

Diana N. Fontaine

University of Rhode Island ▫ Graduate School of Oceanography ▫ Narragansett, RI 02882
fontained@uri.edu

Education

University of Rhode Island – Graduate School of Oceanography	Narragansett, RI
Ph.D. student: Biological Oceanography	August 2018 – May 2023
Major advisor: Dr. Tatiana Rynearson	(expected)
Dissertation: Interannual variability of phytoplankton community composition and productivity	
University of San Diego	May 2016
B.A., Marine Science, Minor in History, <i>Magna Cum Laude</i>	
Study Abroad: Art History, Florence University of the Arts	January 2014
Senior Honors Thesis: Temporal and Spatial Patterns of Barnacle Settlement within the Southern, CA Rocky Intertidal (PI: Dr. Nathalie Reyns)	

Research Experience

URI-GSO	Narragansett, RI
Graduate Research Assistant	August 2018–Present
Use molecular techniques to study how environmental stressors affect phytoplankton community composition and primary productivity at the Northeast US Shelf LTER Site and in Narragansett Bay.	
Supervisor: Dr. Tatiana Rynearson	

Smithsonian Environmental Research Center (SERC)	Edgewater, MD
Biological Science Technician, Marine Invasions Laboratory	2016 – 2018
Conducted research as a plankton analyst in conjunction with the Maritime Environmental Resource Center to test Ballast Water (BW) management systems both on land and on vessels. Performed domestic and international shipboard BW management compliance testing in accordance with USCG regulations.	
Supervisor: Dr. Greg Ruiz	

University of San Diego	San Diego, CA
Undergraduate Research Assistant	2014 – 2016
Worked on an NSF-funded research project (OCE-1357290 and OCE-1357327) that examined how physical oceanographic processes influence barnacle larval transport from offshore to the rocky intertidal. Sampling involved both collecting larval samples from coastal waters and settlement plates from the rocky intertidal.	
Supervisor: Dr. Nathalie Reyns	

Publications

Soler-Figueroa, B.M., **Fontaine, D.N.**, Carney, K.J., Ruiz, G.M., Tamburri, M.N., 2020. Characteristics of global port phytoplankton and implications for current ballast water regulations. *Marine Pollution Bulletin* 155, 111165. <https://doi.org/10.1016/j.marpolbul.2020.111165>

Rynearson, T.A., Flickinger, S.A., **Fontaine, D.N.**, 2020. Metabarcoding Reveals Temporal Patterns of Community Composition and Realized Thermal Niches of *Thalassiosira* Spp. (Bacillariophyceae) from the Narragansett Bay Long-Term Plankton Time Series. *Biology* 9, 19. <https://doi.org/10.3390/biology9010019>

Batista, W.R., Fernandes, F.C., Neves, M.H.C.B., Nascimento, T.S., Lopes, R.S.C., Lopes, C.C., Ziegler, G.P., Soler-Figueroa, B.M., Sparks, D., **Fontaine, D.N.**, Carney, K.J., Quiñones-Oquendo, L.E., Ruiz, G.M., 2018. Synthetic lipids as a biocide candidate for disinfection of

ballast water. *Marine Pollution Bulletin* 137, 702–710.
<https://doi.org/10.1016/j.marpolbul.2018.11.018>

Presentations

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- Fontaine, D.** 2019. “Hitchhikers of the sea: Catching a ride across an ocean basin.” *Bay Informed Discussion Series*. URI-Graduate School of Oceanography, Narragansett, RI. *Talk*.
- Fontaine D., Santos, N., Turner K.** 2019. “Investigating the role of nutrients on phytoplankton community composition in Narragansett Bay, RI.” Chemical Oceanography Symposium, URI-Graduate School of Oceanography, Narragansett, RI. *Talk*.
- Fontaine D., Turner, K., Hooks, B.** 2019. “Dinocyst-based reconstructions of Arctic sea ice and SST over The past 6000 years: Comparison to modern trends. Geological Oceanography Research Symposium, URI-Graduate School of Oceanography, Narragansett, RI. *Poster*.
- Fontaine, D., Hauer, M., Gardiner, C.** 2018. “Melting sea ice and ocean production: Implications for carbon cycling in the Arctic.” Biological Oceanography Poster Symposium, URI-Graduate School of Oceanography, Narragansett, RI. *Poster*.
- Fontaine, D., Reyns, N., Pineda, J., Lenz, S., Hargenrader, C.** 2016. Temporal and Spatial Patterns of Barnacles Settlement within the Southern, CA Rocky Intertidal. *Benthic Ecology Meeting*. Portland, ME. *Poster*.
- Fontaine, D., Reyns, N., Pineda, J., Lenz, S., Hargenrader, C.** 2016. Temporal and Spatial Patterns of Barnacle Settlement within the Southern, CA Rocky Intertidal. *Creative Collaborations Undergraduate Research Conference*, University of San Diego, San Diego, CA. *Poster*.
- Fontaine, D., Reyns, N.** 2015. Settlement of Barnacle Larvae within the Southern California Rocky Intertidal. *Creative Collaborations Undergraduate Research Conference*, University of San Diego, San Diego, CA. *Poster*.

Research Grants and Awards

Grants

Lawrence Hinman Honors Research Grant	2016
Office of Undergraduate Research Grant	2016

Awards

Ann Durbin Memorial Fund Award	2019
Alcalá Scholarship	2012 – 2016
Merit based academic scholarship for 4 years (\$20,000/year)	
Alcalá 100	2016

Mentorship

Hailey Millet, undergraduate student, University of Rhode Island.	September 2019 – Present
Lydia Núñez Rosario, undergraduate student, Ana G. Mendez University, Puerto Rico	Summer 2019
Tyla Morin, high school student, MET School, Providence, RI	2018 – 2019

Synergistic Activities

Writing:

Editor-In-Chief, <i>Oceanbites</i>	August 2020 – Present
Manage team of 30 authors and our WordPress site, hold monthly leadership meetings to advance <i>Oceanbites</i> ’ mission and collaborate with undergraduate professors to bring	

science communication into the classroom.

Author, *Oceanbites* November 2018 – Present
Write blog articles once per month about recent oceanographic research and edit other authors' posts.
Participant, "Developing Confidence in the Writing Process" Workshop, URI January 2021
Participant, "Effective Writing Habits" Workshop (Dr. Austin Jackson, Brown University) July 2020
Coursework, "Graduate Writing in the Life Sciences" Class (Dr. Madison Jones, URI) Fall 2020
Pen-pal, Letters to a Pre-Scientist Program September 2019 – May 2020

Science Engagement:

URI Office of Marine Programs

Outreach scientist, Narragansett Bay Classroom March 2019 – Present
Virtual field trip presenter of "Marine Food Webs" June 2020
Content reviewer for 4th grade science material May 2020

Judge, Data Jam for middle and high schoolers

March 2019, 2020

Letters to a Pre-Scientist pen pal

September 2019 – Present

Bay Informed Discussion Series

Presenter, "Hitchhikers of the sea: Catching a ride across an ocean" June 2019
Presenter, "Life Aboard the *R/V Endeavor*" April 2020

Author, *Oceanbites* blog

November 2018 – Present

URI-GSO Open House exhibitor and tour guide

October 2018

Women in Science Day at Mystic Aquarium exhibitor

August 2018

SERC Citizen Science educator

June 2016 – April 2018

Leadership:

Society for Women in Marine Science

February 2019 – Present

Co-president, URI Chapter

Chowder & Marching Student Society

June 2019 – June 2020

Communication/Outreach Chair

Social Media Coordinator, *Oceanbites* blog

June 2019 – Present

Research Cruise and Field Work Experience

R/V Endeavor – EN627 Quonset, RI – Narragansett, RI
PI: Heidi Sosik, NES-LTER Winter Transect Cruise. February 1, 2019 – February 6, 2019 (6 days)
R/V Endeavor – EN644 Narragansett, RI – Narragansett, RI
PI: Heidi Sosik, NES-LTER Summer Transect Cruise. August 19, 2019 – August 24, 2019 (6 days)
R/V Armstrong – AR39 Woods Hole, MA – Woods Hole, MA
PI: Sheri White, OOI Pioneer 13 October 5, 2019 – October 9, 2019 (5 days)
R/V Endeavor – EN649 Narragansett, RI – Narragansett, RI
PI: Heidi Sosik, NES-LTER Winter Transect Cruise. February 1, 2020 – February 6, 2020 (6 days)
Nearshore larval transport: physical and biological processes San Diego, CA
PI: Nathalie Reyns May 2014 – May 2016
Daily collection of settlement plates from the rocky intertidal to examine barnacle settlement dynamics.
Collected more than 6,000 settlement plates from the rocky intertidal over two years.

Skills

Computer Software – Microsoft Office, Linux/Unix systems, R, Wordpress, ArcGIS