CURRICULUM VITAE - ROBERT M. MORRIS

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EDUCATION

2004 Ph.D., Microbiology, Oregon State University, Corvallis, OR
Dissertation: Marine Bacterioplankton Abundances and Distributions
1995 B.A. Biology and Russian Studies, George Mason University, Fairfax .VA

PROFESSIONAL EXPERIENCE

2013- Associate Professor, School of Oceanography, University of Washington
2007-13 Assistant Professor, School of Oceanography, University of Washington
2006-07 Postdoctoral Researcher, Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara, CA
2004-06 Postdoctoral Research Fellow, Department of Microbiology/School of Civil and Environmental Engineering, Cornell University, Ithaca, NY

HONORS AND AWARDS

2003 Mark H. Middlekauf Outstanding Graduate Student Award, Oregon State University, Corvallis, OR
1995 Honors in Russian Studies, George Mason University, Fairfax, VA
1995 Dobro Slovo, National Slavic Honor Society

ADVISORS

Ph.D. Stephen Giovannoni (Oregon State)
Postdoc Stephen Zinder (Cornell), Ruth Richardson (Cornell), Craig Carlson (UCSB)

CURRENT COLLABORATIONS

Benjamin Knowles (UCLA, Department of Ecology and Evolutionary Biology)
Joseph Resing (NOAA-PMEL, Seattle Washington)
Randie Bundy (University of Washington, School Oceanography)

PAST COLLABORATIONS

Tim Mattes (University of Iowa, Civil and Environmental Engineering)
David Butterfield (NOAA-PMEL, Seattle Washington)

Nathaniel Buck (NOAA-PMEL, Seattle Washington)
Benjamin Larson (NOAA-PMEL, Seattle Washington)
Bill Chadwick (NOAA-PMEL, Newport Oregon)
Sharon Walker (NOAA-PMEL, Newport Oregon)
Anitra Ingalls (University of Washington, School Oceanography)
Deborah Kelley (University of Washington, School Oceanography)
Gabrielle Rocap (University of Washington, School Oceanography)
Virginia Armbrust (University of Washington, School Oceanography)

UNIVERSITY SERVICE

School of Oceanography

2022	Chair, Master of the Tomas G. Thompson Hiring Committee
2019-present	Associate Director, Ship Operations
2018-present	Member ex-officio, Faculty Council
2009-present	Member, R.V. Thompson Science Advisory Committee
2018-2019	Member, Grants and Scholarships Committee
2018-2018	Member, Defining Diversity Committee
2017	Member, Hiring Committee
2017	Co-organizer, Curricular Graduate student recruitment
2013	Co-organizer, Curricular Graduate student recruitment
2013-2015	Associate Director, Undergraduate Education
2013-2014	Ex-officio member, Faculty Council
2012-2013	Member, Hiring Committee
2011-2012	Member, Faculty Council
2011-2012	Organizer, Curricular Group Meetings
2010	Member, Faculty Promotions and Mentoring Committee
2010	Co-organizer, Curricular Graduate student recruitment
2008	Co-organizer, Curricular Graduate student recruitment

College of the Environment

2013-2015	Member, College Curricular Committee
2015	Member, College Family Friendly Policy Committee

University of Washington

2021-present	Member, University of Washington Faculty Senate
2017	Moderator, UW Undergraduate Research Symposium
2016	Reviewer, Royalty Research Fund
2015	Moderator, UW Undergraduate Research Symposium
2014	Marshall, Freshman Convocation
2009	Member, 2y2d University Steering Committee
2008	Reviewer, Royalty Research Fund

PROFESSIONAL OFFICES, AWARDS, SERVICE

National Committees and Related Activities

2022 Session organizer, The marine mobilome, Ocean Sciences Meeting
2017 Invited Participant, Axial Drilling Workshop, WHOI
2017 Invited Participant, Ocean Metaproteomics Best Practices Workshop, WHOI
2015 Invited Participant, Ocean Omics and Cyberinfrastructure Workshop II
2013 Invited Participant, Ocean Omics and Cyberinfrastructure Workshop
2010 Invited Participant, Molecular Biology and Biogeochemistry Workshop
2010 Session Organizer, Comparative Proteogenomics, Ocean Sciences Meeting
2010 Invited Participant, International Workshop on Environmental Proteomics
2010 Participant, DARPA Uncultured Microbes Meeting
2008 Invited Participant, DOE Network/Knowledgebase Workshop
2008 Invited Participant, DOE Carbon Cycling and Biosequestration Workshop
2007 Session Organizer, Environmental Proteomics, ASM General Meeting
2005 Seminar Organizer, Department of Microbiology, Cornell University

Editorial and Review Services

Reviewer for numerous journals, including Proceeding for the National Academy of Sciences (PNAS), Nature, International Society of Microbial Ecology (ISME), Applied and Environmental Microbiology, Aquatic Microbial Ecology, Coral Reefs, Environmental Microbiology, Molecular Systems Biology, and Peer J.
Midterm Reviewer, Department of Energy Integrated Field Research Challenge, 2010

Professional society membership

2019-present University-National Oceanographic Laboratory System, representative
2004- present American Society of Microbiology
2008- present American Society of Limnology and Oceanography

Invited Seminars, International

2011 Invited Speaker, Microbial Interactions in Marine Systems, Germany
2009 Invited Speaker, International Meeting of the Federation of Korean Microbiological Societies, Seoul, Korea
2009 Invited Speaker, Korea Ocean Research and Development Institute (KORDI), Incheon, Korea
2009 Invited Speaker, National Yang-Ming University, Taipei, Taiwan
2009 Invited speaker, The Canadian Institute for Advanced Research Integrated Microbial Biodiversity Meeting, Asilomar, California

Invited Seminars, National

2022 Invited Speaker, Astrobiology Program, University of Washington
2018 Invited Speaker, Naval Research Laboratories, Washington, D.C.
2017 Invited Speaker, Ocean Metaproteomics Best Practices Workshop

2016 Invited Speaker, School of Oceanography, University of Washington
2012 Invited Speaker, School of Oceanography, University of Washington
2011 Invited Speaker, Microbiology, Pacific Northwest National Laboratory
2011 Invited Speaker, Department of Marine Sciences, University of Georgia
2010 Invited Speaker, Molecular Biology and Biogeochemistry Workshop, CA
2010 Invited Speaker, International Workshop on Environmental Proteomics
2009 Keynote Speaker, Student Educational Retreat, University of Washington
2009 Invited Speaker, Aquatic and Fisheries Sciences, University of Washington
2008 Invited Speaker, Chemical Oceanography, University of Washington
2008 Invited Speaker, Oregon Graduate Institute, Oregon Health Science University
2007 Symposium Speaker, American Society of Microbiology General Meeting
2007 Invited Speaker, School of Oceanography, University of Washington
2007 Invited Speaker, EEMB, University of California, Santa Barbara
2005 Invited Speaker, Engineering and Applied Sciences, Harvard University
2005 Invited Speaker, Lamont-Doherty, Columbia University
2004 Invited Speaker, Monterey Bay Aquarium Research Institute
2004 Invited Speaker, Center of Marine Biotechnology, University of Maryland
2004 Invited Speaker, Bermuda Biological Station for Research
2004 Invited Speaker, National Institute of Health
2004 Invited Speaker, Civil and Environmental Engineering, Cornell University

Field Work
2021 D. Vecchione, North and South Pacific
2018 T. Mattes, North Pacific
2017 K. Caine, North Pacific
2015 R. Spietz, North Pacific
2012 R. Morris, K. Marshall, T. Mattes, R. Lange, North Pacific, R/V Thompson
2011 R. Morris, V. Shah, H2O, Puget Sound, R/V Thompson
2011 R. Morris, RSN, North Pacific, R/V Thompson
2010 R. Morris, RSN, North Pacific, R/V Thompson
2009 R. Morris, C. Frazar, and K. Marshall, H2O, Puget Sound, R/V Thompson
2009 R. Morris, OCEAN 220 Puget Sound, R/V Barnes
2008 K. Marshall, Sargasso Sea, R/V Atlantic Explorer
2007 R. Morris, and C. Frazar, South Atlantic, R/V Knorr
2002 R. Morris, Oregon Coast, R/V Wecoma
2001 R. Morris, Sargasso Sea, R/V Weatherbird

INSTRUCTIONAL ACTIVITIES

Undergraduate

Course #	Title (credits)	Date	Enrollment	Rating
OCN 220	Intro, Field Oceanography (3)	S 2022	34	-
MICROM 412	Prokaryotic Diversity (3)	S 2022	98	N/A

OCN 432	Microbes in a Changing Ocean (3)	W 2022	32	4.3
OCN 220	Intro, Field Oceanography (3)	S 2021	23	4.6
MICROM 412	Prokaryotic Diversity (3)	S 2021	82	N/A
OCN 431	Special topics in microbial OCE (3)	W 2021	5	4.6
OCN 220	Intro, Field Oceanography (3)	S 2020	24	3.5
MICROM 412	Prokaryotic Diversity (3)	S 2020	101	4.0
OCN 431	Special topics in microbial OCE (3)	W 2020	7	4.8
OCN 220	Intro, Field Oceanography (3)	S 2019	23	5.0
MICROM 412	Prokaryotic Diversity (3)	S 2019	65	3.6
OCN 431	Special topics in microbial OCE (3)	W 2019	9	3.9
OCN 220	Intro, Field Oceanography (3)	S 2018	34	4.0
OCN 445	SNR Thesis Proposal (3)	S 2018	24	N/A
OCN 444	SNR Thesis Proposal (2)	W 2018	21	N/A
OCN 443	SNR Thesis Proposal (3)	A 2017	25	N/A
OCN 220	Intro, Field Oceanography (3)	S 2017	34	3.8
OCN 430	Biological Oceanography (4)	A 2015	43	4.1
OCN 220	Intro, Field Oceanography (3)	S 2015	39	3.9
OCN 430	Biological Oceanography (4)	A 2014	32	4.4
OCN 430	Biological Oceanography (4)	A 2013	34	4.2
OCN 492	Friday Harbor, Acidification (3)	S 2013	8	N/A
OCN 445	Senior Research Project (3)	S 2013	29	N/A
OCN 444	Senior Research Project (2)	W 2013	29	N/A
OCN 443	Senior Research Project (3)	A 2012	30	N/A
OCN 430	Biological Oceanography (4)	A 2011	36	4.1
OCN 430	Biological Oceanography (4)	A 2010	21	4.2
OCN 444	Advanced Field Oceanography (5)	S 2010	21	4.6
OCN 443	Senior Research Project (3)	W 2009	21	N/A
OCN 499	Undergraduate Research (2)	S 2009	1	N/A
OCN 220	Intro, Field Oceanography (3)	S 2009	23	3.9
MICROM 469	Library Research Paper (2)	S 2009	1	N/A
OCN 499	Undergraduate Research (4)	W 2009	1	N/A

Graduate

Course #	Title (credits)	Date	Enrollment	Rating
OCN 530	Marine Bacteria and Viruses (3)	W 2021	5	4.6
OCN 530	Marine Bacteria and Viruses (3)	W 2020	4	4.8
OCN 530	Marine Bacteria and Viruses (3)	W 2019	6	3.9
OCN 530	Marine Bacteria and Viruses (3)	W 2017	9	2.7
OCN 535	Biological Oceanography (3)	A 2016	17	3.5
OCN 530	Marine Bacteria and Viruses (3)	S 2014	9	3.8
OCN530A	Bacteria and Protozoa (3)	W 2011	14	4.3
OCN539A	Seminar Biological Oceanography	W 2011	20	N/A
OCN530A	Bacteria and Protozoa (3)	W 2009	4	4.0

OCN530A Bacteria and Protozoa (3) S 2008 7 4.2

Graduate Students Advised

Chair, Committees for

Dylan Vecchione	Biological Oceanography	Ph.D.	2022-arriving
Mike Sadler	Biological Oceanography	Ph.D.	2021-present
Susan Burke	Biological Oceanography	M.S.	2017 - 2020
Rachel Lange	Biological Oceanography	Ph.D.	2013 - 2017
Vega Shah	Biological Oceanography	Ph.D.	2010 - 2018
Katie Marshall	Biological Oceanography	Ph.D.	2008 - 2015

Member, Committees (Oceanography)

Laura Moore	Chemical Oceanography	Ph.D.	2019-present
Natalie Kellogg	Biological Oceanography	M.S.	2018-present
Zac Cooper	Biological Oceanography	Ph.D.	2016-2021
Helena Van Tol	Biological Oceanography	Ph.D.	2011- 2019
Rick Berg	Geology and Geophysics	Ph.D.	2012- 2017
Jaclyn Saunders	Biological Oceanography	Ph.D.	2009-2016
Gwenn Miller	Biological Oceanography	Ph.D.	2010-2015
Vaughn Iverson	Biological Oceanography	Ph.D.	2008-2015
Monica Reiss	Geology and Geophysics	M.S.	2010-2014
Jeff Bowman	Biological Oceanography	Ph.D.	2009-2014
Rika Anderson	Biological Oceanography	Ph.D.	2011-2013
Colleen Kellogg	Biological Oceanography	Ph.D.	2008-2011
Michele Guannel	Biological Oceanography	Ph.D.	2008-2011
Amy Cash	Chemical Oceanography	M.S.	2008-2010
Erin Ellis	Chemical Oceanography	Ph.D.	2008-2012

Member, Committees (out of Oceanography)

Addian Wray	Earth and Space Sciences	Ph.D.	2022-present
K. Bubphamanee	Earth and Space Sciences	Ph.D.	2021-Present
Wei Quin	Engineering	Ph.D.	2012-2016
Nathan Good	Microbiology	Ph.D.	2012-2014
Erin McClelland	SAFS	Ph.D.	2008-2008

Undergraduate Student Research Advised

Yoav Pinto	Oceanography	2022-present
Kenneth Lei	Oceanography	2021-present
Dylan Vecchione	Oceanography	2019-present
Kelsy Cain	Oceanography	2016- 2019
Landung Setaiwan	Oceanography	2013-2014
Colin Katagiri	Oceanography	2011-2012

Yih En Lim	Biochemistry	2010-2013
Hannah Snow	Oceanography	2010-2011
Monica Reiss	Oceanography	2009-2010
Jeff Eaton	Oceanography	2008-2010

OUTREACH ACTIVITIES

2022-present Building computational and laboratory bridges through experiential learning in oceanography
2015-20 Developing distance learning resources for ocean change
2010-11 Organized and led oceanography-MCDM film production (8 short films)
2009 Ocean 100, Invited Faculty Lecture
2008 Ocean 100, Invited Faculty Lecture
2008 Lecturer, Nippon Foundation-POGO Centre of Excellence in Observational Oceanography, two-week lab and lecture series (BIOS)
2004-08 Lecturer, Summer Program in Microbial Oceanography, two-week lab and lecture series (BIOS)

FUNDED RESEARCH

Current funding

2022-25 National Science Foundation, Collaborative Research: Drivers and effects of latent temporal phage in marine SAR11, 06/15/2022-06/16/2025, PI Robert Morris, $693,701, 3 months/year.
2019- Washington Research Foundation, Phage integrase-recombination systems, PI Robert Morris, $10,000 (gift), 0 months/year.

Prior funding

2019-20 Royalty Research Fund, The effects of low dissolved oxygen concentrations on dark ocean carbon fixation and denitrification by SUP05, a chemosynthetic lineage of bacteria that dominate marine oxygen minimum zones (A143829), Single PI Robert Morris (UW), $34,974, 1 month/year.
2016-20 National Science Foundation (1232840), Characterizing the contribution of bacteria from the SUP05 clade to autotrophic and heterotrophic carbon cycling across ocean gradients, PI Robert Morris (UW), Co-PI Anitra Ingalls (UW), $845.578, 2 months/year
2012-15 Mixotrophic bacteria and the cryptic marine sulfur cycle: Mechanisms of carbon assimilation and sulfur oxidation in the Arctic96BD-19 GSO clade. National Science Foundation (1232840), Single PI Robert Morris (UW),

$373,301, 3 months/year.

2015-16 Autotrophic Denitrification: A Missing Link in the Marine Nitrogen Cycle, Royalty Research Fund, University of Washington (A97811), Single PI Robert Morris (UW), $29,820, 1 month/year.

2011-12 EAGER: Characterizing biological function across a persistent oceanographic 'hotspot' in the NE Pacific Ocean. National Science Foundation (1205232), Lead PI Anitra Ingalls (UW), co-PI Robert Morris (UW), $299,991, 1 month/year.

2007-11 Proteomics Directed Environmental Genomics: Identifying *in situ* Physiological Diversity of Cyanobacterial Nutrient Utilization in the South Atlantic Ocean. National Science Foundation (0723866), Lead PI Gabrielle Rocap (UW), co-PI Robert Morris (UW), $660,000, 3 months/year.

PUBLICATIONS

Journal articles (31- first and corresponding author positions are in bold)

2022 Mattes, T.E., Burke, S., Rocap, G., **Morris, R.M.**, Two Metatranscriptomic Profiles through Low-Dissolved-Oxygen Waters (DO, 0 to 33 µM) in the Eastern Tropical North 2022 Pacific Ocean, *Microbiology Resource Announcements* 11 (2), e01201-21
30% Contributed to analysis and writing activities

2021 Mattes, T.E., Ingalls, A.E., Burke, S., and **Morris, R.M.**, Metabolic flexibility of SUP05 under low DO growth conditions. *Environmental microbiology*, 23(6), pp.2823-2833.
30% Contributed to analysis and writing activities

2020 **Morris, R.M.**, Cain, K.R., Hvorecny, K.L. and Kollman, J.M.. Lysogenic host-virus interactions in SAR11 marine bacteria. *Nature Microbiology*, pp.1-5.
60% Contributed to analysis and writing activities

2019 Durham, B.P., Boysen, A.K., Carlson, L.T., Groussman, R.D., Heal, K.R., Cain, K.R., Morales, R.L., Coesel, S.N., Morris, R.M., Ingalls, A.E. and Armbrust, E.V., Sulfonate-based networks between eukaryotic phytoplankton and heterotrophic bacteria in the surface ocean. *Nature microbiology*, 4(10), pp.1706-1715.
10% Contributed to analysis and writing activities

2019 Shah, V., Zhao, X., Lundeen, R.A., Ingalls, A.E., Nicastro, D. and **Morris R.M.**, Morphological plasticity in a sulfur-oxidizing marine bacterium from the SUP05 clade enhances dark carbon fixation. *Mbio*, 10(3).
40% Contributed to analysis and writing activities

2019 Spietz, R.L., Lundeen, R.A., Zhao, X., Nicastro, D., Ingalls, A.E. and **Morris, R.M**., 2019. Heterotrophic carbon metabolism and energy acquisition in

Candidatus Thioglobus singularis strain PS1, a member of the SUP05 clade of marine Gammaproteobacteria. *Environmental Microbiology*.
40% Contributed to analysis and writing activities

2019 Spietz, R.L., Marshall, K. T., Zhao, X., & **Morris, R.M**., 2019. Complete Genome Sequence of "Candidatus Thioglobus sp." Strain NP1, an Open-Ocean Isolate from the SUP05 Clade of Marine Gammaproteobacteria. Microbiol Resour Announc, 8(11), e00097-19.
40% Contributed to analysis and writing activities

2019 Mak A. Saito, Erin M. Bertrand, Megan E. Duffy, David A. Gaylord, Noelle A. Held, et al., 2019. Progress and Challenges in Ocean Metaproteomics and Proposed Best Practices for Data Sharing. Journal of proteome research. 18 (4), 1461–1476.
10% Contributed to writing activities

2018 Spietz, R., Butterfield, D., Buck, N., Larson, B., Chadwick, W., Walker, S., and **Morris, R.M.** (2018). Deep-Sea Volcanic Eruptions Create Unique Chemical and Biological Linkages Between the Subsurface Lithosphere and the Oceanic Hydrosphere. Oceanography, 31(1), 128-135.
40% Contributed to analysis and writing activities

2017 Shah V, Chang BX, **Morris R.M.** (2017). Cultivation of a chemoautotroph from the SUP05 clade of marine bacteria that produces nitrite and consumes ammonium. The ISME journal 11:263-271.
40% Contributed to analysis and writing activities.

2015 Shah V., **Morris R.M.** 2015. Genome sequence of "Candidatus Thioglobus autotrophica" strain EF1, a chemoautotroph from the SUP05 clade of marine gammaproteobacteria. Genome Announc 3(5):e01156-15. doi:10.1128/genomeA.01156-15.
40% Contributed to analysis and writing activities.

2015 Marshall K.T, **Morris R.M.** 2015. Genome sequence of "Candidatus Thioglobus singularis" strain PS1, a mixotroph from the SUP05 clade of marine gammaproteobacteria. Genome Announc 3(5):e01155-15.
40% Contributed to analysis and writing activities.

2013 Mattes, T.E., Nunn, B.L., Marshall, K.T., Proskurowski, G., Kelley, D.S., Kawka, O.E., Goodlett, D.R., Hansell, D.A. and **Morris, R.M.** (2013). Sulfur oxidizers dominate carbon fixation at a biogeochemical hot spot in the dark ocean. ISME Journal. 7:2349–2360
30%, led project, contributed to sample collection, analysis and writing activities.

2013 Marshall K.T. and **Morris, R.M.** (2012). Isolation of an aerobic sulfur oxidizer from the SUP05/Arctic96BD-19 clade. *ISME Journal.* 7:452–455.
40% Contributed to analysis and writing activities.

2012 Iverson, V., Morris, R.M., Frazar, C.A., Berthiaume, C., Morales, R.L., and Armbrust, E.V. (2012). Untangling genomes from metagenomes: Revealing an

uncultured class of Euryarchaeota. *Science*. 335:587-590
DOI: 10.1126/science.1212665
20% led sample collection and sequencing effort, contributed to analysis and writing activities.

2012 **Morris, R.M.**, Frazar, C.D., and Carlson, C.A. (2012). Basin-scale patterns in the abundance of SAR11 subclades, marine Actinobacteria (OM1), members of the Roseobacter clade, and OCS116 in the South Atlantic. *Environmental Microbiology*. 14:1133-1144, doi: 10.1111/j.1462-2920.2011.02694.x
70%, led project, contributed to data analysis, drafted manuscript.

2010 Thrash, J.C., Cho, J.C., Vergin, K.L., **Morris, R.M.**, and Giovannoni, S.J. (2010). Genome Sequence of *Lentisphaera araneosa* HTCC2155, one of only two sequenced organisms from the phylum *Lentisphaera*. 192(11): 2938–2939
10%, contributed to field quantification and writing activities.

2010 **Morris, R.M.**, Nunn, B.L., Frazar, C., Goodlett, D.R., Ting, Y.S., and Rocap, G. (2010). Comparative metaproteomics reveals ocean-scale shifts in microbial nutrient utilization and energy transduction. ISME Journal 4:673-685.
80%, led project, collected and processed samples, performed data analysis, drafted manuscript.

2009 Carlson, C. A., R. Morris, R. Parsons, A. H. Treusch, S. J. Giovannoni, and K. Vergin. Seasonal dynamics of SAR11 populations in the euphotic and mesopelagic zones of the northwestern Sargasso Sea. *ISME J* 3:283-95.
30%, constructed clone libraries, conducted phylogenetic analyses, contributed to writing.

2008 Rowe, A. R., B. J. Lazar, R. M. Morris, and R. E. Richardson. Characterization of the community structure of a dechlorinating mixed culture and comparisons of gene expression in planktonic and biofloc-associated "Dehalococcoides" and Methanospirillum species. *Appl Environ Microbiol* 74:6709-19.
20%, designed probes, developed cell separation and quantification methods, contributed to writing.

2007 **Morris, R. M.**, J. M. Fung, B. G. Rahm, S. Zhang, D. L. Freedman, S. H. Zinder, and R. E. Richardson. Comparative proteomics of Dehalococcoides spp. reveals strain-specific peptides associated with activity. *Applied and Environmental Microbiology* 73:320-326.
80%, led project, performed experimental design and data analysis, drafted manuscript.

2007 Fung, J. M., R. M. Morris, L. Adrian, and S. H. Zinder. Expression of reductive dehalogenase genes in Dehalococcoides ethenogenes strain 195 growing on tetrachloroethene, trichloroethene, or 2,3-dichlorophenol. *Appl Environ Microbiol* 73:4439-45.
20%, conducted growth experiments, analyzed proteomic data, contributed to writing.

2007 Cho, J. C., M. D. Stapels, R. M. Morris, K. L. Vergin, M. S. Schwalbach, S. A. Givan, D. F. Barofsky, and S. J. Giovannoni. Polyphyletic photosynthetic reaction centre genes in oligotrophic marine Gammaproteobacteria. *Environmental Microbiology* 9:1456-1463.
15%, collected field samples, quantified cells, contributed to writing.

2006 Rahm, B. G., R. M. Morris, and R. E. Richardson. Temporal expression of respiratory genes in an enrichment culture containing Dehalococcoides ethenogenes. *Applied and Environmental Microbiology* 72:5486-5491.
20%, designed primers and protocols, contributed to experimental design and writing.

2006 **Morris, R. M.**, S. Sowell, D. Barofsky, S. Zinder, and R. Richardson. Transcription and mass-spectroscopic proteomic studies of electron transport oxidoreductases in Dehalococcoides ethenogenes. *Environmental Microbiology* 8:1499-1509.
80% led project, performed experimental design and data analysis, drafted manuscript.

2006 **Morris, R. M.**, K. Longnecker, and S. J. Giovannoni. Pirellula and OM43 are among the dominant lineages identified in an Oregon coast diatom bloom. *Environmental Microbiology* 8:1361-1370.
80%, led project, performed sample collection and data analysis, drafted manuscript.

2005 **Morris, R. M.**, K. L. Vergin, J. C. Cho, M. S. Rappé, C. A. Carlson, and S. J. Giovannoni. Temporal and spatial response of bacterioplankton lineages to annual convective overturn at the Bermuda Atlantic Time-series Study site. *Limnology and Oceanography* 50:1687-1696.
80%, led data collection and analysis, drafted manuscript.

2004 **Morris, R. M.**, M. S. Rappé, E. Urbach, S. A. Connon, and S. J. Giovannoni. Prevalence of the Chloroflexi-related SAR202 bacterioplankton cluster throughout the mesopelagic zone and deep ocean. *Applied and Environmental Microbiology* 70:2836-2842.
80%, collected samples, led data collection and analysis, drafted manuscript.

2004 Cho, J. C., K. L. Vergin, R. M. Morris, and S. J. Giovannoni. Lentisphaera araneosa gen. nov., sp nov, a transparent exopolymer producing marine bacterium, and the description of a novel bacterial phylum, Lentisphaerae. *Environmental Microbiology* 6:611-621.
20% collected field samples, quantified lineages-specific RNA, contributed to writing.

2002 **Morris, R. M.**, M. S. Rappé, S. A. Connon, K. L. Vergin, W. A. Siebold, C. A. Carlson, and S. J. Giovannoni. SAR11 clade dominates ocean surface bacterioplankton communities. *Nature* 420:806-810.
60%, led sample collection, protocol development, and cell quantification, drafted manuscript.

Other articles and book chapters (3)

2022 **Morris, R.M.** and Spietz, R.S., The Physiology and Biogeochemistry of SUP05, *Annual review of marine science* 14, 261-275.
50% Contributed to analysis and writing activities

2018 **Morris, R.M.** (2018). Chapter Four, Metatranscriptomics and Metaproteomics: Elucidating Marine Microbial Ecosystem Functions, p 123-142. In J.M. Gasol and D.L. Kirchman (ed), Microbial Ecology of the Oceans, 3rd ed, Wiley-Blackwell, Hoboken, NJ.
100%

2013 **Morris, R.M.** and Nunn, B.L., Chapter Fourteen – Sample Preparation and Processing for Planktonic Microbial Community Proteomics. Methods in Enzymology, Volume 531, 2013, Pages 271–287
70%, led writing efforts

2006 **Morris, R. M**. Environmental genomics: exploring ecological sequence space. Curr Biol 16:R499-501.
100%

CONFERENCE TALKS

2017 **Morris RM**., Marshall KT., Dupont C, Iverson V., Durham B, Armbrust EV, Moran MA, Morales R, Berthiaume C., Espinoza J., Celepli N., Ininbergs K., Microbial Adaptations to Oxygen in Seawater (ASLO 2017).

2010 **Morris, R. M.**, Ting, Y. S., Iverson, V.S. Nunn, B. L., Goodlett D. R., and Armbrust, E. V., Identifying constitutive community functions in seawater. International Society of Microbial Ecology (ISME13).

2010 **Morris, R. M.**, Nunn, L., Ting, Y. S., Goodlett, D. R., Metaproteomics of marine bacterioplankton in Puget Sound. American Society of Limnology and Oceanography.

2009 **Morris, R. M.**, Nunn, B. L., Frazar, C., Goodlett, D. R. and G. Rocap. The microbial membrane meta-proteome reveals diverse patterns of protein expression in the South Atlantic Ocean. American Society of Limnology and Oceanography.

2003 **Morris, R.M.**, T.D., Wright, E., Urbach, M.S., Rappé, K.L., Vergin, S.A., Connon and S.J. Giovannoni. Direct cell counts reveal mesopelagic distribution of the Green Non-Sulfur (GNS) related SAR202 bacterioplankton group. American Society of Limnology and Oceanography.

2002 **Morris, R.M.**, M.S., Rappé, S.A., Connon, K.L., Vergin, W.A., Siebold, C.A., Carlson, and S.J. Giovannoni. *In situ* abundance of the SAR11 bacterioplankton clade in the North Atlantic Ocean. American Society of Limnology and Oceanography.

ABSTRACTS

2022 Vecchione, D., Bundy, R., and Morris, R.M. Investigating trace-chemical (Fe, Mn, CH 4) limitation on bacterial growth in deep sea hydrothermal vent plumes along the Southern East Pacific Rise via flow cytometry. University of Washington Annual Undergraduate Research Symposium, student presentation.

2022 Lai, K, Kelley, D.S., and Morris, R.M. The Genetic Potential that Enables Life to Thrive at Pythius Oasis. University of Washington Annual Undergraduate Research Symposium, student presentation.

2017 Spietz, Butterfield and Morris, R.M. Post Eruptive Lava Flows Alter Deep-Sea Microbial Communities. ASLO, student presentations

2016 Shah, V., Chang, B., and Morris, R.M. Denitrifying SUP05 Require Exogenous Nitrogen. ASLO, student poster.

2014 Marshall, K. T., Iverson, V., Armbrust, E. V., Morales, R. L., and Morris, R.M. The complete genome sequence of Thioglobus singularis reveals novel evolutionary adaptations of carbon and sulfur metabolisms in the SUP05/ Arctic96BD-19 clade. ASLO, student presentation.

2014 Shah, V. and Morris, R.M. Cultivation of the SUP05 Clade. ASLO, student presentation.

2014 Morris, R.M. and Nunn, R.M. Shifting patterns of microbial protein expression across a persistent oceanographic “Hot Spot” in the North Pacific. ASLO, poster.

2012 Yih En Lim, Morris, R.M. Development of a Novel Bacteria Culture Collection with Unexplored Isolates from the Beta-proteobacterial OM43 Clade and the Gamma-proteobacterial Sulfur Oxidizer (GSO) Clade, UW undergraduate research symposium.

2011 Marshall, K.M., and Morris R.M. Isolation of a Novel Sulfur Oxidizing Bacterium. Microbial Interactions in Marine Systems, Greifswald, Germany.

2011 Morris, R.M., Frazar, C.A., and Carlson, C.A. Unique microbial communities in the South Atlantic. ASLO, presentation.

2011 Sanchez, C. J., Turner, K. B., and Morris, R.M. Student Stories: Developing effective multimedia content. ASLO, presentation (student award).

2011 Turner, K. B., Sanchez, C. J., and Morris, R.M. Head Shrinkers: A short film to target a broad audience, ASLO, presentation (student award).

2010 Ting, Y. S., Morris, R. M., Rocap, G., Goodlett, D. R., and Nunn, B. L. Simplifying searches on environmental data sets: Finding protein functions from an ocean of unknowns. International Society of Microbial Ecology. ISME13, presentation.

2010 Marshall, K. T., and Morris R. M. Isolation of a novel sulfur oxidizing bacterium. International Society of Microbial Ecology. ISME13, poster (student award).

2010 Rocap, G, Nunn, B.L., Reistetter, E.N., Callnan, K., Krumhardt, K., Roache-Johnson, K., Goodlett, D.R., Morris, R.M.; Moore, L.R., Phosphorus stress in

Prochlorococcus: physiology, gene expression and proteomics Talk given at ISME meeting, Aug. 22-27 Seattle WA

2010 Rocap, G., Nunn, B.L., Nahas, E., Callnan, K., Krumhardt, K., Roache-Johnson, K., Goodlett, D., Morris R.M. and Moore, L.R. Phosphorus stress in *Prochlorococcus*: Physiology, gene expression and proteomics. Poster presented at ASLO Ocean Sciences Meeting Feb 22-26, Portland OR

2010 Rocap, G., Nunn, B.L., Nahas, E., Goodlett, D., and Morris, R.M. *Prochlorococcus*: Microdiversity and Marine Metaproteomics Poster presented at Workshop on Environmental Proteomics, Jan 19-21, Keystone, CO

2010 Carlson, C. A., Morris, R. M., Giovannoni, S. J., Hansell, D. A., Goldberg, S. J., Parsons, R., and Treusch A. Transition of bacterioplankton lineages coupled to mixing, export and transformation of DOM in the mesopelagic zone of the northwestern Sargasso Sea. ASLO, presentation.

2010 Iverson, V. S., Morris, R. M., Frazar, C. D., Berthiaume, C. T., Morales, R. L., Lin, E. O., and Armbrust, V. E., Novel methods for comparative high-throughput metagenomic analysis provide deeper insights into microbial diversity, metabolic potential, and community succession. ASLO, presentation.

2009 Carlson, C. A., Morris, R. M., Parsons, R., Treusch, A. H. and S. J. Giovannoni. Seasonal dynamics of SAR11 populations in the euphotic and mesopelagic zones of the northwestern Sargasso Sea. ASLO. presentation.

2009 Iverson, V. S., Morris, R. M., Frazar, C. D., Berthiaume, C. T., Lin, E. O., Morales, R. L., Parker, M. S., Schruth, D. M., and E. V. Armbrust. Exploring microbial communities six billion bases at a time: Coupled metagenomic-proteomic analyses provide novel insights into diversity. ASLO, presentation.

2009 Morales, R. L., Lin, E. O., Frazar, C. D., Iverson, V. S., Morris, R. M. and E. V. Armbrust. Next generation SOLiD sequencing methods: An overview. ASLO, poster.

2007 Carlson, C.A., Giovannoni, S.J., Parsons, R. and R. M. Morris. Temporal and Spatial Distributions of Bacterial Lineages at the Bermuda Atlantic Time-series Study Site. NSF Microbial Observatory Program, presentation.

2006 Morris, R. M., Fung, J.M., Zinder, S.J., and R.E. Richardson. Proteomic discrimination of *Dehalococcoides ethenogenes* electron-transporting oxidoreductases under different growth conditions. ASM, poster.

2006 Fung J., R. M. Morris, B. G. Rahm, R. E. Richardson, and S. H. Zinder. *Dehalococcoides ethenogenes* hydrogenase and dehalogenase gene regulation in pure and mixed cultures. ASM, poster.

2005 Morris, R.M., Zinder, S.H., and R.E., Richardson. Electron-transporting respiratory gene regulation in *Dehalococcoides* strain 195. ASM, poster.

2005 Morris, R.M., and S.J. Giovannoni. *Pirellula* and OM43 are among the dominant lineages identified in an Oregon coast phytoplankton bloom.

International Union of Microbiological Societies, poster.

2004 Morris, R.M., Cho, J.C., Rappé, M.S., Vergin, K.L., Carlson, C.A., and S.J. Giovannoni. Seasonal shifts in bacterioplankton community structure at BATS. ASM, poster.

2004 Giovannoni, S.J., K.L., Vergin, and R.M. Morris. Time-Series Measurements Reveal Spatial and Temporal Variability Among Bacterioplankton Lineages at the Bermuda Atlantic Time-Series Study Site; ISME, presentation.

2003 Cho, J-C., K. L. Vergin, R. M. Morris, and S. J. Giovannoni. *Lentisphaera araneosa* gen. nov., sp. nov., a Transparent Exopolymer Producing Marine Bacterium, the First Cultivated Representative of the Novel Phylum *Lentisphaerae* phy. nov. ASM, poster.

DIVERSITY EQUITY AND INCLUSION RELATED ACTIVITIES

I am deeply committed to enhancing diversity, equity, and inclusion. Oceanography is currently low-diversity – e.g., in terms of race, only ~ 2 % of marine scientists are either black or Hispanic – and has significant barriers to entry for underrepresented students. Empowering undergraduate student collaborations and providing hands-on experience has great potential to enhance the field's diversity. Through a collaboration with Ben Knowles at the University of California, Los Angeles, I have obtained funding for a project that represents a unique opportunity for training of five or more underrepresented, under-privileged, and non-traditional undergraduate students per year, for the next three years. The outreach activities we propose will give students with computational and laboratory backgrounds an opportunity to share results and form new collaborations through fieldwork. This is a unique opportunity to expose students from disadvantaged communities to potentially life-changing hands-on oceanography.