

# Samantha B. Joye

*Athletic Association Professor of Arts & Sciences*  
*Regents' Professor*



## INFORMATION

---

Contact: Department of Marine Sciences  
University of Georgia, Athens GA 30602-3636;  
Telephone: (706) 542-5893; Email: [mjoye@uga.edu](mailto:mjoye@uga.edu)  
Statistics: <https://scholar.google.com/citations?user=ZhVAF1MAAAAJ&hl=en>  
Websites: JoyeLab.org | Ecogig.org

## EDUCATION

---

1993 **Ph.D. Marine Sciences**, emphasis in Biogeochemistry, University of North Carolina at Chapel Hill  
1989 **M.Sc. Marine Sciences**, emphasis in Geochemistry, University of North Carolina at Chapel Hill  
1987 **B.Sc. Biology**, University of North Carolina at Chapel Hill

## APPOINTMENTS

---

2019 **Regents' Professor**, University System of Georgia Board of Regents  
2016 **Adjunct Faculty**, Institute of Bioinformatics, University of Georgia  
2015 **Project Director**, ECOGIG-2 Research Consortium  
2013 **Adjunct Professor of Marine Sciences**, The University of North Carolina  
2012-2014 **Director of Science**, ECOGIG-1 Research Consortium  
2011 **Athletic Association Professor of Arts & Sciences**, University of Georgia  
2006 **Professor of Marine Sciences**, University of Georgia  
2002-2003 **Visiting Professor**, Max Planck Institute for Marine Microbiology (Germany)  
2001-2005 **Associate Professor of Marine Sciences**, University of Georgia  
1997-2001 **Assistant Professor of Marine Sciences**, University of Georgia  
1995-1997 **Assistant Professor of Oceanography**, Texas A&M University  
1993-1995 **Postdoctoral Research Associate**, San Francisco State University  
1987-1992 **Graduate Research Assistant**, University of North Carolina

## RESEARCH CONTRIBUTIONS

---

Joye's research has consistently addressed questions that are significant, risky, and challenge dogma. Her research has advanced the understanding of key biogeochemical processes, revealed regulatory mechanisms, and identified the key microbial players responsible for carrying out critical biogeochemical functions.

Hallmarks of Joye's work include developing methods that permit more accurate quantification of rates of microbial metabolism and environmental biogeochemical signatures.

## **AWARDS AND HONORS**

---

- 2019 **Regents' Professor** (selected), University of Georgia
- 2018 **Explorers Club National Fellow** (elected)
- 2018 **Djerassi Resident Alumna**, Ocean Memory Fellowship (selected)
- 2018 **American Academy of Microbiology Fellow** (elected)
- 2017 **American Geophysical Union Fellow** (elected)
- 2016 **Graduate Commencement Speaker**, University of North Carolina at Chapel Hill
- 2016 **White House Office of Science and Technology Policy Invited Speaker and Panelist**, "National Microbiome Initiative" Kickoff Event
- 2016 **Association for Sciences for Limnology and Oceanography Sustaining Fellow** (elected)
- 2015 **Southeastern Conference Faculty Achievement Award** (selected)
- 2014 **Georgia Trend "100 Most Influential Georgians"**
- 2013 **American Association for the Advancement of Science Fellow** (elected)
- 2012 **Georgia Trend "100 Most Influential Georgians"**
- 2011 **Faculty Ambassador to Alumni and Friends Award**, University of Georgia, Franklin College of Arts and Sciences
- 2011 **Georgia Athletic Association Distinguished Professor**, University of Georgia
- 2010 **Whole Living Eco-Heroine Award for Science**
- 2008 **Creative Research Medal**, University of Georgia
- 2007 **U.S. Department of the Interior Distinguished Service Award** for Education and Outreach, Minerals Management Service
- 2005 **Smithsonian Institution Research Fellow**, Caribbean Coral Reef Ecosystem Program, Carrie Bow Cay, Belize
- 2002 **Hanse Institute for Advanced Study Sabbatical Fellowship**, Delmenhorst, Germany
- 2001 **Georgia Trend "40 under 40" Award** for Outstanding Scientific Achievement
- 1999 **Marine Biological Laboratory Research Fellow**, Woods Hole, MA
- 1997 **Marine Biological Laboratory Research Fellow**, Woods Hole, MA
- 1997 **Estuarine Research Federation Cronin Award**, Outstanding Performance by an Early Career Estuarine Scientist

## **SOCIETY MEMBERSHIPS**

---

American Association for the Advancement of Science  
American Geophysical Union  
Association for the Sciences of Limnology and Oceanography  
American Society for Microbiology  
The Oceanography Society

## **PUBLIC OUTREACH**

---

### **Web Sites and Social Media**

Joye Group Web Site: [joyelab.org](http://joyelab.org)  
Expedition Blog: [joyelab.org/blog](http://joyelab.org/blog)  
Ocean Advocacy: [joyelab.org/ocean-advocacy](http://joyelab.org/ocean-advocacy)  
ECOGIG Program: [www.ecogig.org](http://www.ecogig.org)  
Public Education: [www.ecogig.org/get-educated](http://www.ecogig.org/get-educated)  
Twitter: @SeepExplorer  
Facebook: [www.facebook.com/ecogig.outreach/](http://www.facebook.com/ecogig.outreach/)

### **Press Coverage and Outreach Activities**

*Public interest in Joye's work and examples of outreach and education activities*

- ◆ Gulf of Mexico Deepwater Horizon Oil Spill news stories (thousands) featuring interviews and quotes.  
Multiple interviews by CNN, ABC, CBS, MSNBC, BBC, Canadian Broadcast Cooperation (CBC), National Public Radio, *The New York Times*, *The Wall Street Journal*, *The LA Times*, *Science*, *Nature*, and *USA Today*, among others.
- ◆ Continuing resource to the media regarding the geobiological processing of hydrocarbons.
- ◆ UGA-produced documentary films, [Black and Blue: Beneath the Gulf Oil Disaster](#) and [Atlantis Revealed: Where the Oil Went](#).  
The [Black and Blue](#) documentary received a regional Emmy award for best documentary.
- ◆ Feature stories in the Georgia Magazine and UGA Research Magazine.  
"Troubled Waters: Our Changing Seas" by Charles Seabrook, in **UGA Research Magazine**, Fall 2008; "Standing Firm" by Krista Reese, in **Georgia Magazine**, Fall 2015.
- ◆ Featured in several documentaries and books on the Deepwater Horizon.  
Joye appears in documentaries by *National Geographic*, *Animal Planet*, the CBC and the BBC. She is also a major character in a book, [Black Tide](#), authored by Antonia Juhasz.

- ◆ Featured in “Dispatches from the Gulf”, a documentary film that is part of the *Journey to Planet Earth* series produced by Marilyn and Hal Weiner.
- ◆ Written and oral testimony to Congress in June 2010 and April 2015 about the Deepwater Horizon oil spill and its impacts on Gulf of Mexico offshore ecosystems.
- ◆ Developed the “Ocean Discovery Zone” event to promote ocean literacy and advocacy. Carried out educational events at:

The Atlanta Science festival (2,500 visitors each year since 2015)

The Columbia University/Lamont-Doherty Earth Observatory open house (~1,200 people each year since 2015)

The University of Maryland Chesapeake Biological Laboratory, and at the USGS (Gainesville FL) Science Fair (2017, 2018)

Events at home college football games at the University of Georgia, Florida State, and Penn State starting in 2014 continuing to the present at the University of Georgia.

Total reach to date is > 30,000 people.

- ◆ Regular educational events (~10 times per year) at primary, middle and high schools in the Athens/Atlanta area
- ◆ Local lectures on the Gulf of Mexico Oil Spill, e.g., NE Georgia Children’s Environmental Health Coalition; Columbus Rotary Club; UGA Alumni Leadership Assembly; Cedar Shoals High School AP Biology Class; UGA Chapter of the Junior Rotarians.
- ◆ Development of the “Ocean Discovery Camp” in Athens, GA (two 1-week sessions that are part of UGA’s Summer Academy).
- ◆ Featured Scientist and Scientific Advisory Board member for 2019 documentary film, “Diving Deep” (Exec. Producer, Mimi DeGruy).
- ◆ Featured speaker at the 2017 “Annual Science Lecture” at London’s Natural History Museum.
- ◆ Featured speaker at “EarthX” (formerly Earth Day Texas), the largest event in the world celebrating Earth Day (2016, 2017).
- ◆ Developed “*The Adventures of Zack and Molly*” an educational video series developed in collaboration with cartoonist Jim Toomey. The “Zack and Molly” series has been screened at 22 film festivals and has won a number of awards, including:
  - “Best Animation”, Wildlife Conservation Film Festival | “KVC Award Winner”, Kids Video Connection Children’s Film Festival | “Award for Excellence”, Best Shorts Competition | “Award for Merit”, Southern Shorts Awards | “Award of Distinction” (Best Shorts Competition Humanitarian Awards)
- ◆ Lead scientist on BBC Ocean Gulf of Mexico 2016 filming expedition for 2017 BLUE PLANET II TV Series

- ◆ Featured in “Our Blue Planet” digital shorts, produced by the BBC and OceanX highlighting ocean exploration and discovery.  
*Brine Pools: Exploring an Alien World* (<https://www.youtube.com/watch?v=fbJubNqLyCY>)  
*The Future of the Oceans* ([https://www.youtube.com/watch?v=1\\_HBgvmrhGU](https://www.youtube.com/watch?v=1_HBgvmrhGU))  
*Searching for Cures in the Deep Sea* (<https://vimeo.com/261150468>)
- ◆ Chief Science Advisor for “Beyond Blue”, video game produced by E-Line Media in cooperation with BBC Earth and OceanX.
- ◆ Speaker at The Explorers Club for Ocean Week describing the use of video games to advance ocean literacy and conservation.

## SERVICE

---

### Editorial Board Membership or Duties

Associate Editor:

*Aquatic Microbial Ecology*, 1997-2006; *Estuaries and Coasts* (Estuarine Research Federation), 2001-2006; *Biogeochemistry* (Elsevier), 2003-2006; *Limnology and Oceanography: Methods* (Am. Soc. Limnology and Oceanography), 2003-2007; *Limnology and Oceanography* (Am. Soc. Limnology and Oceanography), 2003-2011; *Aquatic Microbial Ecology* (Inter-Research), 2007-2013; *Environmental Microbiology* (Blackwell), 2008-2014; *Ecosystems*, 2013-2015; *Frontiers of Microbiology*, 2018-present.

Special issue Editor:

*Geomicrobiology*, “Molecular Biogeochemistry”, 2003.

*Limnology & Oceanography*, “Eutrophication”, lead Editor with V. Smith and R. Howarth, 2006.

*Deep Sea Research-II*, “The Gulf of Mexico Ecosystem: Before, during and after the Macondo Blowout”, 2016.

### Reviewing

**Journals:** *Applied & Environmental Microbiology*; *Aquatic Geochemistry*; *Aquatic Microbial Ecology*; *Biogeochemistry*; *Ecology*; *Ecological Monographs*; *Environmental Microbiology*; *Environmental Science & Technology*; *Estuaries & Coasts*; *Estuarine, Coastal & Shelf Science*; *FEMS Microbiology Ecology*; *Frontiers Journals*; *Geobiology*; *Geochimica et Cosmochimica Acta*; *Geomicrobiology Journal*; *Journal of Environmental Quality*; *Limnology & Oceanography*; *Marine Chemistry*; *Marine Ecology Progress Series*; *Marine Pollution Bulletin*; *mBio*; *Microbiome*; *Nature*; *Nature Communications*; *Nature Geoscience*; *Nature Microbiology*; *Proceedings of the National Academy of Science (USA)*; *Science*; *Science Advances*; *PLoS Journals*; *Science of the Total Environment*; *Tellus*; *The ISME Journal*

**Funding Agencies and Scholarly Institutions:** Netherlands Organization for Scientific Research; National Academy of Sciences; National Environment Research

Council (United Kingdom); National Science Foundation (Biological & Chemical Oceanography, CAREER, Ecosystems, Environmental Biology, Hydrologic Sciences, Instrumentation & Infrastructure, Molecular & Cellular Biology, Ocean Drilling Program, Polar Programs); NOAA Coastal Ocean Program; NOAA Sea Grant (California, Louisiana, Maine, Maryland, Massachusetts, New Jersey, Rhode Island and Virginia); The Petroleum Research Fund/American Chemical Society; The Civilian Research and Development Foundation; The Long Island Sound Research Fund; The Wisconsin Water Resources Institute; US-Israel Bi-National Science Foundation.

## **National and International**

*Panelist:* National Science Foundation, Division of Ocean Sciences (1997).

*Session Chair:* National Academy of Sciences, Japan-America "Frontiers of Science" Symposium, Tokyo, Japan (1999).

*Invited Session Chair:* "Molecular Biogeochemistry: Linking the distribution of bacteria to their biogeochemical function in the environment." American Society of Microbiology, Annual Meeting, Los Angeles, CA (2000).

*Member-at-Large* (elected) of the Board of Directors of the American Society of Limnology and Oceanography (2000-2003).

*Member* of the Public Policy Committee of the American Society of Limnology and Oceanography (2000-2005).

*Invited Discussion Leader* for "hypersaline ecotypes" working group at the NSF PI workshop for Microbial Observatories and Life in Extreme Environments Programs, Arlington, VA (2002).

*Special Session co-Chair:* "The History and Current Status of Eutrophication in Aquatic Ecosystems." American Society of Limnology and Oceanography, Aquatic Sciences Meeting, Salt Lake City, UT (2003) (with Drs. Bob Howarth and Val Smith).

*Special Session co-Chair:* "Biogeochemistry, microbiology and molecular ecology of cold seeps." American Society of Limnology and Oceanography, Aquatic Sciences Meeting, Salt Lake City, UT (2003) (with Dr. Antje Boetius).

*Special Session co-Chair:* "Methane fluxes on Earth: Budgets and Biological controls." European Geophysical Society, American Geophysical Union, and European Union of Geophysics Joint Assembly, Nice, France (2003) (with Dr. Antje Boetius).

*Special Session co-Chair:* "Methane seeps and mud volcanoes," European Geochemical Union Assembly, Nice, France (2004) (with Dr. Antje Boetius).

*Scientific Expert* at an open press conference on "Methane seeps and mud volcanoes," at the European Geochemical Union Assembly, Nice, France (2004).

*Invited Plenary Speaker,* Gordon Research Conference on the "Molecular Basis of Microbial C-1 Metabolism", Mt. Holyoke College, South Hadley, MA (2004).

*Special Session co-Chair: "Microbial Habitats"* American Society of Limnology and Oceanography, Aquatic Sciences Meeting, Salt Lake City, UT (2005) (with Drs. Antje Boetius and Matthew Kane).

*Invited Speaker: "The role of denitrification in the nitrogen cycle"*, American Society of Limnology and Oceanography, Aquatic Sciences Meeting, Salt Lake City, UT (2005).

*Invited Plenary Speaker: "Microbial mats and the biogeochemistry of mangrove ecosystems"*, 9<sup>th</sup> International Symposium on the Biogeochemistry of Wetlands, Wetlands Biogeochemistry Institute, Baton Rouge, LA (2005).

*Invited Speaker: "Cold Seeps and Hydrothermal Vents"*, Special Session, European Geochemical Union, Annual Meeting, Vienna, Austria (2005).

*Special Session co-Chair: "Methane fluxes on continental margins: Budgets and Biological Controls"* European Geochemical Union, Annual Meeting, Vienna, Austria (2005) (with Dr. Antje Boetius).

*Scientific Expert* at an open press conference on "Cold seeps and mud volcanoes," at the European Geochemical Union Assembly, Vienna, Austria (2005).

*Chair* of the Publications Committee, American Society of Limnology and Oceanography (2005-2008).

*Panelist: NASA Astrobiology Science and Technology* (2005).

*Member* (appointed) of the Science Steering and Evaluation Panel for the International Ocean Drilling Program (2005-2008).

*Invited Plenary Speaker: Gordon Research Conference on the "Molecular Basis of Microbial C-1 Metabolism"*, Oxford University, Oxford, England (2006).

*Panelist: National Science Foundation, Division of Environmental Biology* (2006).

*Invited Speaker: "Methane Fluxes along Continental Margins"*, Special Session, European Geochemical Union, Annual Meeting, Vienna, Austria (2007).

*Invited Plenary Speaker: Gordon Research Conference on the "Chemical Oceanography"*, Tilton School, Tilton, New Hampshire (2007).

*Invited Keynote Lecture: Gordon Research Conference on the "Molecular Basis of Microbial C-1 Metabolism"*, Bates College, Lewiston, Maine (2008).

*Special Session co-Chair: "Production and consumption of methane and higher alkanes in extreme environments"*, Goldschmidt Geochemistry Meeting, Davos, Switzerland (June 2009) (with Dr. Jean-Luc Charlou).

*Invited Member, External Review Committee for the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program in Oceanography and Applied Ocean Science and Engineering* (2009).

*External Reviewer for Tenure and Promotion: Harvard University, University of North Carolina, University of South Carolina, University of Hawaii, Occidental College, University of Washington, University of California Los Angeles, Florida State*

University, Colorado State University, Iowa State University, Michigan State University, Stanford University.

*Special Session co-convenor: "The evolutionary history of sulfur metabolisms: innovation, ecology, and their role in Earth's evolving geochemistry"*  
Goldschmidt Geochemistry Meeting, Knoxville TN (2010) (with Drs. James Farquhar, David Johnston and Dirk de Beer).

*Invited Member, External Review Committee for the University of Texas Marine Science Institute (2010)*

*Invited Member, External Review Committee for the National Science Foundation site review committee for the Oregon Center for Coastal Ocean Health Science and Technology Center (2010).*

*Appointed committee member, American Society for Microbiology, Public and Scientific Affairs Board (2010-2013).*

*Witness, Testified before the U.S. House of Representatives Committee on Science and Technology investigating the Deepwater Horizon Oil Spill (2010).*

*Member (appointed), Deepwater Horizon Study Group, Environmental Impacts Science Team, chaired by Dr. Robert Bea (2010-2011).*

*Invited Union Lecture: Open Ocean Impacts of the BP Blowout: Underwater Plumes and sedimented oil, AGU Fall Meeting (2010).*

*Invited Topical Lecture: Offshore Oceanic impacts of the BP Oil Well Blowout, AAAS Annual Meeting (2011).*

*Invited Plenary Lecture: The Gulf of Mexico BP Oil Spill, Gordon Research Conference on Chemical Oceanography, Andover, New Hampshire (2011).*

*Invited Lecture: Rapid sedimentation of Macondo oil to the Seafloor, AAAS Annual Meeting, Boston, MA (2011).*

*Invited Participant, American Academy of Microbiology symposium on "Incorporating Microbial Processes into Climate Models" (2011).*

*Scientific Advisory Board, Max Planck Institute for marine Microbiology, Bremen Germany, appointed by the Max Planck Society President (2011 – present).*

*Scientific Advisory Board, The Future Ocean, Excellence Cluster, IFM-GEOMAR, Leibniz-Institut für Marine Wissenschaften, University of Kiel; appointed by the University President (2010 – present).*

*Panelist: NSF Antarctic Organisms and Ecosystems (2012).*

*Expert Scientific Consultant, FOX TV Series **Bones** (2013-2016).*

*Member, Committee on Strategic Research for Integrated Water Resources Management, National Academy of Sciences National Research Council, Division of Earth and Life Sciences, (2013).*



*Member* (appointed), American Society for Microbiology, Public and Scientific Affairs Board (2013 – present).

*Invited Lecture* on the Deepwater Horizon Oil Spill, American Chemical Society Annual Meeting New Orleans, LA (2013).

*Reviewer*, National Academy of Sciences Institute of Medicine Report on Coastal Ecosystem Services and Human Health (2013).

*Invited Speaker*, Council on Foreign Relations, “Climate change impacts on oceanic methane cycling” (2014).

*Invited Participant*, UNH/NCCR - BOEM-NOAA-EPA-DOI Workshop on “Oil Spill Response: From EVOS to DWH, what have we learned? Durham, NH (October 2014).

*Invited Participant, Speaker, and Film Festival Judge*, Blue Ocean Film Festival and Ocean Conservation Summit, USF, St. Pete, FL (2014).

*Invited Speaker*, UNOLS/Deep Submergence Science Committee Distinguished Lecturer for the DeSSC Early Career Science program at the Fall AGU meeting (2014).

*Invited Speaker*, “Novel Microbial Metabolisms”, AGU Fall Meeting, San Francisco (2014).

*Witness*, Testified before the U.S. Senate Committee on Commerce, Science and Technology examining Lessons Learned in the five years since the Deepwater Horizon Oil Well Blowout (2015).

*Plenary Speaker*, ASM General Meeting, “A Sea of Change: Altered microbial dynamics in the wake of the Macondo Blowout”, ASM General Meeting, New Orleans (2015).

*Invited Speaker*, Gordon Conference on Applied and Environmental Microbiology, “Microbial hydrocarbon degradation in the environment”, Mount Holyoke College, South Hadley Massachusetts (2015).

*Invited Speaker and Panelist*, White House Office of Science and Technology Policy, “National Microbiome Initiative” Kickoff Event (2016).

*Invited Graduate Commencement Speaker*, University of North Carolina at Chapel Hill (2016).

*Chief Scientist* for BBC Oceans “Blue Planet II” filming expedition in the Gulf of Mexico (May-June 2016).

*Chief Scientist* for BBC Oceans “Ocean Futures IMax” filming expedition in the Gulf of Mexico (June 2016).

*Invited Participant*, ASM-AGU Colloquium on “Interactions between climate change & microbial ecosystems”, Washington DC (2016).

*Featured Scientist* in “Diving Deep” a documentary film highlighting the importance of deep ocean exploration (Mimi deGruy, Director/Producer (2018).

*Advisory Board, "Diving Deep The Movie" (2016-2019).*

*Chief Science Advisor, E-Line Media, "Beyond Blue" Ocean video game production team (2016-2020).*

*Invited Speaker, ASM General Meeting President's Lecture, "Science-enabled policy – lessons from the Deepwater Horizon oil well blowout" (2017).*

*Invited Speaker, ACS National Meeting, Presidential Symposium Lecture, "Understanding the Chemistry of Our Planet" (2017).*

*Faculty Selection Committee (selected), Geobiology W2-Professor search committee, GEOMAR, Kiel, Germany (Klaus Walmann, committee chair) (2018).*

*Faculty Selection Committee (selected), Department of Biology, Assistant Professor Search Committee, Southern Denmark University (Don Canfield, committee chair) (2018).*

*Invited Member, National Academy of Sciences/Kavli Ocean Memory – Emerging Deep Epigenetic Networks - Initiative Working Group (2017-present).*

*Member (selected) Department of Energy, Biological and Energy Research Advisory Committee (BERAC), Subcommittee on User Research Facilities (SURF)*

*Member (selected) AGU Union Fellow Selection Committee for Biogeosciences (2018-2021).*

*Co-Lead (with Joel Kostka, Georgia Tech), Core Area 6, "Microbiology and Omics" Synthesis Working Group, Gulf of Mexico Research Initiative (2018-2020).*

*Invited Speaker/Discussion Leader, Gordon Conference on Applied and Environmental Microbiology, "The Microverse of the Anthropocene" (2019).*

*Co-Lead (with Steve Murawski, Univ. South Florida), Core Area 3, "Ecosystem and Ecological Dynamics" Synthesis Working Group, Gulf of Mexico Research Initiative, (2018-2020).*

*Member, Core Area 2, "Fate of Oil & Weathering: Biological & Physical-chemical Degradation" Synthesis Working Group, Gulf of Mexico Research Initiative (2018-2020).*

*Scientific Advisory Board, MARUM, "The Ocean in Depth!" Excellence Cluster, University of Bremen, Germany, (appointed by the University President) (2019-2014).*

*Panelist: NASA Exobiology Program (2019).*

### **Local/University of Georgia**

*Faculty Senate: College of Arts and Sciences, 1999-2000.*

*Academic Standards Committee: Arts and Sciences Faculty Senate, 1999-2000.*

*Graduate Affairs Committee, Department of Marine Sciences, 2001-2012.*

*Undergraduate Affairs Committee, Department of Marine Sciences, 2012-present.*

*Franklin College Outreach*, speaker at local schools in Georgia, 1998-2001.

*Space Committee*, Department of Marine Sciences, 2002-2004.

*Seminar Coordinator* (fall semester), Department of Marine Sciences, 2001-2006.

*Franklin College Awards Committee*, Fall 2007.

*Internal Review Committee Member* for the Center for Applied Isotope Studies, charged by the Office of the Vice President Research, Fall 2007, Spring 2008.

*Invited Speaker*, Graduate School Symposium on Fellowship Proposal Writing for Graduate Students, Fall 2008.

*Life Sciences Review Committee Member*, Office of the Vice President Research, Faculty Research Grant, Fall 2008-2010.

*Invited Speaker*, Office of Government Relations and Office of the Vice President Research, Legislative Briefing, August 2009 & 2011.

*Graduate Faculty, Physical Sciences Area, Review Committee*, Graduate School, 2009-2012.

*Chair of the Franklin College Life Sciences Promotion and Tenure Committee*, 2011-2017.

*Panelist*, UGA Women's History Month Open Discussion, promoting women and underrepresented minorities in STEM, 2013.

*Member* (elected) of the President's Faculty Advisory Committee, 2013-2016.

*Chair of the President's Faculty Advisory Committee*, 2016.

*Invited Speaker*, Peach State LSAMP Research Conference, 2016.

*Member (selected)* EHS-MS Academic/Research Steering Committee, 2015-2017.

*Member* (elected) of the University Council, 2017-2020.

*Member* (elected) University Council representative on the Board of Directors of the University of Georgia's Research Foundation, 2017-2020.

*Member* (selected) SEC Faculty Achievement Award Selection Committee, 2016-2019.

*Invited Speaker*, Academic Affairs Faculty Symposium (Helen, GA), 2017.

*Member* (elected) University Council representative on Georgia Athletic Association Board of Directors, 2018-2021.

*Member* (elected) University level Academic Student Appeals Committee, 2019-2022.

### **Organization of Scientific Meetings and Workshops**

*Organizing Committee*: National Academy of Sciences, Japan-America "Frontiers of Science" Symposium, Tokyo, Japan (1999).

*Co-Chair of the Organizing Committee*: National Academy of Sciences, Japan-America "Frontiers of Science" Symposium, Irvine, CA (2000).

*Chair of the Organizing Committee:* American Society of Limnology and Oceanography, Aquatic Sciences Meeting, Salt Lake City, UT (2003).

*Member of the International Planning Committee,* International Symposium for Environmental Biogeochemistry (ISEB) (2001-2010).

*Scientific Planning Committee,* 9<sup>th</sup> International Conference on Gas in Marine Sediments (Bremen Germany, Sept. 2008)

*International Planning Committee,* Goldschmidt Geochemistry Meeting (Davos, Switzerland), 2007

*Chair of Theme Team:* “Life at the Edge: Extreme Environments” for Goldschmidt 2009

*Session Organizer:* “Bio-Geo-Chemical Hydrocarbon Dynamics in the Gulf”, GoMRI Annual meeting, 2013

*Session Organizer:* “Microbiology, Metabolism and Biogeochemistry of Hydrocarbons in the ocean” for 2014 Ocean Sciences Meeting

*Lead Organizer Extreme Theme:* “Life on Oil and Gas” for Goldschmidt (2014)

*Session Organizer:* “Environmental Meta -omics” for 2015 ABRF General Meeting

*Session Organizer:* “Hydrocarbon microbiology across terrestrial and marine environments” for 2015 ASM General Meeting

*Steering Committee:* ASLO Aquatic Sciences Meeting, Honolulu Hi, Feb. 2017

*Session Organizer:* “Ocean connections: benthic – pelagic coupling across ocean systems”, ASLO Aquatic Sciences Meeting (March 2017)

*Colloquium Organizer:* “Microbial Genomics of Global Ocean System” (with Joel Kostka) colloquium sponsored by GoMRI, AAM, and AGU (February 2019)

*Workshop Organizer:* “Ecosystem Impacts of the Deepwater Horizon Event: Assembling the Record of Species and Community Change” (with Steve Murawski, lead, and Tracey Sutton) colloquium sponsored by GoMRI, AAM, and AGU (February 2019)

## **INSTRUCTION AND MENTORING**

---

### **Instruction**

Excellence in instruction requires a strong intellectual background in the subject matter, a passion and enthusiasm for the material being taught, and an ability to engage and motivate students to invest fully in the course. With a goal of providing students with fundamental knowledge of the underpinnings of microbial and biogeochemical dynamics across broad range of habitats, these courses advance the understanding of the role of microbial processes in the earth system. A solid educational foundation in the earth sciences is critical as such knowledge promotes environmental stewardship, empowers ecological responsibility, and protects the future health and prosperity of this planet.

*University of Georgia (1998-present)*

*FRES 1010 (Undergraduate Seminar, Extreme Environments)*

*FRES 1010 (Undergraduate Seminar, Geobiology: a history of life on Earth)*

*MARS 1010 (Undergraduate, The Marine Environment)*

*MARS 4100 (Undergraduate, Chem. and Phys. Oceanography)*

*MARS 4190 (Undergraduate, Laboratory Research Credit)*

*MARS 4190H (Undergraduate, Honors Lab. Research Credit)*

*MARS 4220 (Undergraduate, Microbial Ecology)*

*MARS 3150 (Undergraduate, Oceans in Peril)*

*MARS 6810 (Graduate, Microbial Biogeochemistry)*

*MARS 6220 (Graduate, Microbial Ecology)*

*MARS 7000 (Graduate, Masters Research Credit)*

*MARS 8220 (Graduate, Geobiology)*

*MARS 8130 (Graduate, Professional Development)*

*MARS 8900 (Graduate, Paper Seminar)*

*MARS 9000 (Graduate, Research Credit)*

*Texas A&M University (1995-1997)*

*Oceanography 251H (Undergraduate, Honors Oceanography)*

*Oceanography 640 (Graduate, Chemical Oceanography)*

*Oceanography 689 (Graduate, Biogeochemistry)*

## Mentoring

Mentoring undergraduates, graduate students, and postdocs is one of the most rewarding aspects of an academic career. Research in the Joye group is collaborative, collegial, and highly productive. Critical-thinking and quantitative skills are stressed and young scientists are challenged to think outside the box and in a forward manner to assure efforts are advancing the field. Expectations are high and are communicated clearly and effectively. Professional development is facilitated through individual and group activities. People thrive in the challenging, yet highly supportive, atmosphere, with PhD students averaging five first author publications, including a high impact paper.

*Postdoctoral Associates* (15):

Previous: Stephen MacAvoy (8/00 – 9/01), Kimberly Mace (9/05-5/06), Laura Palomo (10/08-5/10), Christelle Hyacinthe (7/07-2/10), Melitza Crespo-Medina (1/09-12/12), Niko Finke (3/11-1/14), Kathy Loftis (8/13-8/14), Sara Kleindienst (8/12-12/13), Kim Takagi (9/12-10/14), Matt Saxton (8/13-5/15), Sairah Malkin (12/13-12/15); Lindsey Fields (6/13-6/15); Lisa Nigro (8/15-8/16).

Current: Guang-Chao Zhang (1/15-present); Jason Westrich (9/18-present)

*Graduate Students* as Major Professor (24; 18 have graduated – 11 Ph.D., 7 M.Sc.):

Previous: Soonmo An, Ph.D. 1999; Marshall Bowles, Ph.D., 2011; Steve Carini, Ph.D. 2007; Ross Downer, M.Sc. 2003; Susie Escorcía, M.Sc. 2000; Sarah Harrison, M.Sc. 2017; Rosalynn Lee, Ph.D. 2006; Beth Orcutt, Ph.D. 2007; Jonathan Pahlas, M.Sc. 2013; Bill Porubsky, Ph.D. 2008; Mary-Kate Rogener, Ph.D. 2018; Charles Schutte, Ph.D. 2014; Kate Segarra, Ph.D. 2012; Cathrine Shepard, M.Sc. 2019; Julia Slaughter, M.Sc. 2013; Catarina Teixeira (co-advisor; University of Porto, Portugal), Ph.D. 2012; Liliana Velasquez, M.Sc. 2005; Nathaniel Weston, Ph.D. 2005.

Current (6): Ph.D.: Hannah Choi, Rachael Karns, Andy Montgomery, Tito Peña-Montenegro, Ryan Sibert; M.Sc.: Zachary Marinelli

Student Honors and Awards: Two students received NSF Graduate Research Fellowships (Beth Orcutt and Sarah Harrison); One student received an EPA STAR Graduate Fellowship (Charles Schutte); Three students received postgraduate Knauss Science Policy Fellowships (Kate Segarra, Sarah Harrison, and Mary-Kate Rogener); Former PhD student Beth Orcutt is the 2019 recipient of AGU's Taira Prize for Scientific Excellence in Ocean Drilling Research.

*Graduate Students* as Committee Member (38; 32 have graduated)

*Undergraduate Students* as Mentor (48; 42 have graduated)

## RESEARCH EXPERTISE

---

BioGeoChemical cycling of nutrients, metals, and organic materials in the environment; GeoBiology of deep-sea methane hydrate, hydrothermal, and chemosynthetic habitats; Global carbon cycle; Global nitrogen cycle; *In situ* detection of functional microbial groups and elucidation of active microbial populations through microscopy and meta -omics; Microbial processing of petroleum and natural gas; Microbial ecology, metabolism and physiology.

## PUBLICATIONS

---

Note: <sup>1</sup>Joye group co-authors; <sup>2</sup>Joye group visiting students/postdocs.

### Book Reviews (1)

Joye, S. B., 1999. Review of Biological and Environmental Chemistry of DMSP and related sulfonium compounds (Kiene, R. P., P. T. Visscher, M. D. Keller and G. O. Kirst [Eds.]). *Limnology & Oceanography*, 44(7): 1845.

### Edited Volumes (3)

Joye, S. B., 2003. *Molecular Biogeochemistry, Geomicrobiology*, 156 pages.

Joye, S. B., R. W. Howarth & V. S. Smith, 2006. Eutrophication of freshwater and marine ecosystems. *Limnology & Oceanography*, 51(2), 800 pages.

Joye, S.B., 2016. The Gulf of Mexico Ecosystem: Before, During and After the Macondo Blowout. *Deep Sea Research-II*, Vol. 129, published July 2016, 400 pages.

### Book Chapters (18)

1. Joye, S. B., and H. W. Paerl, 1993. Nitrogen fixation and denitrification in the intertidal and subtidal sediments of Tomales Bay, California, pp. 633-653. In: Oremland, R. S. (Ed.) Biogeochemistry of Global Change: Radiative Trace Gases. Chapman & Hall, New York.

2. Joye, S. B., R. Wisniewski<sup>1</sup> and S. An<sup>1</sup>, 1999. Interactions between the nitrogen, carbon and oxygen cycles in shallow coastal sediments, pp. 49-53. In: Armannsson, H. (Ed.) Geochemistry of the Earth's Surface. Balkema Press, Iceland.

3. Valiela, I., M. L. Cole, J. McClelland, J. Hauxwell, J. Cebrian, and S. B. Joye, 2001. Role of salt marshes as part of coastal landscapes, pp. 23-38. In: Weinstein, M. P. and D. A. Kreeger (Eds.), Concepts and Controversies in Tidal Ecology, Kluwer Academic Publishers, Dordrecht, The Netherlands.

4. González, J. M., R. P. Kiene, S. B. Joye, D. Y. Sorokin, and M. A. Moran, 2002. Oxidation of organic and inorganic sulfur compounds by aerobic heterotrophic marine bacteria, pp. 291-310. In: Singh, V. P. (Ed.) Biotransformations: Bioremediation

Technology for Health and Environmental Protection. Elsevier Science Pub., Amsterdam, the Netherlands.

5. **Joye, S. B.**, 2002. Denitrification in the Marine Environment, pp. 1010-1019. In: Collins, G. (Ed.), Encyclopedia of Environmental Microbiology. John Wiley & Sons, Inc., New York, <https://doi.org/10.1002/0471263397.env141>.

6. **Joye, S. B.**, W. P. Porubsky<sup>1</sup>, N. B. Weston<sup>1</sup>, and R. Y. Lee<sup>1</sup>, 2003. Benthic microalgal production and nutrient dynamics in intertidal sediments, pp. 67-70. In: Rullkötter, Jürgen (Ed.), BioGeoChemistry of Tidal Flats. Forschungszentrum Terramare Berichte Nr. 12, Proceedings of a Workshop held at the Hanse Institute of Advanced Study, Delmenhorst, Germany, May 14-17 2003, ISSN 1432-797X.

7. **Joye, S. B.**, D. A. Bronk, D. Koopmans, and W. S. Moore, 2006. Potential for groundwater-derived carbon, nitrogen and phosphorus inputs to coastal ecosystems in South Carolina and Georgia, pp. 139-167. In: Kleppel, G.S., M.R. DeVoe, & M. Rawson (Eds.), Implications of Land Use Change to Coastal Ecosystems. Springer Verlag, New York.

8. **Joye, S. B.** and I. Anderson, 2008. Nitrogen Cycling in Coastal Sediments, pp. 867-915. In: Capone, D., Bronk, D., Carpenter, E. and M. Mulholland (Eds.), Nitrogen in the Marine Environment, Elsevier.

9. **Joye, S. B.**, P. Cook, and D. de Beer, 2008. The Biogeochemistry of Tidal Flats, pp. 345-373. In: Perillo, G. M. E., E. Wolanski, D. Cahoon, and M. Brinson (Eds.), Coastal Wetlands: An Integrated Ecosystem Approach, Elsevier.

10. Pennings, S., M. Alber. C. Alexander, M. Booth, W.J. Cai, C. Craft, C.B. DePratter, D. DiIorio, J.T. Hollibaugh, C. Hopkinson, **S.B. Joye**, C.D. Meile, W.S. Moore, B. Silliman, V. Thompson, and J. Wares, 2010. South Atlantic Tidal Wetlands, pp. 45-61. In: Batzer, D.P. and A. Baldwin (Eds.), Wetland Habitats of North America: Ecology and Conservation Concerns. University of California Press, Berkeley, California.

11. Treude, T., L. Levin, C. Smith, and **S.B. Joye**, 2014. Marine ecosystems associated with near surface methane gas hydrate. *In*: Beaudoin, Y.C., W. Waite, and R. Boswell (Eds.), UPEP Global Outlook on Methane Hydrates, Volume 1. United Nations Environment Programme, ISBN: 978-92-807-3319-8.

12. Anderson, S.S., C.H. Peterson, G. Cherr, R. Ambrose, S. Anghera, S. Bay, M.J. Blum, R. Condon, T. Dean, W.M. Graham, **S.B. Joye**, et al. (NCEAS Gulf Oil Spill EcoTox Working Group), 2014. Understanding and Properly Interpreting the 2010 Deepwater Horizon Blowout, pp. 19-57. In: Somassundaran, P., P. Patra, R.S. Farinato, and K. Papadopoulos (Eds.) Oil Spill Remediation: Colloid Chemistry-based principles and solutions. ISBN: 9781118206706.



13. **Joye, S.B.**, and S. Kleindienst, 2017. Hydrocarbon Seep Ecosystems, pp. 33-52. In: Kallmeyer, J. (Ed.), Life in Extreme Environments, DeGruyter Publishing, <https://dio.org/10.1515/9783110493672-001>.

14. Kleindienst, S., and **S.B. Joye**, 2018. Global aerobic degradation of hydrocarbons in aquatic ecosystems, pp. 1-18. In: Rojo, F. (Ed.) Handbook of Hydrocarbon and Lipid Microbiology Series: Aerobic utilization of hydrocarbons, oils, and lipids. Springer, DOI: 10.1007/978-3-319-39782-5\_46-1.

15. Schutte, C.A., S. Ahmerkamp, C.S. Wu, M. Seidel, P.L.M. Cook, Dirk de Beer, and **S.B. Joye**, 2018. Biogeochemical Dynamics of Coastal Tidal Flats. In: Perillo, G.M.E., E. Wolanski, C. Hopkinson, and M. Brinson (Eds.), Coastal Wetlands: An Integrated Ecosystem Approach, Second Edition, Elsevier, <https://doi.org/10.1016/B978-0-444-63893-9.00012-5>.

16. Teske, A.P., and **S.B. Joye**, 2019. The Gulf of Mexico: An introductory survey of a seep-dominated seafloor landscapes. In: Teske, A.P. (Ed.) Cold seeps and Hydrothermal Vent Systems, Springer Nature, Germany, in press.

17. Chanton, J. L. Lapham, T.S. Bianchi, K. Rogers, D. Hollander, and **S.B. Joye**, 2019. Gulf of Mexico Sediment Chemistry. In: Bianchi, T.S. (Ed.) Gulf of Mexico Origin, Waters, and Biota, Vol. 5, Chemical Oceanography of the Gulf of Mexico. Published by Harte Research Institute for Gulf of Mexico Studies and Texas A&M University, in press.

18. Kostka, J.E., **S.B. Joye**, W. Overholt, P. Bubenheim, S. Hackbusch, S.R. Larter, A. Liese, S.A. Lincoln, A. Marietou, R. Muller, N. Noirungsee, T.B.P. Oldenburg, J.R. Radovic, and J. Viamonte, 2020. Biodegradation of petroleum hydrocarbons in the deep sea, pp. 107-124. In: Murawski, S.A., C.H. Ainsworth, S. Gilbert, D.J. Hollander, C.B. Paris, M. Schluter, and D.L. Wetzel (Eds.). Deep Oil Spills, Springer Nature, Switzerland, <https://doi.org/10.1007/978-3-030-11605-7>. [Book in print, January 2020]

#### **Peer-reviewed Journal Articles** (170 peer reviewed publications as of July 2019)

1. **Joye, S. B.**, and H. W. Paerl, 1993. Contemporaneous nitrogen fixation and denitrification in marine microbial mats: Rapid response to runoff events. *Marine Ecology Progress Series*, 94: 267-274.

2. Paerl, H. W., **S. B. Joye**, and M. W. Fitzpatrick, 1993. An evaluation of nutrient limitation of carbon and nitrogen fixation in marine microbial mats. *Marine Ecology Progress Series*, 105: 23-36.

3. Paerl, H. W., B. M. Bebout, **S. B. Joye**, and D. J. Des Marias, 1993. Microscale characterization of dissolved organic matter production and uptake in marine microbial mat communities. *Limnology and Oceanography*, 38: 1150-1161.

4. **Joye, S. B.**, and H. W. Paerl, 1994. Nitrogen cycling in marine microbial mats: Rates and patterns of nitrogen fixation and denitrification. *Marine Biology*, 119: 285-295.
5. Sansone, F. J., J. T. Hollibaugh, S. M. Vink, R. M. Chambers, **S. B. Joye**, and B. N. Popp, 1994. Diver-operated piston corer for nearshore use. *Estuaries*, 17: 716-720.
6. **Joye, S. B.**, and J. T. Hollibaugh, 1995. Sulfide inhibition of nitrification influences nitrogen regeneration in sediments. *Science*, 270: 623-625.
7. **Joye, S. B.**, S. V. Smith, J. T. Hollibaugh, and H. W. Paerl, 1996. Estimating denitrification in estuarine sediments: comparisons of stoichiometric and acetylene based methods. *Biogeochemistry*, 33: 197-215.
8. **Joye, S. B.**, M. L. Mazzotta<sup>1</sup>, and J. T. Hollibaugh, 1996. Community metabolism in intertidal microbial mats: the importance of iron and manganese reduction. *Estuarine Coastal and Shelf Science*, 43: 747-766.
9. Currin, C. A., **S. B. Joye**, and H. W. Paerl, 1996. Nitrogen fixation and denitrification in a transplanted *Spartina* marsh: Implications for nitrogen budgets. *Estuarine Coastal and Shelf Science*, 42: 597-616.
10. An<sup>1</sup>, S., and **S. B. Joye**, 1997. An improved gas chromatographic method for measuring nitrogen, oxygen, argon and methane in gas or liquid samples. *Marine Chemistry*, 59 (1,2): 63-70.
11. Connell, T., **S. B. Joye**, L. G. Miller, and R. S. Oremland, 1997. Bacterial oxidation of methyl bromide in Mono Lake, California. *Environmental Science and Technology*, 31: 1489-1495.
12. Lee, R., **S. B. Joye**, B. Roberts, and I. Valiela, 1997. Release of N<sub>2</sub> and N<sub>2</sub>O from salt marsh sediments subject to different land-derived N loads. *The Biological Bulletin*, 193: 292-293.
13. Mayer, L. M., R. G. Keil, S. A. Macko, **S. B. Joye**, K. C. Ruttenberg, and R. C. Aller, 1998. The importance of suspended particulates in riverine delivery of bioavailable nitrogen to coastal zones. *Global Biogeochemical Cycles*, 12: 573-580.
14. Sassen, R., I. R. MacDonald, N. L. Guinasso, **S. B. Joye**, A. G. Requejo, S. T. Sweet, J. Alcala-Herrera, D. A. DeFrietas, and D. R. Schink. 1998. Bacterial methane oxidation in sea-floor gas hydrate: Significance to life in extreme environments. *Geology*, 26: 851-854.
15. **Joye, S. B.**, T. M. Connell, L. G. Miller, and R. S. Oremland, 1999. Oxidation of ammonia and methane in an alkaline, saline lake. *Limnology and Oceanography*, 44(1): 178-188.

16. Sassen, R., **S. B. Joye**, S. T. Sweet, D. A. Defrietas, A. V. Milkov, and I. R. MacDonald, 1999. Thermogenic gas hydrates and hydrocarbon gases in complex chemosynthetic communities, Gulf of Mexico, Continental Slope. *Organic Geochemistry*, 30: 485-497.
17. Ward, B. B., D. Martino, C. Diaz, and **S. B. Joye**, 2000. Analysis of ammonia-oxidizing bacteria from hypersaline Mono Lake, California on the basis of 16S rRNA sequences. *Applied and Environmental Microbiology*, 66(7): 2873-2881.
18. Fisher, C. R., I. R. MacDonald, R. Sassen, C. M. Young, S. A. Macko, S. Hourdez, R. S. Carney, **S. B. Joye**, and E. McMullin, 2000. Methane ice worms: *Hesiocaeca methanicola* colonizing fossil fuel reserves. *Naturwissenschaften*, 87(4): 184-187.
19. An<sup>1</sup>, S., and **S. B. Joye**, 2001. Enhancement of coupled denitrification by benthic photosynthesis in shallow subtidal estuarine sediments. *Limnology and Oceanography*, 46: 62-74.
20. Moore, W. S., J. Krest, G. Taylor, E. Roggenstein, **S. B. Joye**, and R. Y. Lee<sup>1</sup>, 2002. Thermal evidence of water exchange through a coastal aquifer: Implications for nutrient fluxes. *Geophysical Research Letters*, 10: 1029/2002GL014923, 31 July 2002
21. Sun, M. Y., W. J. Cai, **S. B. Joye**, H. Ding, J. Dai, and J. T. Hollibaugh, 2002. Degradation of algal lipids in microcosm sediments with different mixing regimes. *Organic Geochemistry*, 33: 445-459.
22. MacAvoy<sup>1</sup>, S. E., S. A. Macko, and **S. B. Joye**, 2002. Fatty acid carbon isotope signatures in chemosynthetic mussels and tubeworms from Gulf of Mexico hydrocarbon seep communities. *Chemical Geology*, 185: 1-8.
23. Carini<sup>1</sup>, S. A., B. N. Orcutt<sup>1</sup>, and **S. B. Joye**, 2003. Interactions between nitrification and methane oxidation in estuarine sediments. *Geomicrobiology*, 20(4): 355-374.
24. **Joye, S. B.** and R. Y. Lee<sup>1</sup>, 2004. Benthic microbial mats: important sources of fixed nitrogen and carbon to the Twin Cays, Belize ecosystem. *Atoll Research Bulletin*, 528: 1-24.
25. Arvidson, R., J. W. Morse, and **S. B. Joye**, 2004. The Sedimentary Biogeochemistry of Chemosynthetic Cold Seep Communities, Gulf of Mexico, USA. *Marine Chemistry*, 87: 97-119.
26. Orcutt<sup>1</sup>, B. N., A. Boetius, S. K. Lugo<sup>1</sup>, I. R. MacDonald, V. Samarkin<sup>1</sup>, and **S. B. Joye**, 2004. Life at the edge of methane ice: methane and sulfur cycling in Gulf of Mexico gas hydrates. *Chemical Geology*, 205(3/4): 239-251.

27. **Joye, S. B.**, A. Boetius, B. N. Orcutt<sup>1</sup>, J. P. Montoya, H. N. Schulz<sup>2</sup>, M. Erickson<sup>1</sup>, and S. K. Lugo<sup>1</sup>, 2004. The anaerobic oxidation of methane and sulfate reduction in sediments from Gulf of Mexico cold seeps. *Chemical Geology*, 205(3/4): 219-238.
28. **Joye, S. B.**, I. R. MacDonald, J. P. Montoya, and M. Peccini, 2005. Geophysical and geochemical signatures of Gulf of Mexico seafloor brines. *Biogeosciences*, 2: 637-671.
29. Magalhães<sup>2</sup>, C. M., **S. B. Joye**, R. M. Moreira, W. J. Wiebe, and A. A. Bordalo, 2005. Salinity and inorganic nitrogen effects on nitrification and denitrification rates in intertidal sediments and rocky biofilms: Douro River estuary, Portugal. *Water Research*, 39(9): 1783-1794.
30. Carini<sup>1</sup>, S. A., G. LeClerc, N. Bano, and **S. B. Joye**, 2005. Activity, abundance and diversity of aerobic methanotrophs in an alkaline, hypersaline lake (Mono Lake, CA, USA). *Environmental Microbiology*, 7(8): 1127-1138.
31. Hollibaugh, J. T., S. Carini<sup>1</sup>, R. Jellison, **S. B. Joye**, G. LeClerc, C. Meile, L. Vasquez, H. Gürleyük, and D. Wallschläger, 2005. Distribution of arsenic species in an alkaline, hypersaline, meromictic lake in response to the seasonal stratification. *Geochimica et Cosmochimica Acta*, 69(8): 1925-1937.
32. Magalhães<sup>2</sup>, C. M., W. J. Wiebe, **S. B. Joye** and A. A. Bordalo, 2005. Nitrogen cycle dynamics and processes in intertidal rocky biofilms and adjacent sediment of the Douro River estuary (Portugal). *Estuaries*, 28(4): 592-607.
33. Scholten, J. C. M., **S. B. Joye**, J. T. Hollibaugh, and J. C. Murrell, 2005. Molecular analysis of the sulfate reducing and methanogenic community in a meromictic lake (Mono Lake, California) by targeting 16S rRNA, Methyl CoM-, APS- and DSR- genes. *Microbial Ecology*, 50: 29-39.
34. Orcutt<sup>1</sup>, B. N., V. Samarkin<sup>1</sup>, A. Boetius, M. Elvert, and **S. B. Joye**, 2005. Molecular biogeochemistry of sulfate reduction, methanogenesis and the anaerobic oxidation of methane at Gulf of Mexico methane seeps. *Geochimica et Cosmochimica Acta*, 69: 4267-4281.
35. Kalanetra<sup>2</sup>, K. M., **S. B. Joye**, N. R. Sunseri, and D. C. Nelson, 2005. Novel, large, vacuolate, nitrate-accumulating sulfur bacteria discovered in the Gulf of Mexico reproduce by reductive division in three dimensions. *Environmental Microbiology*, 7(9): 1451-1460.
36. Lin<sup>2</sup>, J.-L., **S. B. Joye**, H. Schafer, J. C. M. Scholten, I. McDonald, and J. C. Murrell, 2005. Analysis of methane monooxygenase genes in Mono Lake suggests that increased methane oxidation activity may correlate with a change in methanotroph community structure. *Applied and Environmental Microbiology*, 71: 6458-6462.

37. Weston<sup>1</sup>, N. B. and **S. B. Joye**. 2005. Temperature driven accumulation of labile dissolved organic carbon in marine sediments. *Proceedings of the National Academy of Sciences (US)*, 102: 17036-17040.
38. Niemann, H., M. Elvert, E. Damm, J. Gutt, B. Orcutt<sup>1</sup>, I. Suck, G. Wendt, J. Wunderlich, **S. B. Joye**, K. Finster, and A. Boetius, 2005. Methane emission and consumption at a North Sea pockmark (Tommeliten area). *Biogeosciences*, 2: 335-351.
39. Nercessian, O., M. G. Kalyuzhnaya, **S. B. Joye**, M. E. Lidstrom, and L. Chistoserdova, 2005. Analysis of *fae* and *fhcD* genes in Mono Lake, California. *Applied and Environmental Microbiology*, 71: 8949-895.
40. Lee<sup>1</sup>, R. Y., and **S. B. Joye**, 2006. Patterns and controls on nitrogen fixation and denitrification in intertidal sediments of a tropical oceanic mangrove island. *Marine Ecology Progress Series*, 307: 127-141.
41. Weston<sup>1</sup>, N. B., W. P. Porubsky<sup>1</sup>, V. Samarkin<sup>1</sup>, S. MacAvoy<sup>1</sup>, M. Erickson<sup>1</sup>, and **S. B. Joye**, 2006. Pore water stoichiometry of terminal metabolic products, sulfate, and dissolved organic carbon and nitrogen in intertidal creek-bank sediments. *Biogeochemistry*, 77: 375-408.
42. Weston<sup>1</sup>, N. B., R. Dixon<sup>1</sup>, and **S. B. Joye**, 2006. Microbial and geochemical ramifications of salinity intrusion into tidal freshwater sediments. *Journal of Geophysical Research: Biogeosciences*, 111: (G1): G01009, 10.1029/2005JG000007.
43. Smith, V., **S. B. Joye** & R. W. Howarth, 2006. Eutrophication in aquatic ecosystems. *Limnology and Oceanography*, 51(2): 351-355.
44. Moore, W. S., J. Blanton, and **S. B. Joye**, 2006. Estimates of flushing times, submarine groundwater discharge, and nutrient fluxes to Okatee Estuary, South Carolina. *Journal of Geophysical Research*, Vol. 111, No. C9, C09006, 10.1029/2005JC003041.
45. Howard, E. C., J. R. Henricksen, A. Buchan, C. R. Reisch, B. Burgmann, R. Welsh, W. Ye, J. M. Gonzalez, K. Mace<sup>1</sup>, **S. B. Joye**, R. P. Keine, W. B. Whitman, and M. A. Moran. 2006. Bacterial taxa that limit sulfur flux from the ocean. *Science*, 314: 649-652.
46. Bailey, J. V., **S. B. Joye**, K. M. Kalanetra<sup>2</sup>, B. E. Flood, and F. A. Corsetti, 2007. Evidence for giant sulfur bacteria in Neoproterozoic phosphorites. *Nature*, 445: 198-201.
47. Bailey, J. V., **S. B. Joye**, K. M. Kalanetra<sup>2</sup>, B. E. Flood, and F. A. Corsetti, 2007. Palaeontology: Undressing and redressing Ediacaran embryos. *Nature* 446, E10 - E11 (reply to a comment).
48. Kniemeyer, O., F. Musat, S. M. Sievert, K. Knittel, H. Wilkes, M. Blumenberg, W. Michaelis, A. Classen, C. Bolm, **S. B. Joye**, and F. Widdel, 2007. Anaerobic oxidation of propane and ethane by novel marine sulphate-reducing bacteria. *Nature*, 449: 898-902.

49. Roberts, H. H., C. Fisher, B. Bernard, J. Brooks, M. Bright, R. Carney, E. Cordes, S. Hourdez, J. Hunt, **S. B. Joye**, I. MacDonald, C. Morrison, K. Nelson, V. Samarkin<sup>1</sup>, W. Shedd, E. Becker, M. Bernier<sup>1</sup>, M. Bowles<sup>1</sup>, L. Goehring, M. Kupehik, S. Lessard-Pilon, H. Niemann, C. Petersen, J. Petersen, J. Potter, and G. Telesnicki, 2007. ALVIN Explores the Deep Northern Gulf of Mexico Slope. *EOS Transactions of the American Geophysical Union*, 88: 341-342.
50. Edmonds, J. W., N. B. Weston<sup>1</sup>, **S. B. Joye** and M. A. Moran, 2008. Variation in prokaryotic community composition as a function of resource availability in tidal creek sediments. *Applied and Environmental Microbiology*, 74: 1836-1844.
51. Krüger, M., H. Wolters, M. Gehre, **S. B. Joye**, and H.-H. Richnow, 2008. Tracing the slow growth of anaerobic methane oxidizing communities by <sup>15</sup>N-labeling techniques. *FEMS Microbiology Ecology*, 63(3): 401-411, doi: use10.1111/j.1574-6941.2007.00431.x.
52. Orcutt<sup>1</sup>, B. N., V. Samarkin<sup>1</sup>, A. Boetius and **S. B. Joye**, 2008. On the relationship between methane production and oxidation by anaerobic methanotrophic communities from cold seeps of the Gulf of Mexico. *Environmental Microbiology*, 10(5): 1108-1117; doi:10.1111/j.1462-2920.2007.01526.x.
53. Lee<sup>1</sup>, R. Y., W. P. Porubsky<sup>1</sup>, I. C. Feller, K. L. McKee and **S. B. Joye**, 2008. Porewater biogeochemistry and soil metabolism in dwarf red mangrove habitats (Twin Cays, Belize). *Biogeochemistry*, 87: 181-198, doi: 10.1007/s10533-008-9176-9.
54. Carini<sup>1</sup>, S. A., and **S. B. Joye**, 2008. Nitrification in Mono Lake, California (USA): Activity and community composition during contrasting hydrological regimes. *Limnology and Oceanography*, 53: 2546-2557.
55. Porubsky<sup>1</sup>, W. P., L. Velasquez<sup>1</sup>, and **S. B. Joye**, 2008. Nutrient replete benthic microalgae as a source of labile dissolved organic carbon to coastal waters. *Estuaries and Coasts*, 31: 860-876.
56. Craft, C., J. Clough, J. Ehman, H. Guo, **S. B. Joye**, M. Machmuller<sup>1</sup>, D. Park, and S. Pennings, 2009. Effects of accelerated sea level rise on ecosystem services provided by tidal marshes: A simulation of the Georgia Coast. *Frontiers in Ecology and Environment*, 7(2): 73-78.
57. Lasher, C., G. Dyszynski, K. Everett, W. Ye, W. Sheldon, **S. B. Joye**, M. A. Moran, and W. B. Whitman, 2009. The diverse bacterial community in intertidal, anaerobic sediments at Sapelo Island, Georgia. *Microbial Ecology*, 58: 244-261.
58. Weston<sup>1</sup>, N. B., J. T. Hollibaugh, and **S. B. Joye**, 2009. Population growth away from the coastal zone: Thirty years of land use change and nutrient export from the Altamaha River, GA. *Science of the Total Environment*, 407: 3347-3356.

59. **Joye, S. B.**, V. A. Samarkin<sup>1</sup>, B. N. Orcutt<sup>1</sup>, I. R. MacDonald, K.-U. Hinrichs, M. Elvert, A. P. Teske, K. G. Lloyd, M. A. Lever, J. P. Montoya, and C. D. Meile, 2009. Surprising metabolic variability in seafloor brines revealed by carbon and sulfur cycling. *Nature Geoscience*, 2: 349-354.
60. House, C. H., V. O. Orphan, K. A. Turk, B. Thomas, A. Pernthaler, J. M. Vrentas and **S. B. Joye**, 2009. Extensive carbon isotopic heterogeneity among methane seep microbiota. *Environmental Microbiology*, 11(7): 1632-1645.
61. Porubsky<sup>1</sup>, W. P., N. B. Weston<sup>1</sup>, and **S. B. Joye**, 2009. Interactions between benthic primary production, denitrification and dissimilatory nitrate reduction to ammonium in intertidal sediments. *Estuarine Coastal and Shelf Science*, 83: 392-402.
62. Boetius, A., and **S. B. Joye**, 2009. Thriving in Salt: Life in hypersaline habitats. *Science* 324: 1523-1525.
63. Edmonds, J. E., N. B. Weston<sup>1</sup>, **S.B. Joye**, X. Mou, and M. A. Moran, 2009. Microbial Community Response to Seawater Amendment in Low-Salinity Tidal Sediments. *Microbial Ecology*, 58: 558-568.
64. Bailey, J. V., V. J. Orphan, **S.B. Joye**, and F. A. Corsetti, 2009. Chemotrophic microbial mats and their potential for preservation in the rock record. *Astrobiology*, 9: 843-859.
65. Feller, I.C., C. Lovelock, K. McKee, U. Berger, **S.B. Joye**, and M. Ball, 2010. Biocomplexity in Mangrove Ecosystems. *Annual Review of Marine Science*, 2: 395-417.
66. Tavormina, P.L., W. Ussler, **S.B. Joye**, S. Giovannoni, and V.J. Orphan, 2010. Intergenic spacer length of particulate methane monooxygenases reveals distributions of microbial methane oxidizers in the mesopelagic ocean. *The ISME Journal*, doi:10.1038/ismej.2009.155.
67. Samarkin<sup>1</sup>, V.A., M.T. Madigan, M.W. Bowles<sup>1</sup>, K.L. Casciotti, J. Priscu, C. McKay, and **S.B. Joye**, 2010. Abiotic brine-rock reactions produce nitrous oxide in a cold, hypersaline, Don Juan Pond, Antarctica. *Nature Geoscience*, 3: 341-344, doi:10.1028/ngeo847.
68. **Joye, S. B.**, M.W. Bowles<sup>1</sup>, V.A. Samarkin<sup>1</sup>, K.S. Hunter<sup>1</sup> and H. Niemann, 2010. Biogeochemical signatures and microbial activity of different cold seep habitats along the Gulf of Mexico lower slope. *Deep Sea Research*, doi:10.1016/j.dsr2.2010.06.001.
69. Wankel, S.D., **S. B. Joye**, V.A. Samarkin<sup>1</sup>, S. Shah, G. Friderich, J. Melas-Kryiazi, and P.R. Girguis, 2010. New constraints on diffusive methane fluxes and rates of anaerobic methane oxidation in a Gulf of Mexico brine pool through the use of a deep sea *in situ* mass spectrometer. *Deep Sea Research*, doi:10.1016/j.dsr2.2010.05.009.

70. Orcutt<sup>1</sup>, B.N., **S. B. Joye**, S. Kleindienst, K. Knittel, A. Ramette, A. Reitz, V. A. Samarkin<sup>1</sup>, T. Truede, and A. Boetius, 2010. Impact of natural oil and higher hydrocarbons on microbial diversity, distribution and activity in Gulf of Mexico cold seep sediments. *Deep Sea Research*, doi:10.1016/j.dsr2.2010.05.014.
71. Porubsky<sup>1</sup>, W.P., **S.B. Joye**, W.S. Moore, K. Tuncay, and C. Meile, 2010. Hammock groundwater flow and biogeochemistry: Field measurements, laboratory assays and predictive modeling. *Biogeochemistry*, DOI: 10.1007/s10533-010-9484-8.
72. Roberts, H.H., D. Feng, and **S.B. Joye**, 2010. Cold seep carbonates of the middle and lower continental slope, northern Gulf of Mexico. *Deep Sea Research*, doi:10.1016/j.dsr2.2010.09.003.
73. **Joye, S.B.**, and I.R. MacDonald, 2010. Offshore oceanic impacts from the BP oil spill. *Nature Geoscience*, 3:446, doi:10.1038/ngeo902.
74. Bowles<sup>1</sup>, M.W., and **S.B. Joye**, 2010. High rates of denitrification and nitrate consumption in cold seep sediments. *The ISME Journal*, 5: 565-567; doi:10.1038/ismej.2010.134.
75. Bowles<sup>1</sup>, M.W., V. A. Samarkin<sup>1</sup>, K. L. M. Bowles, and **S.B. Joye**, 2010. Weak coupling between sulfate reduction and the anaerobic oxidation of methane in methane-rich seafloor sediments in *ex situ* incubations. *Geochimica et Cosmochimica Acta*, doi:10.1016/j.gca.2010.09.043 (in print: 75: 500-519).
76. Diercks, A.R., R.C. Highsmith, V.L. Asper, D. Joung, L. Guo, Z. Zhou, A.M. Shiller, **S. B. Joye**, A.P. Teske, and S.E. Lohrenz, 2010. Characterization of subsurface polycyclic aromatic hydrocarbons at the Deepwater Horizon site. *Geophysical Research Letters*, 37, L20602, doi:10.1029/2010GL045046.
77. Wilson, A., W.S. Moore, **S. B. Joye**, J. Anderson and C. Schutte<sup>1</sup>, 2010. Storm-driven groundwater flow in a salt marsh. *Water Resources Research*, doi:10.1029/2010WR009496.
78. **Joye, S. B.**, I.R. MacDonald, I. Leifer, and V. Asper, 2011. Magnitude and oxidation potential of hydrocarbon gases released from the BP blowout. *Nature Geoscience*, 4: 160-164 (doi:10.1038/ngeo1067).
79. Dohm, J.M., H. Miyamoto, G.G. Ori, A.G. Fairen, A.F. Davila, G. Komatsu, W.C. Mahaney, P. Williams, **S.B. Joye**, and 27 others, 2011. Prime candidate environments for life detection on Mars. *Geological Society of America, Frontiers Volume, "Analog for Planetary Exploration"*, Special Paper 483.
80. **Joye, S.B.**, I. Leifer, I. R. MacDonald, J. P. Chanton, C. D. Meile, A. P. Teske, J. E. Kostka, L. Chistoserdova, R. Coffin, D. Hollander, M. Kastner, J. P. Montoya, G. Rehder,



E. Solomon, T. Treude and T. A. Villareal, 2011. Technical Comment on "A Persistent Oxygen Anomaly Reveals the Fate of Spilled Methane in the Deep Gulf of Mexico" by Kessler et al. *Science*, 27 May 2011, 1033. DOI:10.1126/science.1203307.

81. Bowles<sup>1</sup>, M.W., V.A. Samarkin<sup>1</sup>, and **S.B. Joye**, 2011. Improved measurement of microbial activity in deep-sea sediments at in situ pressure and methane concentration. *Limnology and Oceanography: Methods*, 9: 499-506.

82. Wade, T.L., S.T. Sweet, J.L. Sericano, N.L. Guinasso, A.R. Diercks, R.C. Highsmith, V.L. Asper, D. Jounq, A.M. Shiller, S.E. Lorehnz, and **S.B. Joye**, 2011. Analyses of water samples from the Deepwater Horizon Oil Spill: Documentation of the Sub-Surface Plume. *Journal of Geophysical Research: Oceans*, Geophysical Monograph Series 195: 77-82.

83. Peterson, C.H., Anderson, S., G. Cherr, R. Ambrose, S. Anghera, S. Bay, M. Blum, R. Condon, T. A. Dean, M. Graham, M. Guzy, S. Hampton, **S.B. Joye**, J. Lambrinos, B. Mate, D. Meffert, S. P. Powers, C. Reddy, P. Somasundaran, R. B. Spies, C. Taylor, and R. Tjeerdema, 2012. A Tale of Two Spills. *BioScience*, 62:461-469.

84. Teixeira<sup>2</sup>, C., C. Magalhaes, **S.B. Joye**, A.A. Bordalo, 2012. Rates and environmental controls of anaerobic ammonium oxidation in estuarine sediments. *Aquatic Microbial Ecology*, doi: 10.3354/ame01548.

85. Mendelssohn, I.A., G. Anderson, D. Baltz, R. Caffey, K. Carman, J. Fleegar, **S.B. Joye**, E. Maltby, E. Overton, and L. Rozas, 2012. Oil impacts to coastal wetland systems: Implications for the Mississippi River Delta Plain Ecosystem after the Deepwater Horizon Oil Discharge. *BioScience*, 62: 562-574.

86. Wankel, S., M. Adams, D. Johnstone, **S.B. Joye**, and P.R. Girguis, 2012. Anaerobic methane oxidation in metalliferous hydrothermal sediments: influence on carbon flux and decoupling from sulfate reduction. *Environmental Microbiology*, 14: 2726-2740.

87. Palomo<sup>1</sup>, L., C.D. Meile, and **S.B. Joye**, 2012. Drought impacts on biogeochemistry and microbial processes in salt marsh sediments: a flow-through reactor approach. *Biogeochemistry*, doi 10.1001/s10533-012-9734-z.

88. Orcutt, B.N., R.A. Barco, **S.B. Joye**, and K.J. Edwards, 2012. Summary of carbon, nitrogen, and iron leaching characteristics and fluorescence properties of materials considered for IODP Expedition 336 seafloor observatory assembly. In: Edwards, K.J., W. Bach, A. Klaus and the Expedition 226 Scientists. *Proceedings of the Integrated Ocean Drilling Program, Vol. 336*, doi: 10.2204/iodp.proc.336.108.2012.

89. Bowles<sup>1</sup>, M.W., L.M. Nigro, A.P. Teske, and **S.B. Joye**, 2012. Denitrification and the environmental factors influencing nitrate removal in Guaymas Basin

hydrothermally-altered sediments. *Frontiers of Microbiology*, doi:10.3389/fmicb.2012.00377.

90. **Joye, S.B.**, 2012. A piece of the methane puzzle. *Nature*, 491: 538-539; doi:10.138/nature11749.

91. Teixeira, C., C. Magalhaes, **S.B. Joye**, and A.A. Bordalo, 2012. The role of salinity in shaping dissolved inorganic nitrogen and N<sub>2</sub>O fluxes at the estuarine sediment-water interface. *Marine Pollution Bulletin*, <http://dx.doi.org/10.1016/j.marpolbul.2012.11.004>

92. Segarra<sup>1</sup>, K.E.A., V. Samarkin<sup>1</sup>, E. King, C. Meile, and **S.B. Joye**, 2013. Seasonal variations of methane fluxes from a tidal, freshwater sediment (Hammersmith Creek, GA). *Biogeochemistry*, DOI 10.1007/s10533-013-9840-6.

93. Peterson, R.N., R.F. Viso, I.R. MacDonald, and **S.B. Joye**, 2013. On the utility of radium isotopes as tracers of seafloor hydrocarbon discharge. *Marine Chemistry*, <http://dx.doi.org/10.1016/j.marchem.2013.02.008>.

94. Segarra<sup>1</sup>, K.E.A., C. Comerford<sup>1</sup>, J. Slaughter<sup>1</sup>, and **S.B. Joye**, 2013. Impact of electron acceptor availability on the anaerobic oxidation of methane in coastal freshwater and marine sediments. *Geochimica et Cosmochimica Acta*, 115: 15-30, <http://dx.doi.org/10.1016/j.gca.2013.03.029>.

95. Shah, S.R., **S.B. Joye**, J. Brandes, and A.P. McNichol, 2013. Carbon isotopic evidence for microbial control of carbon supply to Orca Basin, Gulf of Mexico. *Biogeosciences*, 10: 3175-3183.

96. Adams, M.M., A.L. Hoarfrost, A. Bose, **S.B. Joye**, and P.R. Girguis, 2013. Anaerobic short-chain alkanes in hydrothermal sediments: influences on sulfur cycling and microbial diversity. *Frontiers in Microbiology*, doi: 10.3389/fmicb.2013.00110.

97. Rivers, A.A., S. Sharma, S. Tringe, J. Martin, **S.B. Joye**, and M.A. Moran, 2013. Transcriptional response of bathypelagic marine bacteria to the Deepwater Horizon Oil Spill. *The ISME Journal*, doi:10.1038/ismej.2013.129.

98. Feng, D., H.H. Roberts, **S.B. Joye**, and E. Heydari, 2013. Formation of low-magnesium calcite at cold seeps in an aragonite sea. *Terra Nova* doi:10.1111/ter.12081

99. Dekas, A.E., G. Chadwick, S. Connon, M. Bowles<sup>1</sup>, **S.B. Joye**, and V.J. Orphan, 2013. Investigating methane seep nitrogen fixation at Mound 12, Costa Rica: Spatial distribution of diazotrophy and significance of the ANME archaea. *Environmental Microbiology*, DOI: 10.1111/1462-2920.12247.

100. Baas<sup>1</sup>, P., M.W. Hester, and **S.B. Joye**, 2013. Benthic primary production and nitrogen cycling in *Spartina alterniflora* marshes impacted by acute dieback. *Biogeochemistry*, DOI 10.1007/s10533-013-9897-2.

101. Schutte<sup>1</sup>, C.A., K.S. Hunter<sup>1</sup>, P. McKay, D. DiIorio, **S.B. Joye**, C.D. Meile, 2013. Patterns and controls on nutrient levels in a southeastern United States tidal river. *Oceanography* 26(3): 132-139, <http://dx.doi.org/10.5670/oceanog.2013.55>.
102. Bose, A., D.R. Rogers, M.M. Adams, **S.B. Joye**, and P.R. Girguis, 2013. Rates of sulfate reduction and alkane oxidation in cold seep sediments and their contribution to the dissolved inorganic carbon pool. *Frontiers in Microbiol.* DOI: 10.3389/fmicb.2013.00386.
103. Porubsky<sup>1</sup>, W.P., N.B. Weston<sup>1</sup>, W.S. Moore, C.D. Ruppel and **S.B. Joye**, 2014. Groundwater as a potential source of nutrients, organics and trace gases to the Okatee River estuary (South Carolina, USA). *Geochimica et Cosmochimica Acta* 131: 81-97.
104. Yang, T., L. Nigro, T. Gutierrez, **S.B. Joye**, and A.P. Teske, 2014. Bacterial community signatures of the Deepwater Horizon Oil spill reflect inherent metabolic potential and rapid physiological adaptability. *Deep Sea Res.* doi: 10.1016/j.dsr2.2014.01.014.
105. Ziervogel, K., **S.B. Joye**, and C. Arnosti, 2014. Microbial enzymatic activity and secondary production in sediments affected by the sedimentation pulse following the Deepwater Horizon oil spill. *Deep Sea Research*, <http://dx.doi.org/10.1016/j.dsr2.2014.04.003>.
106. Crespo-Medina<sup>1</sup>, M., C.D. Meile, K.S. Hunter<sup>1</sup>, V.J. Orphan, P. Tavormina, L.M. Nigro<sup>2</sup>, J.J. Battles<sup>1</sup>, A.R. Diercks, V. Asper, J.P. Chanton, A.M Shiller, D.J. Joung, J. Montoya, T. Villareal, M. Wood, R. Amon, and **S.B. Joye**, 2014. The rise and fall of methanotrophy following a deepwater oil-well blowout. *Nature Geoscience*, 7:423-427.
107. **Joye, S.B.**, A.P. Teske, and J.E. Kostka, 2014. Microbial dynamics following the Macondo Oil Well Blowout across Gulf of Mexico environments. *BioScience*, invited review and "Editor's Choice" paper for the Sept. 2014 issue, 64 (9): 766-777, DOI: 10.1093/biosci/biu121.
108. Peters, B., K. Casciotti, V.A. Samarkin<sup>1</sup>, M. Madigan, C. Schutte<sup>1</sup>, and **S.B. Joye**, 2014. Stable isotope analysis of NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, and N<sub>2</sub>O in hypersaline ponds and soils of the McMurdo Dry Valleys, Antarctica. *Geochimica et Cosmochimica Acta*, 135: 87-101.
109. Avrahamov, N.G. Antler, Y. Yechieli, I. Gavrieli, M. Saxton<sup>1</sup>, **S.B. Joye**, and O. Sivan, 2014. Anaerobic oxidation of methane by sulfate in hypersaline groundwater in the Dead Sea aquifer. *Geobiology*, doi: 10.1111/gbi.12095.
110. Feng, D., D. Birgel, H.H. Roberts, J. Peckman, **S.B. Joye**, C.R. Fisher, R. Sassen, X-L. Liu, K.-U. Hinrichs, and D. Chen, 2014. Time integrated variation of sources of fluids and seepage dynamics archived in authigenic carbonates from Gulf of Mexico Gas Hydrate Seafloor Observatory. *Chemical Geology*, 385: 129-139.

111. Wilson, A.M., T. Evans, J. Anderson, A. H. Hughes, W.S. Moore, C.A. Schutte, and **S. B. Joye**, 2014. Groundwater controls ecological zonation of macrophytes in salt marshes. *Ecology*, <https://doi.org/10.1890/13-2183.1>.
112. **Joye, S.B.**, J.P. Montoya, S.A. Murawski, T.M. Özgökmen, T.L. Wade, R. Montuoro, B.J. Roberts, D.J. Hollander, W.H. Jeffrey, and J.P. Chanton, 2014. A Rapid Response Study of the Hercules Gas Well Blowout. *EOS Transactions of the American Geophysical Union*, 95, 38, 23 Sept. 2014, pp. 341-342.
113. Kostka, J.E., A.P. Teske, **S.B. Joye**, and I.M. Head, 2014. The metabolic pathways and environmental controls of hydrocarbon biodegradation in marine ecosystems. *Frontiers in Microbiology*, doi: 10.3389/fmicb.2014.00471.
114. Teixeira<sup>2</sup>, C., C. Magalhaes, **S.B. Joye**, and A.A. Bordalo, 2014. The contribution of anaerobic ammonium oxidation to nitrogen loss in temperate eutrophic estuaries. *Estuarine Coastal and Shelf Sci.* 143: 41–47.
115. Chanton, J.P., T. Zhao, B. Rosenheim, **S.B. Joye**, S. Bosman, C. Brunner, K. Yeager, and D. Hollander, 2015. Radiocarbon tracing of the flux of petrocarbon to the sea floor associated with the Deepwater Horizon event. *Environmental Science and Technology*, 49: 847-854, DOI: 10.1012/es5046524.
116. Kleindienst<sup>1</sup>, S.K, J.H. Paul and **S.B. Joye**, 2015. Assessing the impacts of chemical dispersants on microbial community composition and activity. *Nature Reviews Microbiology*, 13: 388-396, doi:10.1038/nrmicro3452 (published on line 6 May 2015).
117. Tregoning, G.S., M.L. Kempfer, D.O. Jung, V.A. Samarkin<sup>1</sup>, **S.B. Joye**, and M.T. Madigan, 2015. A Halophilic Bacterium Pervasive in the Warm, Ca-Rich Deep Waters of Lake Vanda, McMurdo Dry Valleys, Antarctica. *Applied and Environmental Microbiology*, 81: 1988-1995.
118. Segarra<sup>1</sup>, K.E.A., F. Schubotz, V. Samarkin<sup>1</sup>, M.Y. Yoshinaga, K.-U. Hinrichs, and **S.B. Joye**, 2015. High rates of anaerobic oxidation of methane in freshwater wetlands reduce potential atmospheric methane emissions. *Nature Communications*, 6: 7477, doi:10.1038/ncomms/8477.
119. Seidel, S., S. Kleindienst<sup>1</sup>, T. Dittmar, **S.B. Joye**, and P.M. Medeiros, 2015. Biodegradation of crude oil and the influence of dispersant in deep sea water from the Gulf of Mexico: Insights from ultra-high resolution mass spectrometry. *Deep Sea Research II*, <http://dx.doi.org/10.1016/j.dsr2.2015.05.012>.
120. Stevens, E.N., J.V. Bailey, B.E. Flood, D.S. Jones, W.P. Gilhooly III, **S.B. Joye**, A.P. Teske, and O.U. Mason, 2015. Barite encrustation of benthic sulfide-oxidizing bacteria at a marine cold seep. *Geobiology*, DOI: 10.1111/gbi.12154.

121. Weber, S., J.J. Battles<sup>1</sup>, R. Peterson, B. Roberts, D. Hollander, J. Chanton, **S.B. Joye**, and J.P. Montoya, 2015. Hercules 265 Rapid Response: Immediate ecosystem impacts of a natural gas blowout incident. *Deep Sea Research II*, 129: 66-76.
122. Wilson, A., T. Evans, W. Moore, C.A. Schutte<sup>1</sup>, and **S.B. Joye**, 2015. What times scales are important for monitoring submarine groundwater discharge? Insights from a salt marsh. *Water Resources Research*, doi:10.1002/2014WR015984.
123. Wilson, A.M., T. Evans, W. Moore, C.A. Schutte<sup>1</sup>, **S.B. Joye**, A.H. Hughes, and J.L. Anderson, 2015. Groundwater controls ecological zonation in salt marsh macrophytes. *Ecology*, 96(3): 840-849.
124. Kleindienst<sup>1</sup>, S., S. Grim, M. Sogin, M. Crespo-Medina<sup>1</sup>, and **S.B. Joye**, 2015. The response of diverse low-abundance bacteria to a deep-sea hydrocarbon plume. *The ISME Journal*, doi:10.1038/ismej.2015.121.
125. **Joye, S.B.**, 2015. *Deepwater Horizon, Five Years On*. *Science* (invited perspective), 349: 592-593.
126. Schutte<sup>1</sup>, C.A., **S.B. Joye**, A.M. Wilson, T. Evans, W.S. Moore, and K. Casciotti, 2015. Intense nitrogen cycling in permeable intertidal sediment revealed by a nitrous oxide hotspot. *Global Biogeochemical Cycles*, 10.1002/2014GB005052.
127. Shakhova, N., I. Semiletov, V. Sergienko, L. Lobkovsky, N. Dmitrevsky, V. Yusupov, A. Salyuk, A. Salomatin, V. Karnaukh, O. Dudarev, D. Chernykh, R. Anaiev, D. Kosmach, D. Nicolsky, G. Panteleev, V. Samarkin<sup>1</sup>, **S.B. Joye**, A. Charkin, A. Roslyakov, and A. Meluzov, 2015. Current and future scales of permafrost-related methane emissions from the East Siberian Arctic Shelf. *Proceedings of the Royal Academy of Sciences A*, 373: 20140451, <http://dx.doi.org/10.1098/rsta.2014.0451>.
128. Kleindienst<sup>1</sup>, S., M. Siedel, K. Ziervogel, S. Grim, S. Mailkin<sup>1</sup>, S. Harrison<sup>1</sup>, K.M. Loftis, M.J. Perkins, J.A. Field, M. Sogin, T. Dittmar, U. Passow, P.M. Medeiros, and **S.B. Joye**. Chemical dispersants can suppress the activity of natural oil-degrading microorganisms. *Proceedings of the National Academy of Sciences (U.S.A.)*, 48: 14900-14905.
129. Ziervogel, K., C. Dike, V. Asper, J. Montoya, J. Battles<sup>1</sup>, N. D'Souza, U. Passow, M. Esch<sup>1</sup>, **S.B. Joye**, C. Dewald, and C. Arnosti, 2015. Enhanced particle fluxes and heterotrophic activity in Gulf of Mexico bottom waters following storm-induced sediment resuspension. *Deep-Sea Research*, <http://dx.doi.org/10.1016/j.dsr2.2015.06.017>.
130. Schutte<sup>1</sup>, C.A., A.M. Wilson, T. Evans, W.S. Moore, and **S.B. Joye**, 2016. Methanotrophy controls groundwater methane export from a barrier island. *Geochimica et Cosmochimica Acta*, 179: 242-256.
131. Bowles<sup>1</sup>, M.W., K.S. Hunter<sup>1</sup>, V. Samarkin<sup>1</sup>, and **S.B. Joye**, 2016. Variations in geochemical signatures and microbial activity amongst and between diverse cold seep

habitats along the lower continental slope of the Gulf of Mexico. *Deep-Sea Research II*, doi:10.1016/j.dsr2.2016.02.011.

132. Crespo-Medina<sup>1</sup>, M., M.W. Bowles<sup>1</sup>, V.A. Samarkin<sup>1</sup>, K.S. Hunter<sup>1</sup>, and **S.B. Joye**, 2016. Microbial diversity and activity in seafloor brine lake sediments (Alaminos Canyon 601, Gulf of Mexico). *Geobiology*, DOI: 10.1111/gbi.12185.

133. Saxton<sup>1</sup>, M.A., V.A. Samarkin<sup>1</sup>, C.A. Schutte<sup>1</sup>, M.W. Bowles<sup>1</sup>, M.T. Madigan, S.B. Cadieux, L.M. Pratt, and **S.B. Joye**, 2016. Biogeochemical and genomic evidence of a novel mode of anaerobic methanotrophy in ice-covered Lake Fryxell, Antarctica. *Limnology and Oceanography*, doi:10.1002/lno.10320.

134. Ziervogel K., C. Osburn, A. Brym, J. Battles<sup>1</sup>, **S. B. Joye**, N. D'Souza, J. Montoya, U. Passow, and C. Arnosti, 2016. Linking heterotrophic microbial activities with particle characteristics in waters of the Mississippi River Delta in the aftermath of Hurricane Isaac. *Frontiers in Marine Science*, doi: 10.3389/fmars.2016.00008.

135. Zhuang<sup>2</sup>, G.-C., F.J. Elling, L.M. Nigro, V. Samarkin<sup>1</sup>, **S.B. Joye**, A. Teske, and K.-U. Hinrichs, 2016. Multiple evidence for methylotrophic methanogenesis as the dominant methanogenic pathway in deep-sea hypersaline sediments. *Geochimica et Cosmochimica Acta*, doi:10.1016/j.gca.2016.05.005.

136. Ribeiro, H., A.P. Mucha, I. Azevedo, P. Salgado, C. Teixeira, C.M.R. Almeida, **S.B. Joye**, and C. Malgalhaes, 2016. Differential effects of crude oil on denitrification and anammox and the impact on N<sub>2</sub>O production. *Marine Pollution Bulletin*, 216: 391-399, <http://dx.doi.org/10.1016/j.envpol.2016.05.045>.

137. Teixeira<sup>1</sup>, C., C. Malgalhaes, **S.B. Joye**, and A.A. Bordalo, 2016. Response of anaerobic ammonium oxidation to inorganic nitrogen fluctuations in temperate estuarine sediments. *Journal of Geophysical Research – Biogeosciences*, doi:10.1002/2015JG003287.

138. **Joye, S.B.**, A. Bracco, T. Özgökmen, J.P. Chanton, M. Grosell, I.R. MacDonald, E.E. Cordes, J.P. Montoya, and U. Passow, 2016. The Gulf of Mexico Ecosystem, six years after the Macondo Blowout. *Deep Sea Research-II*, 129: 4-19. doi:10.1016/j.dsr2.2016.04.018.

139. **Joye, S.B.**, S. Kleindienst<sup>1</sup>, J.A. Gilbert, K.M. Handley, P. Weisenhorn, J.E. Kostka, and W.A. Overholt, 2016. The response of microbial communities to hydrocarbon exposure. *Oceanography*, 29(3): 136-149.

140. Cordes, E.E., D.O.B. Jones, T.A. Schlacher, D.J. Amon, A.F. Bernardino, B.J. Brett, S. Brooke, T. Baussant, R. Carney, D.M. DeLeo, E. Escobar, A.R. Gates, L. Genio, J. Gobin, L-A. Henry, S. Herrera, S. Hoyt, **S.B. Joye**, S. Kark, N.C. Mestre, A. Metaxis, K. Sink, K.M. Dunlop, S. Pfiefer, U. Witte, and A.K. Sweetman, 2016. Environmental

Impacts of the deep-water oil and gas industry: a review to guide spatial management. *Frontiers in Marine Science*, doi:10.3389/fenvs.2016.00058.

141. Sibert<sup>1</sup>, R., S.J. Harrison<sup>1</sup>, and **S.B. Joye**, 2016. Protocols for radiotracer estimation of aerobic primary oxidation of hydrocarbons in seawater. *Hydrocarbon and Lipid Microbiology Protocols*, Editors, T.J. McGenity, K.N. Timmis, and B. Nogales. ISBN: 973-3-662-53116-7, pp. 263-276.

142. Sibert<sup>1</sup>, R., V.A. Samarkin<sup>1</sup>, and **S.B. Joye**, 2016. Protocols for radiotracer estimation of methane oxidation rates at in situ methane concentration in marine sediments. *Hydrocarbon and Lipid Microbiology Protocols*, Editors, T.J. McGenity, K.N. Timmis, and B. Nogales. ISBN: 973-3-662-53116-7, pp. 277-303.

143. Salman, V., E. Fadeev, **S.B. Joye**, and A.P. Teske, 2016. How clonal is clonal? Genome plasticity across multicellular segments of a single filament of the large marine sulfide-oxidizer “*Candidatus Marithrix sp.*” in the Gulf of Mexico. *Frontiers in Microbiology*, <http://dx.doi.org/10.3389/fmicb.2016.01173>.

144. Yang, T., K. Speare, **S.B. Joye** and A.P. Teske, 2016. Distinct microbial communities in surficial seafloor sediments following the 2010 Deepwater Horizon Blowout. *Frontiers in Microbiology*, <http://dx.doi.org/10.3389/fmicb.2016.01384>.

145. Perkins, M.J., **S.B. Joye**, and J.A. Field, 2017. Analytical Method for the Unambiguous Quantification of DOSS in Marine Sediment Core and Sediment Trap Solids by Liquid Chromatography Quadrupole Time of Flight Mass Spectrometry. *Analytical and Bioanalytical Chemistry*, 409: 971-978. doi:10.1007/s00216-016-0010-2.

146. Takagi<sup>1</sup>, K.K., K.S. Hunter<sup>1</sup>, W.-J. Cai, and **S.B. Joye**, 2017. Agents of change and temporal shifts in Altamaha River nutrient dynamics. *Ecosphere*, doi: 8(1):e01519. 10.1002/ecs2.1519.

147. Madigan, M.T., M.L. Kempfer, K.S. Bender, P. Sullivan, W.M. Sattley, A.C. Dohnalkova, and **S.B. Joye**, 2017. Characterization of cold-active bacterium isolated from the South Pole “Ice Tunnel”. *Extremophiles*, DOI: 10.1007/s00792-017-0950-2.

148. Babcock-Adams, L., J.P. Chanton, **S.B. Joye**, and P.M. Medeiros, 2017 Temporal variations in hydrocarbon composition and concentrations in Gulf of Mexico sediments in the 3 years immediately after the Macondo Blowout. *Environmental Pollution*, 229: 329-338, <https://doi.org/10.1016/j.envpol.2017.05.078>.

149. Tighe, S., E. Afshinnekoo, T.M. Rock, K. McGrath, N. Alexander, A. McIntyre, S. Ahsanuddin, D. Bezdán, S.J. Green, **S.B. Joye**, S. Stewart-Johnson, D.A. Baldwin, N. Bivens, N. Ajami, J.R. Carmical, I.C. Herriott, R. Colwell, M. Donia, J. Fook, N. Greenfield, T. Hunter, J. Hoffman, J. Hyman, E. Jorgensen, D. Krawczyk, J. Lee, S. Levy, N. Garcia-Reyero, M. Settles, K. Thomas, F. Gómez, L. Schriml, N. Kyrpides, E,

Zaikova, J. Penterman, and C.E. Mason, 2017. Genomic Methods and Microbiological Technologies for Profiling Novel and Extreme Environments for the Extreme Microbiome Project (XMP). *Journal of Biomolecular Techniques*, 28:31-39.

150. Schutte<sup>1</sup>, C.A., A.M. Wilson, T. Evans, W.S. Moore, and **S.B. Joye**, 2017. Deep oxygen penetration drives nitrification in intertidal beach sands. *Limnology & Oceanography*, DOI: 10.1002/lno.10731.

151. Woodson, C.B., J. Schramski, and **S.B. Joye**, 2018. A unifying theory for top-heavy ecosystem structure in the ocean. *Nature Communications*, 9, 23, doi:10.1038/s41467-017-02450-y.

152. Brüchert, V., L. Broder, J.E. Sawicka, T. Tesi, **S.B. Joye**, X. Sun, I.P. Semiletov, and V.A. Samarkin<sup>2</sup>, 2018. Carbon mineralization in Laptev and East Siberian Sea shelf and slope sediment. *Biogeosciences*, 15, 471–490, <https://doi.org/10.5194/bg-15-471-2018>.

153. Zhuang<sup>1</sup>, G.-C., V.B. Heuer, C.S. Lazar, T. Goldhammer, J. Wendt, V.A. Samarkin<sup>1</sup>, M. Elvert, A.P. Teske, **S.B. Joye**, and K.-U. Hinrichs, 2018. Relative importance of methylotrophic methanogenesis in the sediments of the Western Mediterranean Sea. *Geochimica et Cosmochimica Acta*, 244: 171-186.

154. **Joye, S.B.**, S. Kleindienst, and T.D. Peña-Montenegro<sup>1</sup>, 2018. SnapShot: Microbial Hydrocarbon Bioremediation. *Cell*, <http://dx.doi.org/10.1016/j.cell.2018.02.059>.

155. Zhuang<sup>1</sup>, G.-C., A. Montgomery<sup>1</sup>, R. Sibert<sup>1</sup>, M.K. Rogener<sup>1</sup>, V.A. Samarkin<sup>1</sup>, and **S.B. Joye**, 2018. Effects of pressure, methane concentration, and temperature on the production of methane in marine sediments. *Limnology and Oceanography*, DOI:10.1002/lno.10925.

156. Hamden, L.J., J.L. Salerno, A. Reed, Y. Yang, **S.B. Joye**, and M. Damour, 2018. The impact of the Deepwater Horizon blowout on sediment microbiomes adjacent to historic shipwrecks in the northern Gulf of Mexico. *Scientific Reports*, 8, Article number: 9057.

157. Rogener<sup>1</sup>, M.-K., A. Bracco, K. Hunter<sup>1</sup>, M. Saxton<sup>1</sup>, and **S.B. Joye**, 2018. Impact of the Deepwater Horizon oil well blowout on methane oxidation dynamics in the Northern Gulf of Mexico. *Elementa: Science of the Anthropocene*, <http://doi.org/10.1525/elementa.332>.

158. Zhuang<sup>1</sup>, G.-C., T. D. Peña-Montenegro<sup>1</sup>, A. Montgomery<sup>1</sup>, and **S.B. Joye**, 2018. Microbial metabolism of methanol and methylamine in the Gulf of Mexico: insight into marine carbon and nitrogen cycling. *Environmental Microbiology*, <https://doi.org/10.1111/1462-2920.14406>.

159. Zhuang<sup>1</sup>, G.-C., A. Montgomery<sup>1</sup>, and **S.B. Joye**, 2018. Heterotrophic metabolism of C<sub>1</sub> and C<sub>2</sub> low molecular weight compounds in northern Gulf of Mexico



sediments: controlling factors and implications for organic carbon degradation. *Geochimica et Cosmochimica Acta*, 10.1016/j.gca.2018.10.019.

160. Paris, C.B., I. Berenshtein, M.L. Trillo, R. Faillettaz, M.J. Olascoaga, Z.M. Aman, M. Schlüter, and **S.B. Joye**, 2018. BP Gulf Science Data Reveals Ineffectual Sub-Sea Dispersant Injection for the Macondo Blowout. *Frontiers of Marine Science*, <https://doi.org/10.3389/fmars.2018.00389>.

161. Assie, A., N. Leisch, D. Meier, M. Kleiner, T. Hinzke, H. Gruber-Vodicka, **S.B. Joye**, M. Saxton<sup>1</sup>, H. Tegetmeyer, N. Dubilier, and J.M. Peterson, 2018. Horizontal acquisition of a patchwork Calvin cycle by Epsilonbacteraeota. *bioRxiv* doi: <http://dx.doi.org/10.1101/437616>.

162. Direcks, A., K. Ziervogel, R. Sibert<sup>1</sup>, J.P. Montoya, **S.B. Joye** and V. Asper, 2019. Vertical marine snow distribution in the stratified, hypersaline, and anoxic Orca Basin (Gulf of Mexico). *Elementa: Science of the Anthropocene*, 7(1), p.10. <http://doi.org/10.1525/elementa.348>.

163. Zhuang<sup>1</sup>, G.-C., A. Montgomery<sup>1</sup>, V.A. Samarkin<sup>1</sup>, M. Song, J. Liu, F. Schubotz, A.P. Teske, K.-U. Hinrichs, and **S.B. Joye**, 2019. Generation and utilization of volatile fatty acids and alcohols in hydrothermally altered sediments in the Guaymas Basin, Gulf of California. *Geophysical Research Letters*, doi:10.1029/2018GL081284.

164. Zhuang<sup>1</sup>, G.-C., T. D. Peña-Montenegro<sup>1</sup>, A. Montgomery<sup>1</sup>, and **S.B. Joye**, 2019. Significance of acetate as microbial carbon and energy source in the water column of Gulf of Mexico: implications for marine carbon cycling. *Global Biogeochemical Cycles*, GBC20846, doi:10.1029/2018GB006129.

165. Chen, S.-C., N. Musat, O.J. Lechtenfeld, H. Paschke, M. Schmidt, N. Said, D. Popp, F. Calabrese, H. Stryhanyuk, U. Jaekel, Y.G. Zhu, **S.B. Joye**, H.-H. Richenow, F. Widdel, and F. Musat, 2019. Anaerobic ethane oxidation by archaea from a marine hydrocarbon seep. *Nature*, doi:10.1038/s41586-019-1063-0.

166. Rogener<sup>1</sup>, M.K., R.E. Sipler, K.S. Hunter<sup>1</sup>, D.A. Bronk, and **S.B. Joye**, 2019. Pelagic methane oxidation in the Northern Chukchi Sea. *Limnology and Oceanography*, doi: 10.1002/lno.11254.

167. Zhuang<sup>1</sup>, G.-C., L. Xu, F. Wang, and **S.B. Joye**, 2019. Microbially-mediated carbon and sulfur cycling in cold seep from the South China Sea. *Limnology and Oceanography*, doi: 10.1002/lno.11182.

168. Ziervogel, K., **S.B. Joye**, S. Kleindienst, S. Malkin<sup>1</sup>, U. Passow and C. Arnosti, 2019. Polysaccharide hydrolysis in the presence of oil and dispersants: Insights into the fate of exopolymeric substances (EPS) from oil-degrading microbes. *Elementa: Science of the Anthropocene*, in press.

169. Schutte<sup>1</sup>, C.A., V.A. Samarkin<sup>1</sup>, B. Peters, M.T. Madigan, M.W. Bowles<sup>1</sup>, R. Morgan-Kiss, K. Casciotti, and **S.B. Joye**, 2019. Vertical stratification and stability of biogeochemical processes in the deep saline waters of Lake Vanda, Antarctica. *Limnology and Oceanography*, in press.

170. Teske, A.P., L. McKay, A.C. Ravelo, I. Aiello, C. Mortera, F. Nunes-Useche, C. Canet, J.P. Chanton, B. Brunner, C. Hensen, G.A. Ramirez, R. Sibert<sup>1</sup>, T. Turner, D. White. C.R. Chambers, A. Buckley, **S.B. Joye**, S.A. Soule and D. Lizarralde. Characteristics and Evolution of sill-driven hydrothermalism on the Guaymas Basin ridge flanks – the Ringvent site. *Nature - Scientific Reports*, in press.

### **Technical Reports (8)**

1. **Joye, S. B.** and S. An<sup>1</sup>, 1999. Denitrification in Galveston Bay. Final Technical Report to the Texas Water Development Board, 97 pages.

2. **Joye, S. B.** and S. An<sup>1</sup>, 1998. Denitrification in Galveston Bay. Texas Water Development Board, 1997 Technical Report, 79 pages.

3. **Joye, S. B.**, D. A. Bronk, W.-J. Cai, and W. S. Moore, 1998. The influence of land use on groundwater derived nutrients and organic inputs to the South Atlantic Bight. NOAA Sea Grant, Technical Report, 38 pages.

4. Morse, J. W., R. Arvidson, **S. B. Joye** and S. Macko, 2000. Inorganic biogeochemistry of cold seep sediments. Final Report to the Minerals Management Service, 67 pages.

5. Morse, J. W., R. Arvidson, **S. B. Joye**, S. P. Escorcia<sup>1</sup>, C. Cooper, J. Morin, L. Cifuentes, E. Grossman and S. Macko, 1999. Inorganic biogeochemistry of cold seep sediments, Minerals Management Service, Information Transfer Meeting, Extended abstract and summary of progress to date, 10 pages.

6. Brooks, J.M., C. Fisher, H. Roberts, B. Bernard, I. McDonald, R. Carney, **S. B. Joye**, E. Cordes, G. Wolff, E. Goehring. 2008. Investigations of chemosynthetic communities on the lower continental slope of the Gulf of Mexico: Interim Report 1. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2008-365 pp.

7. Brooks, J.M., C. Fisher, H. Roberts, B. Bernard, I. McDonald, R. Carney, **S. B. Joye**, E. Cordes, G. Wolff, E. Goehring. 2009. Investigations of chemosynthetic communities on the lower continental slope of the Gulf of Mexico: Final Report 1. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2008-455 pp.

8. National Research Council, Water Sciences Technology Board, Committee on Strategic Research for Integrated Water Resources Management (Westcoat, J.L., X. Cai,

G.M. Kondolf, B.R. Hodges, **S.B. Joye**, W.M. Lewis, L.A. Shabman, and E. van Beek). *Delta Waters: Research to Support Integrated Water and Environmental Management in the Lower Mississippi River*. Washington, DC: The National Academies Press, 2013.

## RESEARCH GRANTS RECEIVED

---

(only active awards are shown; ~45 federal and private research grants since 1995)

### Private Funding Sources (Foundations, etc.) (7 total, 2 active)

2. 2015-2020: Gulf of Mexico Research Initiative (GoMRI): “ECOGIG: Ecosystem Impacts of Oil and Gas Inputs to the Gulf-2”; *Project total: \$22.85M*; Joye, ECOGIG Program Director (27 co-PIs).

1. 2019-2020: Schmidt Ocean Institute (SOI): “From hydrothermal vents to not quite cold seeps: biological dynamics along gradients in the Gulf of California.” 35 day research expedition on the R/V Falkor, ~\$2.38M in ship time; Joye, Project Director (5 co-PIs).

### State Agencies (8 total, 1 active)

1. 2016-2019: Georgia DNR/EPD: “Coastal sediments as modulators of estuarine nutrient loads”; *Project total: \$60,500*; Joye & Woodson.

### Federal (30 total, 2 active)

3. 2017-2020: National Science Foundation, Biological Oceanography: Collaborative Research: Probing the metabolic and electrical interactions of cable bacteria in anoxic sediments. *total: \$750,000 (UGA: \$369,682)*; S. Malkin (UMd), lead PI with S. Joye and B. MacGregor co-PIs.

2. 2017-2021: Bureau of Ocean Energy Management/NOAA National Ocean Partnership Program: Deepwater Atlantic Canyons-II, *total: \$4M (UGA: \$734,000)*; TDI-Brooks International (J. Brooks, lead PI) [6 PIs] S.B. Joye, Microbiology & Geochemistry Lead.

1. 2014-2019: National Science Foundation, Biological Oceanography: Microbial carbon cycling and its interactions with sulfur and nitrogen transformations in Guaymas Basin hydrothermal sediments; *total: \$1.5M (UGA: \$525,000)*; A. Teske (UNC), lead PI with S. Joye and B. MacGregor co-PIs.

## CONFERENCE PAPERS AND SEMINARS

---

Note: \***invited talk**, <sup>1</sup>co-authors from the Joye lab; <sup>2</sup>students or post docs from other labs who conducted research in the Joye Lab. Ocean and environmental literacy, advocacy & outreach talks are underlined.

**2019** 11. Zhuang<sup>1</sup>, G., A. Montogemery<sup>1</sup>, V. Samarkin<sup>1</sup>, H. Choi<sup>1</sup>, M. Song, J. Liu<sup>1</sup>, F. Schubotz, A.P. Teske, K.-U. Hinrichs, and **S.B. Joye**. Biological production and consumption of volatile fatty acids and alcohols in hydrothermally altered

sediments of the Guaymas Basin. AGU Fall Meeting, San Francisco, CA, December.

10. Montogemery<sup>1</sup>, A., G. Zhuang<sup>1</sup>, H. Choi<sup>1</sup>, and **S.B. Joye**. Constraining the factors that regulate the metabolism of low molecular weight carbon in the Northern Gulf of Mexico. AGU Fall Meeting, San Francisco, CA, December.

9. **Joye, S.B.**, A. Montogemery<sup>1</sup>, G. Zhuang<sup>1</sup>, Z. Marinelli<sup>1</sup>, R. Karns<sup>1</sup>, J. Westrich<sup>1</sup>, and K. Hunter<sup>1</sup>. Microbial community composition and activity in oil saturated sediments and chimneys in the Gulf of California: Hot sites (Guaymas Basin) versus cold seeps (Sonora Margin). AGU Fall Meeting, San Francisco, CA, December.

8. \***Joye, S.B.**, J. Kostka and R. Colwell. Microbial signals of perturbation, recovery and resilience – lessons learned and applications of the Deepwater Horizon oil spill. AGU Fall Meeting, San Francisco, CA, December.

7. \***Joye, S.B.** The Microverse of the Anthropocene. Gordon Research Conference on Applied and Environmental Microbiology, South Hadley, MA, July

6. Choi<sup>1</sup>, H., and **S.B. Joye**. Aerobic methanotrophy in the ocean. Gordon Research Conference on Applied and Environmental Microbiology, South Hadley, MA, July.

5. Chakraborty, A., M. Wong, **S.B. Joye**, J. Kostka, B. Bernard, J. Brooks, C. Hubert. Thermophilic *Clostridia* associated with petroleum and geofluid seepage in Gulf of Mexico marine sediments. 7<sup>th</sup> International Symposium on Applied Microbiology and Molecular Biology of Oil Systems, Halifax, Nova Scotia, June.

4. \***Joye, S.B.**, and R. Rutstein. In Conversation: STEAM explorations of the deep sea. Georgia Museum of Art, March, Athens, GA.

3. Montgomery, A., N. Rabalais, and **S.B. Joye**. Constraining the factors that regulate methane oxidation in the northern Gulf of Mexico hypoxic zone. Gulf of Mexico Oil Spill and Ecosystem Science Meeting, New Orleans, LA.

2. Choi<sup>1</sup>, H., and **S.B. Joye**. Patterns and regulation of pelagic methanotrophy in the Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Meeting, New Orleans, LA.

1. Howe, K.L., K.W. Seitz, L.G. Campbell, B.J. Baker, J.C. Thrash, N.N. Rabalais, M.K. Rogener<sup>1</sup>, **S.B. Joye**, O.U. Mason. Gulf of Mexico Omics data elucidate active, non-canonical methanotrophs that have the potential to impact hydrocarbon fate in the coastal zone. Gulf of Mexico Oil Spill and Ecosystem Science Meeting, New Orleans, LA.

2018 11. \***Joye, S.B.**, and R. Rutstein. Partnering art and science to advance ocean literacy and advocacy. Georgia Museum of Art, Athens, November.

10. \***Joye, S.B.** Methane dynamics in the deep ocean: addressing dynamics and research challenges in a changing world. NSF Ocean Chemistry and

- Biogeochemistry Program, Workshop on the dynamics of oceanic methane and nitrous, UCLA Conference Center, October.
9. Sipler, R.E., D.A. Bronk, K. Turk-Kubo, K. Harding, Q. Roberts, M.K. Rogener, J. Spackeen, B. Stanley, **S.B. Joye**, and J. Zehr. Cold Ocean Nitrogen Fixation. ASLO Summer Meeting, British Columbia, June.
  8. Weston, N.B., C. Troy, P. Kearnes, J. Bowen, W. Porubsky, C. Hyacinthe, C. Meile, P. Van Cappellen, **S.B. Joye**. The Role of Physicochemical Perturbation on Denitrification and Nitrous Oxide Production. Society of Wetland Scientists, Annual Meeting, Denver, CO May.
  7. **\*Joye, S.B.** The Impact of the Deepwater Horizon on the Gulf of Mexico ecosystem. Sustaining Ocean Systems, Earth Day Texas, Dallas, TX, April.
  6. **\*Joye, S.B.** Pollution-driven microbiome shifts and the key to effective response action(s). Madison Microbiome Meeting (invited lecture). University of Wisconsin, Madison, WI, April.
  5. **\*Joye, S.B.** Signaling and communication facilitates “memory” in microbial communities. NAKFI “Ocean Memory” Workshop, Djerassi Retreat, Redwood City, CA, March.
  4. **\*Joye, S.B.** Spatial temporal scales of microbial impacts following the Deepwater Horizon. Huck Lecture in Biological Sciences (invited lecture). Pennsylvania State University, State College, PA, March.
  3. **Joye, S.B.**, S.J. Harrison<sup>1</sup>, T. Pena-Montenegro<sup>1</sup>, C. Shepherd<sup>1</sup>, L. Carroll<sup>1</sup>, and M.A. Saxton<sup>1</sup>. Regulation and dynamics of microbial oil degradation in nearshore and offshore waters. Gulf of Mexico Oil Spill and Ecosystem Science Meeting, New Orleans, LA, February.
  2. Martens, C.S., H. Mendlovitz, H. Seim, A. Rok, T. Wahl, V. Asper, L. Lapham, **S.B. Joye**. Methane Plumes in the Deep Northern Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Meeting, New Orleans, LA, February.
  1. Ziervogel, K., **S.B. Joye**, C. Arnosti. Oil and chemical dispersants alter microbial cycling of organic matter with consequences for carbon cycling in the ocean. ASLO Ocean Sciences Meeting, Portland, OR, February.
- 2017**
9. **\*Joye, S.B.**, Doing controversial science in the age of denial: a path towards progress and illumination. Invited Talk, Enquiring Minds Group, Athens GA, December.
  8. **\*Joye, S.B.**, Learning from a large anthropogenic perturbation: The intersection of chemistry and microbiology following the Deepwater Horizon oil spill in the Gulf of Mexico. American Chemical Society, Annual Meeting, Invited Presidential Symposium Lecture Series, Washington, DC, August.
  7. **\*Joye, S.B.**, Anthropogenic Impacts on the Oceans – Challenges and Solutions, American Renewal Energy (ARE-Day) Summit, Snowmass, CO, June.

6. **\*Joye, S. B.**, The Deepwater Horizon Disaster – Microbial discovery to advance science and inform response. American Society for Microbiology Annual Meeting, Invited Presidential Lecture, New Orleans, CA, June.
  5. **Joye, S.B.**, M.A. Saxton<sup>1</sup>, T.P. Peña-Montenegro<sup>1</sup>, and S. Kleindienst<sup>1</sup>. Omics-enabled tracking of microbial responses to oil infusions. ASLO Aquatic Sciences Meeting, Honolulu, HI, February.
  4. Harrison<sup>1</sup>, S.J., and **S.B. Joye**. A tale of two Taylor transects: Lessons from a sunken oil platform in the northern Gulf of Mexico. ASLO Aquatic Sciences Meeting, Honolulu, HI, March.
  3. **\*Joye, S.B.** Developing a holistic approach to evaluate the source of marine oil snow on the seabed. MOSSFA Workshop, Invited Presentation, Gulf of Mexico Oil Spill & Ecosystem Science Meeting, New Orleans, LA, February.
  2. Peña-Montenegro<sup>1</sup>, T., M.A. Saxton<sup>1</sup>, M.A., S. Kleindienst<sup>1</sup>, A. Allen, **S.B. Joye**. Transcriptomics Reveal Responses of Deep-Water Microbial Communities to Oil and Dispersant Exposure. Gulf of Mexico Oil Spill & Ecosystem Science Meeting, New Orleans, LA, February.
  1. **\*Joye, S.B.**, M.A. Saxton<sup>1</sup>, T.P. Montenegro<sup>1</sup>, and S. Kleindienst<sup>1</sup>. Using -omics approaches to track the response of microbial hydrocarbon degraders to natural and anthropogenic hydrocarbon inputs. Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA, February.
- 2016**
24. **\*Joye, S.B.** Tracking oil spill impacts in the Gulf of Mexico: The ECOGIG Program. Invited Talk, UGA Research Foundation Board of Directors Meeting, Athens, GA, December.
  23. **\*Joye, S.B.** Hydrocarbon oxidizing microbial communities – diversity, dynamics and discovery. Invited Talk, Heriot-Watt University, Edinburgh, Scotland, September.
  22. **\*Joye, S.B.** Dynamics and regulation of hydrocarbon cycling in the wake of a massive open ocean oil discharge. Invited Talk, Athens Science Cafe, Athens, GA September.
  21. **\*Joye, S.B.** The response of microbial communities to hydrocarbon pollution in open ocean environments. Invited Talk, ISME 16 Meeting, Montreal, Quebec, Canada, August.
  20. Sibert<sup>1</sup>, R., K.S. Hunter<sup>1</sup>, and **S.B. Joye**. Carbon and sulfur cycling in a deep brine basin, the Orca Basin, Gulf of Mexico. Southeastern Biogeochemical Symposium, Knoxville, TN, March.
  19. Rogener<sup>1</sup>, M.K., B. Roberts, N.N. Rabalais, F. Stewart, and **S.B. Joye**. Denitrification and annamox in the Water Column of the Gulf of Mexico “Dead Zone”. Southeastern Biogeochemical Symposium, Knoxville, TN, March.
  18. Harrison<sup>1</sup>, S.J., S.Y., Malkin<sup>1</sup>, M.A. Saxton<sup>1</sup>, K.S. Hunter<sup>1</sup>, and **S.B. Joye**. Hydrocarbon degradation along a surface transect within a persistent

anthropogenic surface oil slick. Southeastern Biogeochemical Symposium, Knoxville, TN, March.

17. Peña-Montenegro<sup>1</sup>, T.D., S. Kleindienst<sup>1</sup>, A. Allen, **S.B. Joye**. Meta-transcriptomics reveals the response of deepwater microbial communities to oil and dispersant exposure. Southeastern Biogeochemical Symposium, Knoxville, TN, March.

16. **\*Joye, S.B.**, Environmental regulation and kinetics of methane oxidation across oceanic habitats. Invited plenary lecture, Southeastern Biogeochemical Symposium, Knoxville, TN, March.

15. McGrath, K., E. Afshinnekoo, N. Alexander, **S.B. Joye** (and 23 others). The eXtreme Microbiome Project (XMP) Present: "Methodgenomics". Annual Meeting of the Association of Biomolecular Research Facilities, Ft. Lauderdale, FL, February.

14. Peña-Montenegro<sup>1</sup>, T.D., S. Kleindienst<sup>1</sup>, and **S.B. Joye**. Genomics and transcriptomics reveal the response of extreme microbial communities to oil and dispersant exposure. Annual Meeting of the Association of Biomolecular Research Facilities, Ft. Lauderdale, FL, February.

13. **Joye, S.B.**, U. Passow, J.P. Montoya, V. Asper, S.J. Harrison<sup>1</sup>, R. M. Sibert<sup>1</sup>, and K.S. Hunter<sup>1</sup>. Sedimentation of oil-derived material to the seabed is an unrecognized fate for oil derived from natural seepage. ASLO Ocean Sciences Meeting, New Orleans, LA, February.

12. Montoya, J.P., S.A. Weber, A. Vogts, M Voss, M. Saxton<sup>1</sup>, **S.B. Joye**. Deepwater Nitrogen Fixation: Who's Doing it, Where, and Why? ASLO Ocean Sciences Meeting, New Orleans, LA, February.

11. Harrison<sup>1</sup>, S.J., S.Y., Malkin<sup>1</sup>, M.A. Saxton<sup>1</sup>, K.S. Hunter<sup>1</sup>, and **S.B. Joye**. Hydrocarbon degradation along a surface transect within a persistent anthropogenic surface oil slick. ASLO Ocean Sciences Meeting, New Orleans, LA, February.

10. **\*Joye, S.B.**, U. Passow, J.P. Montoya, V. Asper, S.J. Harrison<sup>1</sup>, R. M. Sibert<sup>1</sup>, and K.S. Hunter<sup>1</sup>. Holistic quantification of sedimentation of oil-derived material to the seabed. ASLO Ocean Sciences Meeting, New Orleans LA, February.

9. Rogener<sup>1</sup>, M.K., B. Roberts, N.N. Rabalais, F. Stewart, and **S.B. Joye**. Reactive Nitrogen Sinks in the Water Column of a Large Coastal Hypoxic Area, the Gulf of Mexico "Dead Zone". ASLO Ocean Sciences Meeting, New Orleans, LA, February.

8. **\*Joye, S.B.**, U. Passow, J.P. Montoya, V. Asper, S.J. Harrison<sup>1</sup>, R.M. Sibert<sup>1</sup>, and K.S. Hunter<sup>1</sup>. Identifying and quantifying sedimentation of oil-derived material to the seabed. Gulf of Mexico Oil Spill and Ecosystem Science Meeting, Tampa, FL, February.

7. Saxton<sup>1</sup>, M.A. and **S.B. Joye\***. Environmental and Microbial Regulation of Hydrate-Derived Methane Fluxes in Gulf of Mexico Sediments and Waters.

Natural Gas Hydrate Systems Gordon Research Conference, Galveston, TX, February.

6. Montoya, J.P., S.A. Weber, A. Vogts, M Voss, M. Saxton<sup>1</sup>, **S.B. Joye**. Hydrocarbons and Deepwater Nitrogen Fixation: Who's Doing It, Where, and Why. 2016 Gulf of Mexico Oil Spill and Ecosystem Science Meeting, Tampa, FL, February.

5. Harrison<sup>1</sup>, S.J., S.Y., Malkin<sup>1</sup>, M.A. Saxton<sup>1</sup>, K.S. Hunter<sup>1</sup>, and **S.B. Joye**. Exploring hydrocarbon degradation along a surface transect within a persistent oil slick at the Taylor Energy site. 2016 Gulf of Mexico Oil Spill and Ecosystem Science Meeting, Tampa, FL, February.

4. Rogener<sup>1</sup>, M.K., B. Roberts, N.N. Rabalais, F. Stewart, and **S.B. Joye**. Reactive Nitrogen Sinks in the Water Column of a Large Coastal Hypoxic Area, the Gulf of Mexico "Dead Zone". 2016 Gulf of Mexico Oil Spill and Ecosystem Science Meeting, Tampa, FL, February.

3. Saxton<sup>1</sup>, M.A., R.J. Sibert<sup>1</sup>, J.M. Petersen, H. Tegetmeyer, P.A. Chakkiath, A. Assie, N. Dubilier, and **S.B. Joye**. Oil degradation in deep sea mussels of the genus *Bathymodiolus*: physiological insights from metagenomics. 2016 Gulf of Mexico Oil Spill and Ecosystem Science Meeting, Tampa, FL, February.

2. Chanton, J., W. Patterson, B. Barnett, J. Tarnecki, S. Bosman, A. Mickle, P. Schwing, K. Rogers, J.P. Montoya, S. Weber, A. Fernandes, A. Harper, W. Landing, U. Passow, R. Wilson, **S.B. Joye**, D. Hollander, V. Asper, A. Dierks. Isotopic Tracers: Documenting ecosystem effects of the DWH oil spill. 2016 Gulf of Mexico Oil Spill and Ecosystem Science Meeting, Tampa, FL, February.

1. Ziervogel, K., A. Diercks, **S.B. Joye**, C. Arnosti, U. Passow, J., Montoya, V. Asper, C. Dike and N. D'Souza. Storm-induced sediment resuspension affects particle flux and bacterial activities in the deep Gulf of Mexico. 2016 Gulf of Mexico Oil Spill and Ecosystem Science Meeting, Tampa, FL, February.

**2015** \*24. **Joye, S.B.** Healthy Oceans Matter. Invited Lecture, Blue Ocean Conservation Summit, Museum of Oceanography, Monaco, November 2015.

23. Weston<sup>1</sup>, N., J. Bowen, P. Kearns, W. Porubsky, C. Hyacinth, C. Meile, P. Van Cappellen, and **S.B. Joye**. Controls on nitrous oxide production in soils and sediments: The role of physiochemical stress. Coastal and Estuarine Research Federation Meeting, Portland, OR, November 2015.

22. Fields, L., and **S.B. Joye**. Resuspension of sedimented oil from the Deepwater Horizon: Impact on biogeochemistry at the sediment-water interface. Coastal and Estuarine Research Federation Meeting, Portland, OR, November 2015.

\*21. **Joye, S.B.** How an offshore oceanic ecosystem responded to extreme perturbation: The 2010 Gulf of Mexico BP/Deepwater Horizon oil well blowout. Invited Talk, Association of Ecological Research Centers (AERC) "Ecosystem Response to Extreme Events", Congressional Briefing, Washington, DC, October 2015.



- \*20. **Joye, S.B.** Hydrocarbon biodegradation in the open ocean – the impacts of chemical dispersants. Invited Talk, Gordon Conference on Applied and Environmental Microbiology, Mt. Holyoke College, South Hadley, MA, July 2015.
- \*19. **Joye, S.B.** A Sea of Change: Altered microbial dynamics in the wake of the Macondo Blowout. Plenary Lecture, American Society of Microbiology General Meeting, New Orleans, LA, May 2015.
- \*18. **Joye, S.B.**, Oil Spill Science Seminar: Five Years Later, What Have We Learned: Dispersants. Webinar organized by Mississippi/Alabama Sea Grant.
- \*17. **Joye, S.B.** Assessing the ecosystem impacts of a deepwater oil well blowout: collecting, interpreting and evaluating ecosystem-scale data sets to assess a large environmental perturbation. SlingShot Festival, “Big Data” session, Athens, Georgia, March 2015.
16. M. Seidel, S. Kleindienst<sup>1</sup>, L. Babcock-Adams, T. Dittmar, **S.B. Joye**, and P. M. Medeiros. Unraveling Microbial Degradation of Dispersant and Water-Soluble Oil Compounds in Deep Seawater from the Gulf of Mexico using Ultrahigh Resolution Mass Spectrometry. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.
15. Peterson, L., R. Peterson, **S.B. Joye**, C. Meile, J. Montoya, and S. Weber. Assessing Hydrocarbon Flow Through Sediments Using Radium Isotopes. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.
14. Harrison<sup>1</sup>, S. J., S. Y. Malkin<sup>1</sup>, K. M. Loftis<sup>1</sup>, and **S. B. Joye**. Biodegradation of dispersed versus non-dispersed oil by surface microbial communities. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.
13. Malkin<sup>1</sup>, S., V. Salman<sup>1</sup>, M. Saxton<sup>1</sup>, S. Harrison<sup>1</sup>, A. Teske, and **S. B. Joye**. Cable Bacteria: “invisible” sulfide oxidizing mats at cold seeps? 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.
12. Malkin<sup>1</sup>, S., S. Harrison<sup>1</sup>, M. Saxton<sup>1</sup>, K. Loftis<sup>1</sup>, J. Battles<sup>1</sup>, M. Seidel, P. Medeiros, M. Perkins, J. Field, U. Passow, and **S. B. Joye**. Do Chemical Dispersants Impede or Hasten Microbial Degradation of Hydrocarbons in Surface Waters? 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.
11. Weber, S.C., J. J. Battles<sup>1</sup>, L. Peterson, B. J. Roberts, T. Özgökmen, R. N. Peterson, D. J. Hollander, J. P. Chanton, **S.B. Joye**, and J. P. Montoya. Hercules 265 Rapid Response: Immediate ecosystem impacts of a rig natural gas blowout incident. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.
10. Montoya, J.P., S. C. Weber, T. A. Villareal, A. Bracco, and **S.B. Joye**. Impact of the Deepwater Horizon incident on planktonic ecosystems: Carbon is important,

but so is Nitrogen. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

9. Meile, C.D., M. Lai, A. Bracco, H. Luo, and **S.B. Joye**. Interpretation of oxygen profiles in the aftermath of the BP/Deepwater Horizon hydrocarbon discharge. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

8. Washburn, T. W., A. Demopoulos, P. Montagna, and **S.B. Joye**. Natural vs. anthropogenic oil: an ecological comparison. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

7. Chanton, J.P., B. Rosenheim, **S.B. Joye**, D. Hollander, K. Yeager, R. Wilson, S. Bosman, and C. Brunne. Radiocarbon Tracing of the Flux of Petrocarbon to the Sea Floor and Coastal Foodweb Associated with the Deep Water Horizon Event. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

6. Peterson, R., L. E. Peterson, J. P. Montoya, S. C. Weber, C. D. Meile, and **S. B. Joye**. Radium Isotopes as Conservative Tracers of Hydrocarbon Transport Through the Water Column. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

5. **Joye, S.B.**, U. Passow, P. Medeiros, R. Sibert, T. Yang, V. Asper, A. Diercks, J. Montoya, K. Ziervogel, C. Martens, P. Montagna, J. Baguley, K. Hunter, M. Crespo-Medina<sup>1</sup>, W. Moore, C. Benitez-Nelson, and A. Teske. Rapid sedimentation, resuspension and redistribution of hydrocarbons in the wake of the Macondo Blowout. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

4. Sibert<sup>1</sup>, R., B.B. Bernard, J. Brooks, K. Hunter, and **S. B. Joye**. Short-chain alkane production in Gulf of Mexico cold seep sediments. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

3. Saxton<sup>1</sup>, M.A., S.V. Callaghan<sup>1</sup>, L. M. Nigro<sup>1</sup>, and **S. B. Joye**. Spatial biogeography of aerobic methane-oxidizing bacteria at natural methane seeps in the Gulf. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

2. Rogener<sup>1</sup>, M., B. Roberts, N. Rabalais, and **S. B. Joye**. The effects of low oxygen conditions on the fate of nitrogen in coastal ecosystems. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

1. Martens, C. S., H. Mendlovitz, H. Seim, L. Lapham, C. Magen, I. MacDonald, **S.B. Joye**, M. D'Emilio, and A. Diercks. Tracing Methane Friction Layer Maxima and Plumes from Natural Hydrocarbon Seeps in Deep Waters of the Northern Gulf of Mexico. 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX, February 2015.

- 2014 28. Sibert<sup>1</sup>, R. and **S.B. Joye**. Biological production of alkanes – methane, propane and ethane – in marine subsurface sediments. AGU Fall Meeting, San Francisco, CA, December.
27. Fields, L. and **S. B. Joye**. Multiple modes of nitrate reduction in deep sea environments of the Gulf of Mexico. AGU Fall Meeting, San Francisco, CA, December.
26. Schutte<sup>1</sup>, C.A., V.A. Samarkin<sup>1</sup>, M. Madigan and **S.B. Joye**. Microbial activity in the extreme hypersaline waters and sediments of Lake Vanda, Dry Valleys, Antarctica. AGU Fall Meeting, San Francisco, CA, December.
25. \***Joye, S.B.**, and J.P. Montoya. Diazomethanotroph: methane oxidation drives dinitrogen fixation in the deep ocean. AGU Fall Meeting, San Francisco, CA, December.
24. \***Joye, S.B.** Using UNOLS deep submergence assets to enable deep sea exploration and discovery. UNOLS/Deep Submergence Science Committee Distinguished Lecturer. AGU Fall Meeting, San Francisco, CA, December.
23. \***Joye, S.B.** The BP/Deepwater Horizon Oil Well Blowout: Pelagic impacts of a open ocean oil discharge. BLUE Ocean Conservation Summit, St. Petersburg, FL, Nov.
22. LaPorte, C., C. Fisher, K. Croft Bell, A. Fundis, and **S.B. Joye**. ECOGIG\* and Telescience: Research cruises utilize immersive technology for DWH research and education. Conference on Ecological and Ecosystem Restoration, New Orleans, LA, July.
21. \***Joye, S.B.** The BP/Deepwater Horizon Oil Well Blowout: What we've learned. Athens Rotary Club, Athens, GA, June.
20. \*Kleindienst<sup>1</sup>, S., S. Grim, M. Seidel, K. Ziervogel, M. Perkins, A. Allen, U. Passow, M. Crespo-Medina<sup>1</sup>, J. Field, T. Dittmar, P. Medeiros, M. Sogin, and **S.B. Joye**. The microbial response to the *Deepwater Horizon* deep-sea plume. Goldschmidt2014 Meeting, Sacramento, CA, June.
19. Takagi<sup>1</sup>, K.K., K.S. Hunter<sup>1</sup> and **S.B. Joye**. Drivers of change: How climate and people are influencing the Altamaha River watershed biogeochemical dynamics. ASLO Aquatic Sciences Meeting, Portland, OR, May.
18. Fields<sup>1</sup>, L., and **S.B. Joye**. Fates of dissolved inorganic nitrogen in cold seep sediments along the Gulf of Mexico deep slope. ASLO Aquatic Sciences Meeting, Portland OR, May.
17. Weber, S.C., B. Garcia, **S.B. Joye**, A. Subramaniam, J.P. Montoya. The influence of oil and gas from spills and seeps on particle and zooplankton biogeochemistry in the Northern Gulf of Mexico. ASLO/AGU/TOS Ocean Sciences Meeting, Honolulu, HI, February.

16. Montoya, J.P., S.C. Weber, C.C. Padilla and **S.B. Joye**. Deepwater N<sub>2</sub>-fixation in the Northern Gulf of Mexico: spills and seeps connect the N and C cycles. ASLO/AGU/TOS Ocean Sciences Meeting, Honolulu, HI, February.
15. **Joye, S.B.**, S. Kleindienst<sup>1</sup>, S. Grim, M. Crespo-Medina<sup>1</sup>, and M. Sogin. The role of the rare biosphere in pelagic hydrocarbon degradation during the Deepwater Horizon Oil Spill. ASLO/AGU/TOS Ocean Sciences Meeting, Honolulu, HI, February.
14. Babcock-Adams, L.C., **S.B. Joye**, and P.M. Medeiros. Tracking oil transformations in the Gulf of Mexico sediments after the 2010 Macondo blowout using biomarker ratios. ASLO/AGU/TOS Ocean Sciences Meeting, Honolulu, HI, February.
13. Rogers, D.R., A. Bose, M.M. Adams, **S.B. Joye**, and P.R. Girguis. Geomicrobiological linkages between short-chain alkane consumption and sulfate reduction rates in seep sediments. ASLO/AGU/TOS Ocean Sciences Meeting, Honolulu, HI, February.
12. \***Joye, S.B.**, and A.P. Teske. Microbiology of Gulf of Mexico sediments and waters before and after the Macondo Blowout. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.
11. Rogener<sup>1</sup>, M.K., B. Roberts, N. Rabalais, and **S.B. Joye**. The Effects of Large Nitrogen Loading and Low Oxygen Conditions on Nitrogen Removal Processes in Coastal Waters. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.
10. Saxton<sup>1</sup>, M.A., L.M. Nigro<sup>1</sup>, J.J. Battles<sup>1</sup>, P.L. Tavormina, and **S.B. Joye**. Spatial and temporal biogeography of aerobic methane-oxidizing bacteria surrounding Gulf of Mexico methane seeps. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.
9. Montoya, J., S.C. Weber, J. Battles<sup>1</sup>, C.C. Padilla, and **S.B. Joye**. N<sub>2</sub>-fixation in deep waters of the Northern Gulf of Mexico: Spills, Seeps, and links between the N and C cycles. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.
8. Weber, S.C., J. Battles<sup>1</sup>, **S.B. Joye**, J.P. Montoya. Hercules 265 rapid response: hydrographic, methane, and rate measurements quantify ecosystem impacts of a rig blowout incident. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.
7. **Joye, S.B.**, M. Seidel, P. Medeiros, K. Hunter, S. Grim, M. Sogin, K. Ziervogel, M. Perkins, J. Field, and S. Kleindienst<sup>1</sup>. Chemical dispersants used in oil spill response alter microbial community composition and evolution but not microbial activity. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.
6. Chanton, J., T. Zhao, J. Cherrier, **S.B. Joye**, D. Hollander, C. Brunner, J. Montoya, U. Passow, V. Asper, S. Bosman, and A. Mickle. A Radiocarbon-Based

Determination of the Flux of Oil to the Sea Floor. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.

5. Sibert<sup>1</sup>, R., K.S. Hunter<sup>1</sup>, and **S.B. Joye**. The Influence of Sulfate Availability and Gas Concentration on the Oxidation of Short Chain Alkanes. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.

4. King, E., R. Sibert<sup>1</sup>, J. Battles<sup>1</sup>, L. Fields, **S.B. Joye**, and C. Meile. Hydrocarbon Processing At A Natural Seep In The Gulf Of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.

3. Fields, L., and **S.B. Joye**. Fates of dissolved inorganic nitrogen in natural oil seep habitats along the Gulf of Mexico deep slope. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.

2. Babcock-Adams, L., **S.B. Joye**, and P.M. Medeiros. Changes In Sedimentary Ratios Of Oil-Derived Biomarkers Within Three Years Following The Macondo Blowout. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.

1. Yang, T.T., K. Speare, **S.B. Joye**, and A. Teske. Bacterial community dynamics in oil polluted seafloor sediment. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL, January.

**2013** 22. \***Joye, S.B.** (on behalf of the ECOGIG science team) Ecological Impacts of Oil and Gas Inputs to the Gulf: understanding long-term Macondo impacts and the influence of natural seepage on the Gulf Ecosystem. Ocean University of China, Qingdao, China, November 2013.

21. \***Joye, S.B.** An ocean of oil: rapid sedimentation and accumulation at the seafloor in the aftermath of the Macondo Blowout. Marine Oil Snow Sedimentation, Flocculation, and Accumulation Workshop. Tallahassee, FL, October.

20. \***Joye, S.B.**, The Deepwater Horizon Oil Well Blowout: Scientific Inquiry, exploration, and discovery in rapid-response mode. Cary Institute for Ecosystem Studies, Millbrook, NY, October.

19. \***Joye, S.B.** Hydrocarbon degradation following the Deepwater Horizon Oil Well Blowout: the rapid response of novel microbial groups to perturbation. Institute of Marine Sciences, Rutgers University, Rutgers, NJ, October.

18. \***Joye, S.B.** Oceanography in a crisis: Blue water and the Macondo Blowout. UGA Honors Lunchbox Lecture Series, invited speaker, Athens, GA, April.

17. \***Joye, S.B.** The Gulf of Mexico before and after the Macondo Blowout. UGA Women's History Month, Women in STEM, panelist/speaker, Athens, GA, March.

16. \***Joye, S.B.** Pelagic impacts of the 2010 BP Macondo Blowout in the Gulf of Mexico. USDA ARC, Women's History Month Symposium (Plenary Speaker), Athens, GA, March.

15. \***Joye, S.B.**, M. Crespo-Medina<sup>1</sup>, K. Hunter<sup>1</sup>, U. Passow, V. Asper, A. Diercks, J. Montoya, C. Benitez, W. Moore, and A. Demopoulos. Increased sedimentation and altered nutrient cycling in the aftermath of the Macondo oil well blowout. American Chemical Society, Spring Meeting, New Orleans, LA.
14. \***Joye, S.B.**, M. Crespo-Medina<sup>1</sup>, K. Hunter<sup>1</sup>, P. Medeiros, J. Montoya, A. Demopoulos. Altered pelagic and benthic biological dynamics following the BP Macondo oil well blowout. American Chemical Society, Spring Meeting, New Orleans, LA.
13. \***Joye, S.B.**, U. Passow, J.P. Montoya, V. Asper, A. Diercks, W.S. Moore, C. Benitez-Neilson, and P.M. Medeiros. Impact of the Gulf Oil Crisis on the Seafloor. American Association for the Advancement of Science, Spring Meeting, Boston, MA, February.
12. Schutte<sup>1</sup>, C. A., and **S.B. Joye**. Hotspots of greenhouse production in the subterranean estuary. ASLO 2013 Aquatic Sciences Meeting, New Orleans, LA, February.
11. **Joye, S.B.**, K. Habicht, K. Hinrichs, I. MacDonald, A. Teske and B. MacGregor. Variability in the biogeochemistry and microbial activity and diversity in Gulf of Mexico seafloor brines. ASLO 2013 Aquatic Sciences Meeting, New Orleans, LA, February.
10. Babcock-Adams, L., P.M. Medeiros, and **S.B. Joye**. Petroleum Biomarker Levels in the Gulf Sediments Following the 2010 Macondo Blowout. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
9. Chanton, J., J. Cherrier, J. Sarkodeeadoo, W. Graham, **S.B. Joye**, D. Hollander, and C. Brunner. Radiocarbon analysis of the Gulf Oil Spill. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
8. Fleer<sup>1</sup>, V., M. Crespo-Medina<sup>1</sup>, R. Sibert<sup>1</sup>, J. Battles<sup>1</sup>, and **S.B. Joye**. Methane Concentrations and Methane Oxidation Rates Following the 2010 Macondo oil well blowout. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
7. Gilbert, J., **S.B. Joye**, and A. Teske. Creating a predictive model of microbially mediated carbon remediation in the Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
6. **Joye, S.B.**, and E. Robinson. Draft Specifications of the ECOGIG Data Warehouse Data Model and Physical Architecture. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
5. **Joye, S. B.**, M. Crespo-Medina<sup>1</sup>, K.S. Hunter<sup>1</sup>, V. Asper, A. Diercks, R. Highsmith, and J.P. Montoya. Pelagic methane oxidation in the Northern Gulf of Mexico: Activity patterns before, during, and after the Macondo Blowout. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
4. Kleindienst<sup>1</sup>, S., M. Seidel, M. Perkins, J. Field, H. Morison, M. Sogin, T. Dittmar, P. Medeiros, and **S.B. Joye**. The influence of dispersants on pelagic

microbial oil degradation in the Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.

3. Montoya, J.P., S.C. Weber, A. Subramanian, A. Juhl, T. Villareal, A. Bracco, and **S.B. Joye**. Rates and fates of nitrogen and carbon in the water column: impact of seeps and spills on plankton biogeochemistry. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.

2. Sibert<sup>1</sup>, R., V. Flier<sup>1</sup>, K. Hunter<sup>1</sup>, M. Crespo-Medina<sup>1</sup>, J.P. Montoya, and **S.B. Joye**. Hydrocarbon Distributions, Cycling and Impacts in Blue Water Benthic and Pelagic Environments. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.

1. Weber, S.C., A. Subramanian, M. Crespo-Medina<sup>1</sup>, **S.B. Joye**, A. Bracco, T. Villareal, and J. P. Montoya. Spills, seeps, and pelagic foodwebs in the Northern Gulf of Mexico: What do stable isotopes tell us about oil, gas, and discolored zooplankton? Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.

**2012** 20. Shah, S.R., A.P. McNichol, and **S.B. Joye**. Radiocarbon and stable carbon isotopic evidence for microbial control of carbon supply to Orca Basin Brine, Gulf of Mexico. American Geophysical Union Fall Meeting, San Francisco, CA, December.

19. Stevens, E.W., J.V. Bailey, B.E. Flood, D.S. Jones, **S.B. Joye** and A.P. Teske. Sulfide-oxidizing bacteria preserved within barite crusts from a brine pool in the Gulf of Mexico. American Geophysical Union Fall Meeting, San Francisco, CA, December.

18. **Joye, S.B.** and A.P. Teske. Microbial biogeochemical dynamics in contrasting cold seep ecosystems in the Gulf of Mexico. American Geophysical Union Fall Meeting, San Francisco, CA, December.

17. Samarkin<sup>1</sup>, V.A., I. Semiletov, N. Finke<sup>1</sup>, N. Shakhova, and **S.B. Joye**. Methane stable isotope signatures in waters and sediments of the Laptev Sea Shelf. American Geophysical Union Fall Meeting, San Francisco, CA, December.

16. Peters, B., K. Casciotti, V. Samarkin<sup>1</sup>, M. Madigan, C. Schutte<sup>1</sup>, and **S.B. Joye**. Anomalous isotopic measurements of N<sub>2</sub>O in a hypersaline pond. American Geophysical Union Fall Meeting, San Francisco, CA, December.

15. Segarra<sup>1</sup>, K.E.A., V. Samarkin<sup>1</sup>, F. Schubotz, M.Y. Yoshinaga, K.-U. Hinrichs, and **S.B. Joye**. Freshwater wetland sediment support substantial rates of AOM. American Geophysical Union Fall Meeting, San Francisco, CA, December.

14. Schutte<sup>1</sup>, C.S., C. Meile, D. Di Iorio, J. Schalles, K. Hunter<sup>1</sup>, and **S.B. Joye**. Physical-biogeochemical coupling in the Duplin River Estuary. LTER All Scientist Meeting, Estes Park, CO, September.

13. \***Joye, S.B.**, Undersea plumes of oil and dissolved gas and sedimented oil along the seafloor alter the ocean system following the BP oil well blowout. American Chemical Society, Local Chapter, Athens, GA, September.

12. \***Joye, S.B.**, New constraints of methane production in the deep sea from quasi-in-situ incubations. Gordon Research Conference on C1-metabolism. Lewiston, ME, August.
11. Weber, H.S., **S.B. Joye**, and K.S. Habicht. Sulfur isotope fractionation in various habitats around mud volcanoes and brine pools in the Gulf of Mexico. ISME14, Copenhagen, Denmark, August.
10. Stevens, E.W., J.V. Bailey, B.E. Flood, D.S. Jones, **S.B. Joye**, and A.P. Teske. Sulfide-oxidizing bacteria preserved in barite crusts from a brine pool in the Gulf of Mexico. NASA Astrobiology Science Graduate Conference, Atlanta, GA, April.
9. Schutte<sup>1</sup>, C., A. Wilson, W. Moore, and **S.B. Joye**. Tidally-driven hotspots of nitrogen cycling in shallow coastal aquifers. NASA Astrobiology Science Conference 2012, Atlanta, GA, April.
8. Finke<sup>1</sup>, N., S. Baer, and **S.B. Joye**. Methane production in marine sea ice in the Chukchi Sea, Barrow, Alaska. NASA Astrobiology Science Conference 2012, Atlanta, GA, April.
7. Finke<sup>1</sup>, N., V. Samarkin, D. Kosmach, I. Semiletov, N. Shakova, and **S.B. Joye**. Methane oxidation in the oligotrophic surface waters of the Laptev Sea and East Siberian Arctic Shelf. Gordon Research Conference on Marine Gas Hydrates, Ventura, CA, March.
6. Yang, T.T., L. M. Negro, T. Guitierrez, L. d'Ambrosio, **S. B. Joye**, R. Highsmith, and A. P. Teske. Pelagic microbial community composition before, during and after the Deepwater Horizon Oil Spill. TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT, February.
5. Montoya, J., A. Subramaniam, M. Crespo-Medina<sup>1</sup>, **S. B. Joye**, A. Bracco, and T. Villareal. The Deepwater Horizon oil spill and pelagic foodwebs in the Northern Gulf of Mexico: What do stable isotopes tell us about oil, plumes, and discolored zooplankton? TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT, February.
4. **Joye, S. B.**, M. Crespo-Medina<sup>1</sup>, P. Medieros, C. Benitez-Nelson, W. Moore, J. Montoya, V. Asper, A. Diercks, and R. Highsmith. Intense sedimentation to the seafloor following the 2010 Macondo Blowout: geochemical composition, mechanisms, and microbial impacts. TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT, February.
3. Peterson, R. N., R. F. Viso, I. R. MacDonald, and **S. B. Joye**. Ongoing fluid discharge near the Macondo Wellhead. TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT, February.
2. Rivers, A., S. Sharma, E. Lindquist, S. Tringe, **S. B. Joye** and M.A. Moran. Transcriptional response of deepwater Bacteria and Archaea to hydrocarbon contamination from the Deepwater Horizon spill. TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT, February.



1. Crespo-Medina<sup>1</sup>, M., A. Vossmeier, K. Hunter<sup>1</sup>, J.J. Battles<sup>1</sup>, J.P. Montoya, V. Asper, A. Diercks, T.A. Villareal, and **S. B. Joye**. Water column methane dynamics in response to the Deepwater Horizon Hydrocarbon Spill. TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT, February.
- 2011** 39. Leifer, I., G. J. Rehder, E. A. Solomon, M. Kastner, V. Asper and **S. B. Joye**. Methane rising from the deep: Hydrates, bubbles, oil spills and global warming. AGU Fall Meeting, San Francisco, CA, December.
38. Finke<sup>1</sup>, N., M. Crespo-Medina<sup>1</sup>, J. Schweers<sup>1</sup>, and **S. B. Joye**. Aerobic methane production in surface waters of the Gulf of Mexico. AGU Fall Meeting, San Francisco, CA, December.
37. **Joye, S. B.**, V. A. Samarkin<sup>1</sup> and N. Finke<sup>1</sup>. Microbial methane consumption in the oligotrophic surface waters of the East Siberian Arctic Shelf. AGU Fall Meeting, San Francisco, CA, December.
36. Tinker<sup>1</sup>, K., M. Crespo-Medina<sup>1</sup>, and **S.B. Joye**. Impacts of dispersants on microbial metabolism in Gulf of Mexico sediments. State of North Carolina Undergraduate Research and Creativity Symposium, Raleigh, NC, November.
35. Wilson, A., J. Morris, W. Moore, **S. Joye**, J. Anderson and C. Schutte<sup>1</sup>. The effects of variability in tidal forcing on groundwater exchange in coastal wetlands. CERF Annual Meeting, Daytona, FL, November.
34. Montoya, J., V. Asper, A. Bracco, M. Crespo-Medina<sup>1</sup>, A. Diercks, **S. Joye**, U. Passow, A. Subramaniam, and T. Villareal. Deepwater Horizon oil and pelagic foodwebs in the Northern Gulf of Mexico: what do stable isotopes tell us about oil, subsurface turbid layers, and discolored zooplankton. CERF Annual Meeting, Daytona, FL, November.
33. **\*Joye, S.B.**, K.S. Hunter<sup>1</sup>, A. Vossmeier<sup>1</sup>, and M. Crespo-Medina<sup>1</sup>. Open Ocean impacts of the Macondo oil well blowout. CERF Annual Meeting, Daytona, FL, November.
32. Segarra<sup>1</sup>, K.E.A., V. Samarkin<sup>1</sup>, M. Yoshinaga, F. Schubotz, V. Heuer, K.-U. Hinrichs, and **S.B. Joye**. Seasonal carbon cycling in freshwater wetland sediments: analysis of microbial activities, lipid biomarkers, and isotope geochemistry. CERF Annual Meeting, Daytona, FL, November.
31. Crespo-Medina<sup>1</sup>, M. and **Joye, S.B.** Fate and consequences of Macondo methane in the water column of the Gulf of Mexico, 2010-2011. Deepwater Horizon Oil Spill Principal Investigator Conference, University of South Florida, St. Petersburg, FL, October.
30. **\*Joye, S.B.**, and M. Crespo-Medina<sup>1</sup>. Oil distributions and impacts following the Macondo Blowout. SCMEA-GAME Annual Conference, Savannah, GA, October.
29. **\*Joye, S.B.**, R. Highsmith, and C. Martens. ECOGIG: ECOGIG: ECosystem Impacts of Oil and Gas Intputs to the Gulf. Gulf of Mexico Research Initiative

Lead Investigator Meeting, October, New Orleans, LA, October (presented by C. Martens as I was on medical leave).

28. \*Joye, S.B. Undersea impacts of the BP Blowout. Presentation to the UGA Parent's Program, UGA Chapel, September, Athens, GA, September.

27. \*Joye, S.B. Undersea impacts of the BP Blowout. Distinctive Voices Lecture Series, National Academy of Sciences, Irvine, CA, September.

26. \*Joye, S.B. The offshore fate and consequences of hydrocarbon gases and oil released from the Macondo Blowout. Department of Marine and Environmental Biology, University of Southern California, Invited Seminar, Los Angeles, CA, September.

25. \*Joye, S.B. The offshore fate and consequences of hydrocarbon gases and oil released from the Macondo Blowout. University of North Carolina Institute of Marine Sciences, Invited Seminar, Morehead City, NC, September.

24. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Presentation to the UGA Government Legislative Retreat, Athens, GA, August.

23. \*Joye, S.B. The offshore fate and consequences of hydrocarbon gases and oil released from the Macondo Blowout. Gordon Research Conference, Chemical Oceanography, August, Andover, NH, August.

22. Tinker<sup>1</sup>, K., M. Crespo-Medina<sup>1</sup>, and S.B. Joye. Impacts of dispersants on microbial metabolism in Gulf of Mexico sediments. Microbiology REU Symposium, Athens, GA, July.

21. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Presentation to the Kiwanis Club, Athens, GA, July.

20. \*Joye, S.B., M. Crespo-Medina<sup>1</sup>, A. Vossmeier<sup>1</sup>, K.S. Hunter<sup>1</sup>, C.D. Meile, A.R. Diercks, V. Asper, A.M Shiller, D.J. Joung, J.P. Chanton, J.J. Battles<sup>1</sup>, C. Mann<sup>1</sup>, J. Montoya, T. Villareal, M. Wood, and R. Amon. Pelagic aerobic methane oxidation: natural background and response to a deepwater blowout. FEMS Annual Congress, Geneva, Switzerland, June 2011.

19. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Presentation to the Bavarian Government Delegation, Athens, GA, June.

18. \*Joye, S.B. Doing Research Following the Gulf of Mexico Macondo Disaster. Presentation to the UGA Arch Foundation, Athens, GA, May.

17. \*Joye, S.B., M. Crespo-Medina<sup>1</sup>, A. Vossmeier<sup>1</sup>, K.S. Hunter<sup>1</sup>, C.D. Meile, A.R. Diercks, V. Asper, A.M Shiller, D.J. Joung, J.P. Chanton, J.J. Battles<sup>1</sup>, C. Mann<sup>1</sup>, J. Montoya, T. Villareal, M. Wood, and R. Amon. Evolution of water column methane cycling after the 2010 Gulf BP oil well blowout. American Society for Microbiology, Annual Meeting, New Orleans, LA, May.

16. \*Joye, S.B and M. Crespo-Medina<sup>1</sup>. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Presentation to the Alabama League of Woman Voters, Tuscaloosa, AL, April.
15. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Presentation to the UGA Roosevelt Institute, Athens, GA, April.
14. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Plenary talk at the UGA CURO Symposium, Athens, GA, April.
13. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Presentation to OLLI Lunch and Learn, Athens, GA, April.
12. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Presentation to Franklin College Dean's Council, Sapelo Island, GA, April.
11. \*Joye, S.B. The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. UGA Law School, Environmental Law Association/Constitutional Law Society, Invited Seminar, Athens, GA, February.
10. \*Joye, S.B. Slime, Soot, and Blue Water: The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. Invited Seminar, Department of Geosciences, Princeton University, Princeton, NJ, February.
9. \*Joye, S.B., M. Crespo-Medina<sup>1</sup>, K. Hunter<sup>1</sup>, A. Vossmeier<sup>1</sup>, M. Bowles<sup>1</sup>, V. Asper, A. Diercks, A. Teske, J. Montoya, C. Arnosti, C. Benitez-Nelson, J. Brandes, W. Moore, U. Passow, A. Subramaniam, T. Wade, K. Zeirvogel and R. Highsmith. The Microbial Slime Highway: An efficient mechanism of oil transport to the benthos and consequences on microbial dynamics in Deep Gulf of Mexico Environments. American Society of Limnology and Oceanography, Aquatic Sciences Meeting, San Juan, Puerto Rico, February.
8. Crespo-Medina<sup>1</sup>, J. Slaughter<sup>1</sup>, A. Vossmeier<sup>1</sup>, J.P. Montoya, A. Subramaniam, V. Asper, A. Diercks, T.A. Villareal, and S.B. Joye. Patterns of water column aerobic methane oxidation rates in response to the Deepwater Horizon Blowout. American Society of Limnology and Oceanography, Aquatic Sciences Meeting, San Juan, Puerto Rico, February.
7. Schutte<sup>1</sup>, C.A. and S.B. Joye. High rates of nitrogen cycling in coastal aquifers. American Society of Limnology and Oceanography, Aquatic Sciences Meeting, San Juan Puerto Rico, February.
6. Dekas, A., R.W. Lee, M. Bowles<sup>1</sup>, S.B. Joye, and V. Orphan. Benthic nitrogen fixation detected at diverse deep-sea sites. American Society of Limnology and Oceanography, Aquatic Sciences Meeting, San Juan, Puerto Rico, February.
5. Montoya, J.P., A. Subramaniam, V. Asper, A. Diercks, U. Passow, M. Crespo-Medina<sup>1</sup>, S.B. Joye and T.A. Villareal. Subsurface turbid layers in the Gulf of Mexico: Ghosts of the Deepwater Horizon Oil Spill. American Society of

Limnology and Oceanography, Aquatic Sciences Meeting, San Juan, Puerto Rico, February.

4. **\*Joye, S.B.** Slime, Soot, and Blue Water: The offshore fate of hydrocarbon gases and oil released from the Macondo Blowout. American Association for the Advancement of Science, Annual Meeting, Invited Topical Lecture, Washington, DC, February.

3. **\*Joye, S.B.**, Oil and Gas in the Gulf of Mexico after the Macondo Blowout. Cedar Shoals High School, AP Oceanography Class, Athens, GA, January.

2. **\*Joye, S.B.**, Doing science following the Macondo Blowout. UGA Alumni Assembly, Athens, GA, January.

1. **\*Joye, S.B.**, Oil and gas dynamics following the Macondo Blowout. UGA Oil Spill Science Symposium, Athens, GA, January.

**2010** 14. Redmond, M.C., D.L. Valentine, and **S.B. Joye**. Microbial Community Response to the Deepwater Horizon Oil Spill, American Geophysical Union, Fall Meeting, December.

13. **\*Joye, S.B.**, A. Diercks, A. Teske, and D. Valentine. Open ocean impacts of the BP Oil Well Blowout. American Geophysical Union, Fall Meeting, Union Lecture, San Francisco, CA, December.

12. Wade, T.L., Sweet S.T., Sericano, J.L., Guinasso, N.L. Jr., Lohrenz, S.E., Shiller, A.M., **S.B. Joye**, Diercks, A.R., Asper, V.L. and Highsmith, R.C. . 2010 Documentation of Sub-Surface Oil Plume by Analyses of Toxic PAH in Water Samples from the Deep Water Horizon Oil Spill. SETAC 31th Annual Meeting, Portland, OR, November.

11. Diercks, A.R., V.L. Asper, R. Highsmith, M. Woolsey, S. Lohrenz, K. McLetchie, A. Gossett, M. Lowe, D. Joung, L. McKay, **S. Joye**, and A. Teske. The NIUST Deepwater Horizon Oil Spill Response Cruise. OCEANS 10 MTS/IEE Conference, Seattle, WA, June.

10. Samarkin<sup>1</sup>, V.A., M. Madigan, M. Bowles<sup>1</sup>, and **S.B. Joye**. Novel mechanism of anaerobic methane oxidation in permanently ice-covered Lake Fryxell, Antarctica. Goldschmidt 2010 Conference, Knoxville, TN, June.

9. Hyacinthe<sup>1</sup>, C., L. Palomo<sup>1</sup>, K.S. Hunter<sup>1</sup>, B. Wherli, and **S.B. Joye**. Nutrient and organic carbon alteration during transit through shallow coastal sediment. Goldschmidt 2010 Conference, Knoxville, TN, June.

8. Segarra<sup>1</sup>, K.E., V. Samarkin<sup>1</sup>, and **S.B. Joye**. Terminal metabolism in coastal freshwater sediments: Seasonal and temperature-controlled fluctuations in rates and pathways. Goldschmidt 2010 Conference, Knoxville, TN, June

7. Crespo-Medina<sup>1</sup>, M., M.W. Bowles<sup>1</sup>, V.A. Samarkin<sup>1</sup>, and **S.B. Joye**. Spatial patterns in sediment microbial diversity around Gulf of Mexico brine lakes. Goldschmidt 2010 Conference, Knoxville, TN, June.

6. Schutte<sup>1</sup>, C.A., W.S. Moore, A.S. Wilson, and **S.B. Joye**. Nitrogen cycling and trace gas dynamics in coastal aquifers. Goldschmidt 2010 Conference, Knoxville, TN, June.
  5. Bowles<sup>1</sup>, M.W., V.A. Samarkin<sup>1</sup>, and **S.B. Joye**. Pressure regulation of microbial methane cycling in deep-sea sediments. Goldschmidt 2010 Conference, Knoxville, TN, June.
  4. King, E.L., K. Segarra<sup>1</sup>, V. Samarkin<sup>1</sup>, **S.B. Joye**, and C. Meile. Anaerobic metabolism in freshwater sediments as a methane source: A modeling study. Goldschmidt 2010 Conference, Knoxville, TN, June.
  3. Kempher, M.L., G.S. Tregoning, **S.B. Joye**, and M.T. Madigan. Calcium-tolerant bacteria isolated from the deep waters of Lake Vanda, McMurdo Dry Valleys, Antarctica. Am. Soc. Microbiology, 110<sup>th</sup> General Meeting, San Diego, CA, May.
  2. Tavormina, P.L., W. Ussler, **S.B. Joye**, C. Scholin, and V.J. Orphan. Real-time detection of aerobic methane oxidizers in the marine water column. Astrobiology Science Conference (AbSciCon), League City, TX, April.
  1. **Joye, S.B.**, M.W. Bowles<sup>1</sup>, V. Samarkin<sup>1</sup>, C. Hyacinthe<sup>1</sup>, and M. Crespo-Medina<sup>1</sup>. The importance of biological methanogenesis in the methane cycle of cold seeps. AGU/ASLO/TOS Ocean Sciences Meeting, Portland, OR, February.
- 2009**
12. Wilson, A. M., J. Anderson, W. Moore, C. Schutte<sup>1</sup>, and **S. B. Joye**. Storm-driven groundwater flow and nutrient transport in a barrier island. American Geophysical Union, Fall Meeting, San Francisco, CA, December.
  11. Bowles<sup>1</sup>, M.W., and **S.B. Joye**. Coupled carbon-nitrogen-sulfur cycling at cold seeps: Lessons from MC118. Gulf of Mexico Gas Hydrates Research Consortium Fall Meeting, Columbia, SC, November.
  10. Hester M., I. Mendelssohn, M. Alber, and **S.B. Joye**. Effects of sudden salt marsh dieback and *Spartina alterniflora* stem density on ecosystem services in tidal salt marshes of Georgia and Louisiana. Coastal and Estuarine Research Federation Conference, Portland, OR, November.
  9. Palomo<sup>1</sup>, L., C. Hyacinthe<sup>1</sup>, and **S.B. Joye**. Drought impacts on biogeochemistry and microbial processes in salt marsh sediments. Coastal and Estuarine Research Federation Conference, Portland, OR, November.
  8. Schutte<sup>1</sup>, C.A., W.S. Moore, A.S. Wilson, and **S. B. Joye**, 2009. Spatio-temporal variations in groundwater biogeochemistry and flux to the coastal ocean. Third International Conference on Aquatic Resources, Alexandria, Egypt, November.
  7. Schutte<sup>1</sup>, C.A., W.S. Moore, A.S. Wilson, and **S. B. Joye**, 2009. Mechanisms for variability in groundwater nutrient flux to estuaries and the coastal ocean. LTER All Scientist Meeting, Estes Park, CO, September.

6. Hester M., I. Mendelssohn, M. Alber, and **S.B. Joye**. Climate-linked alteration of ecosystem services in meso- and microtidal salt marshes of the southeastern United States. 10<sup>th</sup> INTECOL meeting, Brisbane, Australia, August.
  5. \***Joye, S. B.**, V.A. Samarkin<sup>1</sup>, M.W. Bowles<sup>1</sup>, S.A. Carini<sup>1</sup>, M. Crespo-Medina<sup>1</sup>, and M. Madigan. Patterns and controls on anaerobic oxidation of methane in extreme environments of varying salinity. 19<sup>th</sup> Annual V. M. Goldschmidt Conference, Davos, Switzerland, June.
  4. King, E.L., K. Segarra<sup>1</sup>, V. Samarkin<sup>1</sup>, **S. B. Joye**, and C.D. Meile. Anaerobic metabolism and methane production in freshwater sediments: A model analysis of experimental data. 19<sup>th</sup> Annual V. M. Goldschmidt Conference, Davos, Switzerland, June.
  3. Bowles<sup>1</sup>, M.W., and **S. B. Joye**, A geochemical and microbiological analysis of nitrate reduction at a hydrothermal vent and a cold seep. 19<sup>th</sup> Annual V. M. Goldschmidt Conference, Davos, Switzerland, June.
  2. \*Samarkin<sup>1</sup>, V. A., M.A. Madigan, and **S. B. Joye**, Carbon cycling in Amictic Antarctic Lakes. TAWANI Foundation/NASA ASTEP Antarctic Science Meeting, Chicago, IL, April.
  1. **Joye, S. B.**, M.W. Bowles<sup>1</sup>, and V.A. Samarkin<sup>1</sup>, Habitat-specific patterns of biogeochemistry and microbiology along the Gulf of Mexico Deep Slope. Department of the Interior, Minerals Management Service, Science and Technology Information Transfer Annual Meeting, New Orleans, LA, January.
- 2008**
8. \*Samarkin<sup>1</sup>, V. S., M. Madigan, and **S. B. Joye**, Methane dynamics in three Antarctic Lakes. Instruments, Methods, and Missions for Astrobiology XI Conference, San Diego, CA, August.
  7. \***Joye, S. B.**, Anaerobic C<sub>1</sub> cycling in Stratified Antarctic Lakes of the Dry Valleys. Invited Keynote Lecture, Gordon Research Conference on Microbial Metabolism of C<sub>1</sub> Compounds, Lewiston, ME, July.
  6. Segarra<sup>1</sup>, K. S., V. Samarkin<sup>1</sup> and **Joye, S. B.**, Competition between methanogens and iron reducing bacteria in freshwater sediments. Gordon Research Conference on Microbial Metabolism of C<sub>1</sub> Compounds, Lewiston, ME, July.
  5. Bowles<sup>1</sup>, M. W., and **Joye, S. B.**, Nitrate reduction pathways in sediments from a Gulf of Mexico cold seep. Denitrification RCN Meeting, Cambridge, MA, May.
  4. Fisher, C. R., E. Cordes, H. Roberts, B. Bernard, R. Carney, **S. B. Joye**, I. MacDonald, C. Morrison, E. Becker, S. Lessard-Pilon, and J. Brooks. Overview of the communities associated with oil, gas and brine seepage, and associated hard grounds in the deep Gulf of Mexico. ASLO-AGU-ERF-TOS Ocean Sciences, Orlando, FL, March.
  3. Bowles<sup>1</sup>, M. W., V. A. Samarkin<sup>1</sup>, and **S. B. Joye**. Activity, diversity and relative abundance of sulfate reducing bacteria in oil-rich sediments from a lower

- continental slope Gulf of Mexico cold seep. ASLO-AGU-ERF-TOS Ocean Sciences, Orlando, FL, March.
2. Alber, M., S. C. Shaefer, L. R. Pomeroy, J. E. Sheldon, and **S. B. Joye**. Nitrogen inputs to the Altamaha River estuary (Georgia, USA): a historic analysis. ASLO-AGU-ERF-TOS Ocean Sciences, Orlando, FL, March.
1. **Joye, S. B.**, H. H. Roberts, M. W. Bowles<sup>1</sup>, V. A. Samarkin<sup>1</sup>, and P. Girguis. Microbial activity and community composition in sediments associated with brine seeps on the lower continental shelf, Gulf of Mexico. ASLO-AGU-ERF-TOS Ocean Sciences, Orlando, FL, March.
- 2007** 18. Hester, M., I. Mendelssohn, M. Alber and **S. B. Joye**. Climate-linked alteration of ecosystem services in tidal salt marshes of Georgia and Louisiana. Estuarine Research Federation Conference, Providence, RI, November.
17. Segarra<sup>1</sup>, K., V. Samarkin<sup>1</sup> and **S. B. Joye**. Temperature driven variations in terminal metabolism in methanogenic freshwater sediments. Estuarine Research Federation Conference, Providence, RI, November.
16. Porubsky<sup>1</sup>, W. P., C. Meile, and **S. B. Joye**. Using field measurements, laboratory assays and modeling to examine flow conditions and variations in groundwater biogeochemistry. Estuarine Research Federation Conference, Providence, RI, November.
15. Weston<sup>1</sup>, N. B., M. A. Vile, D. J. Velinsky, **S. B. Joye** and S. C. Neubauer. Shifting pathways and magnitude of organic matter mineralization in tidal freshwater marshes following sea-level rise. Estuarine Research Federation Conference, Providence, RI, November.
14. **\*Joye, S. B.** Gassy adventures in the deep sea: Biogeochemistry and microbial activity at Gulf of Mexico cold seeps. Invited Seminar, Oceanography Department, Florida State University, Tallahassee, FL, October.
13. **\*Joye, S. B.** New insights into the biogeochemical dynamics of the anaerobic oxidation of methane. Invited Seminar, Department of Earth Sciences, University of Southern California, Los Angeles, CA, October.
12. **\*Joye, S. B.** Controls on the Anaerobic Oxidation of Methane in Hypersaline Habitats. Invited Seminar, Environmental Sciences and Engineering, California Institute of Technology, Pasadena, CA, October.
11. Bailey, J. V., **S. B. Joye**, H. N. Schulz and F. C. Corsetti. Mediation of fossil phosphorite deposition by vacuolate sulfur bacteria. Geological Society of America Annual Meeting, Denver, CO, October.
10. **\*Joye, S. B.** Interactions between the anaerobic oxidation of methane and associated processes across diverse aquatic habitats. Plenary Talk, Gordon Research Conference on Chemical Oceanography, Tilton, NH, August.
9. Roberts, H. H., C. Fisher, J. Brooks, B. Bernard, R. Carney, **S. Joye**, I. MacDonald, J. Hunt, and W. Shedd. Exploration of the Deep Gulf of Mexico

- Slope Using DSV ALVIN: Site Selection and Geologic Character. Gulf Coast Association of Geological Societies, Annual Meeting, Corpus Christi, TX, May.
8. **Joye, S. B.**, K. S. Hunter<sup>1</sup>, M. Bernier<sup>1</sup>, I. Mendelssohn, M. Alber and M. Hester. Climate linked alteration of ecosystem services in tidal marshes of Georgia and Louisiana. 10<sup>th</sup> International Symposium on the Biogeochemistry of Wetlands, Annapolis, MD, April.
7. **Joye, S. B.**, K. S. Hunter<sup>1</sup>, M. Bernier<sup>1</sup>, and C. Craft. Salinity-driven patterns in sediment biogeochemistry and microbial activity in Georgia Coastal Estuaries. 10<sup>th</sup> International Symposium on the Biogeochemistry of Wetlands, Annapolis, MD, April.
6. \***Joye, S. B.** Microbial activity and abundance in “in tact” structure II gas hydrate incubated at *in situ* pressure. Gulf of Mexico Gas Hydrates Research Consortium Annual Meeting, Oxford, MI, February.
5. Edmonds, J. W., N. B. Weston<sup>1</sup>, X. Mou, **S. B. Joye**, and M. A. Moran. Linking the response of the microbial community structure to carbon mineralization rates during seawater intrusion into freshwater estuarine sediments. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.
4. Weston<sup>1</sup>, N. B., M. A. Vile, D. J. Velinsky, **S. B. Joye** and S. C. Neubauer. Rising sea levels and salinity intrusion into tidal freshwater marshes: Shifting microbial communities and pathways of organic matter mineralization. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.
3. Porubsky<sup>1</sup>, W. P., C. D. Meile and **S. B. Joye**. Variations in groundwater biogeochemistry and flow on Moses Hammock (Sapelo Island, GA): field measurements, laboratory assays and modeling. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.
2. **Joye, S. B.**, V. Samarkin<sup>1</sup>, B. Orcutt<sup>1</sup>, M. Bowles<sup>1</sup>, I. MacDonald, J. Montoya, and H. Roberts. Microbial abundance and activity in seafloor brines from the Northern Gulf of Mexico. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.
1. \***Joye, S. B.** Expedition to the Deep Slope: Microbial abundance and activity across chemosynthetic habitats and geologic sub-provinces in the Gulf of Mexico. Department of the Interior, Minerals Management Service, Science and Technology Information Transfer Annual Meeting, New Orleans, LA, January.
- 2006 7. Burgess<sup>2</sup>, E. A., J. Unrine, A. L. Neal, V. Samarkin<sup>1</sup>, **S. B. Joye** and J. Wiegel. Arkashin (A) to Zavarzin (Z) – Geochemical and microbiological characterization of core samples collected at two thermal pools in Uzon Caldera, Kronotsky Zapovednik, Kamchatka. American Geophysical Union, Fall Meeting, San Francisco, CA, December.
6. \***Joye, S. B.** Microbial and geochemical signatures of seafloor brines from the Gulf of Mexico continental slope, Morehouse College, Atlanta, GA, October.



5. **\*Joye, S. B.** Tips for Writing Successful Proposals in the Sciences, UGA Engineering Department, Athens, GA, August.
  4. **\*Joye, S. B.** Keys to Successful Proposal Writing in the Sciences, UGA Graduate School Student Seminar Series, Athens, GA, April.
  3. **\*Joye, S. B.** Microbial population dynamics and activity at Gulf of Mexico cold seeps. University of Delaware, College of Marine Studies, Lewes, DE, February.
  2. **\*Joye, S. B.** Microbial activity in mud volcanoes and brine pools from the Northern Gulf of Mexico. California Institute of Technology, Department of Geological Sciences, Pasadena, CA, February.
  1. **\*Joye, S. B.** Biogeochemistry of deep ocean cold seeps in the Gulf of Mexico. University of South Carolina, Department of Geological Sciences, Columbia, SC, January.
- 2005**
17. **\*Joye, S. B.,** R. Y. Lee<sup>1</sup>, J. L. Joye, and I. C. Feller. Sediment water flux of inorganic and organic constituents in mangroves in Belize and Panama. Estuarine Research Federation Conference, Norfolk, VA, October.
  16. MacDonald, I. R., **S. B. Joye,** and T. Naehr. Deep-Sea Asphalt Deposits at Chapopote: A Model for Ductile Flow and Biogeochemical Interaction. 8<sup>th</sup> International Conference on Gas in Marine Sediments, Vigo, Italy, September.
  15. Orcutt<sup>1</sup>, B. N., V. Samarkin<sup>1</sup>, A. Boetius, M. Elvert, and **S. B. Joye.** Interaction of methanogenesis, anaerobic oxidation of methane, and sulfate reduction at Gulf of Mexico Cold Seeps. International Symposium on Environmental Biogeochemistry, Jackson Hole, WY, August.
  14. **Joye, S. B.,** V. Samarkin<sup>1</sup>, B. N. Orcutt<sup>1</sup>, I. MacDonald, and J. Montoya. A Window to the Deep Biosphere: Microbial Activity in Deep Sea Brines. International Symposium on Environmental Biogeochemistry, Jackson Hole, WY, August.
  13. Edmonds, J. W., N. B. Weston<sup>1</sup>, **S. B. Joye,** and M. A. Moran. Changes in Microbial Community Structure and Activity in Response to Fluctuations in Organic Carbon Pools in Salt Marsh Sediments. American Society of Microbiology, Annual Meeting, Atlanta, GA, June.
  12. Orcutt<sup>1</sup>, B. N., J. Harnmeijer, A. Devol and **S. B. Joye.** Coupling between nitrogen and metal cycling on the continental shelf. 15th Annual Goldschmidt Conference, Moscow, ID, May.
  11. **\*Joye, S. B.,** A. Boetius, K. Kalanetra<sup>2</sup>, I. MacDonald, J. Montoya, B. Orcutt<sup>1</sup>, and V. Samarkin<sup>1</sup>. Biogeochemical signatures of cold seeps in benthic and pelagic environments along the Gulf of Mexico continental margin. European Geochemical Union, Annual Meeting, Vienna, Austria, April.
  10. **Joye, S. B.,** A. Boetius, J. Montoya, H. Niemann, and B. Orcutt<sup>1</sup>. Water column methane oxidation in the vicinity of benthic methane seeps in the North Sea and

Gulf of Mexico. European Geochemical Union, Annual Meeting, Vienna, Austria, April.

9. McKee, K., and **S. B. Joye**. Contribution of Benthic Mats to Vertical Accretion in Mangrove Wetlands. 9<sup>th</sup> International Symposium on Biogeochemistry of Wetlands, Baton Rouge, LA, March.

8. Lee<sup>1</sup>, R. Y., C. D. Meile, and **S. B. Joye**. Primary Production and Respiration Rates of Microbial Mats in an Oceanic Mangrove Ecosystem. 9<sup>th</sup> International Symposium on Biogeochemistry of Wetlands, Baton Rouge, LA, March.

7. **\*Joye, S. B.** Benthic microbial mats: significant components of nutrient and carbon cycling in oceanic mangrove ecosystems. 9<sup>th</sup> International Symposium on the Biogeochemistry of Wetlands, Baton Rouge LA, March.

6. Weston<sup>1</sup>, N. B., and **S. B. Joye**. Seasonal patterns of coupling between hydrolytic/fermentative and terminal metabolic microbial communities in an estuarine sediment. ASLO Aquatic Sciences Meeting, Salt Lake City, UT, February.

5. Montoya, J. P., and **S. B. Joye**. Nitrogen fixation in deep waters of the Gulf of Mexico. ASLO Aquatic Sciences Meeting, Salt Lake City, UT, February.

4. Orcutt<sup>1</sup>, B. N., A. Boetius, V. Samarkin<sup>1</sup>, and **S. B. Joye**. Molecular biogeochemistry of sulfate reduction, methanogenesis and the anaerobic oxidation of methane at Gulf of Mexico methane seeps. ASLO Aquatic Sciences Meeting, Salt Lake City, UT, February.

3. Samarkin<sup>1</sup>, V., S. A. Carini<sup>1</sup>, and **S. B. Joye**. Sulfate Reduction, Methanogenesis And Methane Oxidation In Hot Creek Sediments, Long Valley Caldera, S-E California, USA. ASLO Aquatic Sciences Meeting, Salt Lake City, UT, February.

2. **\*Joye, S. B.**, R. Y. Lee<sup>1</sup>, W. P. Porubsky<sup>1</sup>, and N. B. Weston<sup>1</sup>. Environmental Controls On Denitrification In Temperate And Tropical Shallow Sediments. ASLO Aquatic Sciences Meeting, Salt Lake City, UT, February.

1. Kalanetra<sup>2</sup>, K., K. Hagen, **S. B. Joye**, and D. C. Nelson. Evolutionary relationships of two types of novel, vacuolate, sulfur bacteria from cold seeps and hydrothermal vents. ASLO Aquatic Sciences Meeting, Salt Lake City, UT, February.

**2004** 6. Orcutt<sup>1</sup>, B. N., T. Treude, V. Samarkin, A. Boetius, and **S. B. Joye**. Carbon and sulfur cycling in gas hydrate-bearing sediments of the Gulf of Mexico. 10<sup>th</sup> International Symposium on Microbial Ecology, Cancun, Mexico, August.

5. **\*Joye, S. B.** Activity, environmental biogeochemical signatures, and microbiology of the anaerobic oxidation of methane in extreme environments. Gordon Research Conference on the Molecular Basis of Microbial One Carbon Metabolism, Mt. Holyoke College, South Hadley, MA, August.

4. Niemann, H., B. N. Orcutt<sup>1</sup>, I. Suck, J. Gutt, E. Damm, **S. B. Joye**, A. Judd, M. Hovland, G. Wendt, and A. Boetius. Methane Seeps in the North Sea:

Tommeliten revisited. European Geosciences Union, General Assembly, Nice, France, April..

3. \***Joye, S. B.**, B. N. Orcutt<sup>1</sup>, V. Samarkin<sup>1</sup>, A. Boetius, I. MacDonald, J. Montoya and P. Sobczyk. Methane cycling in sediments, brine pools and mud volcanoes along the northern Gulf of Mexico continental slope. European Geosciences Union, General Assembly, Nice, France, April.

2. Schulz<sup>2</sup>, H. N., **S. B. Joye**, and D. C. Nelson. Denitrification and N<sub>2</sub>O production by small nitrate storing, sulphide oxidizing *Beggiatoa* spp., German Society of Microbiology Annual Meeting, Berlin, Germany, March.

1. Orcutt<sup>1</sup>, B. N., A. Boetius, I. MacDonald, V. Samarkin<sup>1</sup>, and S. B. Joye. Life in methane ice. Astrobiology Graduate Student Conference, Tucson, AZ, January.

**2003** 22. **Joye, S. B.** and R. Y. Lee<sup>1</sup>. Carbon and nitrogen cycling in mangrove microbial mats. Smithsonian Institution "Symposium on Tropical Biodiversity", Ft. Pierce, FL, December.

21. Porubsky<sup>1</sup>, W.P., N.B. Weston<sup>1</sup>, R.Y. Lee<sup>1</sup>, and **S. B. Joye**. Diel and seasonal patterns of benthic fluxes of nutrients, gases, and dissolved organics from temperate intertidal sediments of Georgia and South Carolina. Long Term Ecological Research All Scientists Meeting, Seattle, WA, September.

20. Weston<sup>1</sup>, N. B., W. P. Porubsky<sup>1</sup>, **S. B. Joye**, V. Samarkin<sup>1</sup>, and M. Erickson<sup>1</sup>. Pore water Stoichiometry of Terminal Metabolic Products, Sulfate, and Dissolved Organic Carbon and Nitrogen in Estuarine Sediments. Long Term Ecological Research All Scientists, Seattle, WA, September.

19. Porubsky<sup>1</sup>, W.P., N.B. Weston<sup>1</sup>, and **S.B. Joye**. Examination of denitrification and dissimilatory nitrate reduction to ammonium as pathways for the reduction of inorganic nitrogen in saltmarsh sediment. 17th Biennial Conference of the Estuarine Research Federation, Seattle, WA, September.

18. \***Joye, S. B.**, Microbial mats and sediment biogeochemistry in mangrove ecotones. Tropical Marine Ecology Course, Smithsonian Tropical Research Institute, Bocas del Toro, Panama, July.

17. \***Joye, S. B.**, Benthic primary production and nutrient dynamics in intertidal sediments. Workshop on Tidal Flat Biogeochemistry, Hanse Institute of Advanced Study, Delmenhorst, Germany, May.

16. \***Joye, S. B.**, Microbes fueled by gas and oil: the microbial biogeochemistry of deep ocean cold seeps. Max Planck Institute for Marine Microbiology, Bremen, Germany, May.

15. \***Joye, S. B.**, Linking structure and function in microbial communities: the anaerobic oxidation of methane in extreme environments. Hanse Institute for Advanced Study, Delmenhorst, Germany, April.

14. \***Joye, S. B.**, Carbon and sulfur cycling at deep ocean cold seeps. Department of Earth System Sciences, University of Southern Denmark, Odense, Denmark, April.
13. Carini<sup>1</sup>, S. A., and \***S. B. Joye**. Seasonal variations in aerobic methane oxidation rates in Mono Lake (CA, USA) as a function of geochemical variables and methanotroph community composition. AGU-EGU-IGU Joint Assembly, Nice, France, April. [[talk presented by S. B. Joye](#)]
12. **Joye, S. B.**, S. A. Carini<sup>1</sup>, V. Samarkin<sup>1</sup>, R. Jellison, and J. T. Hollibaugh. Seasonal decoupling of sulfate reduction and the anaerobic oxidation of methane in Mono Lake, California. AGU-EGU-IGU Joint Assembly, Nice, France, April.
11. Orcutt<sup>1</sup>, B. N., V. Samarkin<sup>1</sup>, M. Erickson<sup>1</sup>, R. Amann, A. Boetius, and **S. B. Joye**. Molecular biogeochemistry of sediments near gas hydrates in the Gulf of Mexico. AGU-EGU-IGU Joint Assembly, Nice, France, April.
10. Orcutt<sup>1</sup>, B. N., I. R. MacDonald, V. Samarkin<sup>1</sup>, R. Amann, A. Boetius, and **S. B. Joye**. Patterns of the anaerobic oxidation of methane in Gulf of Mexico gas hydrates. AGU-EGU-IGU Joint Assembly, Nice, France, April.
9. \***Joye, S. B.**, N. B. Weston<sup>1</sup>, W. S. Moore, and W. P. Porubsky<sup>1</sup>. Groundwater as a source of nutrients and organic materials to freshwater and marine ecosystems. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.
8. Scholten<sup>2</sup>, J. C. M., **S. B. Joye**, J. T. Hollibaugh, A. J. M. Stams and C. J. Murrell. Anaerobic degradation of glycine-betaine in Mono Lake, a moderately, hypersaline, alkaline environment. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.
7. Lee<sup>1</sup>, R. Y., and **S. B. Joye**. The importance of microbial mats in the C and N cycle of mangrove ecosystems. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.
6. Kalanetra<sup>2</sup>, K., **S. B. Joye** and D. C. Nelson. Phylogeny of giant, vacuolated sulfur bacteria found at gas seeps in the Gulf of Mexico. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.
5. Carini<sup>1</sup>, S. A. and **S. B. Joye**. Patterns of aerobic methane oxidation and methanotroph community composition during development of thermal stratification in Mono Lake, California. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.
4. Weston<sup>1</sup>, N. B., and **S. B. Joye**. Shallow marsh groundwater biogeochemistry and organic matter lability. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.
3. **Joye, S. B.**, S. Carini<sup>1</sup>, V. Samarkin<sup>1</sup>, J. T. Hollibaugh, and R. Jellison. Spatial and seasonal patterns of the anaerobic oxidation of methane in Mono Lake, California. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.

2. MacDonald, I. R., P. Sobecky, J. Montoya, and **S. B. Joye**. Research issues in the Hydrocarbon Seep System in the northern Gulf of Mexico. ASLO Aquatic Sciences meeting, Salt Lake City, UT, February.
1. Porubsky<sup>1</sup>, W.P., N.B. Weston<sup>1</sup>, R.Y. Lee<sup>1</sup>, and **S.B. Joye**. Diel and seasonal patterns of benthic fluxes of nutrients, gases, and dissolved organics from temperate intertidal sediments of Georgia and South Carolina. SouthEast Coastal Ocean Science (SECOS) Workshop, Charleston, SC, January.
- 2002** 5. Hollibaugh, J.T., **S. B. Joye**, R. Jellison and J. P. Zehr. Biogeochemistry and microbial ecology of an alkaline, hypersaline, meromictic lake: Mono Lake, CA. NSF Principal Investigator's Workshop for MObs and LExEn, Arlington, VA, September.
4. **Joye, S. B.**, I. R. MacDonald, J. P. Montoya, and P. A. Sobecky. LExEn: Molecular microbial ecology and biogeochemistry of methane hydrates and brine pools: Distribution and activity of microorganisms in two extreme deep sea environments. NSF Principal Investigator's Workshop for MObs and LExEn, Arlington, VA, September.
3. Porubsky<sup>1</sup>, W. P., N. B. Weston<sup>1</sup>, and **S. B. Joye**. Redox control of benthic fluxes of nutrients and dissolved organics from coastal sediments. ASLO summer meeting, Victoria, British Columbia, June.
2. Weston<sup>1</sup>, N. B., W. P. Porubsky<sup>1</sup>, and **S. B. Joye**. Seasonal patterns of porewater nutrients, dissolved organics, redox species and gases in estuarine sediments. ASLO summer meeting, Victoria, British Columbia, June.
1. **Joye, S. B.**, A. Boetius, B. Orcutt<sup>1</sup>, S. Lugo<sup>1</sup>, and J. P. Montoya. Biogeochemical cycling of methane and sulfur in methane-hydrate rich sediments along the Continental Slope, Gulf of Mexico. AGU/ASLO Ocean Sciences meeting, Honolulu, HI, February.
- 2001** 10. Lee<sup>1</sup>, R. Y., M. Fogel, M. Wooller, and **S. B. Joye**. Nitrogen, carbon, and oxygen cycling in temperate and tropical intertidal sediments. Estuarine Research Federation, Biannual Meeting, St. Petersburg, FL, November.
9. **Joye, S. B.**, W. P. Porubsky<sup>1</sup>, N. B. Weston<sup>1</sup>, and S. E. MacAvoy<sup>1</sup>. Groundwater inputs and sediment biogeochemical processes in Georgia and South Carolina coastal ecosystems. Estuarine Research Federation, Biannual Meeting, St. Petersburg, FL, November.
8. MacDonald, I. R., P. Sobecky, J. Montoya and **S. B. Joye**. Deposits of gas hydrate on the Gulf of Mexico slope: A natural laboratory for hydrate research. Second International Symposium on Deep-Sea Hydrothermal Vent Biology. Brest, France, October.
7. **\*Joye, S. B.** Molecular biogeochemistry: Linking the distribution of microbes to their biogeochemical function in the environment. International Symposium on Environmental Biogeochemistry, Warsaw, Poland, September.

6. **Joye, S. B.**, S. A. Carini<sup>1</sup>, B. Orcutt<sup>1</sup>, and J. T. Hollibaugh. Molecular ecology and biogeochemistry of methane cycling in an alkaline, hypersaline lake. International Symposium on Microbial Ecology, Amsterdam, the Netherlands, August.
  5. MacAvoy<sup>1</sup>, S. E., W. P. Porubsky<sup>1</sup>, N. B. Weston<sup>1</sup>, and **S. B. Joye**. Groundwater-derived nutrients and sediment processes in pristine and developed coastal areas in the southeast USA. American Geophysical Union, Spring Meeting, Boston, MA, May.
  4. **\*Joye, S. B.** Groundwater: an important, but poorly understood, source of bioavailable nitrogen and phosphorus to aquatic ecosystems. ASLO Aquatic Sciences Meeting, Albuquerque, NM, February.
  3. Steward, G. F., R. S. Jellison, **S. B. Joye**, J. T. Hollibaugh, J. P. Zehr. Detection of novel and diverse nitrogenase genes suggests potential for pelagic diazotrophy in alkaline, hypersaline mono lake. ASLO Aquatic Sciences Meeting, Albuquerque, NM, February.
  2. Jiang, S., G. Steward, R. Jellison, **S.B. Joye** and J.T. Hollibaugh. Abundance and diversity of viruses in an alkaline hypersaline lake - Mono Lake, California. ASLO Aquatic Sciences Meeting, Albuquerque, NM, February.
  1. **\*Joye, S. B.** Microbiology and biogeochemistry of methane cycling in an alkaline, hypersaline lake. University of Georgia, Department of Microbiology, Athens, GA, January.
- 2000**
10. Hunter, K., R. Lee<sup>1</sup>, B. Boyd, G. Schultz, **S. Joye** and C. Ruppel, 2000, Groundwater geochemistry at the island-estuary interface at perturbed and pristine sites on a Georgia Bight barrier island, Southeastern Section, Geol. Soc. Amer. Annual Meeting, Athens GA, December.
  9. **\*Joye, S. B.** Methane cycling in extreme environments - clues to the past and prospects for the future. Carnegie Institution of Washington, Washington DC, December.
  8. **Joye, S. B** and R. Y. Lee<sup>1</sup>. Salt-water intrusion into shallow coastal aquifers: impact on sediment nitrogen and phosphorus pools and potential for altering nutrient fluxes. ASLO summer meeting, Copenhagen, Denmark, June.
  7. Sun, M.-Y., W.-J. Cai, **S. B. Joye**, and J. T. Hollibaugh. Effects of different mixing regimes on degradation of algal lipids at the simulated sediment-water interface. ASLO summer meeting, Copenhagen, Denmark, June.
  6. Carini<sup>1</sup>, S. A., B. Orcutt<sup>1</sup>, and **S. B. Joye**. Response of estuarine microbial communities to ammonia and methane availability: Rates of processing and changes in microbial community composition. ASM Annual Meeting, Los Angeles, CA, May.
  5. **\*Joye, S. B.** Methane oxidation and the distribution of methanotrophic bacteria in estuarine sediments. ASM Annual Meeting, Los Angeles, CA, May.

4. **\*Joye, S. B.** Sediment N cycling and coastal ecosystem N budgets. Netherlands Institute of Ecology, Yerseke, the Netherlands, April.
  3. **\*Joye, S. B.** Accelerated N loss via coupled denitrification and high rates of benthic primary production: Impact on coastal ecosystem N budgets. Georgia Institute of Technology, Atlanta, GA, March.
  2. Sun, M.-Y., **S. B. Joye**, W. J. Cai, J. T. Hollibaugh, Y. Wang, B. Hi, **S. A. Carini**, G. R. LeClerc and P. Zhao. Biogeochemical processing of bloom-derived organic carbon and nitrogen as a function of sediment mixing regime: the effect of oxygen on degradation. Ocean Sciences Meeting, San Antonio, TX, January.
  1. **\*Joye, S. B.** Redox forcing of N and P dynamics in the coastal ocean. Department of Geochemistry, Utrecht University, Utrecht, the Netherlands, January.
- 1999**
12. **\*Joye, S. B.** Impact of benthic photosynthesis on nitrogen cycling in coastal environments. Department of Ecology and Evolution, Cornell University, Ithaca, NY, November.
  11. **\*Joye, S. B.** Nitrogen biogeochemistry in shallow coastal environments. Department of Earth Sciences, University of Tokyo, Tokyo, Japan, September.
  10. **\*Joye, S. B.**, S. An<sup>1</sup>, and D. Brock. Interaction of the carbon-nitrogen-oxygen cycles in estuarine sediments. Estuarine Research Federation, Annual Meeting, New Orleans, LA, September.
  9. An<sup>1</sup>, S. and **S. B. Joye**. Denitrification and benthic photosynthesis in a shallow estuary. Estuarine Research Federation, Annual Meeting, New Orleans, LA, September.
  8. Lee<sup>1</sup>, R. Y., S. Carini<sup>1</sup>, and **S. B. Joye**. Denitrification in estuarine sediments: environmental and physiological controls. Estuarine Research Federation, Annual Meeting, New Orleans, LA, September.
  7. **Joye, S. B.**, R. Wisniewski<sup>1</sup>, and S. An<sup>1</sup>. Interactions between the nitrogen, carbon and oxygen cycles in shallow coastal sediments. Fifth International Symposium on the Geochemistry of the Earth's Surface. Reykjavik, Iceland, August.
  6. **\*Joye, S. B.** Human impacts on coastal ecosystems. Marine Biological Laboratory, Woods Hole, MA, July.
  5. **\*Joye, S. B.** The role of salt marshes as buffers to nitrogen loading in coastal environments. Marine Biological Laboratory, Woods Hole, MA, July.
  4. **Joye, S. B.** Oxidation of ammonia and methane in the subtidal sediments of Galveston Bay, Texas. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.
  3. <sup>1</sup>Escorcia, S. P., I. MacDonald, and **S. B. Joye**. Inter-annual variation of sulfide fluxes in chemosynthetic communities in the Gulf of Mexico. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.

2. Fisher, C., I. MacDonald, S. Hourdez, E. McMullin, S. Macko, R. Sassen, and **S. B. Joye**. *Hesiocaeca methanicola*, a clathrate dwelling polychaete. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.
1. MacDonald, I., W. Sager, N. Guinasso, **S. B. Joye**, and R. Sassen. Distinct Seafloor Environments Caused by Rapid gas flux on the Gulf of Mexico Slope. ASLO Aquatic Sciences Meeting, Santa Fe, NM, February.
- 1997** 8. MacDonald, I., C. Fisher, **S. B. Joye**, et al. The lair of the "Ice Worm": A clathrate-dwelling polychaete from the Northern Gulf of Mexico. Amer. Geophys. Union meeting, San Francisco, CA, December.
7. **\*Joye, S. B.** Nitrogen cycling in a sub-tropical estuary, Galveston Bay, Texas. Marine Biological Laboratory, Woods Hole, MA, October.
6. **\*Joye, S. B.**, S. An<sup>1</sup>, R. Downer<sup>1</sup>, and L. Cifuentes. An improved method for measuring denitrification using the N<sub>2</sub>:Ar ratio and the d<sup>15</sup>N of N<sub>2</sub>: Application to Galveston Bay, TX. Estuarine Research Federation, Annual Meeting, Providence, RI, October.
5. **\*Joye, S. B.** Nitrous oxide production and flux along an estuarine eutrophication gradient. Marine Biological Laboratory, Woods Hole, MA, June.
4. **\*Joye, S. B.** Nitrogen cycling along an estuarine salinity gradient: the sulfur connection. Amer. Soc. Limnol. Oceanogr. Meeting, Santa Fe, NM, February.
3. **\*Joye, S. B.** Oxidation of methane and ammonia in an alkaline saline lake. Amer. Soc. Limnol. Oceanogr. Meeting, Santa Fe, NM, February.
2. An<sup>1</sup>, S. and **S. B. Joye**. An improved gas chromatographic method for estimating *in situ* denitrification rates in sediments. Amer. Soc. Limnol. Oceanogr. Meeting, Santa Fe, NM, February.
1. Downer<sup>1</sup>, R., **S. B. Joye**, P. Eldridge, and L. A. Cifuentes. Estimating denitrification rates with natural abundance stable nitrogen isotope measurements in N<sub>2</sub> gas. Amer. Soc. Limnol. Oceanogr. Meeting, Santa Fe, NM, February.
- 1996** 3. **Joye, S. B.** and J. T. Hollibaugh. Environmental controls on nitrification: the roles of anoxia and previous exposure to hydrogen sulfide. Amer. Soc. Limnol. Oceanogr. / Amer. Geophys. Union, Ocean Sciences Meeting, San Diego, CA, February.
2. **\*Joye, S. B.** Nitrification in aquatic sediments: Is there a pattern down the estuarine salinity gradient? University of Rhode Island, Narragansett, RI, October.
1. **\*Joye, S. B.** Nitrification in aquatic sediments: Is there a pattern along the estuarine salinity gradient? Institute of Ecosystem Studies, Millbrook, NY, October.



- 1995
7. **\*Joye, S. B.** Community metabolism in marine microbial mats: the role of trace metal reduction. Department of Oceanography, Humboldt State University, Arcata, CA, February.
  6. **\*Joye, S. B.** Controls on nitrogen cycling in laminated microbial ecosystems. Department of Biological Sciences, Long Beach State University, Long Beach, CA, March.
  5. **\*Joye, S. B.** Nitrification in aquatic ecosystems: Interaction with methane and hydrogen sulfide. Department of Biology, University of Nevada, Las Vegas, NV, April.
  4. **\*Joye, S. B.** Nutrient cycling in coastal ecosystems: response to variations in sediment geochemistry and implications for ecosystem metabolism. Department of Marine Sciences, University of Georgia, Athens, GA, May.
  3. **\*Joye, S. B.** Effect of reduced sulfur compounds on nitrification in the marine environment. NATO Advanced Research Workshop on Microbial Metabolism of Trace Gases, Il Ciocco, Italy, May.
  3. **\*Joye, S. B.** Nutrient cycling in coastal ecosystems: response to variations in sediment geochemistry and implications for ecosystem metabolism. Department of Oceanography, Texas A & M University, College Station, TX, May.
  2. Connell, T., L. G. Miller, **S. B. Joye**, R. S. Oremland, L. S. Jankhe, and B. B. Ward. Biological oxidation of methyl bromide in Mono Lake, California: potential roles for methanotrophic and nitrifying bacteria. Amer. Soc. Limnol. Oceanogr., Summer meeting, Reno, NV, June.
  1. **Joye, S. B.**, M. Mazzotta<sup>1</sup>, and J. T. Hollibaugh. Community metabolism in microbial mats: the role of iron and manganese reduction. Estuar. Res. Fed., Annual Meeting, Corpus Christi, TX, November.
- 1994
9. **Joye, S. B.** and J. T. Hollibaugh. Factors controlling nitrification in marine sediments. Amer. Soc. Limnol. Oceanogr./Amer. Geophys. Union, Ocean Sciences Meeting, San Diego, CA, February.
  8. Currin, C. A., **S. B. Joye**, D. L. Childers, and R. M. Chambers. The role of benthic microvegetated habitats in estuarine food webs and production dynamics. Conference on marine and shallow water science and management, Atlantic City, NJ, March.
  7. **\*Joye, S. B.** Environmental factors influencing nitrification in freshwater and estuarine sediments. Dept. of Biology, University of Southwestern Louisiana, Lafayette, LA, April.
  6. **\*Joye, S. B.** Nitrogen cycling in Tomales Bay, California: Rates, patterns and controls on N cycling processes. Department of Marine Science, University of California, Santa Cruz, CA, June.

5. Chambers, R. M. and **S. B. Joye**. A comparison of four methods used to assess nutrient fluxes in wetland environments. Soc. Wetland. Sci., Ann. Meeting, Portland, OR, June.
  4. \***Joye, S. B.** Interactions between the nitrogen and sulfur cycles in estuarine sediments. Department of Marine Sciences, University of Georgia, Athens, GA, August.
  3. \***Joye, S. B.**, J. T. Hollibaugh, S. V. Smith and R. M. Chambers. Balancing the carbon and oxygen budgets of a temperate estuarine sediment: Gross versus net metabolism. Amer. Geophys. Union, Winter Meeting, San Francisco, CA, December.
  2. Connell, T., L. G. Miller, R. S. Oremland, L. Jahnke, and **S. B. Joye**. Biological oxidation of methyl bromide in Mono Lake, California. Amer. Geophys. Union, Winter Meeting, San Francisco, CA, December.
  1. \***Joye, S. B.** Nitrogen biogeochemistry in a temperate estuarine embayment. Dissertations Initiative for the Advancement of Limnology and Oceanography, Bermuda Biological Laboratory, Ferry Reach, Bermuda, December.
- 1993**
4. \***Joye, S. B.** Biogeochemistry of nitrogen cycling in cyanobacteria-dominated microbial communities and microbial mats. Department of Marine Science, University of California, Santa Cruz, CA, March.
  3. **Joye, S. B.** and H. W. Paerl. Denitrification in microbial mats: Role in mediating sediment-water exchange of combined nitrogen. Amer. Soc. Limnol. Oceanogr. Summer Meeting, Edmonton, Alberta, Canada, June.
  2. \***Joye, S. B.** and R. M. Chambers. Sediment-water exchange of combined nitrogen, phosphorus and carbon in the intertidal zones of a west coast estuary. Estuar. Res. Fed. Ann. Meeting, Hilton Head, SC, November.
  1. \***Joye, S. B.**, R. M. Chambers, S. Vink, and J. T. Hollibaugh. Sediment metabolism and nitrogen cycling in Tomales Bay, California. Estuar. Res. Fed. Ann. Meeting, Hilton Head, SC, November.
- 1992**
2. **Joye, S. B.** Coupling between nitrification and denitrification in the subtidal sediments of a coastal embayment. Duke University Marine Laboratory, September.
  1. **Joye, S. B.**, S. V. Smith, J. T. Hollibaugh and H. W. Paerl. Estimating denitrification in estuarine sediments: A comparison of *in situ* and stoichiometric techniques. Amer. Geophys. Union, Winter Meeting, San Francisco, CA, December.
- 1991**
5. **Joye, S. B.** and H. W. Paerl. Rates and depth distribution of nitrogen fixation and denitrification in the subtidal sediments of Tomales Bay, California. Amer. Soc. Limnol. Oceanogr. Summer Meeting, Halifax, Nova Scotia, Canada, June.

4. **\*Joye, S. B.** Nitrogen fixation, denitrification, and nitrogen budgets in intertidal microbial mats. University of Maryland, Horn Point Environmental Laboratory, June.
3. **\*Joye, S. B.** and H. W. Paerl. Nitrogen fixation and denitrification in the intertidal and subtidal sediments of Tomales Bay, California. 10th International Symposium on Environmental Biogeochemistry, San Francisco, California, August.
2. **Joye, S. B.** and H. W. Paerl. Rapid changes in microbially-mediated nitrogen cycling in response to runoff events. Estuar. Res. Fed. Ann. Meeting, San Francisco, California, November.
1. **\*Joye, S. B.** Spatial and temporal patterns of nitrogen fixation and denitrification in the sediments of Tomales Bay, California. 10th Dissertations Symposium in Chemical Oceanography, Honolulu, HI, November.