Jaclyn Torkelson, Ph.D.

Department of Chemistry, Trinity College
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Education

2023 Ph.D.	Environmental Chemistry, State University of New York College of Environmental Science and Forestry (SUNY ESF) Dissertation: *Biogeochemical cycling of particulate matter on coral reefs* Advisor: Dr. Mark Teece
2018 B.S.	Chemistry (ACS), Northern Arizona University
2018 B.S.	Environmental Science Northern Arizona University

Professional Positions

2023-Present	Visiting Assistant Professor, Department of Chemistry, Trinity College
2018-2023	Graduate Research Assistant, Dr. Mark Teece Lab, Department of Chemistry, SUNY ESF
2018-2023	Teaching Assistant, Survey of Chemical Principles and General Chemistry, Department of Chemistry, SUNY ESF
2020-2022	Tutor, General Chemistry, Educational Opportunity Program, SUNY ESF
2022	Adjunct Faculty, Intro Chemistry and General Chemistry Lab, Department of Chemistry and Physical Sciences, Onondaga Community College
2021	Teaching Assistant, Biology, Ecology, and Conservation of Coral Reefs, Department of Conservation Biology, SUNY ESF
2020	Intern, Ocean Acidification Program, Mote Marine Laboratories
2017-2018	Teaching Assistant, Analytical Chemistry, Department of Chemistry, Northern Arizona University
2016-2018	Undergraduate Research Assistant, Dr. Jani Ingram Lab, Department of Chemistry, Northern Arizona University

Research Experience and Interests

Current Research

Interests: lipid chemistry, organic matter fate and transport, coastal ecosystems, marine disease, coral metabolites, organic geochemistry

2018-2023	**Graduate Research** Advisor: Dr. Mark Teece Project: Biogeochemical cycling of particulate matter on coral reefs

2016-2018 **Undergraduate Research**
Advisor: Dr. Jani Ingram
Project: Trace metal quantification of unregulated water sources on the Navajo Nation

Teaching Experience

Trinity College, Hartford, CT
Introductory Chemistry I Lab and Lecture
Introductory Chemistry II Lab and Lecture
SUNY ESF, Syracuse, NY
Survey of Chemical Principles Lab and Lecture, Teaching Assistant
General Chemistry II Lecture, Teaching Assistant
Northern Arizona University, Flagstaff, AZ
Analytical Chemistry Lab and Lecture, Teaching Assistant

Guest Lectures

Introduction to Acids and Bases, General Chemistry, SUNY ESF
Equilibrium Calculations, General Chemistry, SUNY ESF
Le Chatelier's Principle, General Chemistry, SUNY ESF
Colligative Properties of Solutions, General Chemistry, SUNY ESF
Introduction to Thermodynamics, General Chemistry, SUNY ESF
Sediment and Scleractinia, Coral Reefs, SUNY ESF
Sediment on Coral Reefs, Marine Ecology, SUNY ESF
Marine Sediments and Paleoceanography, Oceanography, SUNY ESF

Honors and Awards

2022	Alumni Memorial Scholarship
2019, 2021, 2022	Outstanding Graduate Teaching Assistant
2018	Senior Research Award
2017	Earle B. Hoyte Chemistry Scholarship

Service and Outreach Activities

2022-Present	Corresponding Scientist, Skype a Scientist
2022-Present	Writer and Podcast Editor, Oceanbites
2021-2023	Graduate Representative, Student Conduct Board, SUNY ESF
2020-2023	Member, Future Professoriate Program
2021-2022	Coordinator, Graduate Women in Science Seminar Committee
2022	Participant, Healthy Ocean Advocacy Academy
2020-2022	Vice President of Research, Graduate Student Association, SUNY ESF
2020-2022	Chair, Chemistry Department Graduate Seminar Committee, SUNY ESF
2019-2021	Mentor, Graduate Peer Mentor Program, SUNY ESF
2019-2020	Department Representative, Graduate Student Association, SUNY ESF

Posters and Presentations

Torkelson, J., Teece M., "Sources and sinks of organic matter and trace metals in the surface sediment of coastal ecosystems", American Chemical Society Northeast Regional Meeting, October 2-5, 2022, Rochester, NY.

Torkelson, J., Teece M., "Zooplankton fecal pellets as the primary driver of settling particles in reef systems", Ocean Science Meeting, February 24-March 4, 2022, Virtual.

Torkelson, J., Teece M., "Zooplankton fecal pellets as the primary driver of settling particles in reef systems", American Geophysical Union Fall 2021 Meeting, December 13-17, 2021, New Orleans, LA.

Torkelson, J., Teece M., "Sources of sinking particulate organic matter in coral reef ecosystems", Graduate Women in Science, June 10-12, 2021, Virtual.

Torkelson, J., Mackenzie Simmonds, Jonathon Credo, and Dr. Jani C. Ingram, "Trace Metal Quantification in Unregulated Water Sources on the Navajo Reservation", 1st Annual Student Water Symposium at Northern Arizona University, April 19-20, 2018, Flagstaff, Arizona.

Torkelson, J., Mackenzie Simmonds, Jonathon Credo, and Dr. Jani C. Ingram, "Trace Metal Quantification in Unregulated Water Sources on the Navajo Reservation", Undergraduate Research and Design Symposium at Northern Arizona University, April 27, 2018, Flagstaff, Arizona.

Torkelson, J., Mackenzie Simmonds, Jonathon Credo, and Dr. Jani C. Ingram, "Trace Metal Quantification in Unregulated Water Sources on the Navajo Reservation", American Chemical Society Spring Meeting, March 18-22, 2018, New Orleans, LA.

Torkelson, J., Mackenzie Simmonds, Jonathon Credo, and Dr. Jani C. Ingram, "Trace Metal Quantification in Unregulated Water Sources on the Navajo Reservation", Arizona Hydrological Society, September 19-21, 2017 Flagstaff, Arizona.

Torkelson, J., Mackenzie Simmonds, Jonathon Credo, and Dr. Jani C. Ingram, "Trace Metal Quantification in Unregulated Water Sources on the Navajo Reservation", Undergraduate Research and Design Symposium at Northern Arizona University, April 28, 2017, Flagstaff, Arizona.

Publications

Torkelson, Jaclyn; Crandall, Jesse; Teece, Mark A. *Zooplankton derived organic matter as a food source for benthic coral.* Under review at the Journal of Experimental Marine Biology and Ecology.

Torkelson, Jaclyn; Teece, Mark A. *Cycling of organic matter and trace metals in nearshore coastal ecosystem sediments.* Under Review at Estuarine, Coastal and Shelf Science.

Torkelson, Jaclyn; Klinges, Grace; Muller, Erinn; Teece, Mark A. *Stony coral tissue loss disease does not alter lipid sedimentary signature.* In preparation.

Torkelson, Jaclyn; Testa, Jeremy; Teece, Mark A. *A dynamic energy budget for coral-Symbiodinium symbiosis with particulate matter input.* In preparation.

Lankes, Johann David; Quasunella, Amanda; Leingang, Paul; Page, Heather; Nowicki, Robert; Hall, Emily; Lemaire, Clöe; Torkelson, Jaclyn; Blasius, Lillia. *Quantifying the effects of Sargassum algae blooms on Acropora cervicornis growth and chlorophyll fluorescence in future ocean acidification scenarios.* In preparation.

Credo, Jonathan, Torkelson, Jaclyn, Rock, Tommy, & Ingram, Jani C. (2019). *Quantification of Elemental Contaminants in Unregulated Water across Western Navajo Nation*. International Journal of Environmental Research and Public Health, 16(15). https://doi.org/10.3390/ijerph16152727