

Nicholas Baetge

PhD Candidate

Education

- 2014–2021 **Ph.D.**, *Ecology, Evolution and Marine Biology*, UC Santa Barbara.
(expected)
 - **Accumulation, bioavailability, and fate of dissolved organic carbon in the Northwest Atlantic**
 - PI: Craig Carlson
- 2009–2013 **B.S. with Distinction**, *Ecology, Evolution and Marine Biology*, UC Santa Barbara.
 - **Mucosal microbial assemblages of wild and cultured intertidal finfish**
 - PI: Peter Collins and Craig Carlson

Grants

- 2017 **ACIDD: Across the Channel, Investigating Diel Dynamics**, *UC Santa Barbara Coastal Fund*.
 - \$12,000.00
- 2017 **ACIDD: Across the Channel, Investigating Diel Dynamics**, *UC Ship Funds*.
 - \$240,000.00
- 2017 **Sydney L Wright Fellowship**, *Bermuda Institute of Ocean Sciences*.
 - \$960.00
- 2013 **Growth, bacterial resilience, and mucosal microbial assemblages of wild and cultured intertidal finfish along the California coast**, *UC Santa Barbara Coastal Fund*.
 - \$3,500.00

Awards and Honors

- 2014 US Congressional Antarctic Service Medal.
- 2013 Leal Ann Kerry Mertes Scholarship. UC Santa Barbara Geography
- 2012 Undergraduate Research and Creative Activities Award. UC Santa Barbara
- 2011 Undergraduate Research and Creative Activities Award. UC Santa Barbara

Publications

UC Santa Barbara, IGP-Marine Science

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- in review **Role of Sea Surface Microlayer Properties in Cloud Formation**, *Hendrickson, B., Brooks, S., Thornton, D., Moore, R., Crosbie, E., Ziemba, L., Carlson, C., Baetge, N., Mirrielees, J., and Alsante, A*, *Frontiers in Marine Science*.
- in review **Stable isotope probing identifies bacterioplankton lineages capable of utilizing dissolved organic matter across a range of bioavailability**, *Liu, S., Baetge, N., Comstock, J., Opalk, K., Parsons, R., Halewood, E., English, C., Giovannoni, S., Bolanos, L., Nelson, C., Vergin, K., Carlson, C*, *Frontiers in Marine Science*.
- in press **Seasonal Differences and Variability of Concentrations, Chemical Composition, and Cloud Condensation Nuclei of Marine Aerosol over the North Atlantic**, *Saliba, G., Chen, C., Lewis, S., Russell, L., Quinn, P., Bates, T., Bell, T., Lawler, M., Saltzman, E., Sanchez, K., Moore, R., Shook, M., Rivellini, L., Lee, A., Baetge, N., Carlson, C., Behrenfeld, M*, *JGR Atmospheres*.
- in prep **Seasonal Regulation and Fate of Dissolved Organic Carbon Accumulation in the Northwest Atlantic**, *Baetge, N., Carlson, C., et al.*
- in prep **Seasonality of the microbial community composition in the western North Atlantic**, *Bolaños, L., Choi, C.J., Worden, A., Baetge, N., Carlson, C., Giovannoni, S.*
- in prep **Physiological state, virus infection, and mixing dynamics contextualize phytoplankton accumulation and loss in the North Atlantic**, *Diaz, B., Knowles, B., Johns, C., Laber, C., Bondoc, K.G.V., Harvey, E., Lowenstein, D., Fredricks, H., Hunter, J., Haramaty, L., Natale, F., Graff, J., Haentjens, N., Baetge, N., Mojica, K., Gaube, P., Boss, E., Carlson, C., Behrenfeld, M., Van Mooy, B., and Bidle, K.*
- 2020 **Net Community Production, Dissolved Organic Carbon Accumulation, and Vertical Export in the Western North Atlantic**, *N Baetge, JR Graff, MJ Behrenfeld, CA Carlson*, *Frontiers in Marine Science*.
- 2020 **California Wildfire Burns Boundaries Between Science and Art**, *KM Bisson, N Baetge, SJ Kramer, D Catlett, G Girling, H McNair, ...*, *Oceanography*.
- 2020 **Different carboxyl-rich alicyclic molecules proxy compounds select distinct bacterioplankton for oxidation of dissolved organic matter in the mesopelagic Sargasso Sea**, *S Liu, R Parsons, K Opalk, N Baetge, S Giovannoni, LM Bolaños, ...*, *Limnology and Oceanography*.

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- 2019 **The North Atlantic aerosol and marine ecosystem study (NAAMES): science motive and mission overview**, *MJ Behrenfeld, RH Moore, CA Hostetler, J Graff, P Gaube, LM Russell, ...*, *Frontiers in Marine Science*.
- 2019 **Factors driving the seasonal and hourly variability of sea-spray aerosol number in the North Atlantic**, *G Saliba, CL Chen, S Lewis, LM Russell, LH Rivellini, AKY Lee, PK Quinn, ...*, *Proceedings of the National Academy of Sciences*.

Presentations

Research Talks

- Nov 2019 **Net community production, dissolved organic carbon and export in the Western North Atlantic**, *ERI BGS Seminar*, UC Santa Barbara, CA.
- Jun 2019 **DOM accumulation driven by ecosystem state**, *NAAMES All-Scientists Meeting*, NASA LaRC, VA.
- Jan 2019 **ROAM-ing on ACIDD**, *GEOG 264 Seminar*, UC Santa Barbara, CA.
- Jun 2018 **DOC bioavailability, bacterial production and carbon demand**, *NAAMES All-Scientists Meeting*, Oregon State University, OR.
- Feb 2018 **DOC bioavailability and evidence of priming effect in the western North Atlantic**, *American Geophysical Union Ocean Sciences Meeting*, Portland, OR.
- Feb 2017 **Estimating DOC bioavailability with marine bioreactors**, *American Society for Limnology and Oceanography Aquatic Science Meeting*, Honolulu, HI.

Posters

- Feb 2020 **Dissolved organic carbon accumulation and export potential in the Western North Atlantic**, *American Geophysical Union Ocean Sciences Meeting*, San Diego, CA.
- Jun 2018 **Daily rhythms disrupted: the effects of Thomas Fire ash on biogeochemical cycles in the Santa Barbara Channel**, *Coastal Fund Gala*, UC Santa Barbara, CA.
- Jun 2018 **Bacterial remineralization of DOM**, *NAAMES All-Scientists Meeting*, Oregon State University, OR.

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- May 2017 **Bacterial carbon and growth efficiencies in the North Atlantic**,
NAAMES All-Scientists Meeting, NASA LaRC, VA.
- Oct 2016 **Bioavailability and fate of DOM**, *NAAMES All-Scientists Meeting*, Oregon
State University, OR.
- Oct 2015 **NAAMES DOM dynamics, characterization, and bioavailability**,
NAAMES All-Scientists Meeting, NASA LaRC, VA.

Teaching Experience

- 2019 **Marine Microbiology Laboratory (EEMB 144L) TA**, UC Santa Barbara.
- 2018 **Marine Microbiology Laboratory (EEMB 144L) TA**, UC Santa Barbara.
- 2015 **Introductory Biology Laboratory (EEMB 3L) TA**, UC Santa
Barbara.

Mentorship

- 2018–2019 **Ruby Korpics**, UC Santa Barbara.

Cruise Experience

- 2018 **NAAMES**, *R/V Atlantis*, 26 days.
- 2017 **BIOS-SCOPE**, *R/V Atlantic Explorer*, 4 days.
- 2017 **NAAMES**, *R/V Atlantis*, 26 days.
- 2017 **ACIDD**, *R/V Sally Ride*, 7 days.
- 2016 **NAAMES**, *R/V Atlantis*, 26 days.
- 2016 **BIOS-SCOPE**, *R/V Atlantic Explorer*, 4 days.
- 2014 **CLIVAR P16S**, *R/V Nathaniel B. Palmer*, 46 days.
- 2014 **MCR-LTER**, *R/V Kilo Moana*, 11 days.
- 2013 **BIOS**, *R/V Atlantic Explorer*, 2 days.

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Service

2020– Present **Tutor the Future**, Santa Barbara.

2020– Present **IGPMS DEI Working Group**, UC Santa Barbara.

2019 **Sacramento Graduate Research Day Delegate**, UC Santa Barbara.

2016–2018 **EEMB/IGPMS Graduate Student Advisory Committee**, UC Santa Barbara.

2016–2017 **Marine Science Seminar Coordinator**, UC Santa Barbara.

2014–2017 **IGPMS Social Chair**, UC Santa Barbara.

Manuscript Reviews

- Science Advances (1)
- Aquatic Microbial Ecology (1)
- ISME (1)

Professional Development

2013 **Microbial Oceanography Summer Course**. Bermuda Institute of Ocean Sciences

2013–2014 **Junior Research Specialist**. UC Santa Barbara

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