

Curriculum Vitae

Joan M. Bernhard

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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.

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 and Awards

- 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 (3-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.
- 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

- 2013 **Chief Scientist**, R/V *Endeavor*, 19-22 May 2013, Off Massachusetts (OA collections).
- 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, Foraminiferal 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, Foraminiferal 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*, July 22-31, Monterey Bay seep ecology (ROV *Jason*)
- 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 Gulf 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.
- 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*. Mar 19-Apr 15 (Cruise 92-2), Quaternary climatic record from the Antarctic Peninsular region.
- 1990 **Participating Scientist**, R/V *Cape Hatteras*. 5/4-8, Foraminiferal 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)

Miscellaneous Professional Activities

Member, UNOLS Fleet Improvement Committee, 2012 to present.
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 (Feb. 2003).
Panel Member, NSF Office of Polar Programs, Polar Biology and Medicine annual panel (October 2001).
Panel Member, NOAA National Undersea Research Center 2001 review, UNC Wilmington (Nov. 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*; *Chemical Geology*; *Current Biology*; *Deep-Sea Research (I and II)*; *Environmental Microbiology*; *Environmental Microbiology Reports*; *Estuarine, Coastal and Shelf Science*; *Frontiers in Microbiology*; *Geobiology*; *Geochimica et Cosmochimica Acta*; *Geology*; *Geochemistry, Geophysics, Geosystems*; *J. Eukaryotic Microbiology*; *Journal of Foraminiferal Research*; *JGR Oceans, Journal of Marine Research*; *Limnology and Oceanography*; *Marine Biology*; *Marine Ecology*; *Marine Environmental Research*; *Marine Geology*; *Marine Micropaleontology*; *Marine Pollution Bulletin*; *Micropaleontology*; *Nature*; *Nature Climate Change*; *Paleoceanography*; *Palaeogeography Palaeoclimatology & Palaeoecology*; *Philosophical Transactions of the Royal Society B*; *PNAS*; *Symbiosis*; *Terra Nova*, and *Zootaxa*.
Ad-hoc proposal reviewer: NSF (Ocean 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, Natural Environmental Research Council (United Kingdom), Netherlands Organization for Scientific Research, Icelandic Research Fund, Natural Science and Engineering Research Council of Canada (NSERC), Austrian Science Fund.
Chair or Co-Chair of sessions at regional, national & international meetings (e.g., ISOP Special session, 2008; 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)

- McIntyre-Wressnig, A., **J.M. Bernhard**, J.C. Wit, D.C. McCorkle (*in press*) Ocean acidification not likely to affect the survival and fitness of two temperate benthic foraminiferal species: Results from culture experiments. *Journal of Foraminiferal Research*.
- 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.
- 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.
- 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.
- 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)
- 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.
- 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.
- 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.
- Orsi, W.D., S. Charvet, P. Vdacny, **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.
- 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. *Journal of Geophysical Research –Biogeosciences*, 117, G03002, doi:10.1029/2012JG001949.
- 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.
- 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*. *Journal of Eukaryotic Microbiology*, 59: 2-19
- 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
- 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.
- 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.
- 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.

Publications in Peer-Reviewed Journals (continued)

- 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
- 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.
- Filipsson, HL, **JM Bernhard**, SA Lincoln, and DC McCorkle (2010) A culture-based calibration of benthic foraminiferal paleotemperature proxies: $\delta^{18}\text{O}$ and Mg/Ca results. *Biogeosciences*, **7**, 1335-1347.
- 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*. Vol pg # doi: 10.1111/j.1365-2486.2008.01822.x
- 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*, vol pg # doi:10.1016/j.gloplacha.2008.10.013.
- Yubuki, N, V.P. Edgcomb, **J.M. Bernhard**, B.S. Leander (2009) Ultrastructure and molecular phylogeny of *Calkinsia aureus*: Cellular identity of a novel clade of deep-sea euglenozoans with epibiotic bacteria. *BMC Microbiology*. **9**:16doi:10.1186/1471-2180-9-16.
- Rona, PA, A Seilacher, C de Vargas, AJ Gooday, **JM Bernhard**, S Bowser, C Vetriani, CO Wirsén, 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.
- 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.
- 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.
- Bernhard, JM**, SS Bowser (2008) Peroxisome proliferation in Foraminifera inhabiting the chemocline: an adaptation to reactive oxygen species exposure? *J. Eukaryotic Microbiol.* **55**: 135-144.
- 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.
- 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.
- 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.
- 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.
- 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.
- Prokopenko MG, Hammond DE, Berelson WM, **Bernhard J.M.**, Stott L, Douglas R (2006) Nitrogen cycling in the sediments of Santa Barbara Basin and Eastern Tropical North Pacific: Nitrogen isotopes, diagenesis and possible chemosymbiosis between two lithotrophs (*Thioploca* and *Anammox*)—“riding on a glider”. *Earth and Planetary Science Letters* **242**: 186-204.

Publications in Peer-Reviewed Journals (continued)

- 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.
- 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.
- 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.
- 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.
- Hintz, C.J., G.T. Chandler, **J.M. Bernhard**, D.C. McCorkle, S.M. Havach, J.K. Blanks, T.J. Shaw (2004) A physicochemically-constrained seawater culturing system for production of viable, calcite-producing, paleoceanographically-important benthic foraminifera. *Limnology & Oceanography Methods*, **2**: 160-170.
- 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.
- Van Dover, C. L., P. Aharon, **J. M. Bernhard**, E. Caylor, M. Doerries, W. Flickinger, W. Gilhooly, S. K. Goffredi, K. Knick, S. A. Macko, S. Rapoport, E. C. Raulfs, C. Ruppel, J. Salerno, R. D. Seitz, B. K. Sen Gupta, T. Shank, M. Turnipseed, R. Vrijenhoek (2003). Blake Ridge methane seeps: characterization of a soft sediment, chemosynthetically based ecosystem. *Deep-Sea Research I*, **50**: 281-300.
- Bernhard, J.M.** (2003) Potential symbionts in bathyal foraminifera. *Science*, **299**: 861.
- Bernhard, J.M.**, P. T. Visscher, S. S. Bowser (2003) Sub-millimeter life positions of bacteria, protists, and metazoans in laminated sediments of the Santa Barbara Basin. *Limnology and Oceanography*. **48**: 813-828.
- 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.
- Grzymski, 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.
- 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.
- DeLaca, T.E., **Bernhard, J.M.**, Reilly, A.A., Bowser, S.S. (2002) *Notodendrodes hyalinosphaira* (sp. nov.): Structure and autecology of an allogromiid-like agglutinated foraminifer. *Journal of Foraminiferal Research*, **32**: 177-187.
- 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.
- Vecchione, M., Young, R.E., Guerra, A., Lindsay, D.J., Clague, D.A., **Bernhard, J.M.**, Sager, W.W., Gonzalez, A.F., Rocha, F.J., Segonzac, M. (2001). Worldwide observations of remarkable deep-sea squids. *Science*, **294**: 2505-2506.
- 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.

Publications in Peer-Reviewed Journals (continued)

- 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.
- Todaro, M.A., **Bernhard, J.M.**, Hummon, W.D. (2000) A new species of *Urodasys* (Gastrotricha, Macrodasysida) from dysoxic sediments of the Santa Barbara Basin. *Bulletin of Marine Science*, **66**: 467-476.
- Bernhard, J.M.** (2000) Distinguishing live from dead foraminifera: Methods review and proper applications. *Micropaleontology*, **46** supplement 1: 38-46.
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Publications in Peer-Reviewed Journals (continued)

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- 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.
- Bernhard, J.M.**, Bowser, S.S. (1992) Bacterial biofilms as a trophic resource for certain benthic foraminifera. *Marine Ecology Progress Series*, **83**: 263-272.
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- Bernhard, J.M.** (1989) The distribution of benthic foraminifera with respect to oxygen concentration and organic carbon levels in shallow-water Antarctic sediments. *Limnology and Oceanography*, **34**: 1131-1141.
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- Bernhard, J.M.** (1987) Foraminiferal biotopes in Explorers Cove, McMurdo Sound, Antarctica. *Journal of Foraminiferal Research*, **17**: 286-297.
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Book Chapters (peer-reviewed)

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

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)

Invited Seminars and Talks, last 11 years

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

Invited Seminars and Talks, last 11 years (continued)

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 Paleoceanographic 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)
Cambridge University, UK; 20 September 2005
University of Massachusetts Boston, 8 April 2005
University of Southern California / Agouon 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)

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

2013-present, **Advisor**, Postdoctoral Investigator Jos (Johannes) C. Wit
2011, **Advisor**, Gori Fellow Francesco Mezzo (22 August to 9 December 2011)
2008-2011, **Member**, JCMGG
2008-2010, **Co-Advisor**, Postdoctoral Fellow Matthew First (with R. Gast)
2008-2012, **Co-Advisor**, Postdoctoral Investigator Anna McIntyre-Wressnig
2007, **Generals Project Co-Advisor**, Sara Lincoln (MIT)
2006-2007, **Co-Advisor**, Fulbright Postdoctoral Fellow Helena Filipsson (9/06-5/07)