

Nicholas Baetge

PhD Candidate, Marine Science

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. \$12K
- 2017 ACIDD: Across the Channel, Investigating Diel Dynamics. UC Ship Funds. \$240K
- 2017 Sydney L Wright Fellowship. Bermuda Institute of Ocean Sciences. \$960
- 2013 Growth, bacterial resilience, and mucosal microbial assemblages of wild and cultured intertidal finfish along the California coast. UC Santa Barbara Coastal Fund. \$3.5K

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

- in review **Seasonal mixed layer dynamics shape phytoplankton physiology, viral infection, and accumulation in the North Atlantic**, Diaz, B., Knowles, B., Johns, C., Laber, C., Bondoc, K.G.V, Harvey, E., Lowenstein, D., Fredricks, H., Haramaty, L., Natale, F., Graff, J., Westberry, T., Haentjens, N., Baetge, N., Mojica, K., Gaube, P., Boss, E., Carlson, C., Behrenfeld, M., Van Mooy, B., and Bidle, K, Nature Communications. .

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- in press **Seasonality of the microbial community composition in the western North Atlantic**, *Bolaños, L., Choi, C.J., Worden, A., Baetge, N., Carlson, C., Giovannoni, S*, *Frontiers in Marine Science*. .
- in prep **Seasonal Regulation and Fate of Dissolved Organic Carbon Accumulation in the Northwest Atlantic**, *Baetge, N., Carlson, C., et al*, . .
- 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*. 65 (7), 1532-1553.
- 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*. 7, 227.
- 2020 **Seasonal Differences and Variability of Concentrations, Chemical Composition, and Cloud Condensation Nuclei of Marine Aerosol over the North Atlantic**, *G Saliba, CL Chen, S Lewis, LM Russell, PK Quinn, TS Bates, TG Bell, ...*, *Journal of Geophysical Research: Atmospheres*. 125 (19).
- 2020 **California Wildfire Burns Boundaries Between Science and Art**, *KM Bisson, N Baetge, SJ Kramer, D Catlett, G Girling, H McNair, ...*, *Oceanography*. 33 (1), 16-19.
- 2020 **Role of Sea Surface Microlayer Properties in Cloud Formation**, *BN Hendrickson, SD Brooks, DCO Thornton, RH Moore, E Crosbie, ...*, *Frontiers in Marine Science*. 7, 1231.
- 2020 **Stable isotope probing identifies bacterioplankton lineages capable of utilizing dissolved organic matter across a range of bioavailability**, *S Liu, N Baetge, J Comstock, K Opalk, RJ Parsons, E Halewood, ...*, *Frontiers in Microbiology*. 11, 2364.
- 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*. 6, 122.
- 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*. 116 (41), 20309-20314.

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Presentations

Selected 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.

Selected 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.
- 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.

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Teaching Experience

- 2018–2020 Marine Microbiology Laboratory (EEMB 144L) TA. UC Santa Barbara
2015–2016 Introductionary 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, Chief Scientist. 6 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

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
2019 Ocean Portal Marine Microbes Contributor. Smithsonian Institution
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
2020 Personal Survival Techniques (TRAINRL-363). Training Resources Maritime Institute

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