

Curriculum Vitae

Joan M. Bernhard

Address

Department of Geology & Geophysics
Woods Hole Oceanographic Institution, MS 52
Woods Hole, MA 02543

Telephone: 508-289-3480
Fax: 508-457-2076
E-mail: jbernhard@whoi.edu

Education

- 1990 **Ph.D.** Biological Oceanography, Scripps Institution of Oceanography, University of California, San Diego. Dissertation: *The Ecology of Benthic Foraminiferida with Emphasis on Their Distribution in Anoxic Sediments*. Advisor: Robert R. Hessler.
- 1984 **M.S.** Geology (Micropaleontology), University of California, Davis. Thesis: *Characteristic Benthic Foraminiferal Assemblages and Morphologies of Anoxic Deposits: Jurassic through Recent*. Advisor: Jere H. Lipps.
- 1982 **B.A.** Geology, *cum laude* with high honors in Geology, Colgate University, Hamilton, N.Y.

Additional Educational Activities

- 1991 **Participant**, Marine Ecology (an introduction to molecular biology), Marine Biological Laboratory, Woods Hole.
- 2000 **Participant**, Gordon Conference, Origin of Life.
- 2016 **Participant**, Multivariate Analysis in Ecology using Primer v7 (& PerMANOVA)

Appointments

- 2010-present **Senior Scientist**, Woods Hole Oceanographic Institution
- 2004- 2010 **Tenured Associate Scientist**, Woods Hole Oceanographic Institution.
- 1997-2004 **Career Development Professorship**, University of South Carolina (USC) Office of Research.
- 1997-2004 **Research Associate Professor**, Dept. Environmental Health Sciences, USC.
- 1997-2004 **Research Associate Professor**, Marine Science Program, USC.
- 1996-1997 **Research Scientist II**, Wadsworth Center, New York State Department of Health.
- 1994-1997 **Assistant Professor**, Department of Biomedical Sciences, The University at Albany, State University of New York.
- 1994-1996 **Research Scientist I**, Wadsworth Center, New York State Department of Health.
- 1993-1994 **Research Affiliate II**, Wadsworth Center, New York State Dept. of Health.
- 1992 **Fulbright Fellow**, University of Oslo. (Sponsor: Elisabeth Alve).
- 1990-1992 **Research Affiliate I**, Wadsworth Center, New York State Department of Health. (Postdoctoral advisor: Samuel S. Bowser).

Scholarships, Fellowships, Awards and Guest Appointments

- 2019 **Visiting Professorship**, University of Angers (2 months; 18 March-17 May)
- 2018 **Gæsteforskerophold fra Aarhus Universitets Forskningsfond** (Visiting Researcher), Center for Electromicrobiology, Aarhus University (1 August to 30 November)
- 2017 **Visiting Professorship**, University of Angers (1 week; June 2017)
- 2016 **Visiting Professorship**, University of Angers (1 month, March 2016)
- 2015 **Visiting Professorship**, University of Angers (2 weeks, May 2015)
- 2014 **Japan Society for the Promotion of Science (JSPS) Invitation Fellowship for Research in Japan**, JAMSTEC (18 May to 14 June 2014)
- 2012 **Robert W. Morse Chair for Excellence in Oceanography**, WHOI (5-year term)
- 2003 **W. Storrs Cole Memorial Research Award**, Geological Society of America
- 1998 **Research and Productive Scholarship Award**, University of South Carolina.
- 1997 **Career Development Professorship**, University of South Carolina
- 1996 **Prix International Paul Broennimann 1995 Competition "Prix Extraordinaire"**; Museum d'Histoire Naturelle, Geneve, Switzerland

Scholarships, Fellowships and Awards (continued)

- 1992 **Fulbright Fellow**; University of Oslo, Norway
 1992 **Norge-Amerika Foreningen Thanksgiving Award**; Oslo, Norway
 1991 **Surdna Foundation Scholarship**, Marine Ecology Course; MBL, Woods Hole
 1990 **Terminal Dissertation Fellowship**; U.C. San Diego
 1985 **Joseph Cushman Student Research Grant**; Cushman Foundation Foraminiferal Research
 1983 **Sigma Xi Grant-in-Aid of Research**
 1983 **R.C. Baker Fund Grant**; Geology Department, U.C. Davis
 1982 **Summer Field Assistant**; National Association of Geologic Teachers—US Geological Survey
 1981 **Mobil Research Grant** through Geology Department; Colgate University

Research Cruises

- 2018 **Chief Scientist**, R/V *Robert Gordon Sproul*, 2-8 May, Santa Barbara Basin
 2017 **Chief Scientist**, R/V *Robert Gordon Sproul*, 20-24 July, Santa Barbara Basin
 2017 **Chief Scientist**, R/V *Robert Gordon Sproul*, 15-19 February, Santa Barbara Basin
 2013 **Chief Scientist**, R/V *Endeavor*, 19-22 May 2013, Off Massachusetts (OA sampling)
 2013 **Participant**, R/V *Natsushima* (+ROV *Hyperdolphin*), 20-29 April 2013, Japanese vents
 2012 **Participant**, R/V *Melville*, 26-31 October, Santa Barbara Basin and vicinity
 2012 **Participant**, R/V *Robert Gordon Sproul*, 5-8 January, Santa Barbara Basin
 2011 **Participant**, R/V *Atlantis* (& ROV *Jason*), 25 Nov-8 Dec 2011, DHABs off Greece
 2011 **Participant**, R/V *Cape Hatteras*, 9-15 May, Foram culture experiment collections
 2010 **Chief Scientist**, R/V *Oceanus*, 13-17 May, Foraminiferal onshore/ offshore dispersal
 2010 **Chief Scientist**, R/V *RG Sproul*, 13-18 April, Santa Barbara Basin
 2010 **Chief Scientist**, R/V *Walton Smith*, 17-24 March, Bahamian stromatolite eukaryotes
 2009 **Chief Scientist**, R/V *Oceanus*, 9-13 September, Foram onshore/ offshore dispersal
 2009 **Participating Scientist**, R/V *Oceanus*, July 29-August 5, Mediterranean DHABs
 2009 **Participating Scientist**, R/V *RG Sproul*, June 18-22, Santa Barbara Basin
 2009 **Participating Scientist**, R/V *Oceanus*, June 1-5, N Atlantic continental slope
 2008 **Participating Scientist**, R/V *RG Sproul*, October 8-14, Santa Barbara Basin
 2008 **Chief Scientist**, R/V *RG Sproul*, June 17-20, Santa Barbara Basin.
 2008 **Participating Scientist**, R/V *Natsushima*, May 28-June 2, Sagami Bay ROV operations
 2008 **Participating Scientist**, R/V *Oceanus*, June 9-13, N Atlantic continental slope
 2007 **Chief Scientist**, R/V *RG Sproul*, October 15-20, Santa Barbara Basin
 2007 **Participating Scientist**, R/V *Atlantis* (+ROV *Jason*), July 22-31, Monterey Bay seep ecology
 2006 **Chief Scientist**, R/V *Oceanus*, May 14-25, off the Carolinas and Bahamas
 2005 **Chief Scientist**, R/V *Cape Hatteras*, June 7-15, off the Carolinas and Bahamas
 2004, 2005 **Participating Scientist**, R/V *Western Flyer*, 12/13-17/04; 1/18-22/05, N. California
 2003 **Participating Scientist**, R/V *Knorr*, May 10-15, Black Sea
 2003 **Participating Scientist**, R/V *Wecoma*, 2/23-3/1, Southern California borderland basins
 2002 **Chief Scientist**, R/V *R G Sproul*, Oct 2-6, Santa Barbara Basin
 2002 **Chief Scientist**, R/V *Oceanus*, Apr 24-May 1, benthic sampling off Carolinas
 2001 **Participating Scientist**, R/V *New Horizon*, Nov 20-Dec 5, Gulf of California basins
 2001 **Participating Scientist**, R/V *Atlantis*, Sept 22-30, Blake Ridge seep ecology (1 *Alvin* dive)
 2001 **Chief Scientist**, R/V *Cape Henlopen*, June 25- July 2, benthic sampling off Carolinas
 2001 **Participating Scientist**, R/V *Hermano Gines*, May 1-4, Cariaco Basin, Venezuela
 2001, 2002 **Participating Scientist**, R/V *Gyre*, 6/1-21, 6/1-16, G. Mexico, Deep benthic ecology
 2000 **Participating Scientist**, R/V *Atlantis*, October 16-31, G. of Mexico Seeps (3 *Alvin* dives)
 1999 **Chief Scientist**, R/V *R G Sproul*, 2/17-23 & 9/21-28, Microaerophilic meiofauna
 1999 **Participating Scientist**, R/V *Melville*, Oct 26-Nov 22, Paleoceanography off Baja, CA
 1998 **Chief Scientist**, R/V *Robert Gordon Sproul*, 2/18-23 & 9/22-28, Meiofauna of SBB
 1997 **Participating Scientist**, R/V *Point Sur*, April 24-30, Geochemistry of Santa Barbara Basin

Research Cruises (continued)

- 1996 **Chief Scientist**, R/V *Robert Gordon Sproul*. 2/21-25 & 10/1-5, Physiological ecology of foraminifera in dysaerobic environments: Santa Barbara Basin
- 1995 **Chief Scientist**, R/V *R G Sproul*. 2/15-18, Physiological ecology of foraminifera
- 1995 **Scientist**, R/V *Point Sur*. November 28-December 4, Santa Barbara Basin Biogeochemistry
- 1992; 1993 **Co-Chief Scientist**, R/V *Trygve Braarud*. Six 1-3 day cruises in Norwegian fjords
- 1992 **Co-Chief Scientist**, R/V *Polar Duke* (92-2). 3/19-4/15, Antarctic Peninsula Quaternary
- 1990 **Participating Scientist**, R/V *Cape Hatteras*. 5/4-8, Foram ecology off N. Carolina
- 1988; 1989 **Participating Scientist**, R/V *Robert Gordon Sproul*. 6/20-25/88; 10/4-9/88; 7/2-8/89, Geochemical studies in Santa Barbara Basin
- 1987; 1988 **Participating Scientist**, R/V *New Horizon*. Oct 26-Nov 10, 1987; July 14-Aug 3, 1988, Carbon cycling on the continental slope & rise off central CA

Antarctic Field Experience

- 1990, 1993, **Participating Scientist**, McMurdo Station and New Harbor camp. Test (shell)
- 2002 morphogenesis of benthic foraminifera (7 months field work, total)
- 1992 **Co-Chief Scientist**, R/V *Polar Duke*; Cruise 92-2, Quaternary climatic record from the Antarctic Peninsular region (1 month ship work)
- 1984, 1986, **Participating Scientist**, McMurdo Station and New Harbor camp. Trophic positions of
- 1987 benthic rhizopoda (15 months field work, total)

Professional Memberships

- Cushman Foundation for Foraminiferal Research* *International Society of Protistologists (ISOP)*
American Geophysical Union *Association for Sciences of Limnology & Oceanography*
Geological Society of America (GSA) *The Micropalaeontological Society*

Miscellaneous Professional Activities

- Member**, UNOLS Fleet Improvement Committee, 2012 to 2018.
- President**, Cushman Foundation for Foraminiferal Research, 2010.
- Vice President**, Cushman Foundation for Foraminiferal Research, 2009.
- Member, Board of Directors**, Cushman Foundation for Foraminiferal Research, 2004-present.
- Review Editor**, *Frontiers in Extreme Microbiology* (2011-present).
- Associate Editor**, *Journal of Foraminiferal Research* (December 2000 – present).
- Editorial Board**, *Marine Micropaleontology* (January 2004 – present).
- Panel Member and Sub-Panel Co-Organizer**, NASA Exobiology (November 2004).
- Panel Member**, NSF Division of Ocean Sciences, Oceanographic Technical Services panel (2/03).
- Panel Member**, NSF Office of Polar Programs, Polar Biology & Medicine annual panel (October 2001).
- Panel Member**, NOAA National Undersea Research Center 2001 review, UNC Wilmington (11/2000).
- Panelist**, NSF Division of Ocean Sciences, RCRV Design Down-Select 7-8 October 2009.
- Member**, Program Committee, 2004 Ocean Sciences Meeting (American Geophysical Union; Portland OR).
- Ad-hoc journal reviewer**: *Antarctic Science*; *Biogeosciences (EGU)*; *Biological Bulletin*; *Biological Reviews*; *Biology Letters*; *Chemical Geology*; *Current Biology*; *Deep-Sea Research (I and II)*; *Ecology and Evolution*; *Environmental Microbiology*; *Environmental Microbiology Reports*; *Estuarine, Coastal and Shelf Science*; *Frontiers in Microbiology*; *Geobiology*; *Geochimica et Cosmochimica Acta*; *Geology*; *Geochemistry, Geophysics, Geosystems*; *J. Biol. Res. - Bollettino della Società Italiana di Biologia Sperimentale*; *J. Eukaryotic Microbiology*; *Journal of Foraminiferal Research*; *JGR Oceans, Journal of Marine Research*; *J. of Quaternary Science Reviews*, *J. Sedimentary Research*; *Limnology and Oceanography*; *Marine and Petroleum Geology*; *Marine Biology*; *Marine Ecology*; *Marine Environmental Research*; *Marine Geology*; *Marine Micropaleontology*; *Marine Pollution Bulletin*; *Micropaleontology*; *Nature*; *Nature Climate Change*;

Miscellaneous Professional Activities (continued)

Ad-hoc journal reviewer (continued): *Oceanography*; *Oecologia*; *Paleobiology*; *Paleoceanography*; *Palaeogeography Palaeoclimatology & Palaeoecology*; *Philosophical Transactions of the Royal Society B*; *PNAS*; *Quaternary Science Reviews*; *Symbiosis*; *Terra Nova*, and *Zootaxa*.

Ad-hoc proposal reviewer: NSF (Ocean Sciences; Earth Sciences; Polar Programs); NOAA (National Undersea Research Program); Consortium for Ocean Leadership; American Chemical Society / Petroleum Research Fund; National Oceanographic Partnership Program; Sea Grant Program; Gulf Research Program; Natural Environmental Research Council (United Kingdom); Netherlands Organization for Scientific Research (NWO); Icelandic Research Fund; Natural Science and Engineering Research Council of Canada (NSERC); Austrian Science Fund; Cluster of Excellence Future Ocean, Christian-Albrechts University Kiel.

Chair or Co-Chair of sessions at regional, national & international meetings (e.g., ISOP Special session, 2008; Forams2018 topical session; Forams2006 topical session; GSA topical session, 1996; 3 topical sessions at Forams 2010 in 9/2010; hypersaline session at ASLO 2013)

Interviewee: PBS (WNED, Buffalo, NY 1985); South Carolina newspapers, radio, and TV (e.g., *The State*, 3/28/2000 and 6/3/01; *Post and Courier* 10/12/2000 and 9/20/01; WIS, WVOC, 11/19/2000; WOLO, 12/28/01); Austrian Public Radio (4/2010).

SCUBA-diving certification: NAUI Basic, NAUI Sport, NAUI Advanced, University of California Research (1984-1988), Antarctic Approved (1984, 1986, 1987, 1990, 1993).

Judge, Albany Academy for Girls, Science Symposium, March 1996.

Participant, Wadsworth Center High School Open Houses, 1993, 1994, 1995 (SEM demonstration).

Cover Photograph Contributor, *BioProbes* (#22), Molecular Probes, Eugene OR, November 1995.

Nominator and Evaluator, MacArthur Fellows Program, 2004.

Publications in Peer-Reviewed Journals (omits submitted manuscripts)

- 102) Frontalini, F, M Losada, T Toyofuku, J Tyszka, J Goleń, L de Nooijer, B Canonico, E Cesarini, Y Nagai, U Bickmeyer, T Ikuta, R Tsubaki, C Besteiro Rodriguez, E Al-Enezi, S Papa, R Coccioni, J Bijma & **JM Bernhard** (2019) Foraminiferal ultrastructure: a perspective from fluorescent and fluorogenic probes. *J. of Geophysical Research – Biogeosciences*. doi:10.1029/2019JG005113.
- 101) Nomaki, H, Y Uejima, NO Ogawa, M Yamane HK Watanabe, R Senokuchi, **JM Bernhard**, T Kitahashi, Y Miyairi, Y Yokoyama, N Ohkouchi, M Shimanaga (2019) Nutritional sources of meio- and macrofauna at hydrothermal vents and adjacent areas: natural-abundance radiocarbon and stable isotope analyses. *Marine Ecology Progress Series*, **622**: 49-65, doi:10.3354/meps13053
- 100) Schwaha, T., **JM Bernhard**, VP Edgcomb, MA Todaro (2019) *Aethozooides uraniae*, a new deep-sea genus and species of solitary bryozoan from the Mediterranean Sea, with a revision of the Aethozoidae. *Marine Biodiversity*. doi:10.1007/s12526-019-00948-w.
- 99) Jauffrais, T., C LeKieffre, M Schweizer, E Geslin, E Metzger, **JM Bernhard**, B Jesus, HL Filipsson, O Maire, A Meibom (2018) Kleptoplastidic benthic foraminifera from aphotic habitats: Insights into assimilation of inorganic C, N, and S studied with sub-cellular resolution. *Environmental Microbiology*. doi:10.1111/1462-2920.14433
- 98) **Bernhard, JM**, and G Panieri (2018), Keystone Arctic paleoceanographic proxy association with putative methanotrophic bacteria, *Scientific Reports*, **8**:10610, doi:10.1038/s41598-018-28871-3.
- 97) LeKieffre, C, T Jauffrais, E Geslin, B Jesus, **JM Bernhard**, M-E Giovani, A Meibom (2018) Inorganic carbon and nitrogen assimilation in cellular compartments of a benthic kleptoplastic foraminifer. *Scientific Reports*, **8**:10140, doi:10.1038/s41598-018-28455-1.
- 96) Beinart, RA, D Beaudoin, **JM Bernhard**, V Edgcomb (2018) Insights into the metabolic functioning of a multi-partner ciliate symbiosis from oxygen-depleted sediments. *Molecular Ecology*, doi: 10.1111/mec.14465.
- 95) Frontalini, F, MP Nardelli, D Curzi, A Martin-Gonzalez, A Sabbatini, A Negri, MT Losada, P Gobbi, R Coccioni, and **JM Bernhard** (2018) Benthic foraminiferal ultrastructural alteration induced by heavy metals. *Marine Micropaleontology*, **138**: 83-89.

Publications in Peer-Reviewed Journals (continued)

- 94) LeKieffre, C, **JM Bernhard**, G Mabilieu, HL Filipsson, A Meibom, E Geslin (2018) An overview of cellular ultrastructure in benthic foraminifera: New observations of rotalid species in the context of existing literature. *Marine Micropaleontology*, **138**: 12-32.
- 93) Nomaki, H, C LeKieffre, S Escrig, A Meibom, S Yagyu, EA Richarson, T Matsuzaki, M Murayama, E Geslin, **JM Bernhard** (2018) Innovative TEM-coupled approaches to study foraminiferal cells. *Marine Micropaleontology*, **138**: 90-104.
- 92) Jauffrais, T, C LeKieffre, KA Koho, M Tsuchiya, M Schweizer, **JM Bernhard**, A Meibom, E Geslin (2018) Ultrastructure and distribution of kleptoplasts in benthic foraminifera from shallow-water (photic) habitats. *Marine Micropaleontology*, **138**: 46-62.
- 91) **Bernhard, JM**, M Tsuchiya and H Nomaki (2018) Ultrastructural observations on prokaryotic associates of benthic foraminifera: food, mutualistic symbionts, or parasites? *Marine Micropaleontology*, **138**: 33-45.
- 90) van Dijk, I, **JM Bernhard**, LJ de Nooijer, G Nehrke, JC Wit, G-J Reichart (2017). Combined impacts of ocean acidification and dysoxia on survival and growth of four agglutinated foraminifera. *Journal of Foraminiferal Research*, **47**: 294-303.
- 89) Filipsson, H.L., D.C. McCorkle, A Mackensen, **JM Bernhard**, LS Andersson, L-J Naustvoll, AM Caballero-Alfonso, K Nordberg, DS Danielssen (2017) Seasonal variability of stable carbon isotopes ($\delta^{13}\text{C}_{\text{DIC}}$) in the Skagerrak and the Baltic Sea: Distinguishing between mixing and biological productivity. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **483**: 15-30.
- 88) Phalen, W.G., **J.M. Bernhard**, S.S. Bowser, S.T. Goldstein (2016) Distribution, abundance, and laboratory calcification of *Homotrema rubrum* from Tennessee Reef, Florida Keys. *J Foraminiferal Research*, **46**: 409-419.
- 87) Frontalini, F., D. Curzi, E. Cesarini, B. Canonico, F.M. Giordano, R. De Matteis, **J.M. Bernhard**, N. Pieretti, B. Gu, J.R. Eskelsen, A.M. Jubb, L. Zhao, E.M. Pierce, P. Gobbi, S. Papa, R. Coccioni (2016) Mercury-pollution induction of intracellular lipid accumulation and lysosomal compartment amplification in the benthic foraminifer *Ammonia parkinsoniana*. PLoS ONE, **11**(9): e0162401. doi:10.1371/journal.pone.0162401.
- 86) Edgcomb, V.P., M.G. Pachiadaki, P. Mara, K.A. Kormas, E.R. Leadbetter, **J.M. Bernhard** (2016) Gene expression profiling of microbial activities and interactions in sediments under haloclines of E. Mediterranean deep hypersaline anoxic basins. *ISME Journal*, **10**(11): 2643-2657.
- 85) Nomaki, H., **J.M. Bernhard**, A. Ishida, M. Tsuchiya, K. Uematsu, A. Tame, T. Kitahashi, N. Takahata, Y. Sano, T. Toyofuku (2016) Intracellular isotope localization in *Ammonia* sp. (Foraminifera) of oxygen-depleted environments: Results of nitrate and sulfate labeling experiments. *Frontiers in Microbiology* **7**: art. 163; <http://dx.doi.org/10.3389/fmicb.2016.00163>
- 84) van Hengstum, P.J. and **J.M. Bernhard** (2016) A new species of benthic foraminifera from an inland Bahamian carbonate marsh. *Journal of Foraminiferal Research*, **46**: 193-200.
- 83) Wit, J.C., M.M. Davis, D.C. McCorkle, **J.M. Bernhard** (2016) A short term survival experiment assessing impacts of ocean acidification and hypoxia on *Globobulimina turgida*. *Journal of Foraminiferal Research*, **46**: 25-33.
- 82) **Bernhard, JM**, CR Morrison, E Pape, DJ Beaudoin, MA Todaro, MG Pachiadaki, KAr Kormas, VP Edgcomb (2015) Metazoans of redoxcline sediments in Mediterranean deep-sea hypersaline anoxic basins. *BMC Biology* **13**: 105; doi 10.1186/s12915-015-0213-6.
- 81) **Bernhard, J.M.**, W. G. Phalen, A. McIntyre-Wressnig, F. Mezzo, J. C. Wit, M. Jeglinski, H. L. Filipsson (2015) Technical Note: Towards resolving *in situ*, centimeter-scale location and timing of biomineralization in calcareous meiobenthos—the calcein-osmotic pump method. *Biogeosciences* (EGU), **12**: 5515-5522.
- 80) Kormas, K.A., M.G. Pachiadaki, H. Karayanni, E.R. Leadbetter, **J.M. Bernhard**, V.P. Edgcomb (2015) Inter-comparison of the potentially active prokaryotic communities in the halocline sediments of Mediterranean deep-sea hypersaline basins. *Extremophiles* **19**: 949-960, doi: 10.1007/s00792-015-0770-1.

Publications in Peer-Reviewed Journals (continued)

- 79) Breitbart, D.L., J. Salisbury, **J.M. Bernhard**, W.-J. Cai, S. Dupont, S. C. Doney, K. J. Kroeker, L. A. Levin, W. C. Long, L. M. Milke, S.H. Miller, B. Phelan, U. Passow, B. A. Seibel, A.E. Todgham, A.M. Tarrant (2015) And on top of all that. . . Coping with ocean acidification in the midst of many stressors. *Oceanography*, 28(2):48–61
- 78) Frontalini, F., D. Curzi, F.M. Giordano, **J.M. Bernhard**, E. Falcieri, R. Coccioni (2015) Effects of lead pollution on *Ammonia parkinsoniana* (foraminifera): ultrastructural and microanalytical approaches, *European Journal of Histochemistry*, **59**: art. 2460, doi:10.4081/ejh.2015.2460.
- 77) **Bernhard, JM**, K Ar Kormas, MG Pachiadaki, E Rocke, DJ Beaudoin, C Morrison, PT Visscher, A Cobban, VR Starczak, VP Edgcomb (2014) Benthic protists and fungi of Mediterranean deep hypersaline anoxic basin redoxcline sediments, *Frontiers in Microbiology*, **5**: art. 605; doi: 10.3389/fmicb.2014.00605.
- 76) McIntyre-Wressnig, A., **J.M. Bernhard**, J.C. Wit, D.C. McCorkle (2014) Ocean acidification not likely to affect the survival and fitness of two temperate benthic foraminiferal species: Results from culture experiments. *Journal of Foraminiferal Research*, **44**(4): 341-351.
- 75) Edgcomb, VP, **JM Bernhard**, RE Summons, W Orsi, D Beaudoin, PT Visscher (2014) Active eukaryotes in microbialites from Highborne Cay, Bahamas, and Hamelin Pool (Shark Bay), Australia. *ISME Journal*, **8**: 418-429; doi:10.1038/ismej.2013.130.
- 74) Grabenstatter, J., S. Méhay, A. McIntyre-Wressnig, J.-L. Giner, V. Edgcomb, D. Beaudoin, **J.M. Bernhard**, R. E Summons (2013) Identification of 24-n-propylidenecholesterol in a member of the Foraminifera. *Organic Geochemistry*, **63**:145-151; doi: 10.1016/j.orggeochem.2013.08.010.
- 73) **Bernhard, J.M.**, V.P. Edgcomb, P.T. Visscher, A. McIntyre-Wressnig, R.E. Summons, M.L. Bouxsein, L. Louis, M. Jeglinski (2013) Insights into foraminiferal influences on microfabrics of microbialites at Highborne Cay, Bahamas. *PNAS*, **110**: 9830-9834; doi:10.1073/pnas.1221721110.
- 72) Edgcomb, V.P. and **J.M. Bernhard** (2013) Heterotrophic Protists in Hypersaline Microbial Mats and Deep Hypersaline Basin Water Columns. *Life*, **3**(2): 346-362; doi:[10.3390/life3020346](https://doi.org/10.3390/life3020346)
- 71) Langer, MR, AE Weinmann, S Lötters, **JM Bernhard**, D Rödder (2013), Climate-Driven Range Extension of *Amphistegina* (Protista, Foraminiferida): Models of Current and Predicted Future Ranges. *PLoS ONE* **8**(2): e54443. doi:10.1371/journal.pone.0054443.
- 70) Edgcomb, V.P., **J.M. Bernhard**, D. Beaudoin, S. Pruss, P.V. Welander, F. Schubotz, S. Mehay, A.L. Gillespie, R.E Summons (2013) Molecular indicators of microbial diversity in oolitic sands of Highborne Cay, Bahamas. *Geobiology*, doi: 10.1111/gbi.12029.
- 69) McIntyre-Wressnig, A., **J.M. Bernhard**, D.C. McCorkle, P. Hallock (2013) Non-lethal effects of ocean acidification on the symbiont-bearing benthic foraminifera *Amphistegina gibbosa*. *Marine Ecology Progress Series*, **472**: 45-60; doi: 10.3354/meps09918.
- 68) Orsi, W.D., S. Charvet, P. Vdacy, **J.M. Bernhard**, V.P. Edgcomb (2012) Prevalence of partnerships between bacteria and ciliates in oxygen-depleted marine water columns. *Frontiers in Extreme Microbiology*, doi: 10.3389/fmicb.2012.00341.
- 67) **Bernhard, J. M.**, K. L. Casciotti, M. R. McIlvin, D. J. Beaudoin, P. T. Visscher, V. P. Edgcomb (2012) Potential importance of physiologically diverse benthic foraminifera in sedimentary nitrate storage and respiration. *J of Geophysical Res –Biogeosciences*, **117**, G03002, doi:10.1029/2012JG001949.
- 66) **Bernhard, J.M.**, V.P. Edgcomb, K.L. Casciotti, M.R. McIlvin, D.J. Beaudoin (2012) Denitrification likely catalyzed by endobionts in an allogromiid foraminifer. *ISME Journal*, **6**: 951-960; doi:10.1038/ismej.2011.171.
- 65) First, M.R., N.Y. Park, M.E. Berrang, R.J. Meinersmann, **J.M. Bernhard**, R.J. Gast, J.T. Hollibaugh (2012) Ciliate ingestion and digestion: Flow cytometric measurements and regrowth of a digestion-resistant *Campylobacter jejuni*. *J. Eukaryotic Microbiology*, **59**: 2-19.

Publications in Peer-Reviewed Journals (continued)

- 64) Gieskes, J., A.E. Rathburn, J.B. Martin, M.E. Pérez, C. Mahn, **J.M. Bernhard**, S. Day (2011). Cold seeps in Monterey Bay, California: Geochemistry of pore waters and relationship to benthic foraminiferal calcite. *Applied Geochem.*, **26**:738-746, doi: 10.1016/j.apgeochem.2011.01.032
- 63) Edgcomb, V.P., E.R. Leadbetter, W. Bourland, D.J. Beaudoin, **J.M. Bernhard** (2011) Structured multiple endosymbiosis of bacteria and archaea in a ciliate from marine sulfidic sediments: a survival mechanism in low oxygen, sulfidic environments? *Frontiers in Microbiology*, **2**: art. 55, doi: 10.3389/fmicb.2011.00055.
- 62) **Bernhard, J.M.**, Martin, J.B., Rathburn, A.E. (2010). Combined carbonate carbon isotopic and cellular ultrastructural studies of individual benthic foraminifera: II. Towards an understanding of apparent disequilibrium in hydrocarbon seeps. *Paleoceanography*, **25**, PA4206; doi:10.1029/2010PA001930.
- 61) **Bernhard, JM**, ST Goldstein, SS Bowser (2010) An ectobiont-bearing foraminiferan, *Bolivina pacifica*, that inhabits microoxic pore waters: Cell-biological and paleoceanographic insights. *Environmental Microbiology*, **12**(8), 2107–2119, doi:10.1111/j.1462-2920.2009.02073.x.
- 60) Edgcomb, V.P., Breglia, S.A., Yubuki, N., Beaudoin, D., Patterson, D.J., Leander, B.S., **Bernhard, J.M.** (2010). Identity of epibiotic bacteria on symbiontid euglenozoans in oxygen-depleted marine environments: evidence for co-evolution of putative symbionts and their hosts. *ISME Journal*, **5**:231-243, doi: 10.1038/ismej.2010.121
- 59) Martin, JB, **JM Bernhard**, J Curtis, AE Rathburn (2010) Combined carbonate carbon isotopic and cellular ultrastructural studies of individual benthic foraminifera: I. Method Description. *Paleoceanography*, **25**: PA2211, doi:10.1029/2009PA001846.
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- 57) **Bernhard, J.M.**, J.P. Barry, K.R. Buck, V.R. Starczak (2009) Impact of carbon dioxide hydrate sublimation on deep-sea benthic foraminiferal survival. *Global Change Biology*, **15**: 2078-2088, doi: 10.1111/j.1365-2486.2008.01822.x
- 56) **Bernhard, J.M.**, E. Mollo-Christensen, N. Eisenkolb, V.R. Starczak (2009) Tolerance of allogromiid foraminifera to severely elevated carbon dioxide concentrations: Implications to future ecosystem functioning and paleoceanographic interpretations. *Global and Planetary Change*, **65**: 107-114, doi:10.1016/j.gloplacha.2008.10.013.
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- 54) Rona, PA, A Seilacher, C de Vargas, AJ Gooday, **JM Bernhard**, S Bowser, C Vetriani, CO Wirsen, L Mullineaux, R Sherrell, JF Grassle, S Low, RA Lutz (2009) *Paleodictyon nodosum*: A living fossil on the deep-sea floor. *Deep-Sea Research II*, 2009 **56**: 1700-1712.
- 53) **Bernhard, J.M.**, B. K. Sen Gupta, J. G. Baguley (2008) Benthic foraminifera living in Gulf of Mexico bathyal and abyssal sediments: Community analysis and comparison to metazoan meiofaunal biomass and density. *Deep-Sea Research II*, **55**: 2617-2626.
- 52) Rowe, GT, C. Wei, C Nunnally, R Haedrich, P Montagna, JG Baguley, **JM Bernhard**, M Wicksten, A Ammons, EG Escobar Briones, Y Soliman, J Deming (2008) Comparative biomass structure and dynamics of food webs in the deep Gulf of Mexico. *Deep-Sea Research II*, **55**: 2699-2711.
- 51) **Bernhard, J**, S Bowser (2008) Peroxisome proliferation in Foraminifera inhabiting the chemocline: an adaptation to reactive oxygen species exposure? *J. Eukaryotic Microbiol.* **55**: 135-144.
- 50) McCorkle, D.C., **J.M. Bernhard**, C.J. Hintz, J.K. Blanks, G.T. Chandler, T. J. Shaw (2008) The Carbon and Oxygen Stable Isotopic Composition of Cultured Benthic Foraminifera. *Geological Society, London, Special Publications*, **303**: 135-154.

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- 49) **Bernhard, J.M.**, D.R. Ostermann, D.S Williams, J.K. Blanks (2006) Comparison of two methods to identify live benthic foraminifera: a test between Rose Bengal and CellTracker Green with implications for stable isotope paleoreconstructions. *Paleoceanography*, 21, PA4210, doi:10.1029/2006PA001290.
- 48) **Bernhard, J. M.**, A. Habura, and S. S. Bowser (2006), An endobiont-bearing allogromiid from the Santa Barbara Basin: Implications for the early diversification of foraminifera, *Journal of Geophysical Research*, 111, G03002, doi:10.1029/2005JG000158.
- 47) Hintz, C. J., T. J. Shaw, G. T. Chandler, **J. M. Bernhard**, D. C. McCorkle, J. K. Blanks (2006) Trace/minor element: calcium ratios in cultured benthic foraminifera, Part I: interspecies and interindividual variability. *Geochimica et Cosmochimica Acta*, **70**: 1952-1963.
- 46) Hintz, C.J., T.J. Shaw, **J.M. Bernhard**, G.T. Chandler, D.C. McCorkle, J.K. Blanks (2006) Trace/minor element: Calcium Ratios in cultured benthic foraminifera, Part II: Ontogenetic Variation. *Geochimica et Cosmochimica Acta*, **70**: 1964-1976.
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- 44) Berelson, W.M., M. Prokopenko, F.J. Sansone, A.W. Graham, J. McManus, **J. M. Bernhard** (2005) Anaerobic diagenesis of silica and carbon in continental margin sediments: discrete zones of TCO₂ production. *Geochimica et Cosmochimica Acta*, **69**: 4611-4629.
- 43) Robinson, C.A., **J.M. Bernhard**, L.A. Levin, G.F. Mendoza, J.K. Blanks (2004) Surficial hydrocarbon seep infauna from the Blake Ridge (Atlantic Ocean, 2150 m) and the Gulf of Mexico (690-2240 m), *PSZN Marine Ecology* **25**: 313-336.
- 42) **Bernhard, JM**, KR Buck (2004) Eukaryotes of the Cariaco, Soledad, and Santa Barbara Basins: Protists and metazoans associated with deep-water marine sulfide-oxidizing microbial mats and their possible effects on the geologic record. In Amend, JP, KJ Edwards & TW Lyons (Eds), Sulfur Biogeochemistry-- Past and Present: *GSA Special Paper* **379**: 35-47.
- 41) **Bernhard, J.M.**, J.K. Blanks, C.J. Hintz, G. T. Chandler (2004) Use of the fluorescent calcite marker calcein to label foraminiferal tests. *Journal of Foraminiferal Research*, **34**: 96-101.
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- 39) van Geen, A., Y. Zheng, **J. M. Bernhard**, K. G. Cannariato, J. Carriquiry, W. E. Dean, B. W. Eakins, J. Pike, J. D. Ortiz (2003). On the preservation of laminated sediments along the western margin of North America. *Paleoceanography*, **18**: doi:10.1029/2003PA000911.
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- 37) **Bernhard, J.M.** (2003) Potential symbionts in bathyal foraminifera. *Science*, **299**: 861.
- 36) **Bernhard, JM**, PT Visscher, S Bowser (2003) Sub-millimeter life positions of bacteria, protists, and metazoans in laminated sediments of the Santa Barbara Basin. *Limnol & Oceanogr.* **48**: 813-828.
- 35) Bowser, S. S., **J. M. Bernhard**, A. Habura, A. J. Gooday (2002) Structure, taxonomy and ecology of *Astrammmina triangularis* Earland, an allogromiid-like agglutinated foraminifer from Explorers Cove, Antarctica. *Journal of Foraminiferal Research*, **32**: 364-374.
- 34) Grzyski, J, OM Schofield, PG Falkowski, **JM Bernhard** (2002) The function of plastids in the deep-sea benthic foraminifer, *Nonionella stella*. *Limnology and Oceanography*, **47**: 1569-1580.

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- 33) Stott, L.D., T. Bunn, M. Prokopenko, C. Mahn, J. Gieskes, **J.M. Bernhard** (2002) Does the oxidation of methane leave an isotopic fingerprint in the geologic record? *Geochemistry, Geophysics, Geosystems*, **3**: 10.1029/2001GC000196.
- 32) DeLaca, TE, **Bernhard, JM**, Reilly, A, Bowser, S (2002) *Notodendrodes hyalinosphaira* (sp. nov.): Structure and autecology of an allogromiid-like agglutinated foraminifer. *J Foram Res*, **32**: 177-187.
- 31) **Bernhard, J.M.**, Buck, K.R., Barry, J.P. (2001) Monterey Bay cold-seep biota: Assemblages, abundance, and ultrastructure of living foraminifera. *Deep-Sea Research I*, **48**: 2233-2249.
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- 29) Pike, J., **Bernhard, J.M.**, Moreton, S.G., Butler, I.B. (2001) Microbioirrigation of marine sediments in dysoxic environments: implications for early sediment fabric formation and diagenetic processes. *Geology*, **29**: 923-926.
- 28) Müller, M.C., **Bernhard, J.M.**, Jouin-Toulmond, C. (2001) A new member of Nerillidae (Annelida: Polychaeta), *Xenonerilla bactericola* nov. gen., nov. sp., collected off California, USA. *Cahiers de Biologie Marine*, **42**: 203-217.
- 27) Todaro, M.A., **Bernhard, J.M.**, Hummon, W.D. (2000) A new species of *Urodasys* (Gastrotricha, Macrotrichida) from dysoxic sediments of the Santa Barbara Basin. *Bulletin of Marine Science*, **66**: 467-476.
- 26) **Bernhard, J.M.** (2000) Distinguishing live from dead foraminifera: Methods review and proper applications. *Micropaleontology*, **46** supplement 1: 38-46.
- 25) **Bernhard, J.M.**, Buck, K.R., Farmer, M.A., Bowser, S.S. (2000) The Santa Barbara Basin is a symbiosis oasis. *Nature*, **403**: 77-80.
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- 22) Kuwabara, J.S., van Geen, A., McCorkle, D.C., **Bernhard, J.M.** (1999) Dissolved sulfide distributions in the water column and sediment pore waters of the Santa Barbara Basin, *Geochimica et Cosmochimica Acta*, **63**: 2199-2209.
- 21) **Bernhard, J.M.**, Sen Gupta, B.K., Borne, P.F. (1997) Benthic foraminiferal proxy to estimate dysoxic bottom-water oxygen concentrations: Santa Barbara Basin, U.S. Pacific Continental Margin, *Journal of Foraminiferal Research*, **27**: 301-310.
- 20) Sen Gupta, B.K., Platon, E., **Bernhard, J.M.**, Aharon, P. (1997) Foraminiferal colonization of hydrocarbon-seep bacterial mats and underlying sediment. Gulf of Mexico slope, *Journal of Foraminiferal Research*, **27**: 292-300.
- 19) **Bernhard, J.M.** (1996) Microaerophilic and facultative anaerobic benthic foraminifera: a review of experimental and ultrastructural evidence. *Revue de Paléobiologie*, **15**: 261-275.
- 18) Gooday, A.J., Bowser, S.S., **Bernhard, J.M.** (1996) Benthic foraminiferal assemblages in Explorers Cove, Antarctica: A shallow-water site with deep-sea characteristics. *Progress in Oceanography*, **37**: 117-166.
- 17) **Bernhard, J.M.**, Alve, E. (1996) Survival, ATP pool, and ultrastructural characterization of benthic foraminifera from Drammensfjord (Norway): response to anoxia. *Marine Micropaleontology*, **28**:5-17.
- 16) **Bernhard, J.M.**, Alve, E., Reilly, A.A. (1996) Response to the comment by Moodley et al. *Marine Ecology Progress Series*, **145**: 305-307.
- 15) **Bernhard, J.M.**, Bowser, S.S. (1996) Novel epifluorescence microscopy method to determine life position of foraminifera in sediments. *Journal of Micropalaeontology*, **15**: 68.

Publications in Peer-Reviewed Journals (continued)

- 14) Bowser, S.S., Gooday, A.J., Alexander, S.P., **Bernhard, J.M.** (1995) Giant, agglutinated foraminifera of McMurdo Sound, Antarctica: Are *Astrammmina rara* and *Notodendroides antarcticos* allogromiids incognito? *Marine Micropaleontology*, **26**: 75-88.
- 13) **Bernhard, J.M.**, Newkirk, S.G., Bowser, S.S. (1995) Towards a non-terminal viability assay for foraminiferan protists. *Journal of Eukaryotic Microbiology*, **42**: 357-367.
- 12) Gooday, A.J., **Bernhard, J.M.**, Bowser, S.S. (1995) The taxonomy and ecology of *Crithionina delacai* (n. sp.), a dominant giant foraminifer in Explorers Cove, Antarctica. *Journal of Foraminiferal Research*, **25**: 290-298.
- 11) Alve, E., **Bernhard, J.M.** (1995) Vertical migratory response of benthic foraminifera to controlled decreasing oxygen concentrations in an experimental mesocosm. *Marine Ecology Progress Series*, **116**: 137-151.
- 10) **Bernhard, J.M.** (1993) Experimental and field evidence of Antarctic foraminiferal tolerance to anoxia and hydrogen sulfide. *Marine Micropaleontology*, **20**: 203-213.
- 9) Bowser, S.S., **Bernhard, J.M.** (1993) Structure, bioadhesive distribution and elastic properties of the agglutinated test of *Astrammmina rara* (Protozoa: Foraminiferida). *Journal of Eukaryotic Microbiology*, **40**: 121-131.
- 8) **Bernhard, J.M.**, Bowser, S.S. (1992) Bacterial biofilms as a trophic resource for certain benthic foraminifera. *Marine Ecology Progress Series*, **83**: 263-272.
- 7) **Bernhard, J.M.** (1992) Benthic foraminiferal distribution and biomass related to pore-water oxygen content: Central California Continental Slope and Rise. *Deep-Sea Research*, **39**: 585-605.
- 6) **Bernhard, J.M.**, Reimers, C.E. (1991) Benthic foraminiferal population fluctuations related to anoxia: Santa Barbara Basin. *Biogeochemistry*, **15**: 127-149.
- 5) Reimers, C.E., Lange, C.B., Tabak, M., **Bernhard, J.M.** (1990) Seasonal spillover and varve formation in the Santa Barbara Basin, California. *Limnology and Oceanography*, **35**: 1577-1585.
- 4) **Bernhard, J.M.** (1989) The distribution of benthic foraminifera with respect to oxygen concentration and organic carbon levels in shallow-water Antarctic sediments. *Limnol & Oceanogr*, **34**: 1131-1141.
- 3) **Bernhard, J.M.** (1988) Postmortem vital staining in benthic foraminifera: Duration and importance in population and distributional studies. *Journal of Foraminiferal Research*, **18**: 143-146.
- 2) **Bernhard, J.M.** (1987) Foraminiferal biotopes in Explorers Cove, McMurdo Sound, Antarctica. *Journal of Foraminiferal Research*, **17**: 286-297.
- 1) **Bernhard, J.M.** (1986) Characteristic assemblages and morphologies of benthic foraminifera from anoxic, organic-rich deposits: Jurassic through Holocene. *J. Foraminiferal Res.*, **16**: 207-215.

Book Chapters (peer-reviewed)

- 7) **Bernhard, J.M.** and E.A. Richardson (2014), FLEC-TEM: Using microscopy to correlate ultrastructure with life position of infaunal foraminifera. In H. Kitazato and J.M. Bernhard (Eds), *Experimental Approaches to Study Living Foraminifera: Collection, Maintenance and Experiments*, Springer Tokyo, p. 103-113.
- 6) Altenbach, A.V., **J.M. Bernhard**, J. Seckbach (2012) Stepping into the Book of Anoxia and Eukaryotes (introduction). IN: *ANOXIA, Evidence for Eukaryote Survival and Paleontological Strategies*, A.V. Altenbach, J.M. Bernhard, J. Seckbach (Editors), Cellular Origin, Life in Extreme Habitats and Astrobiology, vol. **21**, Springer Dordrecht, pp. xi-xvii.
- 5) Beaudoin, D.J., **J.M. Bernhard**, V.P. Edgcomb (2012) A novel ciliate (Ciliophora: Hypotrichida) isolated from bathyal anoxic sediments. IN: *ANOXIA, Evidence for Eukaryote Survival and Paleontological Strategies*, A.V. Altenbach, J.M. Bernhard, J. Seckbach (Editors), Cellular Origin, Life in Extreme Habitats and Astrobiology, vol. **21**, Springer Dordrecht, pp. 145-154.
- 4) Buck, K.R., N.N. Rabalais, **J.M. Bernhard**, J.P. Barry (2012) Living assemblages from the "dead zone" and naturally occurring hypoxic zones. IN: *ANOXIA, Evidence for Eukaryote Survival and Paleontological Strategies*, A.V. Altenbach, J.M. Bernhard, J. Seckbach (Editors), Cellular Origin, Life in Extreme Habitats and Astrobiology, vol. **21**, Springer Dordrecht, pp. 343-352.

Book Chapters (peer-reviewed; continued)

- 3) Edgcomb, V.P., **J.M. Bernhard**, S. Jeon (2007) Deep-sea microbial eukaryotes in anoxic, microoxic, and sulfidic environments, In: J. Seckbach (ed.) *Algae and Cyanobacteria in Extreme Environments. Cellular Origin, Life in Extreme Habitats and Astrobiology*, **11**:713-734, Springer-Verlag, Dordrecht.
- 2) Buck, K. R., **Bernhard, J.M.** (2001) Protistan-Prokaryotic symbioses in deep-sea sulfidic sediments. In: Seckbach, J. (Ed.) *Symbiosis*, Kluwer Academic, pp. 507-517.
- 1) **Bernhard, J.M.** and Sen Gupta, B. K. (1999) Foraminifera of Oxygen-Depleted Environments. In: Sen Gupta, B.K. (Ed.) *Modern Foraminifera*, Kluwer Academic, pp. 201-216.

Books (Co-edited)

- Altenbach, A.V., **J.M. Bernhard**, J. Seckbach (Editors) (2012) *ANOXIA, Evidence for Eukaryote Survival and Paleontological Strategies*, Cellular Origin, Life in Extreme Habitats and Astrobiology vol. 21, Springer Dordrecht, 648 pp (doi: 10.1007/978-94-007-1896-8).
- Kitazato, H. and **J.M. Bernhard** (Editors) (2014) *Approaches to Study Living foraminifera: Collection, Maintenance and Experimentation*, Springer Tokyo, 227 pp (doi10.1007/978-4-431-54388-6).

Journal Special Issues (Co-edited)

- Journal of Foraminiferal Research* Theme issue “Biology of Foraminiferida: Applications in Paleooceanography, Paleobiology, and Environmental Sciences”, v. 27, #4 (1997).
- Biogeosciences* (EGU) “Coastal hypoxia and anoxia: a multi-tiered holistic approach”, Special issue # 115 (2014).
- Marine Micropaleontology* “Benthic Foraminiferal Ultrastructure Studies”, v. 138 (2018).

Miscellaneous publications

- Bernhard, JM** and E Geslin (2018), Introduction to the Special Issue entitled “Benthic Foraminiferal Ultrastructure Studies” (Editorial), *Marine Micropaleontology*, **138**: 1-11.
- Goldstein, ST and **JM Bernhard** (1997) A theme issue on biology of the foraminiferida: Applications in paleoceanography, paleobiology, and the environmental sciences. *Journal of Foraminiferal Research*, **27**: 253.
- Bernhard, JM** (2007) Joseph A. Cushman Award – Jere Lipps. *Journal of Foraminiferal Research*, **37**: 2-3.
- Bernhard, JM**, T Toyofuku, L de Nooijer, G-J Reichart (2017) 2016 Joseph A. Cushman Award to Hiroshi Kitazato. *Journal of Foraminiferal Research*, **47**: 1-3.
- Toyofuku, T, **Bernhard, J**, Nishi, H (2017) Report about Cushman Award (in Japanese), *Kaseki* (Fossils), **102**: 104.

Invited Seminars and Talks, last ~15 years

- Monday Meeting talk, Microbiology Section, Aarhus University, 19 November 2018
- Second FRESCO Summer School, Introductory overview, U. Angers, Angers, France, 11 June 2018
- Second FRESCO Summer School, Chemocline foram adaptation lecture, U. Angers, 14 June 2018
- North Florida Marine Science Symposium, **Keynote**, St. Augustine, FL (USA), 23 January 2018
- FRESCO Summer School, Introductory overview, University of Angers, Angers, France, 3 July 2017
- FRESCO Summer School, Chemocline foram adaptation lecture, University of Angers, 6 July 2017
- Bubbles 2017 Trainee School, Seep foram lecture, University of Tromsø, 14 June 2017
- The Batsheva de Rothschild Workshop Live foraminifera as a new model system for monitoring and reconstructing marine environments, **Keynote** (Session 1; 11 September 2016), Eilat, Israel
- The Micropalaeontological Society’s (TMS) Foraminifera and Nannofossil Groups Joint Spring Meeting 2016, Angers France, **Keynote** (Session 1; 20 June 2016)
- International School on Foraminifera, Urbino Italy, **Course Keynote**, 7 June 2016
- University of Angers, LPG-BIAF Bio-Indicateurs Actuels et Fossiles, Special Seminar, 17 March 2016

Invited Seminars and Talks, last ~15 years (continued)

- 2015 American Geophysical Union Fall Meeting, San Francisco, 18 December 2015.
Sanya Institute of Deep-Sea Science and Engineering, Short Course lectures, Sanya, China, 18-20 November 2015
University of Oslo, Department of Geosciences, 29 September 2015
University of Tromsø, Trainee School in Arctic Marine Geology & Geophysics, 23 September 2015 (2 talks)
NIOZ (Royal Netherlands Institute for Sea Research) Colloquium Series, Texel, 2 June 2015
University of Angers, LPG-BIAF, Bio-Indicateurs Actuels et Fossiles, Special Seminar, 26 May 2015
University of Massachusetts Dartmouth, School of Marine Science and Technology Seminar Series, 17 September 2014
Kumamoto University, Center for Marine Environment Studies seminar series, Kumamoto Japan, 10 June 2014
Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Special Seminar, Natsushima-Cho Japan, 9 June 2014
Hiroshima University, Dept. Earth & Planetary Systems Sciences, Special Seminar, Hiroshima Japan, 30 May 2014
University of Southern Mississippi, Dept. Marine Science Weekly Seminar, Stennis Space Center, MS, 21 March 2014
Earth Observatory of Singapore (EOS) Seminar Series, Singapore, 11 February 2014
U.S. Ocean Acidification Principal Investigators' Meeting, OA as one of many issues, Washington DC, 18 September 2013
Field Workshop on Living Foraminifera in Japan, **co-instructor and invited speaker**, Sesoko Island (Okinawa) and JAMSTEC (Yokosuka), 15-21 July 2012
14th International Symposium on Microbial Ecology (ISME14), in session “Protistan Ecology: Beyond Diversity” (chaired by Tom Fenchel & Scott Dawson), Copenhagen, 23 August 2012
Geological Society of America Annual Meeting, in session “Role of microfossils in environmental monitoring”, November 2012
Geological Society of America Annual Meeting, in session “Frontiers in Foraminiferal Research”, 12 October 2011
Geological Society of America Annual Meeting, **Pardee Symposium** (Symbiosis and Global Change in Ancient and Modern Earth Systems), 2 November 2010
University of Rhode Island, Graduate School of Oceanography “Bio at Noon”, 1 December 2010
Ludwig-Maximilians Universität München, Frontiers in Earth Sciences, Munich, 21 June 2010
MIT, Chemical Oceanography and Biogeochemistry Seminar, Cambridge, MA, 23 April 2010
Alfred Wegener Institute, Carbon Seminar Series, Bremerhaven Germany, 10 November 2009
Lund University, Quaternary Sciences Seminar Series, Lund, Sweden, 12 November 2009
Lund University, Wings Seminar series (Women in Science), 13 November 2009
University of Georgia, Department of Geology Colloquium, 5 March 2009
Bodega Marine Laboratory (University of California Davis), 17 October 2007
Indiana University (Bloomington) Geological Sciences Colloquium, 26 March 2007
Indiana State University (Terre Haute), Depts. Geography, Geology & Anthropology *and* Environmental and Organismal Biology, 28 March 2007
Forams2006 International Symposium on Foraminifera, **Plenary Speaker**, Natal Brazil, 15 Sept 2006
Colgate University, Symposium honoring Charles E. McClennen, 1 June 2006
Colby College, Department of Geology, 21 April 2006
Univ. Connecticut Center for Integrative Geosciences “Dimensions in Geosciences”, 8 October 2005
Geological Society London, Biogeochemical Controls on Paleooceanographic Proxies, **Keynote**, 3/10/05
Univ. St. Andrews School of Geography & Geosciences “World Series Seminar”, 27 September 2005
University of Angers, France, 15 September 2005 (laminated sediment seminar)
University of Angers France, 12 September 2005 (benthic foraminiferal culturing seminar)

Invited Seminars and Talks, last ~15 years (continued)

Cambridge University, UK; 20 September 2005

University of Massachusetts Boston, 8 April 2005

University of Southern California / Agouron Institute, **Geobiology Course speaker**; Wrigley Marine Station, July 2004

University of California Santa Barbara, Geology Department Seminar, May 2004

Teaching and Mentoring Experience (Non-WHOI)

2016-present **PhD Co-Advisor**, Katarzyna Melaniuk (University of Tromsø, Arctic Univ. of Tromsø)

2013-2015 **MS Committee Member**, William Phalen (University of Georgia)

2011-2013 **MS Committee Member**, Darin Lang (University of Georgia)

2009-2015 **PhD Committee Member**, Jennifer Lasseigne (Louisiana State University)

2004-2008 **PhD Committee Member**, Matthew First (University of Georgia)

2003 **Honor's Thesis advisor**, Pamela Murphy (USC)

2002 **Honor's Thesis advisor**, Christie Robinson (USC)

2001 **Instructor**, Deep-Sea Biology (3 credit course to USC Honors College undergraduates)

2000 **Honor's Thesis advisor**, Erica Kaneff (USC)

1996, 1997 **Mentor**, NIH Minority Initiative: K-12 Teachers & High School Students, Wadsworth

1995, 1996 **Co-Instructor**, Seminar "World Park Antarctica", SUNY Albany

1993-1996 **Mentor**, Research Experience for Undergraduates (REU) program, Wadsworth Center

1992 **Mentor**, REU program aboard R/V *Polar Duke* off Antarctica (administered by Colgate)

1982-1984 **Teaching Assistant/Lab Instructor**, many geology/paleontology classes, U.C. Davis

WHOI Academic Programs Involvement

2018, **Mentor**, High School intern Jeremy Kunen (Wayland High School), July

2018, **Mentor**, Science Fair Project, Bridget Beaudoin (Falmouth High School)

2018, **Mentor**, High School intern Bishaka Oil (Falmouth Academy)

2017, **Mentor**, Guest student Megan Reilly (Northeastern), part-time, summer-autumn 2017

2017, **Mentor**, Guest student Luke Fisher (UConn), summer 2017

2016-2017, **Mentor**, Guest graduate student, Katarzyna Melaniuk (Arctic Univ. of Tromsø), 9/16-3/17

2017, **Mentor**, Science Fair Project, Emma Keeler (Falmouth Academy)

2016, **Mentor**, Science Fair Project, Emma Keeler (Falmouth Academy)

2015, **Mentor**, Guest graduate student William Phalen (UGA), summer 2015

2013-2014, **Advisor**, Postdoctoral Investigator Jos (Johannes) C. Wit

2013, **Co-Mentor**, Guest graduate student Kamila Sztybor (Univ Tromso), autumn 2013

2014, **Mentor**, Guest graduate student Caitlin Keating-Bitonti (Stanford), September 2013

2014, **Mentor**, Guest graduate student Ana Martínez Fernández (UCSC), March 2014

2013, **Advisor**, Guest undergraduate student Megan M. Davis (UNCW), summer

2012-2014, **Co-Advisor**, Postdoctoral Fellow Maria Pachiadaki (with V. Edgcomb & C. Taylor)

2012, **Mentor**, Guest undergraduate student Colin Morrison (Univ Nevada Reno), summer

2012, **Mentor**, Guest undergraduate William Phalen (Boston College) summer & academic Yr'12-'13

2012, **Mentor**, High School intern Alec Cobban (Falmouth Academy)

2012, **Mentor**, Science Fair project, Ronna ten Brink and Summer Tompkins (Falmouth Academy)

2011, **Mentor**, Guest undergraduate student Colin Morrison (Univ Nevada Reno) on RV *Atlantis* cruise

2011, **Mentor**, Gori Fellow Francesco Mezzo (22 August to 9 December 2011)

2010, **Mentor**, Summer Student Fellow Sarah Makenbach

2010, **Mentor**, Science Fair Project, Margot Wilsterman (Falmouth Academy)

2009, **Mentor**, Guest undergraduate student Darin Lang (Indiana State Univ), summer

2009, **Mentor**, Summer Student Fellow Yadira Ibarra

2009, **Mentor**, Science Fair Project, Tyler Barron (Falmouth Academy; won local and state awards)

2008-2011, **Member**, JCMGG

WHOI Academic Programs Involvement (continued)

- 2008-2010, **Co-Advisor**, Postdoctoral Fellow Matthew First (with R. Gast)
2008-2012, **Co-Advisor**, Postdoctoral Investigator Anna McIntyre-Wressnig (with D. McCorkle)
2008, **Mentor**, Guest undergraduate student Zach Bailey (Indiana State Univ), summer
2008, **Mentor**, Guest undergraduate student Sarah Fackler (summer)
2007, **Advisor**, Sarah Fackler, High School Student Part Time helper (summer)
2007, **Generals Project Co-Advisor**, Sara Lincoln (MIT)
2006-2007, **Co-Advisor**, Fulbright Postdoctoral Fellow Helena Filipsson (9/06-5/07)
2006, **Mentor**, Summer Student Fellow Nadine Eisenkolb
2005, **Mentor**, Summer Student Fellow Liz Mollo-Christiansen (and academic year '05-'06)
2004, **Mentor**, Summer Student Fellow David Williams