CURRICULUM VITAE - *Stefan M. Sievert*

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EDUCATION

1999 Ph.D. (summa cum laude), Microbial Ecology, Max-Planck-Institute for Marine Microbiology (MPI-MM) and University of Bremen, Germany.
1996 M.S. (Diplom, grade 1.0), Biological Oceanography, Alfred-Wegener Institute for Polar- and Marine Research and University of Bremen, Germany.
1992/93 Visiting graduate student (Fulbright Grantee), University of Washington (Seattle, WA).
1990 B.S. (Vordiplom, grade 1.0), Biology, Johannes Gutenberg-University, Mainz, Germany.

PROFESSIONAL EXPERIENCE

2012 – Associate Scientist w/ Tenure, Woods Hole Oceanographic Institution (WHOI)
2007 – 2012 Associate Scientist, WHOI
2002 – 2006 Assistant Scientist, WHOI
2002 Postdoctoral Investigator, WHOI
2000 – 2002 Postdoctoral Scholar, WHOI
1999 – 2000 Postdoctoral Investigator, MPI-MM, Bremen, Germany

HONORS AND AWARDS

2023 Fellow of the Aarhus University Research Foundation, Denmark
2019 Doherty Chair in Education
2017 Tenured Associate Scientist Award, WHOI
2015 Invited professorship at the Université Pierre et Marie Curie (Paris VI), France
2010 Senior Fellowship of the Alfried Krupp Wissenschaftskolleg Greifswald (Institute for Advanced Studies), Greifswald, Germany.
2004 Fellowship of the Hanse Wissenschaftskolleg (Institute for Advanced Studies), Delmenhorst, Germany
2000 Postdoctoral Scholar Award in Ocean Science and Engineering, WHOI
1992 Fulbright Scholarship, visiting graduate student at the School of Oceanography, University of Washington, Seattle, WA, sponsor: Prof. John A. Baross

PROFESSIONAL ACTIVITIES

- Cruise Experience: Total of 14 research cruises. Chief scientist on five research cruises to the deep- sea vents at 9ºN EPR on R/V *Atlantis* with either *Alvi*n (4) or *Jason-II*. 21 dives in *Alvin* and 1 dive in *Nautile*.
- Organizer of International Symposium on Chemosynthetic-Based Ecosystems (CBE6) and associated Morss Colloquium on 40th Anniversary of Discovery of Deep-Sea Vents and Implications for Life on Earth and Elsewhere (Woods Hole, August 2017).
- Lead PI of NSF Dimensions of Biodiversity Grant (2011 – 2015). Involved 5 Co-PIs from 4 US institutions and collaborators from 3 countries. Chief scientist of research cruises and organizer of several project meetings. Organizer or Co-organizer of sessions at several international meetings (ASLO Aquatic Sciences 2001, 2003, 2009, 2013, 2016; Goldschmidt 2009, 2010; ASM General Meeting 2006)
- Associate member of SCOR working group 'Hydrothermal energy transfer and its impact on the ocean carbon cycles' and corresponding mirror group at InterRidge.
- Mentoring: Mentor of 10 postdocs, 4 graduate students (MSc, PhD), and 14 undergraduate summer/guest students. PhD thesis committee member of 8 students.
- Outreach Activities:
    - The research cruises AT26-10, AT26-23, AT37-12 on *R/V Atlantis* with either *ROV Jason-II* or *HOV Alvin*, respectively, involved various outreach efforts targeting K-12. This included a highly successful Dive & Discover Expedition 15 website during AT26-10 with science writer David Levin, the Dark Life cruise blog during AT26-23 and AT37-12, online blogs and print articles in various Scholastic magazines by Scholastic science writer Jennifer Barone during AT26-10 and AT26-23, and a live feed from the ship to the New Bedford Ocean Explorium Family Night during AT26-10.
    - Visits to the New Bedford Ocean Explorium Family Night after AT26-10 and to various school classes in Massachusetts (Falmouth, Foxboro, Lexington) before and after the cruises (Grades 2 – 6).
    - Participation in the Massachusetts Marine Educators conference in 2014.
    - Collaboration with teacher Lisa Troy on an Engineering Design Challenge related to an instrument developed with NSF funds (Vent-SID) for a 6th grade class at The Sage School in Foxboro, MA. This project was described in a manuscript entitled *Engineering Partnerships: How collaborating with a scientist created an authentic engineering problem* that was published at Science Scope, a journal by the National Science Teachers Association for middle and high school science teachers (http://www.nsta.org/middleschool/.
    - Adapting published PNAS paper for the Science Journal for Kids
- NSF panel member, ad hoc reviewer for NSF, foreign funding agencies (Austria, Chile, France, Germany), and private research foundations.
- Ad hoc reviewer for various journals, including Applied Environmental Microbiology,

Archives of Microbiology, Astrobiology, BMC Microbiology, Environmental Microbiology, FEBS Journal, FEMS Microbiology Ecology, Frontiers, Geobiology, Geomicrobiology, ISME Journal, Microbial Ecology, Nature, Nature Microbiology, Peer Journal, PLoS, PNAS, PNAS Nexus, Royal Society, Science, Science Advances, International Journal of Systematic and Evolutionary Microbiology, Systematic and Applied Microbiology. Editorial board of Applied and Environmental Microbiology (2010-2013), Editor for Frontiers in Microbiology and FEMS Microbiology Letters.

PUBLICATIONS (Web of Science h-index: 38)

*indicates student or postdoctoral scientist in my lab, #indicates student or postdoctoral scientist performing parts of their research in my lab, ^indicates corresponding author(s)

87. Cui L., Y.-S. Zhong, Y. Li, **S. M. Sievert**, Z. Huang, W. Wang, M. Rubin Blum, X. Cao, Y. Wang, Z. Shao, Q. Lai, S. Wang, L. J. Jiang. 2025. Cultivation and metabolic versatility of novel and ubiquitous chemolithoautotrophic *Campylobacteria* from mangrove sediments, Microbiology Spectrum, 13:e00367-25.
86. Bright, M., S. Gollner, A. Luiz de Oliveira, S. Espada-Hinojosa, A. Fulford, I. V. Hughes, S. Hourdez, C. Karthäuser, I. Kolar, N. Krause, V. Le Layec, T. Makovec, A. Messora, J. Mitchell, P. Pröts, I. Rodríguez-Ramírez, F. Sieler, **S. M. Sievert**, J. Steger, T. Tinta, T. R. M. Winter, Z. Bright, R. Coffield, C. Hill, K. Ingram, A. Paris. 2024. Animal life in the shallow subseafloor crust at deep-sea hydrothermal vents. Nature Communications, accepted.
85. Karthäuser*^, C., P. D. Fucile, A. E. Maas, L. Blanco-Berial, H. Gossner, D. P. Lowenstein, Y. J. Niimi, B. A. S. van Mooy, J. M. Bernhard, K. O. Buesseler, **S. M. Sievert**. 2024. RotoBOD - Quantifying Oxygen Consumption by Suspended Particles and Organisms. Environmental Science & Technology, 58:8760-8770.
84. Mino, S., S. Fukazawa, J. Tsuchiya, J. C. McNichol[#], **S. M. Sievert**, S. Yamaki, Y. Ando, T. Sawabe. 2023. *Hydrogenimonas cancrithermarum* sp. nov., a hydrogen- and thiosulfate-oxidizing mesophilic chemolithoautotroph isolated from a diffuse-flow deep-sea hydrothermal vent on the East Pacific Rise, and an emended description of the genus *Hydrogenimonas*. International Journal of Systematic and Evolutionary Microbiology, 73:006132
83. Seewald, J. S., G. Wheat, E. Reeves, M. K. Tivey, **S. M. Sievert**, D. Stakes, S. P. Sylva, M. D. Lilley, V. Heuer. 2023. Spatial Evolution and Temporal Stability of Hydrothermal Processes at Sediment-Covered Spreading Centers: Constraints from Guaymas Basin, Gulf of California. Geochimica et Cosmochimica Acta, 367:87-106
82. Espada-Hinojosa, S., C. Karthäuser[#], A. Srivastava, L. Schuster, T. Winter, A. Luiz de Oliveira, F. Schulz, M. Horn, **S. M. Sievert**, M. Bright. 2023. Comparative genomics of a vertically transmitted thiotrophic bacterial ectosymbiont and its close free-living relative. Molecular Ecology Resources, 10.1111/1755-0998.13889

81. Leng, H., Y. Wang, W Zhao, **S. M. Sievert**, X. Xiao. 2023. Identification of a deep-branching thermophilic clade sheds light on the early bacterial evolution. Nature Communications, 14, 4354.
80. Pérez-Rodríguez, I., **S. M. Sievert**, M. L. Fogel, D. I. Foustoukos. 2022. Physiological and metabolic responses of chemolithoautotrophic NO_3^- reducers to high hydrostatic pressure. Geobiology, 20(6):857-869.
79. Bentley J. N., G. T. Ventura, C. C. Walters, **S. M. Sievert**, J. S. Seewald. The influence of near surface sediment hydrothermalism on the TEX86 tetraether lipid-based proxy and a new correction for ocean bottom lipid overprinting. Biogeosciences, 19:4459–4477.
78. **Sievert^, S. M.**, S. I. Bühring^, L. K. Gulmann, K.-U. Hinrichs, P. Pop Ristova, G. V. Gomez-Saez. 2022. Fluid flow stimulates chemoautotrophy in hydrothermally influenced sediments. Nature Communications Earth and Environment. 3:96
77. Chen, S.-C., J. Ji, D. Popp, U. Jaekel, H.-H. Richnow, **S. M. Sievert**, F. Musat. 2022. Genome and proteome analyses show the gaseous alkane degrader *Desulfosarcina* sp. strain BuS5 as an extreme metabolic specialist. Environmental Microbiology, 24:1964-1976.
76. Bentley, J. N., G. T. Ventura, C. J. Dalzell, C. C. Walters, C. A. Peters, A. S. Mennito, R. K. Nelson, C. M. Reddy, J. S. Seewald, **S. M. Sievert**. 2022. Archaeal lipid diversity, alteration, and preservation at the Cathedral Hill deep sea hydrothermal vent, Guaymas Basin, Gulf of California, and its implications regarding the deep time preservation paradox. Organic Geochemistry, 163:104302.
75. McNichol*^ J., S. Dyksma, M. Mußmann, J. S. Seewald, S. P. Sylva, and **S. M. Sievert**^. 2021. Genus-Specific Carbon Fixation Activity Measurements Reveal Distinct Responses to Oxygen Among Hydrothermal Vent *Campylobacteria*. Applied and Environmental Microbiology. 88:e02083-21. doi:10.1128/AEM.02083-21
74. Caramanna, G., **S. M. Sievert**, S. I. Bühring . 2021. Submarine shallow-water fluid emissions and their geomicrobiological imprint: a global overview. Frontiers in Marine Sciences, Vol. 8, Article 727199, doi: 10.3389/fmars.2021.727199
73. Dalzell, C. J., G. T. Ventura. C. C. Walters, R. K. Nelson, C. M. Reddy, J. S. Seewald, **S. M. Sievert**. 2021. Hydrocarbon transformations in sediments from the Cathedral Hill hydrothermal vent complex at Guaymas Basin, Gulf of California – a chemometric study of shallow seep architecture. Organic Geochemistry 152:104173.
72. Hinzke, T., M. Kleiner, M. Meister, R. Schlüter, C. Hentschker, J. Pané-Farré, P. Hildebrandt, H. Felbeck, **S. M. Sievert**, F. Bonn, U. Völker, D. Becher, T. Schweder, S. Markert. 2021. Bacterial symbiont subpopulations have different roles in a deep-sea symbiosis. eLife 10:e58371
71. Mullineaux, L. S., S. W. Mills, N. Le Bris, S. E. Beaulieu, **S. M. Sievert**, L. N. Dykman. 2020. Prolonged recovery time after eruptive disturbance of a deep-sea hydrothermal vent community. Proceedings of the Royal Society B 287:20202070
70. Shiotani, T., S. Mino[#], W. Sato, **S. M. Sievert**, T. Sawabe. 2020. *Nitrosophilus alvini* gen. nov., sp. nov., a hydrogen-oxidizing chemolithoautotroph isolated from a deep-sea

hydrothermal vent in the East Pacific Rise, inferred by a genome-based taxonomy of the phylum "*Campylobacterota*", PLoS One 15(12):e0241366.

69. Wang*, C. H., L. K. Gulmann, T. Zhang, G. A. Farfan, C. M. Hansel, **S. M. Sievert**. 2020. Microbial colonization of metal sulfide minerals at a diffuse-flow deep-sea hydrothermal vent at 9º50'N on the East Pacific Rise. Geobiology 18:594-605
68. Hou, J., **S. M. Sievert**, Y. Wang, J. S. Seewald, V. Perumal Natarajan, F. Wang, X. Xiao. 2020. Microbial succession during the transition from active to inactive stages of deep-sea hydrothermal vent sulfide chimneys. Microbiome 8:102
67. Beam J. P., E. D. Becraft, J. M. Brown, F. Schulz, J. K. Jarett, O. Bezuidt, N. Poulton, K. Clark, P. Dunfield, N. V. Ravin, J. R. Spear, B. Hedlund, M. Stott, Kostas Kormas, **S. M. Sievert**, M. S. Elshahed, H. Barton, J. A. Eisen, D. Moser, T. C. Onstott, T. Woyke, R. Stepanauskas. 2020. Ancestral Absence of Electron Transport Chains in Patescibacteria and DPANN Front. Microbiol., 17 August 2020
66. Hinzke T., M. Kleiner, C. Breusing, H. Felbeck, R. Häsler, **S. M. Sievert**, R. Schlüter, P. Rosenstiel, T. B. H. Reusch, T. Schweder, S. Markert. 2019. Host-Microbe Interactions in the Chemosynthetic *Riftia pachyptila* Symbiosis. mBIO, Volume 10 Issue 6 e02243-19, https://mbio.asm.org/content/10/6/e02243-19.
65. Ponnudarai, R., S. E. Heiden, L. Sayavedra, T. Hinzke, M. Kleiner, C. Hentschker, H. Felbeck, **S. M. Sievert**, R. Schlüter, D. Becher, T. Schweder, and S. Markert. 2019. Comparative proteomics of related symbiotic mussel species reveals high variability of host–symbiont interactions. IMSE Journal, https://doi.org/10.1038/s41396-019-0517-6.
64. Labonté, J. M., M. Pachiadaki, E. Ferguson, J. McNichol*, A. Grosche, L. K. Gulmann, C. Vetriani, **S. M. Sievert**, R. Stepanauskas. 2019. Single cell genomics-based analysis of gene content and expression of prophages in a diffuse-flow deep-sea hydrothermal system. Frontiers in Microbiology, 10, 1262, https://doi.org/10.3389/fmicb.2019.01262
63. Thomas*^, F., J. M. Morris, C. Wigand, **S. M. Sievert**^. 2019. Short-term effect of simulated salt marsh restoration by sand-amendment on sediment bacterial communities. PLoS One. 14(4):e0215767, https://doi.org/10.1371/journal.pone.0215767
62. Youssef N., C. R. Hahn, I. Farag, J. Jarett, E. Becraft, E. Eloe-Fadrosh, J. Lightfoot, A. Bourgeois, T. Cole, S. Ferrante, M. Truelock, W. Marsh, M. Jamaleddine, S. Ricketts, R. Simpson, A. McFadden, W. Hoff, N. Ravin, **S. Sievert**, R. Stepanauskas, T. Woyke, M. Elshahed. 2019. Genomic characterization of candidate division LCP-89 reveals an atypical cell wall structure, microcompartment production, and dual respiratory and fermentative capacities. Applied and Environmental Microbiology, doi:10.1128/AEM.00110-19
61. Dang, H., M. G. Klotz, C. R. Lovell, **S. M. Sievert**. 2019. Editorial: The response of marine microorganisms, communities and ecofucntions to environmental gradients. Front. Microbiol. https://doi.org/10.3389/fmicb.2019.00115
60. Le Bris, N., M. Yücel, A. Das, **S. M. Sievert**, L. PonnaPakkam, P. R Girgius. 2019. Hydrothermal energy transfer and organic carbon production at the deep seafloor. Front. Marine Science. Vol. 5, Article 531, doi: 10.3389/fmars.2018.00531

59. **Sievert, S. M.**, J. McNichol*, F. Thomas*. 2018. How do deep-sea hot spring ecosystems work? Environmental Science Journal for Kids
58. Götz* F., P. Pjevac, S. Markert, J. McNichol, D. Becher, T. Schweder, M. Mussmann, **S. M. Sievert**^. 2018. Transcriptomic and proteomic insight into the mechanism of cyclooctasulfur- versus thiosulfate-oxidation by the chemolithoautotroph *Sulfurimonas denitrificans*. Environmental Microbiology. 21:244-258 https://doi.org/10.1111/1462-2920.14452
57. Longnecker K., **S. M. Sievert**, S. P. Sylva, J. S. Seewald, E. B. Kujawinski. 2018. Dissolved organic carbon compounds in deep-sea hydrothermal vent fluids from the East Pacific Rise at 9°50'N. Organic Geochemistry 125:41-49.
56. McNichol*^, J., H. Stryhanyuk, S. P. Sylva, F. Thomas*, N. Musat, J. S. Seewald, **S. M. Sievert**^. 2018. Primary productivity below the seafloor at deep-sea hot-springs. Proceedings of the National Academy of Sciences of the USA 115:6756-6761 https://doi.org/10.1073/pnas.1804351115
55. Troy L., N. Resnick, **S. M. Sievert**. 2018. Engineering Partnerships: How collaborating with a scientist created an authentic engineering problem. ScienceScope 41(8).
54. Götz[#], F., K. Longnecker, M. C. Kido-Soule, K. W. Becker, J. McNichol, E. B. Kujawinski, **S. M. Sievert**^. 2018. Targeted metabolomics reveals proline as a major osmolyte in the chemolithoautotroph *Sulfurimonas denitrificans*. MicrobiologyOpen. e586. https://onlinelibrary.wiley.com/doi/full/10.1002/mbo3.586
53. Signori[#]^, C. N., V. H. Pellizari, A. Enrich-Prast, **S. M. Sievert**^. 2018. Spatiotemporal dynamics of marine bacterial and archaeal communities in surface waters off the northern Antarctic Peninsula. Deep-Sea Research Part II 149:150-160.
52. Bühring^, S. I., **S. M. Sievert**^. 2017. The shallow submarine hot vent system off Milos (Greece) – a natural laboratory for the study of hydrothermal geomicrobiology. *In* Life at Vents and Seeps, Jens Kallmeyer (ed.), De Gruyter, Berlin, Germany.
51. Punudarai, R., L. Sayavedra, M. Kleiner, S. E. Heiden, A. Thürmer, H. Felbeck, R. Schlüter, **S. M. Sievert**, R. Daniel, T. Schweder, S. Markert. 2017. Genome sequence of the sulfur-oxidizing *Bathymodiolus thermophilus* gill endosymbiont. Standards in Genomic Sciences 12:50. doi: 10.1186/s40793-017-0266-y
50. Pérez-Rodríguez[#] I., **S. M. Sievert**, M. L. Fogel, D. I. Foustoukos. 2017. Biogeochemical N signatures from rate-yield trade-offs during in vitro chemosynthetic NO_3^- reduction by deep-sea vent ε-Proteobacteria and Aquificae growing at different temperatures. Geochimica et Cosmochimica Acta 211:214–227.
49. Giovannelli D., **S. M. Sievert**, M. Hügler, S. Markert, D. Becher, T. Schweder, C. Vetriani. 2017. Insight into the evolution of microbial metabolism from the deep-branching bacterium, *Thermovibrio ammonificans*. eLIFE 6:e18990. https://elifesciences.org/articles/18990
48. Waite D. W., I. Vanwonterghem, C. Rinke, D. H. Parks, Y. Zhang, K. Takai, **S. M. Sievert**, J. Simon, B. J. Campbell, T. E. Hanson, T. Woyke, M. G. Klotz, P. Hugenholtz. 2017.

Comparative Genomic Analysis of the Class *Epsilonproteobacteria* and Proposed Reclassification to *Epsilonbacteraeota* (phyl. nov.). Frontiers in Microbiology 8:682. https://doi.org/10.3389/fmicb.2017.00682 and erratum 2018, 9:772. https://doi.org/10.3389/fmicb.2018.00772

47. Gomez-Saez G. V., P. Pop Ristova, **S. M. Sievert**, M. Elvert, K.-U. Hinrichs, S. I. Bühring. 2017. Relative importance of chemoautotrophy for primary production in a light exposed marine shallow hydrothermal system. Frontiers in Microbiology 8:702. https://doi.org/10.3389/fmicb.2017.00702
46. Mino, S., S. Nakagawa, H. Makita, T. Toki, J. Miyazaki, **S. M. Sievert**, M. Polz, F. Inagaki, A. Godfroy, S. Kato, H. Watanabe, T. Nunoura, K. Nakamura, H. Imachi, T. Watsuji, S. Kojima, K. Takai, T. Sawabe. 2017. Endemicity of the cosmopolitan mesophilic chemolithoautotroph *Sulfurimonas* at deep-sea hydrothermal vents. ISME Journal 11(4):909-919.
45. McNichol*, J., S. P. Sylva, Fr. Thomas, C. D. Taylor, **S. M. Sievert**^, J. S. Seewald^. 2016. Assessing microbial processes in deep-sea hydrothermal systems by incubation at in situ temperature and pressure. Deep-Sea Research Part I 155:221-232.
44. He, Y., M. Li, V. Perumal, X. Feng, J. Fang, J. Xie, **S. M. Sievert**, F. Wang. 2016. Genomic and enzymatic evidence for acetogenesis among multiple lineages of the archaeal phylum Bathyarchaeota widespread in marine sediments. Nature Microbiology 1, article number 16035.
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41. Honjo, S., T. I. Eglinton, C. D. Taylor, K. M. Ulmer, **S. M. Sievert**, A. Bracher, C. R. German, V. Edgcomb, R. Francois, M. D. Iglesias-Rodriguez, B. van Mooy, D. J. Repeta. 2014. Understanding the role of the biological pump in the global carbon cycle: An imperative for ocean science. Oceanography Magazine 27(3):10–16.
40. Thomas*^, F., A. E. Giblin, Z. G. Cardon, **S. M. Sievert**^. 2014. Rhizosphere heterogeneity shapes abundance and activity of sulfur-oxidizing bacteria in vegetated salt marsh sediments. Frontiers in Microbiology 5:309. https://doi.org/10.3389/fmicb.2014.00309
39. Zhang* Y., **S. M. Sievert**. 2014. Pan-genome analyses identify lineage- and niche-specific markers of evolution and adaptation in *Epsilonproteobacteria*. Frontiers in Microbiology, 5:110. https://doi.org/10.3389/fmicb.2014.00110
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Darling, S. Malfatti, B. K. Swan, E. A. Gies, J. A. Dodsworth, B. P. Hedlund, G. Tsiamis, **S. M. Sievert**, W.-T. Liu, J. A. Eisen, S. J. Hallam, N. C. Kyrpides, R. Stepanauskas, E. M. Rubin, P. Hugenholtz, T. Woyke. 2013. Insights into the phylogeny and coding potential of microbial dark matter. Nature 499:431-437.

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30. Hügler[#] M., J. M. Petersen, N. Dubilier, J. F. Imhoff, **S. M. Sievert**^. 2011. Pathways of carbon and energy metabolism of the epibiotic community associated with the deep-sea hydrothermal vent shrimp *Rimicaris exoculata*. PLoS One 6(1): e16018. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0016018
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Advisor during Fulbright: Dr. J. A. Baross (School of Oceanography, UW); Master thesis advisor: Dr. Karin Lochte (AWI Bremerhaven, Germany); Ph.D. adviser: Dr. F. Widdel (MPI Bremen, Germany); Postdoctoral advisors: Dr. C. Taylor, Mr. C. Wirsen (both WHOI), Dr. A. Teske (WHOI, now UNC Chapel Hill)

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Postdocs: Clarissa Karthäuser (postdoc scholar, co-sponsored w/ Ken Buesseler [MC&G]), Robert Scharping (postdoc scholar, co-sponsored w/ Matt Charette [MC&G] and John Pohlman, [USGS], now at Florida Southern College), Kevin Becker (postdoc scholar, co-sponsored w/ Ben van Mooy [MC&G] and John Pohlman, [USGS], now research scientist at Geomar, Kiel, Germany), Camila Signori (guest investigator from University of Sao Paulo, Brazil, 2015, now Professor at Instituto Oceanográfico at University of Sao Paulo, Brazil), François Thomas (postdoc investigator, now a CNRS Researcher at Station Biologique de Roscoff, France), Ying Zhang (postdoc scholar, now Associate Professor at University of Rhode Island), Karyn Rogers (postdoc scholar, co-sponsored w/ J. Seewald, now Associate Professor at Rensselaer Polytechnic Institute), Lara Gulmann (postdoc investigator), Cornelia Wuchter (postdoc investigator), Michael Hügler (postdoc scholar, now Staff Scientist at Water Technology Center, Karlsruhe, Germany)

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Undergraduate Students: Natalia Rodriguez (PEP student, 2019), Chloe Wang (WHOI summer student fellow (SSF), 2016), Aubrey Kinefick (guest student, 2013), Carolyn Toney (guest student, 2011), Erica Hildebrand (SSF, 2009), Toby Hammer (WHOI SSF, 2008), Dorothea Paulssen (WHOI SSF, 2007), Melissa Duhaime (guest student, 2005), Elia Tait (WHOI SSF, 2004, won poster award at ASLO AqSciMtg, 2005), Whitney Krey (WHOI SSF, 2003, REU, 2004), Caroline Graeber (guest student, 2003), Geoffrey Morris (WHOI SSF, 2002)

CONTRIBUTIONS TO WHOI'S ACADEMIC PROGRAM

I have a keen interest in taking part in WHOI's academic program, and I find the interaction with students and postdocs to be a very stimulating and rewarding experience. I have participated in a number of teaching activities: I have co-taught *Biological Oceanography* ('07 - '09), have developed and taught *Marine Microbiology and Biogeochemistry* together with Amy Apprill ('13, '15, '17, '19, '22, '23), and have co-taught 4 topics seminar courses ('06, '09, '18, '20). Together with Amy Apprill. I have also received a *Doherty Chair in Education* grant to develop a Field Course component of our Class (*WHOI-MIT Field Course in Microbial Oceanography*) which took place from January 19 to 29, 2020 at the Bermuda Institute of Ocean Science. I have advised JP students Kevin Richberg (MSc in 2010) and Jesse McNichol (PhD in 2016) and currently advise JP student Avery Fulford. I have served or am serving on the thesis committee of JP students (8 total, 1 current). Over the years, I have also mentored a total of 7 summer student fellows and 6 undergraduate guest students, in addition to a number of international guest students. I have been the primary sponsor and co-sponsor of 2 and 4 postdoctoral scholars, respectively, and have mentored 4 postdoctoral investigators. I have also served on the postdoc mentoring committee of the Biology Department.

PROFESSIONAL AFFILIATIONS

American Society for Microbiology (ASM), Association for the Sciences of Limnology and Oceanography (ASLO), American Geophysical Union (AGU), International Society for Microbial Ecology (ISME), Vereinigung für Allgemeine und Angewandte Mikrobiologie e.V. (VAAM).

CRUISE PARTICIPATION

SeepDOM (AT50-14), Hydrate Ridge and Astoria Canyon, R/V Atlantis, August 12 – August 20, 2023; Chief Scientist: Laura Lapham, U of Maryland

The underworld of hydrothermal vents, 9-10°N East Pacific Rise (EPR); R/V Falkor (too), June 29 2023 – July 28, 2023; Chief Scientist: Monika Bright, U of Vienna, Austria, https://schmidtocean.org/cruise/underworld-of-hydrothermal-vents/

RR21-02, 9-10°N East Pacific Rise (EPR); R/V Roger Revelle, ROV Jason, AUV Sentry; March 24, 2021 – April 25, 2021; Chief Scientist: Dan Fornari, WHOI

Dark Life II - Expedition to Study Subseafloor Life at Deep-Sea Vents (AT37-12). 9-10°N East Pacific Rise (EPR) R/V Atlantis and HOV Alvin, April 24, 2017 – May 14, 2017, Alvin Dives 4893 – 4905. Chief Scientist: Stefan Sievert, WHOI. http://web.whoi.edu/darklife/

Brazilian Antarctic Program Interbiota Operantar XXXIV, Southern Ocean, Western Antartic Peninsula, Brazilian research vessel *Npo. Almirante Maximiano* (H41), February - March 2016. Chief Scientist: Eduardo Secchi

Dark Life - Expedition to Study Subseafloor Life at Deep-Sea Vents (AT26-23). 9-10°N East Pacific Rise (EPR) R/V Atlantis and HOV Alvin, Nov 2, 2014 – Nov 26, 2014, Alvin Dives 4761 – 4776. Chief Scientist: Stefan Sievert, WHOI. http://web.whoi.edu/darklife/category/dark-life-2014/

Dark Life at Deep-sea Vents (AT26-10), 9-10°N East Pacific Rise (EPR)R/V Atlantis and ROV Jason, Dec 29, 2013 – Jan 26, 2014, Jason II Dives 758 – 762. Chief Scientist: Stefan Sievert, WHOI. http://www.divediscover.whoi.edu/expedition15/index.html

DOBS cruise, R/V Endeavor, July 23 – Aug 9, 2012. Chief Scientist: Stefan Sievert, WHOI

MESCAL leg 1, 9-10°N East Pacific Rise (EPR), N/O *L'Atalante* & DSV *Nautile*, April 27-May 2010, DSV *Nautile* dives 1726-1730. Chief Scientist: Nadine Le Bris, Observatoire Océanologique de Banyuls sur mer, France.

FIX08-II (AT15-38), Guaymas Basin and 9-10°N EPR, R/V *Atlantis* & DSV *Alvin*, Oct 13-Nov 5 2008, DSV *Alvin* dives 4457-4469. Chief scientist: Stefan Sievert, WHOI.

FIX08-I (AT15-28), 9-10°N and 13ºN EPR, R/V *Atlantis* & DSV *Alvin*, Dec 28 2007-Jan 19 2008, DSV *Alvin* dives 4457-4469. Chief scientist: Stefan Sievert, WHOI. http://www.interridge.org/node/5363

AT15-25, Guaymas Basin, R/V *Atlantis* & DSV *Alvin*, Oct 18-28 2007. DSV *Alvin* dives 4355-4359. Chief Scientist: Costantino Vetriani, Rutgers University.

AT15-15, 9-10°N EPR, R/V *Atlantis* & DSV *Alvin,* Jan-Feb 7 2007, DSV *Alvin* dives 4297-4318. Chief Scientist: Timothy Shank, WHOI.

RESET06 (AT15-06), 9-10°N EPR, R/V *Atlantis* & DSV *Alvin*, June 18-July 7 2006, DSV *Alvin* dives 4201-4207. Chief Scientist: Karen von Damm, University of New Hampshire. Our project contributed two *Alvin* dives to this community driven rapid response cruise to study the aftermath of the '05/'06 eruption.

EXTREME 2002, 9-10°N EPR, R/V *Atlantis* & DSV *Alvin*, Oct 20-Nov 12 2002. Chief Scientist: Craig Cary, University of Delaware.

Hydrothermal Fluxes and Biological Production in the Aegean and Fluxes in the Anoxic Basins of the Mediterranean Ridge (M40/2), Dec 2 – Dec 23, 1998, R/V *Meteor*, Chief Scientist: Peter Linke, IfM-Geomar Kiel, Germany.