

# Tyler J. O'Keefe

Ph.D. Student – Fodrie Lab

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## Education

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- 2021 – **University of North Carolina at Chapel Hill**, Chapel Hill, NC  
Ph.D. Student in Marine Sciences  
Advisor: F. Joel Fodrie
- 2014 – 2018 **Carleton College**, Northfield, MN  
B.A Biology (Honors), **GPA: 3.50**  
Senior Thesis: Effects of Fe-P co-limitation of N<sub>2</sub>-fixation on *Trichodesmium* physiology and implications of global change phenomena on this biochemical balance

## Grants and Fellowships

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- 2021 Robert and Ardis James Foundation Graduate Research Award (\$175,000)

## Research Experience

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- 2018 – 2021 **Research Support Associate – Chisholm Laboratory**, Massachusetts Institute of Technology, Cambridge, MA
- 2018 **Lab Assistant**, Woodwell Climate Research Center, Falmouth, MA
- 2017 **Ecology, Evolution and Conservation Research Extern**, University of Minnesota Monarch Lab, St. Paul, MN
- 2017 **Ecology in Australia – Off Campus Study Program**, Queensland and New South Wales, Australia
- 2016 **Aquatic Invasive Species (AIS) Intern**, Washburn County Land and Water Conservation, Shell Lake, WI

## Publications

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[https://scholar.google.com/citations?view\\_op=list\\_works&hl=en&hl=en&user=l2RppyQAAAAJ](https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=l2RppyQAAAAJ)

Berube, P., **O'Keefe T.J.**, Rasmussen A.N., and Chisholm, S.W. Production and cross-feeding of nitrite within *Prochlorococcus* populations. (Submitted).

<https://doi.org/10.1101/2021.12.31.474641>

Coe, A., Biller, S.J., Thomas, E., Boulias, K., Bliem, C., Arellano, A., Dooley, K., Rasmussen, A.N., LeGault, K., **O'Keefe, T.J.**, Stover, S., Greer, E.L. and Chisholm, S.W. (2021), Coping with darkness: The adaptive response of marine picocyanobacteria to repeated light energy deprivation. *Limnol Oceanogr.* <https://doi.org/10.1002/lno.11880>

## In preparation/submitted

Braakman, R., Satinsky B., Longnecker K., Becker J.W., **O'Keefe T.J.**, Dooley K., Hogle S., Arellano A., Kido Soule M.C., Kujawinski E.B., and Chisholm S.W. Niche partitioning of nucleotide cross-feeding among ocean microbes. (In preparation).

Braakman, R., O'Keefe T.J., Longnecker K., Berube P., Kido Soule M.C., Kujawinski E.B., and Chisholm S.W. Metabolic dynamics of nitrogen stress in *Prochlorococcus* and *Synechococcus*. (In preparation).

### ***Teaching Experience***

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2021 – 2022 **Fundamentals in Ecology**, University of North Carolina Chapel Hill, *Teaching Assistant* (Fall 2021, Spring 2022)  
 2018 **Behavioral Ecology**, Carleton College, *Course Prefect* (Winter 2018)  
 2017 **Global Change Biology**, Carleton College, *Course Prefect* (Fall 2017)

### ***Awards, Distinctions, and Professional Societies***

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2020 – Association for the Sciences of Limnology and Oceanography  
 2020 NSF GRFP Honorable Mention  
 2018 Distinction – Senior Thesis in Biology  
 2018 National Football Foundation (NFF) Hampshire Honor Society

### ***Science Outreach and Volunteer Efforts***

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2019, 2020 **Science Judge**, National Ocean Sciences Bowl (NOSB) – Blue Lobster Bowl  
 2019 **Volunteer**, MIT Civil and Environmental Engineering Kids Camp  
 2019 **Science Judge**, National Ocean Sciences Bowl (NOSB) – Blue Lobster Bowl  
 2017 **Volunteer**, University of Minnesota Monarch Lab Ecology Fair  
 2015, 2016 **Volunteer**, Greenvale Elementary School Science Night