Columbia River Plume. *Geophys. Res. Lett.* 37, L18607, doi:10.1029/2010GL044342

**Palacios, SL** (2010) Eelgrass: factors that control distribution and abundance in Pacific Coast estuaries and a case study of Elkhorn Slough, California. Elkhorn Slough Technical Report Series 2010:2 (Elkhorn Slough Foundation and Elkhorn Slough National Estuarine Research Reserve, Watsonville, CA)

**Palacios, SL**, TD Peterson, & RM Kudela (2009) Development of Synthetic Salinity from Remote Sensing for the Columbia River Plume. *Journal of Geophysical Research* vol. 114. C00B05. doi:10.1029/2008JC004895

Penta, B, ZP Lee, RM Kudela, **SL Palacios**, DJ Gray, JK Jolliff, & IG Shulman (2008) An underwater light attenuation scheme for marine ecosystem models. *Optics Express*. 16 (21): 16581 - 16591.

Kudela RM & **SL Palacios** (2007) Optical characterization and age estimates of river plumes on the US West Coast. *Proceedings SPIE Optics & Photonics*. San Diego, CA. August 26 – 30, 2007.

**Palacios, SL** & RC Zimmerman (2007) Response of Eelgrass (*Zostera marina* L.) to CO<sub>2</sub> enrichment: possible impacts of climate change and potential for remediation of coastal habitats. *Marine Ecology Progress Series*. 344: 1- 13. Feature Article

Zimmerman, RC and **Palacios, SL** (2002) Stimulating eelgrass production with industrial flue gas: Eco-engineering for habitat remediation and purposeful carbon storage. 25 pp. In Isobe, M. and Kraines, S. (eds), *International Workshop for the SEECS (Seagrass Ecosystem Ecoengineering and Carbon Sequestration) Project*. Graduate School of Frontier Science, University of Tokyo, Japan.

### **Grey Literature**

**Palacios, S** (2001) Monitoring of seagrass, marsh plants and macroalgae in Elkhorn Slough. Elkhorn Slough Technical Report Series 2001:1.

**Grants Awarded**

2021 Building an Accessible Model for Understanding Seagrasses in a Changing Climate, CSUMB College of Science Discovery, Creation, Integration Award \$5966

2019 and earlier (Pre appointment at CSUMB)

USGS Quantifying Drivers and Stressors of Intertidal Biofilm Resources at the Largest Tidal Wetland Restoration on the U.S. West Coast. \$289,308 (Collaborative Grant) (2019)

NASA ESTEEM TCU Teaching Earth System Science for Resiliency in the Salish Sea. (Collaborative Grant) \$844,357 (2018)

NOAA An Optical-Based Algorithm for Phytoplankton Functional Types in the Great Lakes from Airborne Hyperspectral and Satellite Imagery (Collaborative Grant) \$100,000 (2017)

NASA Survey of Airborne Microorganisms in Earth's Stratosphere: Acquiring Samples in the Northern and Southern Hemisphere with Ride-Along Flights on NASA Aircraft (Collaborative Grant) NASA Science Innovation Fund, amount unpublished (2017)

NASA Coastal High-resolution Observations and Remote Sensing of Ecosystems (C-HORSE) (Collaborative Grant) NASA Science Innovation Fund, amount unpublished (2016)

NASA Remotely detectable photosynthetic biosignatures (Collaborative Grant) \$585,565 (2016)

NASA Postdoctoral Program Fellowship, 2-year fellowship. (2013)

Chancellor's Dissertation-Year Fellowship. (2008)

Dr. Earl & Ethyl Myers Oceanographic & Marine Biology Trust (2002 - MS, 2007 - PhD)

UC Regents Fellowship, spring (2004)

NOAA- NERRS Graduate Research Fellowship, (2000 - 2003 - MS)

Packard Foundation, (2002 - MS)

Sigma Xi Grant-in-Aid of Research, (2002 - MS)

**Proposals Submitted AY19-20**

California SeaGrant New Faculty Award. Seagrass in a Changing Climate: Predicting the Distribution and Abundance of Eelgrass, *Zostera marina*, under Varying Ocean pH, Temperature and Water Quality Conditions in a Central California Estuary. \$58,493. PI: Sherry Palacios. Decision Pending.

CSU COAST Matching Funds Request for California SeaGrant New Faculty Award: Seagrass in a Changing Climate: Predicting the Distribution and Abundance of Eelgrass, *Zostera marina*, Under Varying Ocean pH, Temperature, and Water Quality Conditions in a Central California Estuary. \$29,488. PI: Sherry Palacios. Will be granted if SeaGrant proposal is awarded.

NASA Minority University Research and Education Project (MUREP) Institutional Research Opportunity (MIRO). Center for Applied Atmospheric Research and Education (CAARE). PI: Sen Chiao, Co-I Sherry Palacios. Not funded (2020).

Research, Scholarship & Creative Activity (RSCA) Quantifying Intertidal Biofilm Biomass as a Food Resource for Invertebrate and Migratory Bird Populations Along Two Estuarine Stops of the Pacific Flyway. \$7,987. PI: Sherry Palacios. Not funded (2019).

### **Honors and Awards**

NASA Group Achievement Award, Ocean Color Ecosystem Assessment Team (2014)  
Chancellor's Dissertation-Year Fellowship Award (2008)  
Ocean Sciences Outstanding Student Award (2007)  
Ten year volunteer service award—Monterey Bay Aquarium (2006)  
Western Society of Naturalists,  
    Mia Tegner Memorial Award for Best Student Talk in Ecology (2002)  
Nationally recognized First Year Teacher of the Year by the Sallie Mae Foundation (1993)  
Arkansas State Board of Education recognition as Outstanding Educator (1993)  
Crossett High School Teacher of the Year (1993)  
Elected to Sigma Xi (1992)

### **Invited Scientific Presentations**

“There and Back Again: A Tale of Plants from Benthos to Orbit” Moss Landing Marine Labs Seminar Series. (2020)

“Thinking Like a Data Scientist: Phytoplankton Functional Type Algorithms and Hyperspectral Imagery” SL Palacios & RM Kudela, Optical Society of America. (2019)

“Biodiversity of the coastal ocean: Phytoplankton functional types from remote sensing imagery” NASA Ames Research Center Early Career Speaker Series. (2016)

“Understanding ocean biodiversity and water quality at the land-sea interface: Monterey Bay as a test-bed of NASA’s satellite and airborne ocean color capabilities” California State University, Monterey Bay (2014)

“Discriminating phytoplankton functional types in optically complex waters” NOAA-PFEL, Pacific Grove, CA (2013)

“Optical characterization and age estimates of the Columbia River Plume” UC – Santa Cruz, Ocean Sciences seminar series. (2008)

“Optical characterization and age estimates of the Columbia River Plume” Center for Remote Sensing, UC- Santa Cruz. (October, 2007)

“Combining complex biological productivity modeling approaches to assess factors limiting seagrass distribution” ASLO, Albuquerque, NM. (2001)

**Scientific Presentations (➤ denotes contributions from undergraduate researcher)**

Only first authored shown from 2019 and older

➤“Size Matters: Variation in Phytoplankton Biovolume Observed in Remote Sensing Imagery Across a Putative Nutrient Gradient Nearshore to Offshore of Southern California” Laney Klunis, Sherry Palacios, Sen Chiao. American Geophysical Union Meeting, San Francisco, CA. Poster (2020)

“Retrieval of intertidal biofilm quantity and nutritional quality through field spectroscopy provides potential for regional mapping of shorebird food resources” Kristin Byrd, Sherry Palacios, Stacy Moskal, Isa Woo, and Susan De La Cruz. American Geophysical Union Meeting, San Francisco, CA. Poster (2020)

➤“A Tale of Two Algorithms: Analysis of PHYDOTax vs. MESMA in the San Francisco Bay Area” Jake Smith, Niky Taylor, Raphael M Kudela, Sherry Palacios, Dar A Roberts. American Geophysical Union Meeting, San Francisco, CA. Poster (2020)

➤“Climate Resiliency in the Salish Sea: Mentoring the Future Climate Workforce at Northwest Indian College” American Geophysical Union Meeting, San Francisco, CA. Poster (2020)

➤“Earth System Education for Climate Resiliency in the Salish Sea: Preparing the Future Climate Workforce at Northwest Indian College” American Geophysical Union Meeting, San Francisco, CA. Poster (2019)

➤“Research Experiences for Students in the Center for Applied Atmospheric Research and Education (CAARE) Program” American Geophysical Union Meeting, Washington, DC. Poster (2018)

➤“Phytoplankton Community Composition and Food Quality in Monterey Bay and San Francisco Bay using Imaging Spectroscopy Data from the California HypsIRI Airborne Campaign” Ocean Sciences Meeting, Portland, OR. Poster (2018)

➤“Seasonal and Inter-Annual Patterns of Chlorophyll and Phytoplankton Community Structure in Monterey Bay, CA Derived from AVIRIS Data During the 2013-2015 HypsIRI Airborne Campaign” Ocean Sciences Meeting, New Orleans, LA. Poster (2016)

“Seasonal and Inter-Annual Patterns of Phytoplankton Community Structure in Monterey Bay, CA Derived from AVIRIS Data During the 2013-2015 HypsIRI Airborne Campaign” American Geophysical Union Conference, San Francisco, CA. Poster (2015)

“Bringing the ocean into finer focus at the land-sea interface through the NASA COAST, OCEANIA, and HypsIRI suborbital missions” International Ocean Colour Symposium, San Francisco, CA. Poster (2015)

“Bringing the ocean into finer focus through the NASA COAST, HypSIRI, and OCEANIA suborbital missions” 2014. Poster. American Geophysical Union Conference, San Francisco, CA

“Remote sensing of phytoplankton functional types in the coastal ocean from the HypSIRI Preparatory Flight Campaign” Ocean Optics XXII, Portland, ME. Poster (2014)

“Discriminating phytoplankton functional types (PFTs) in the coastal ocean using PHYDOTax” Ocean Sciences Meeting, Honolulu, HI. Talk (2014)

“Discriminating phytoplankton functional types (PFTs) in the coastal ocean using the inversion algorithm PHYDOTax and airborne imaging spectrometer data” American Geophysical Union Conference, San Francisco, CA. Poster (2013)

“A novel discrimination algorithm based on first principles of aquatic optics and applied to hyperspectral remote sensing imagery of the coastal ocean” International Ocean Colour Symposium. Darmstadt, Germany. Poster (2013)

➤“NASA’s Student Airborne Research Program as a model for effective professional development experience in Oceanography” American Geophysical Union Conference, San Francisco, CA. Poster (2011)

“Fluorometric discrimination of phytoplankton functional types to monitor for harmful algae using the Turner Designs PhytoFind” 6th Symposium on Harmful Algae in the US, Austin, TX. Poster (2011)

“Optical discrimination of bloom forming phytoplankton using an in-situ ultraviolet light sensor” Ocean Sciences, Portland, OR. Talk (2010)

“Optical detection of a dinoflagellate bloom in Monterey Bay, CA” ASLO, Orlando, FL. Poster (2008)

“Characterizing the spatial and temporal evolution of the Columbia River plume using optical properties” Eastern Pacific Oceanographic Congress, Leavenworth, WA. Poster (2007)

“Optical characterization and age estimates of river plumes on the US West Coast” SPIE Optics & Photonics, San Diego, CA. Talk (2007)

“Tracking the age of the Columbia River Plume using evolving optical properties” ASLO, Santa Fe, NM. Poster (2007)

“Characterizing the Optical Signature of the Columbia River Plume” AGU- ASLO, Honolulu, HI. Poster (2006)

“Eelgrass response to CO<sub>2</sub> enrichment: possible impacts of climate change” Western Society of Naturalists, Monterey, CA. Talk (2002)

“A bio-optical model of eelgrass productivity and distribution” ASLO, Copenhagen, Denmark. Talk (2000)

### **Teaching & Learning**

#### *Full Course Instructor:*

- MSCI 270: Introduction to Oceanography
- MSCI 370: Biological - Physical Oceanography

Courses 2019 and earlier (Pre appointment at CSUMB):

Introduction to Remote Sensing, NASA’s Capacity Building for Indigenous People Initiative, co-designed and taught with Dr. Cynthia Schmidt and Dr. Amber McCullum (2016 to 2019)

Advanced Webinar: Integrating Remote Sensing into a Water Quality Monitoring Program series, NASA’s Applied Remote SEnsing Training (ARSET) , co-designed and taught with Dr. Amita Mehta (2019)

(<https://arset.gsfc.nasa.gov/water/webinars/water-quality-2019>)

Harmful Algal Bloom webinar series, NASA ARSET (2017)

(<https://arset.gsfc.nasa.gov/water/webinars/HABs17>)

Introduction to Remote Sensing for Coastal and Ocean Applications, NASA ARSET (2016)

(<https://arset.gsfc.nasa.gov/land/webinars/coastal-oceans-2016>)

Fundamentals of Aquatic Remote Sensing – 2C, NASA ARSET (2017)

(<https://arset.gsfc.nasa.gov/webinars/fundamentals-remote-sensing>)

Introductory and Advanced Biology, Crossett High School, Crossett, AR (1992 - 1994)

#### *Research Mentoring:*

Post-doctoral:

Morgaine McKibben (NASA Postdoctoral Program, 2019 - present)

Graduate:

Niky Taylor (Qualifying Examination, UC-Santa Cruz, 2020)

Undergraduate:

(UROC = Undergraduate Research Opportunities Center)



Danielle Anderson (UROC Scholar, Marine Science major, 2021- )  
Brandon Tom (Independent Research, Biology major, 2020-2021)  
Rowan Cirivello (Independent Research, Marine Science major, 2020-2021)  
Ingrid Martinson (Independent Research, Marine Science major, 2021- )  
Wells Calac (Independent Research, Marine Science major, 2021)  
Laney Klunis (UROC Scholar, Marine Science major, 2019 - )  
Emilia Lepe (UROC Scholar & McNair Fellow, Marine Science major, 2019 - )  
Samuel Perrello (UROC Researcher, Marine Science major, 2020 - )  
Charles Scrivner (UROC Scholar, Marine Science major, 2020 - )  
Lindsay Newey (Independent Research, summer intern, Biology major, 2020)  
Devynn Gatley (UROC Researcher, Marine Science major, 2020 - )  
Stella Sammaripa (NASA ESTEEM intern from Northwest Indian College, 2020)  
Dominic Higheagle (NASA ESTEEM intern from Northwest Indian College, 2020)  
Alisa Smith Woodruff (NASA ESTEEM intern from Northwest Indian College, 2020)

2019 and earlier (Pre appointment at CSUMB):

Dineh Judd (NASA ESTEEM intern from Northwest Indian College, 2019)  
Melvin Miles (NASA ESTEEM intern from Northwest Indian College, 2019)  
Talon Arbuckle (NASA CAARE intern from Northwest Indian College, 2018)  
Natasha Fazeli (NASA CAARE intern from CalPoly, 2017)  
Amber Golini (NASA CAARE intern from CalPoly, 2016)  
Samantha Trumbo (NASA SARP intern from Cornell University, 2012)  
Emma Accorsi (NASA SARP intern from Emory University, 2012)  
Jennifer Broughton Schulien (Graduate Student, UC-Santa Cruz, 2011)  
David Austerberry (NASA SARP intern from Creighton University, 2011)  
Jennifer George Davis (Senior thesis, UC-Santa Cruz, 2009)

*Teaching Assistantships:*

- The Marine Environment, UC-Santa Cruz (2004, 2005, 2006)
- The Oceans (2007)
- Marine Botany, Moss Landing Marine Laboratories (1999)

## **Professional Application**

*Editor*

Guest co-editor for *Frontiers in Environmental Science* for Research Topic, “Emerging Technologies and Techniques for Remote Sensing of Coastal and Inland waters” (2020)  
<https://www.frontiersin.org/research-topics/12926/emerging-technologies-and-techniques-for-remote-sensing-of-coastal-and-inland-waters>

*Session Co-Convener*

“A Path Towards Climate Resiliency: Preparing a Future Climate Workforce From Within the Indigenous Community” American Geophysical Union - Fall 2020 Meeting, Co-conveners  
Bonnie Murray, Paulette Blanchard, and Melissa Peacock (2020)

*Invited Working Groups*

NASA Surface Biology & Geology - Algorithms Working Group. (January 2019 - Present)

NOAA Alliance for Coastal Technology – Hyperspectral Image Analysis of Coastal Waters Workshop. University of Hawaii – Manoa. Planning committee member. (May 2018 - Present)

Monitoring Coastal Marine Biodiversity using Satellite Observations Workshop. At the National Center for Ecological Analysis and Synthesis (NCEAS). Santa Barbara, CA. (June 2016)

*Volunteer & Board Service*

Elevate Tutoring, Tutor Trainer (2015 - 2019)

Hispanic Foundation of Silicon Valley, Non-Profit Board Leadership Training (2016)

Elevate Tutoring, Board Member (2014 - Present)

*Advocacy*

Alumnae Spotlight, *Smith College Alumnae Quarterly*, Two-page spread including photographs and article profiling alumnae who work in Earth and Climate Science. I am one of the three in the article. Publication reaches 40,000 Smith College alumnae internationally (Spring 2020)

Pantsuit Nation Book public outreach. Participated in public speaking event in San Francisco to promote the book and my section in the book advocating for continued funding of research in Earth and Climate science after the 2016 presidential election (Spring 2017)

**University Service**

CSUMB University Senate Ad Hoc Committee on Diversity and Inclusion (Spring 2021)

CSUMB Sea Lion Bowl, Science Judge (2020)

CSUMB First Year Housing “Pillow Talk” for MSCI majors (2020)

CSUMB Freshman Clap Out (2019)

CSUMB Basic Needs: Cooking with CSUMB “Making Greek Yogurt from Scratch” (2020)

CSUMB MSCI Faculty Committee (2019 - Present)

CSUMB MSCI Assessment Chair (2019 - Present)

CSUMB MSCI Boating Committee (2019 - Present)

CSUMB MSCI Graduate Student Orientation (2020)

CSUMB COS Election Committee (2019 - Present)

CSUMB COS Exam Proctoring Collective (2019 - 2020)

CSUMB COS Orientation (2019)

CSUMB COS Open House (2019)

UC-Santa Cruz, Student Co-Representative, Physical Oceanography Faculty Search (2005)

**Professional Development**

Faculty Learning Program (2020-2021)

Summer Institute Online/Hybrid Course (2020)

CSUMB Cooperative: Pre-tenure Junior Faculty (2020)  
Elkhorn Slough Symposium (2019)  
Writing Better Research Proposals Workshop, NASA Ames Research Center (2019)  
On the Cutting Edge (NSF) Preparing for an Academic Career in the Geosciences (2008)

**Peer Review**

*Conference Student Posters*  
American Geophysical Union  
Ocean Sciences Meeting

*Journals*

Estuaries & Coasts  
Marine Ecology Progress Series  
Remote Sensing  
Remote Sensing of Environment  
Frontiers in Environmental Science: Freshwater Science  
Frontiers in Environmental Science: Environmental Informatics and Remote Sensing  
Journal of Geophysical Research - Oceans

*Grants*

CSU COAST State Science Information Needs Program (2021)  
CSU COAST Graduate Student Research Awards Program (2020)  
NOAA Davidson Fellowship Program (2020)  
NASA FINESST Program (2020)  
NASA Ecological Forecasting (2016, 2018)  
NASA AmeriGEOSS (2017)  
NSF Biological Oceanography (2016)  
NOAA SeaGrant (2013)

**Scientific Society Memberships**

Sigma Xi  
American Geophysical Union – AGU  
The National Association of Geoscience Teachers – NAGT  
National Marine Educators Association

**Technical Skills**

MATLAB, IDL, R, Python, ENVI image processing software, ArcMAP, QGIS, SeaDAS, Splunk, HydroLight Radiative Transfer Model, 6SV Atmospheric Correction Radiative Transfer Model, instrument package design, construction, and deployment, flight planning for aquatic remote sensing, research cruise planning/logistics

**Hobbies**

Hiking, mountain biking, camping, cheese and yogurt making