

BRYNDAN PAIGE DURHAM

Department of Biology, Genetics Institute
University of Florida
Gainesville, FL 32610

phone: (352) 294-6312; email: b.durham@ufl.edu

EDUCATION

Ph.D., Microbiology, University of Georgia
Advisor, Mary Ann Moran, 2008 – 2014

B.S., Biological Science, Virginia Polytechnic Institute and State University
Microbiology emphasis, Minors in Chemistry and mathematics, *magna cum laude*, 2004 – 2008

APPOINTMENTS & RESEARCH

Assistant Professor, University of Florida, 2019 – current
Dept. of Biology & Genetics Institute

Research Associate, University of Washington, 2018 – 2019
NSF Postdoctoral Research Fellow, University of Washington, 2015 – 2018
School of Oceanography, Advisor: E. Virginia Armbrust

Graduate Research Assistant, University of Georgia, 2008 – 2014
Dept. of Marine Sciences. Advisor: Mary Ann Moran

PUBLICATIONS

Moran MA, **Durham BP**. Sulfur metabolites in the pelagic ocean. *Nature Reviews Microbiology* 17: 665-678.

Durham BP, Boysen AK, Carlson LT, Groussman RD, Heal KR, Cain KR, Morales RL, Coesel SN, Morris RM, Ingalls AE, Armbrust EV. 2019. Sulfonate-based networks between eukaryotic phytoplankton and heterotrophic bacteria in the surface ocean. *Nature Microbiology* 4: 1706-1715. *Highlighted in Nature Microbiology News & Views* 4:1610-1611.

Landa M, Burns AS, **Durham BP**, Esson K, Nowinski BC, Sharma S, Vorobev A, Nielsen T, Kiene RP, Moran MA. 2019. Sulfur metabolites that facilitate oceanic phytoplankton-bacteria carbon flux. *ISME Journal* 13:2536-2550.

Becker KW, Collins JR, **Durham BP**, Groussman RD, White AE, Fredricks HF, Ossolinski JE, Repeta DJ, Carini P, Armbrust EV, Van Mooy BAS. 2018. Daily changes in phytoplankton lipidomes reveal mechanisms of energy storage in the open ocean. *Nature Communications* 9: 5179.

Durham BP, Dearth SP, Sharma S, Amin SA, Smith CB, Campagna SR, Armbrust EV, Moran MA. 2017. Recognition cascade and metabolite transfer in a marine bacteria-phytoplankton model system. *Environmental Microbiology* 19:3500-3513.

Amin SA, Hmelo LR, van Tol HM, **Durham BP**, Carlson LT, Heal KR, Morales RL, Berthiaume CT, Parker MS, Djunaedi B, Ingalls AE, Parsek MR, Moran MA, Armbrust EV. 2015. Interaction and signalling between a cosmopolitan phytoplankton and associated bacteria. *Nature* 522:98-101.

Varaljay VA, Robidart J, Preston CM, Gifford SM, **Durham BP**, Burns AS, Ryan JP, Marin R III, Kiene RP, Zehr JP, Scholin CA, Moran MA. 2015. Single-taxon field measurements of bacterial gene regulation controlling DMSP fate. *ISME Journal* 9:1677-1686.

Durham BP, Sharma S, Luo H, Smith CB, Amin SA, Bender SJ, Dearth SP, Van Mooy BAS, Campagna SR, Kujawinski EB, Armbrust EV, Moran MA. 2015. Cryptic carbon and sulfur cycling between surface ocean plankton. *Proc Natl Acad Sci USA* 112:453-457.

Durham BP, Grote J, Whittaker KA, Bender SJ, Luo H, Grim SL, Brown JM, Casey JR, Dron A, Florez-Leiva L, Krupke A, Luria CM, Mine AH, Pather S, Talarmin A, Wear EK, Weber TS, Wilson JM, Church MJ, DeLong EF, Karl DM, Steward GF, Eppley JM, Kyrpides NC, Schuster S, Rappé MS. 2014. Draft genome sequence of marine alphaproteobacterial strain HIMB11, the first cultivated representative of a unique lineage within the Roseobacter clade possessing a remarkably small genome. *Standards in Genomic Sciences* 9:632-645.

Moran MA, Satinsky B, Gifford SM, Luo H, Rivers A, Chan LK, Meng J, **Durham BP**, Shen C, Varaljay VA, Smith CB, Yager PL, Hopkinson BM. 2013. Sizing up metatranscriptomics. *ISME Journal* 7:237-243.

UPCOMING PUBLICATIONS

Boysen AK, Carlson LT, **Durham BP**, Groussman RD, Aylward FO, Ribalet F, Heal KR, DeLong EF, Armbrust EV, Ingalls AE. Diel oscillations of particulate metabolites reflect synchronized microbial activity in the North Pacific Subtropical Gyre. Uploaded to *bioRxiv*. Submitted to *ISME J*.

Coesel SN, **Durham BP**, Groussman RD, Hu SK, Caron DA, Morales RL, Ribalet F, Armbrust EV. Light-sensitive regulatory elements synchronize open ocean eukaryotic plankton communities. Submitted to *Proc Natl Acad Sci USA*.

GRANTS & OTHER SUPPORT

Durham BP. OCE-PRF Track 1 (Broadening Participation): “Cryptic Sulfonate Cycling between Marine Phytoplankton and Heterotrophic Bacterioplankton” Award No. 1521564. 2015 – 2017. National Science Foundation. Amount: \$174,000.

Durham BP. Biological Oceanography: “2016 Gordon Research Seminar and Conference on Marine Microbes” Award No. 1643240. 2016. National Science Foundation. Amount: \$12,900.

Durham BP. “2016 Marine Microbes Gordon Research Seminar: Microbe Coexistence and Coevolution in a Changing Ocean” Award No. 430117. 2016. Simons Foundation. Amount: \$3,000.

Moran MA, **Durham BP**. Transcriptional Analysis of a Marine Bacteria-Phytoplankton Binary Model System. 2011. DOE JGI Community Sequencing Program.

TEACHING EXPERIENCE

Faculty Lecturer, UF, BSC2010 Introduction to Biology, Spring 2020

Guest Lecturer, UF, GLY3083 Fundamentals of Marine Science, Spring 2020

UF, ZOO4403C Marine Biology, Fall 2019

UW, OCEAN/FISH/BIO 477: Seminar in Marine Biology, Winter 2019

UW, ESRM429: Ecosystem Services, Winter 2017

Graduate Teaching Assistant, UGA, MIBO2500L: Microbiology and Health Care, Spring 2011, 2012

STUDENT MENTORING

**Student presentations & awards listed subsequently*

Research Mentor, Ms. Alora Richardson, UF: 2020 – current; Ms. Mardeliz Martinez, UF: 2020 – current; Ms. Kelsy Cain, UW: 2018 – 2019; Ms. Grace Workman, UW: 2016 – 2017; Ms. Rachel

Boccamazzo*, UW: 2016 – 2017; Ms. Vera Okolo*, UW: 2015 – 2016; Mr. Blake Edwards*, UGA: 2013 – 2014; Ms. Alyson Krisher, UGA: 2011 – 2013; Mr. Noah Lawler, UGA: 2009 - 2011

UW Mary Gates Research Scholarship, 2017: Rachel Boccamazzo

UW Ronald E. McNair Scholarship, 2017: Rachel Boccamazzo

UW Undergraduate Research Symposium, 2017, Student Oral Presenter: Rachel Boccamazzo

UW Undergraduate Research Symposium, 2016, Student Oral Presenter: Vera Okolo

Emerging Researchers National Conference in STEM, 2016, Student Poster Presenter: Vera Okolo

UW Genomics Outreach for Minorities Alliances for Learning and Vision for Underrepresented Americans (GenOM ALVA) Ceremony, 2015, Student Oral Presenter: Vera Okolo

UW Summer Undergraduate Research Poster Session, 2015, Student Poster Presenter: Vera Okolo

UGA Center for Undergraduate Research Opportunities (CURO) Symposium, 2014, Student Poster Presenter: Blake Edwards

COMMUNITY OUTREACH

UW Marine Microbial Ecology for High School Teachers Program; Developer and Mentor, 2016 – 2017

Coastal Studies for Girls; Mentor, 2015 – 2017

Georgia Junior Science & Humanities Symposium; Volunteer, 2010, 2013

Stroud Elementary Science Night; Volunteer, 2011

Georgia Science & Engineering Fair; Volunteer, 2010, 2011

RESEARCH CRUISES

R/V *Kilo Moana*; Gradients-SCOPE program, 8 – 29 April 2019, North Pacific Gyres

R/V *Marcus G. Langseth*; Gradients-SCOPE program, 27 March – 13 June 2017, North Pacific Gyres

R/V *K Ka`imikai-O-Kanaloa*; Gradients-SCOPE program, 19 April – 4 May 2016, North Pacific Gyres

R/V *Thomas G. Thompson*; UNOLS Chief Scientist Training, 13 – 20 February 2016, San Diego Coast

R/V *Kilo Moana*; SCOPE program, 24 July – 6 August 2015, Station ALOHA

R/V *Thomas G. Thompson*; GeoMICS program, 16 – 22 May 2012, Line P

R/V *Kilo Moana*; C-MORE Summer Course, 12 – 22 June 2011, Station ALOHA

INVITED PRESENTATIONS

Dept. of Geological Sciences, University of Florida, Gainesville, FL, 12 March 2020. *Invited seminar.*

Dept. of Biological Sciences, University of North Carolina Charlotte, Charlotte, NC, 28 February 2019. *Invited seminar.*

Dept. of Biology, University of Florida, Gainesville, FL, 24 January 2019. *Invited seminar.*

ASLO Aquatic Sciences Meeting, Portland, OR; 11 – 16 February 2018. *Invited poster presentation.*

ASLO Aquatic Sciences Meeting, Honolulu, HI; 26 February – 3 March 2017. *Invited oral presentation.*

CONFERENCE PROCEEDINGS

ASLO Ocean Sciences Meeting, San Diego, CA; 16 – 21 February 2020. *Session Co-Chair: Biogeochemistry of DOM and DOM-Microbe Interactions.*

US Symposium on Harmful Algae, Orange Beach, AL; 3 – 8 November 2019. *Poster presentation.*

Molecular Life of Diatoms Conference, Norwich, United Kingdom; 14 – 18 July 2019. *Oral presentation.*

Marine Microbes Gordon Research Seminar & Conference, Lucca, Italy; 30 June – 6 July 2018. *Poster presentation.*

ASLO Ocean Sciences Meeting, Portland, OR; 11 – 16 February 2018. *Oral presentation.*

Molecular Life of Diatoms Conference, Kobe, Japan; 9 – 13 July 2017. *Oral presentation.*

Marine Microbes Gordon Research Seminar, Girona, Spain; 18 – 19 June 2016. *Co-chair & Discussion Leader.*

Marine Microbes Gordon Research Conference, Girona, Spain; 19 – 24 June 2016. *Discussion Leader & Poster presentation.*

EMBO/EMBL Symposium: A New Age of Discovery for Marine Microeukaryotes, Heidelberg, Germany; 26 – 29 January 2016. *Poster presentation.*

Molecular Life of Diatoms Conference, Seattle, WA; 7 – 10 July 2015. *Oral presentation.*

Marine Microbes Gordon Research Conference, Waltham, MA; 22 – 27 June 2014. *Poster presentation.*

Marine Microbes Gordon Research Seminar, Waltham, MA; 21 – 22 June 2014. *Oral presentation.*

Symposium on Aquatic Microbial Ecology, Stresa, Italy; 8 – 13 September 2013. *Poster presentation.*

Southeastern Branch American Society for Microbiology Meeting, Athens, GA; 25 – 27 October 2012. *Oral presentation.*

Marine Microbes Gordon Research Seminar & Conference, Lucca, Italy; 23 – 29 June 2012. *Poster presentation.*

Ocean Sciences Meeting, Salt Lake City, UT; 19 – 24 February 2012. *Poster presentation.*

WORKSHOPS & PROFESSIONAL DEVELOPMENT

Simons Foundation SCOPE-Gradients Program Workshop, Seattle, WA, 2017 & 2019

Simons Foundation SCOPE Program Annual Meeting, New York, NY, 2015-2018

UNOLS Chief Scientist Training Workshop & Cruise, San Diego, CA, 2016

EMBO/EMBL/MMI Postdoc & Graduate Student Summit, Heidelberg, Germany, 2016

American Society for Microbiology Kadner Institute, San Jose, CA, 2013

Center for Microbial Oceanography: Research and Education Summer Course, Honolulu, HI, 2011

PROFESSIONAL MEMBERSHIPS & SERVICE

Reviewer, National Science Foundation Division of Ocean Sciences, Nature Communications, Environmental Microbiology, FEMS Microbiology Reviews, Frontiers in Microbiology, International Society for Microbial Ecology Journal, PeerJ, Marine Ecology Press Series

Association for the Sciences of Limnology and Oceanography (ASLO) Member, 2017 – current

American Society for Microbiology (ASM) Member, 2006 – current