

# AMANDA L.J. KNOBLOCH

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## EDUCATION

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- PhD** The College of William & Mary, Chemical Oceanography 2013 – 2019  
*Virginia Institute of Marine Science*  
*Dissertation: “Fluxes, drivers, and composition of carbon exchanged at the Taskinas Creek, VA coastal marsh creek – estuarine interface” | Advisor: Dr. Elizabeth A. Canuel*
- BS** Rutgers, the State University of New Jersey, Marine Science 2009 – 2012  
Minored in Chemistry  
*Dean’s List 2010, 2011*

## PROFESSIONAL POSITIONS

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- Morgan State University’s Patuxent Environmental and Aquatic Research Laboratory (PEARL), St. Leonard, MD** 2019 – Present  
***Environmental Education Coordinator***  
*Development and implementation of educational experiences for students from K-12 schools and undergraduate institutions, including interactive field experiences and virtual learning experiences. Additional responsibilities include managing the undergraduate summer internship program and the development of a new undergraduate degree program in Coastal Science & Policy.*
- The College of William & Mary’s Virginia Institute of Marine Science, Gloucester Point, VA** 2013 – 2019  
***Graduate Research Assistant***  
*Completed field work, laboratory analyses, and data analyses related to graduate research in marine organic biogeochemistry.*
- The College of William & Mary, Williamsburg, VA** 2014 – 2018  
***Teaching Assistant***  
*Collaborated on curriculum with professors, taught lectures on topics within marine science, led recitation sections, and graded written work*
- York High School & Virginia Institute of Marine Science, Yorktown, VA** 2016  
***GK-12/Short Trust Fund Graduate STEM Teaching Fellow***  
*Partnered with a high school teacher to assist and teach concepts in an AP Environmental Science classroom. Designed lesson plans to convey complex marine science topics to middle and high school students.*

## HONORS AND AWARDS

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<b>James Dickson Carr Fellowship</b> <i>Rutgers, the State University of New Jersey</i>	2009-2012
<b>Rouse-Bottom Fellowship</b> <i>Chesapeake Bay National Estuarine Research Reserve</i>	2014
<b>Nancy S. &amp; Henry George Fellowship</b> <i>Virginia Institute of Marine Science</i>	2014
<b>VIMS Council Fellowship</b> <i>Virginia Institute of Marine Science</i>	2015

## MEMBERSHIPS & OFFICES IN PROFESSIONAL ORGANIZATIONS

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**Coastal and Estuarine Research Federation (CERF), Member**  
**Atlantic Estuarine Research Society, Member**  
**Mid-Atlantic Marine Educators Association, Member**

## PARTICIPATION ON NATIONAL AND REGIONAL COMMITTEES, PANELS, AND COMMISSIONS

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<b>National Association of Marine Laboratories</b> Diversity, Equity, and Inclusion (DEI) Committee, <i>Vice Chair</i>	2021 – Present
<b>Chesapeake Bay Program</b> Diversity Workgroup, <i>Member</i>	2020 – Present

## PUBLICATIONS

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### ***Journal Publications***

**Knobloch, ALJ.**, Reay, WG, & Canuel, EA (2021) “Carbon pools differ in source and temporal patterns in a tidal marsh creek system of the York River, VA estuary” *Estuaries and Coasts* 44(7): 1848-1865; doi: 10.1007/s12237-020-00878-y

Carmichael, RH, **Jones\***, **AL**, Patterson, H, Walton, W, Pérez-Huerta, A, Overton, E, Dailey, M, & Willett, K (2012) “Assimilation of oil-derived elements by oysters due to the *Deepwater Horizon* oil spill” *Environmental Science and Technology* 46: 12787-12795; doi: 10.1021/es302369h

*\*Last name changed to Knobloch from Jones in 2012*

### ***Oral Conference Presentations***

Knobloch, ALJ, Brush, MJ, Reay, WG, & Canuel, EA (2018) “Fluxes and sources of dissolved and particulate carbon at the marsh-estuarine interface.” *Chesapeake Research and Modeling Symposium, Annapolis, MD*

Knobloch, ALJ, Canuel, EA, Brush, MJ, Reay, WG, Tzortziou, M., & Neale, PJ (2017) “Dissolved carbon fluxes and composition at the marsh-estuarine interface: Seasonal and tidal patterns.” *Coastal and Estuarine Research Federation Biennial Meeting, Providence, RI*

Knobloch, ALJ, Canuel, EA, Brush, MJ, Neale, PJ, Tzortziou, M., & Reay, WG (2016) “Carbon dynamics at the marsh-estuarine interface.” *York River Research Symposium, Gloucester Point, VA*

### ***Poster Conference Presentations***

Knobloch, ALJ, Canuel, EA, Reay, WG, Neale, PJ, & Tzortziou, M (2017) “The effects of Winter Storm Cato on the composition and flux of carbon at the marsh-estuarine interface.” *Chapman Conference on Extreme Climate Impacts on Aquatic Biogeochemical Cycles and Fluxes, San Juan, Puerto Rico*

Knobloch, ALJ, Canuel, EA, Brush, MJ, Neale, PJ, Tzortziou, M, & Reay, WG (2016) “Carbon dynamics at the marsh-estuarine interface.” *National Estuarine Research Reserve Annual Meeting, Williamsburg, VA*

Knobloch, ALJ, Canuel, EA, Tzortziou, M, Neale, PJ, Brush, MJ, & Reay, WG (2016) “Quantifying carbon fluxes at the marsh-estuarine interface.” *Chesapeake Bay Modeling Symposium, Williamsburg, VA*

Knobloch, ALJ, Canuel, EA, Brush, & Reay, WG (2016) “Carbon dynamics at the marsh-estuarine interface: Tidal, monthly, and seasonal fluxes.” *Coastal and Estuarine Research Federation Biennial Meeting, Portland, OR*

## **RESEARCH AND TEACHING INTERESTS**

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### ***Research Interests***

- Coastal carbon biogeochemistry
  - Marsh and estuarine carbon cycling
  - Geochemical tracers of organic matter (lipid biomarkers, stable isotopes, colored dissolved organic matter)
- STEM Education
  - Increasing diversity in STEM
  - Equitable and inclusive teaching methods

### ***Teaching Interests***

- Coastal and marine science
- Coastal and marine chemistry/chemical oceanography
- Coastal and marine geology
- Organic geochemistry

## COMPETITIVE GRANTS

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*Implementing the USGS National and Regional Climate Adaptation Science Center's Science to Action Fellowship*, Principal Investigator - \$23,500; January 2022 – December 2022  
United States Geological Survey–Chesapeake Watershed Cooperative Ecosystem Studies Unit

*"From the Water to Mouth-Watering" An Educational Video Series Focused on the Maryland Oyster Industry*, Principal Investigator - \$4,810; February 2021 – February 2022  
Chesapeake Bay Trust – Chesapeake Oyster, Education, Technology, and Monitoring Award

Virginia Institute of Marine Science Student Research Grant - \$2,000; received 2014 and 2015

## STUDENT ADVISING

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Joshua Sacks, NSF REU Intern 2017  
(Co-mentored with E. Canuel)

Rebecca Whitney, NSF REU Intern 2016  
(Co-mentored with E. Canuel)

Diana Lutz, NSF REU Intern 2015  
(Co-mentored with E. Canuel)

Kelly Salyer, Virginia Governor's School Marine Science Apprenticeship Program 2014  
(Co-mentored with E. Canuel)

## OUTREACH & PROFESSIONAL SERVICE

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**Calvert County, Maryland**  
Environmental Commission, *Vice Chair* 2020 – Present

## WORK UNDER REVIEW OR IN PROGRESS

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*Manuscripts in progress:*

Knobloch, ALJ, Brush, MJ, Reay, WG, & Canuel, EA. Temporal patterns of import and export of organic and inorganic carbon at the marsh creek estuarine interface.

Knobloch, ALJ, Neale, PJ, Tzortziou, M, & Canuel, EA. Seasonal and tidal controls of the quantity and quality of dissolved organic matter at the marsh creek-estuarine interface

Knobloch, ALJ, & Canuel, EA. Particulate organic matter composition at the marsh creek estuarine interface.