

Jaclyn Torkelson, Ph.D.

Department of Chemistry, Trinity College
300 Summit St., Hartford, CT 06106

jaclyn.torkelson@trincoll.edu

jaclyntorkelson.com

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, Cl  ; 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>