

# CHRISTINE M. KNAUSS

## EDUCATION

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University of Maryland Center for Environmental Science (UMCES) May 2015-Dec. 2020  
**Doctor of Philosophy**, Environmental Chemistry, Marine Estuarine Environmental Science program (MEES)  
Dissertation: Developing novel identification and manufacturing methods to assess the effects of microplastic ingestion on Eastern Oyster larvae  
Advisors: Dr. Jeffrey Cornwell, Ph.D and Dr. Alba Torrents, Ph.D

University of Maryland, College Park Aug. 2009-May 2014  
**Bachelor of Science**, Chemistry and Biology, dual majors; Honors Humanities Citation

## RESEARCH EXPERIENCE

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UMCES Horn Point Lab (HPL) *Graduate Research Assistant* Aug. 2015-Present

- Independently plan, design, and conduct 4 original research projects examining the physiological effects of microplastics on oyster larvae (respiration, clearance, growth, and carbon assimilation rates)
- Innovate a novel method to create microfibers for laboratory exposure experiments
- Develop an efficient and effective method for identifying microplastics in environmental samples using polarized light microscopy
- Maintain broodstock, spawn broodstock, rear larvae and culture phytoplankton

UMCES, *Oyster Hatchery Intern* Sept. 2014-Dec. 2014

- Conducted experiments to optimize the growing conditions of *C. muelleri* to feed oyster larvae efficiently
- Built and planned 10 activities for annual open house in a team of 9 hatchery staff

University of Maryland, Biology Department, *Research Assistant* Jun. 2013-Dec. 2013

- Conducted experiments independently with *C. elegans* nematodes and the toughness of their cuticles
- Maintained nematode populations by making plates, transferring animals, and cleaning lab space

## EXTRACURRICULAR EXPERIENCE

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UMCES Graduate Student Council, *Co-Chair* Jul. 2018-Present

- Co-chair for program (MEES) and institution-wide (UMCES) student councils
- UMCES representative for University System of Maryland Student Council
- Member of University System academic integrity working group, UMCES institution reaccreditation working group, hiring committee for UMCES VP of Strategic Initiatives
- HPL representative to UMCES Student Council
- Connect and communicate between administration, faculty, and graduate students at all campuses

UMCES HPL, *Campus Tour Guide* Apr. 2019-Present

- Guide groups of visitors of all ages through campus lab spaces and displays
- Teach visitors about the range of scientific research occurring on campus and my research

University of Maryland, *Varsity Field Hockey Director of Operations* Sept. 2015-Dec. 2015

- Organized 9 student athlete official visits, a 30-team golf tournament fundraiser, and end-of-season banquet
- Supported coaching staff by managing away-trip meals, equipment, and other tasks

## PUBLICATIONS

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Woodruff GC, **Knauss CM**, Mangel TK, Haag ES. Mating damages the cuticle of *C. elegans* hermaphrodites. PLoS ONE. 2014 9(8): e104456. doi: 10.1371/journal.pone.0104456

## PRESENTATIONS

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- Knauss CM.** Physiological responses of *Crassostrea virginica* larvae exposed to microplastics. National Council for Science and the Environment and the Embassy of France in the US, Le Mans, France, November 2019. *Invited oral*
- Knauss CM, Goodwin J, Malkin S, Thompson C, North E.** Polarized light promising in identifying microplastic pollution. Coastal and Estuarine Research Federation Biennial Conference, Mobile, AL, November 2019. *Poster*
- Knauss CM.** Physiological responses of *Crassostrea virginica* larvae exposed to microplastics. Scientific and Technical Advisory Committee, Woodbridge, VA, April 2019. *Invited oral*
- Knauss CM.** Ecological risks of microplastics to the environment. University of Maryland, College Park, MD, April 2019. *Invited oral*
- Knauss CM, McFarland K, Cornwell, JC.** Physiological responses of *Crassostrea virginica* larvae exposed to microplastics. MICRO2018, Lanzarote, Spain, November 2018. *Oral*
- Knauss CM.** Plastic pollution in the oceans. Garrison Forest School, Baltimore, MD, November 2018. *Invited oral*
- Knauss CM, Yonkos LT, Meritt D.** The effects of food and microplastic availability on the uptake of polystyrene microbeads in Eastern Oyster larvae. 6th International Marine Debris Conference, San Diego, CA, March 2018. *Poster*
- Knauss CM.** The effects of microplastic pollution on *Crassostrea virginica* larvae in the Chesapeake Bay. University of Maryland Center for Environmental Science, HPL, Cambridge, MD, July 2017. *Oral*
- Trommutter J, Meritt D, Guy L, **Knauss CM.** What effects does pH have on the growth of *Tetraselmis chui* (PLY429)? National Shellfisheries Association Annual Conference, Charleston, SC, December 2014. *Poster*

## AWARDS

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### Academic

Cooperative Institute for the North Atlantic Region (CINAR) Scholarship, \$2500	2018
UMCES Horn Point Lab Travel Award, \$800	2018
University of Maryland Dean's Fellowship, \$1000	2015, 2016, 2017
Isaak Walton League of America Scholarship, \$2000	2017

### Athletic

NCAA Division I Field Hockey Student Athlete	2009-2014
• National Champion	2010, 2011
• National runner up	2009, 2012, 2013
• Atlantic Coast Conference Champion	2009, 2010, 2013
Academic Athlete Scholar Award	2011, 2012, 2013, 2014
Academic Achievement Award	2014

## AFFILIATIONS

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Member, Coastal & Estuaries Research Federation  
Member, National Shellfisheries Association  
Member, Society for Women in Marine Science, Horn Point Lab Chapter  
Ambassador, 4Ocean