

Richard N. Peterson

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Education

- May '04 – Jan. '09 Doctorate of Philosophy (Ph.D.)
Chemical Oceanography
Florida State University, Department of Oceanography
Research Advisor: Dr. William Burnett
- Aug. '01 – Apr. '04 Bachelors of Science (B.S.)
Chemistry, Magna cum Laude
Florida State University, Department of Chemistry
Minor: Mathematics

Professional Appointments

- Aug. '13 – present Assistant Professor
School of Coastal and Marine Systems Science
Coastal Carolina University
- Nov. '15 – present Associate Graduate Faculty
Texas A&M University at Corpus Christi
- Oct. '14 – present Adjunct Professor
University of Northern Colorado
- Jul. '09 – Aug. '13 Research Scholar
Center for Marine and Wetland Studies
Coastal Carolina University
- Jun. '04 – Jun. '09 Graduate Research Assistant
Department of Oceanography, Florida State University

Courses Taught

CMSS 617: Effective Scientific Communications: Preparing for Life as a Scientist
(Maymester 2016)
- First time course preparation for graduate students

CMSS 787: Sea Level Rise and Saline Intrusion into Coastal Habitats (Fall 2015)

- Distributed online graduate course

CMWS 699: Graduate Seminar III (Fall 2014)

CMSS 787: Linking Biology and Geomorphology in Coastal Wetlands (and Other Habitats) (Fall 2013)

- Distributed online graduate course

CMWS 642: Applications in Isotope Geochemistry (Fall 2012, Fall 2014)

- First time course preparation for graduate students

MSCI 416/516: Hydrogeology (Fall 2011, 2013, 2015)

- Joint undergraduate / graduate course

CMWS 687: Groundwater Hydrology in the Coastal Plain (Fall 2010)

- First time course preparation for graduate students

MSCI 488: Coastal Oceanography Literature Review (Spring 2010)

- Began a literature reading seminar for undergraduate students at CCU

MSCI 499: Directed Undergraduate Research courses

- o Philip Weber – Fall 2015
- o Morgan Smith – Fall 2015
- o Austin Waldorf – Spring 2015
- o Hailey Shingler – Fall 2014
- o Mary Salers – Fall 2013
- o Eric Haffey – Fall 2013
- o James Toth – Fall 2011
- o Josh Driscoll – Fall 2011
- o Jonathan Ledoux – Spring 2011

Academic Awards and Honors

2013	<i>Million Dollar Club Award</i> , Office of Research Services, Coastal Carolina University
2008	Invited to attend Dissertations Symposium on Chemical Oceanography (DISCO XXI) in Honolulu, Hawaii in October 2008
2007	Chosen as a Featured Student to be featured at www.fsu.edu
2006 – 2007	Named Outstanding Graduate Student in the Department of Oceanography
2005	Awarded a 3-year Graduate Research Fellowship through NOAA

Research Grants

Funded (CCU share: \$2,141,150; total funding: \$9,416,495):

- Lead PI – NSF, Chemical Oceanography, 2016-2018, Feb. 2016 – Jan. 2018
“Validation of a New Geochemical Approach to Constrain Deep Sea Porewater Residence Times and Advection Rates: Applications to Biogeochemical Cycling at Guaymas Basin” - \$68,817
- Co-PI – NSF, Catalyzing New International Collaborations, Feb. 2015 – Aug. 2015
“Collaborative Research: U.S.-Brazil Planning Visit: Facilitating Collaborative Research on the Southern Brazilian Continental Shelf: - \$12,685 (\$23,115 total).
- Co-PI – South Carolina Sea Grant Consortium, Feb. 2014 – Jul. 2016
“Hydrology and Pollutant Removal Performance in Detention Ponds Typical of the Lower Coastal Plain of South Carolina” \$53,638 (\$146,080 total)
- Lead-PI – Horry County, SC 2012-2016
“Water Level and Salinity Variability Drivers in Singleton Swash, Horry County, South Carolina. \$68,153
- Co-PI – NSF, LTER, Nov. 2012- Oct. 2018
“LTER: Georgia Coastal Ecosystems III” – M. Alber and S. Pennings, PDs, with 23 co-PIs. \$73,285 (\$5,880,000 total)
- Co-PI – Horry County, SC 2011-2017
“Long Bay Hypoxia Monitoring Consortium: Apache Pier” - \$344,273
- Co-PI – Myrtle Beach, SC 2011-2017
“Long Bay Hypoxia Monitoring Consortium: 2nd Avenue North Pier” - \$374,273
- Co-PI – North Myrtle Beach, SC 2011-2016
“Long Bay Hypoxia Monitoring Consortium: Cherry Grove Pier” - \$275,000
- Co-PI – NSF, Long-Term Ecological Research program
“Georgia Coastal Ecosystems LTER Supplement 2011” - \$23,490 (\$25,000 total)
- Co-PI – Horry County, SC, 2011 – 2012
“Water level and salinity variability drivers in Singleton Swash, Horry County, South Carolina” - \$12,579
- Co-PI – NSF, Long-Term Ecological Research program
“Georgia Coastal Ecosystems LTER Supplement 2010” - \$19,101 (\$23,991 total)
- Co-PI – NOAA National Estuarine Research Reserve System Science Collaborative FY 2010 Funding Opportunity, 2010 - 2013

“Determining the Role of Estuarine ‘Swashes’ on Water Quality Impairment Along the Grand Strand of South Carolina: Impacts of Land Use and Stormwater Runoff” – \$348,806 (\$872,732 total)

Co-PI – SC Office of Coastal Research Management, 2010 - 2011
“Water Quality Dynamics in Long Bay, SC” - \$46,660 (\$99,974 total)

Lead PI – NSF, Ocean Technology and Interdisciplinary Coordination, 2010 - 2013
“Collaborative Research: Development of a Submersible, Autonomous Rn-222 Survey System” - \$181,605 (\$878,007 total)

Co-PI – South Carolina Sea Grant Consortium, 2010 - 2012
“Submarine Groundwater Discharge to Long Bay, SC: Preliminary Assessment of Land Use Impact, Geological Controls, and Nutrient Loads” - \$152,220.

Lead-PI – ASLO-NABS Joint Meeting Emerging Issues Workshop, 2010
“Emerging Issues: Exploring the Formation of a Working Group to Examine the Subterranean Estuary” - \$5,000.

PI – NSF, Office of International Science and Education, 2009 - 2010
“Material Cycling Along the Egyptian Coastline: A Workshop to be Held at Alexandria, Egypt” - \$43,793.

Leading Investigator – NOAA Graduate Research Fellowship Program, 2005 - 2008
“Origin and Fate of Suspended Particulates in the Apalachicola River: Impact on Apalachicola Bay” - \$85,716.

Student Research Awards Credited to Peterson:

PI (Sarah Chappel, Co-PI) – M. K. Pentecost Ecology Fund, 2012-2013
“Geochemical Tracers in Linking Submarine Groundwater Discharge to Hypoxia in Long Bay, SC” - \$2,000

PI (Sarah Chappel, Co-PI) – University Research Council, 2012-2013
“Developing the Use of Geochemical Tracers in Linking Submarine Groundwater Discharge to Hypoxia Formation in Long Bay, SC” - \$1,000

PI (Patrick Hutchins, Co-PI) – NOAA NERRS Graduate Research Fellowship, 2011 - 2012
“The Bioavailability and Fate of Terrestrial Nutrients and Dissolved Organic Matter in the Coastal Setting” - \$28,572

PI (Patrick Hutchins, Co-PI) – M. K. Pentecost Ecology Fund, 2011 – 2012
“Effects of urbanization on groundwater chemistry and coastal microbial responses” - \$5,000

PI (Patrick Hutchins, Co-PI) – Slocum-Lunz Foundation, 2011-2012

“The Origin, Fate, and Bioavailability of Dissolved Organic Nitrogen in Coastal Waters” - \$1,200

Pending Proposals:

Co-PI – USEPA, EPA-R1-SNEP-2016, 2016-2018, Sept. 2016 – Sept. 2018

“An Integrated Observational and Modeling Approach to Estimation of the Groundwater Contribution to the Water and Nutrient Budgets in Coastal Environments: Case Studies from Narragansett Bay and Southern RI Coastal Lagoons” – \$164,890 (\$775,669 total)

Co-PI – NSF, Biological Oceanography, Aug. 2016 – Jul. 2019

“Collaborative Research: Impact of the Amazon River Plume on Nitrogen Availability and Planktonic Food Web Dynamics in the Western Tropical North Atlantic” - \$180,973 (\$653,853 total)

Co-PI – NOAA Coastal Hypoxia Research Program, Sept. 2016 – Aug. 2021

“CHRP 2016: Hypoxia Dynamics in a Eutrophying, Hypersaline Gulf of Mexico Estuary (Baffin Bay – Upper Laguna Madre): Integration with Watershed and Groundwater Loads Using Ecosystem Models to Develop Effective Mitigation Strategies - \$257,581 (\$1,844,815 total)

*Underline indicates student as Co-PI

Peer-Reviewed Publications

1. **Peterson, R.N.**, W.S. Moore, S. Chappel, R.F. Viso, Libes, S.M., and L.E. Peterson, 2016. New perspectives on coastal hypoxia: Natural drivers among a highly developed shoreline. *Marine Chemistry*, 179(1), 1-11.
2. Peterson, L.E., **Peterson, R.N.**, Smith, E., Defore, A., and Libes, S.M., 2016. Constructing water budgets for a coastal stormwater catchment to examine temporal dynamics between urban groundwater and surface runoff. In press with Elsevier textbook entitled *Emerging Issues in Groundwater*.
3. Weber, S.C., J.J. Battles, L. Peterson, B.J. Roberts, **R.N. Peterson**, D.J. Hollander, J.P. Chanton, S.B. Joye, and J.P. Montoya, 2016. Hercules 265 Rapid Response: Immediate Ecosystem Impacts of a Natural Gas Blowout Incident. In press with *Deep Sea Research I*.
4. Su, N., W.C. Burnett, H.L. MacIntyre, J.D. Liefer, **R.N. Peterson**, and R. Viso, 2014. Natural radon and radium isotopes for assessing groundwater discharge into Little Lagoon, Alabama: Implications for harmful algal blooms. *Estuaries and Coasts*, 37(4), 893-910.
5. Hutchins, P., Smith, E.K., Koepfler, E., Viso, R.F., and **Peterson, R.N.**, 2014. Metabolic responses of estuarine microbial communities to discharge of surface runoff and groundwater from contrasting landscapes. *Estuaries and Coasts*, 37 (3): 736-750.

6. **Peterson, R.N.**, J.C. Breier, L.R. Harmon, J. Brusa, and P.R. Hutchins, 2013. Development of a sparging chamber for field radon analysis. *Journal of Radioanalytical and Nuclear Chemistry*, 298 (2), 1347-1357.
7. **Peterson, R.N.**, R.F. Viso, I.R. MacDonald, and S.B. Joye, 2013. On the utility of radium isotopes as tracers of hydrocarbon discharge. *Marine Chemistry*, 156 (1), 98-107.
8. **Peterson, R.N.**, W.C. Burnett, S.P. Opsahl, I.R. Santos, S. Misra, and P.N. Froelich, 2013. Tracking suspended particle transport via radium isotopes (^{226}Ra and ^{228}Ra) through the Apalachicola-Chattahoochee-Flint River system. *Journal of Environmental Radioactivity*, 116, 65-75.
9. Burnett, W.C., **R.N. Peterson**, S. Chanyotha, G. Wattayakorn, and B. Ryan, 2013. Using high-resolution in-situ radon measurements to determine groundwater discharge at a remote location: Tonle Sap Lake, Cambodia. *Journal of Radioanalytical and Nuclear Chemistry*, 296(1), 97-103.
10. El-Gamal, A.A., **R.N. Peterson**, and W.C. Burnett, 2012. Detecting seasonal freshwater and nutrient loadings via groundwater inputs to Marina Lagoon, Egypt. *Estuaries and Coasts*, 35 (6), 1486-1499.
11. Sanger, D. M., E. M. Smith, G. Voulgaris, E. T. Koepfler, S. M. Libes, G. H. M. Riekerk, D. C. Bergquist, D. I. Greenfield, P. Ansley Wren, C. A. McCoy, R. F. Viso, **R. N. Peterson**, and J. D. Whitaker, 2012. Constrained enrichment contributes to hypoxia formation in Long Bay, South Carolina, an open water urbanized coastline. *Marine Ecology Progress Series*, 461, 15-30.
12. Povinec, P.P., W.C. Burnett, A. Beck, H. Bokuniewicz, M. Charette, M.E. Gonnea, M. Groening, T. Ishitobi, E. Kontar, L. Liong Wee Kwong D.E.P. Marie, W.S. Moore, J.A. Oberdorfer, **R. Peterson**, R. Ramessur, J. Rapaglia, T. Stieglitz, and Z. Top, 2012. Isotopic, geophysical and biogeochemical investigation of submarine groundwater discharge: IAEA-UNESCO intercomparison exercise at Mauritius Island. *Journal of Environmental Radioactivity*, 104 (1), 24-45.
13. Santos, I.R., W.C. Burnett, S. Misra, I.G.N.A. Suryaputra, J. Chanton, T. Dittmar, **R.N. Peterson**, and P.W. Swarzenski, 2011. Uranium and barium cycling in a salt wedge subterranean estuary: The influence of tidal pumping. *Chemical Geology*, 287 (1-2), 114-123.
14. McCoy, C.A., R.F. Viso, **R.N. Peterson**, S. Libes, B. Lewis, J.G. Ledoux, G. Voulgaris, E. Smith, and D. Sanger, 2011. Radon as an indicator of limited cross-shelf mixing and submarine groundwater discharge in a coastal embayment along the South Atlantic Bight. *Continental Shelf Research*, 31 (12), 1306-1317.
15. Santos, I.R., C. Lechuga-Deveze, **R.N. Peterson**, and W.C. Burnett, 2011. Tracing submarine hydrothermal inputs into a coastal bay in Baja California, Mexico. *Chemical Geology*, 282 (1-2), 1-10.
16. Santos, I.R., **R.N. Peterson**, and W.C. Burnett, 2010. Significant lateral inputs of fresh groundwater into a stratified tropical estuary: Evidence from radon and radium isotopes. *Marine Chemistry*, 121 (1), 37-48.
17. Burnett, W.C., **R.N. Peterson**, I.R. Santos, and R.W. Hicks, 2010. Use of automated radon measurements for rapid assessment of groundwater flow into Florida streams. *Journal of Hydrology*, 380 (3-4), 298-304.

18. **Peterson, R.N.**, I.R. Santos, and W.C. Burnett, 2010. Evaluating groundwater discharge to tidal rivers based on a Rn-222 time-series approach. *Estuarine, Coastal and Shelf Science*, 86 (2), 165-178.
19. **Peterson, R.N.**, W.C. Burnett, C.R. Glenn, and A.G. Johnson, 2009. Quantification of point-source groundwater discharges to the ocean from the shoreline of the Big Island, Hawaii. *Limnology and Oceanography*, 54 (3), 890-904.
20. **Peterson, R.N.**, W.C. Burnett, N. Dimova, and I.R. Santos, 2009. Comparing measurement methods for radium-226 on manganese-fiber. *Limnology & Oceanography: Methods*, 7 (2), 196-205.
21. Santos, I.R., N. Dimova, **R.N. Peterson**, B. Mwashote, J. Chanton, and W.C. Burnett, 2009. Extended time series measurements of submarine groundwater discharge tracers (^{222}Rn and CH_4) at a coastal site in Florida. *Marine Chemistry*, 113 (1-2), 137-147.
22. **Peterson, R.N.**, W.C. Burnett, I.R. Santos, M. Taniguchi, T. Ishitobi, and J. Chen, 2009. Bohai Sea coastal transport rates and their influence on coastline nutrient inputs. In, Taniguchi, M., W.C. Burnett, Y. Fukushima, M. Haigh, and Y. Umezawa (eds.) *From Headwaters to the Ocean*, Taylor & Francis, London, 659-664.
23. W.C. Burnett, **R. Peterson**, M. Taniguchi, G. Wattayakorn, S. Chanyotha, and F. Siringan, 2009. Importance of groundwater discharge in developing urban centers of Southeast Asia. In, Taniguchi, M., W.C. Burnett, Y. Fukushima, M. Haigh, and Y. Umezawa (eds.) *From Headwaters to the Ocean*, Taylor & Francis, London, 289-294.
24. Santos, I.R., W.C. Burnett, J. Chanton, N. Dimova, and **R.N. Peterson**, 2009. Land or ocean? Assessing the driving forces of submarine groundwater discharge. *Journal of Geophysical Research*, 114, C04012.
25. Waska, H., S. Kim, G. Kim, **R. Peterson**, and W.C. Burnett, 2008. An efficient and simple method for measuring ^{226}Ra , together with ^{223}Ra and ^{224}Ra , using a delayed coincidence counter (RaDeCC). *Journal of Environmental Radioactivity*, 99 (12), 1859-1862.
26. **Peterson, R.N.**, W.C. Burnett, M. Taniguchi, J. Chen, I.R. Santos, and S. Misra, 2008. Determination of transport rates in the Yellow River – Bohai Sea mixing zone via natural geochemical tracers. *Continental Shelf Research*, 28 (19), 2700-2707.
27. Povinec, P.P., H. Bokuniewicz, W.C. Burnett, J. Cable, M. Charette, J.-F. Comanducci, E.A. Kontar, W.S. Moore, J.A. Oberdorfer, J. de Oliveira, **R. Peterson**, T. Stieglitz, and M. Taniguchi, 2008. Isotope tracing of submarine groundwater discharge offshore Ubatuba, Brazil: Results of the IAEA-UNESCO SGD project. *Journal of Environmental Radioactivity*, 99, 1596-1610, doi:10.1016/j.jenvrad.2008.06.010.
28. **Peterson, R.N.**, W.C. Burnett, M. Taniguchi, J. Chen, I.R. Santos, and T. Ishitobi, 2008. Radon and radium isotope assessment of submarine groundwater discharge in the Yellow River delta, China. *Journal of Geophysical Research*, 113, C09021, doi:10.1029/2008JC004776.

29. Johnson, A.G., C.R. Glenn, W.C. Burnett, **R.N. Peterson**, and P.G. Lucey, 2008. Aerial infrared mapping of nutrient-rich groundwater plumes in Hawaiian coastal waters. *Geophysical Research Letters*, 35, L15606, doi: 10.1029/2008GL034574.
30. Taniguchi, M., T. Ishitobi, J. Chen, S. Onodera, K. Miyaoka, W.C. Burnett, **R. Peterson**, G. Liu, and Y. Fukushima, 2008. Submarine groundwater discharge from the Yellow River Delta to the Bohai Sea, China. *Journal of Geophysical Research*, 113, C06025, doi:10.1029/2007JC004498.
31. Santos, I.R., L.F. Niencheski, W. Burnett, **R. Peterson**, J. Chanton, C.F.F. Andrade, I.B. Milani, A. Schmidt, and K. Knoeller, 2008. Tracing anthropogenically-driven groundwater discharge into a coastal lagoon from southern Brazil. *Journal of Hydrology*, 353 (3-4), 275-293.
32. Santos, I.R., M.I. Machado, L.F. Niencheski, W. Burnett, I.B. Milani, C.F.F. Andrade, **R. Peterson**, J. Chanton, and P. Baisch, 2008. Major ion chemistry in a freshwater coastal lagoon from Southern Brazil (Mangueira Lagoon): Influence of groundwater inputs. *Aquatic Geochemistry*, 14, 133-146, DOI: 110.1007/s10498-10008-19029-10490.
33. Burnett, W.C., **R. Peterson**, W.S. Moore, and J. de Oliveira, 2008. Radon and Radium Isotopes as Tracers of Submarine Groundwater Discharge - Results from the Ubatuba, Brazil SGD Assessment Intercomparison. *Estuarine, Coastal and Shelf Science*, Special Issue 76, 501-511.
34. **Peterson, R.N.**, W.C. Burnett, C.R. Glenn, and A.J. Johnson, 2007. A box model to quantify groundwater discharge along the Kona coast of Hawaii using natural tracers. In: Sanford, W., C. Langevin, M. Polemio, and P. Povinec (eds.), *A New Focus on Groundwater-Seawater Interactions*. IAHS Publication 312, Oxfordshire, UK., 142-149.
35. Burnett, W.C., H. Dulaiova, C. Stringer, and **R. Peterson**, 2006. Submarine groundwater discharge: its measurement and influence on the coastal zone. *Journal of Coastal Research*, Special Issue 39, p. 35-38.
36. Swarzenski, P.W., W.C. Burnett, W.J. Greenwood, B. Herut, **R. Peterson**, N. Dimova, Y. Shalem, Y. Yechieli, and Y. Weinstein, 2006. Combined time-series resistivity and geochemical tracer techniques to examine submarine groundwater discharge at Dor Beach, Israel. *Geophysical Research Letters*, 33, L24405, doi:10.1029/2006GL028282.
37. Dulaiova, H., **R. Peterson**, W.C. Burnett, and D. Lane-Smith, 2005. A multi-detector continuous monitor for assessment of ^{222}Rn in the coastal ocean. *Journal of Radioanalytical and Nuclear Chemistry*, 263 (2), 361-365.

*Underline indicates student author.

Other Publications

1. **Peterson, R.N.**, C.R. Glenn, H. Dulaiova, and T. Stieglitz, 2010. Emerging issues seminar: Exploring the formation of a working group to examine the subterranean estuary. *Limnology and Oceanography Bulletin*, 19 (3), 69-70.
2. **Peterson, R.N.**, and A. El-Gamal, 2010. Characterizing water, sediment, nutrients, and contamination fluxes in Coastal Egypt. *Eos*, 91 (11), 16 March 2010.

3. Burnett, W.C., **R. Peterson**, I. Santos, M. Taniguchi, and T. Ishitobi, 2007. Determination of submarine groundwater discharge (SGD) via natural radionuclides in a region near the mouth of the Yellow River. In: Proceedings of 3rd International Workshop on Yellow River Studies. Research Institute for Humanity and Nature. Kyoto, Japan, p. 44-47.
4. **Peterson, R.N.**, W.C. Burnett, I.R. Santos, S. Misra, and M. Taniguchi, 2007. Analysis of Yellow River mixing processes into the sea via barium and radium isotopes. In: Proceedings of 3rd International Workshop on Yellow River Studies. Research Institute for Humanity and Nature. Kyoto, Japan, p. 40-43.
5. Santos, I.R., L.F. Niencheski, **R. Peterson**, W. Burnett, J. Chanton, C. Andrade, and I. Milani, 2007. Groundwater discharge into a coastal lagoon in southern Brazil: Evidence from geochemical tracers. XII Congresso Latino-Americano de Ciencias do Mar – XII COLACMAR.
6. Andrade, C., L.F. Niencheski, I.R. Santos, **R. Peterson**, W. Burnett, J. Chanton, and I. Milani, 2007. Influência de aportes subterrâneos nas concentrações de nutrientes dissolvidos na Lagoa Mangueira (RS- Brasil). XII Congresso Latino-Americano de Ciencias do Mar – XII COLACMAR.
7. **Peterson, R.**, and W.C. Burnett, 2004. Exchange in the Yellow River / Estuary / Bo-Hai Sea System via Radium Isotopes (abs.). Research Institute for Humanity & Nature (RIHN) Proc. International Workshop on the Yellow River Project, Kyoto, Japan.
8. Swarzenski, P., B. Burnett, C. Reich, H. Dulaiova, **R. Peterson**, and J. Meunier, 2004. Novel geophysical and geochemical techniques used to study submarine groundwater discharge in Biscayne Bay, Florida. USGS Fact Sheet 2004-3117.
9. **Peterson, R.**, 2003. Lake Sevan Sediments. Published in Armenia (Russian) as an informative publication about Lake Sevan.

Research Cruises

Gulf of Mexico Cold Seeps

April 2014

R/V Atlantis, Chief Scientist: Samantha Joye (UGA), 23 days

- Collected preliminary data toward developing Ra and Rn as tracers of cold seep discharge

Antarctic Groundwater

Jan. – Mar., 2014

R/V Laurence M. Gould, Chief Scientist: D. Reide Corbett (ECU), 24 days

- Transit to/from Palmer Station, Antarctica
- Collected Ra and Rn data as tracers of cross-shelf mixing of groundwater derived from the Antarctic continent

Gulf of Mexico Hydrocarbon Seeps

July 2013

R/V Endeavor, Chief Scientist: Joe Montoya (Georgia Tech), 20 days

- Collected preliminary data toward developing Ra and Rn as tracers of cold seep discharge

Antarctic Groundwater **December 2012**

- R/V Laurence M. Gould*, Chief Scientist: D. Reide Corbett (ECU), 14 days
- Collected Ra and Rn data as tracers of cross-shelf mixing of groundwater derived from the Antarctic continent

Gulf of Mexico Cold Seeps **November 2010**

- R/V Atlantis*, Chief Scientist: Samantha Joye (UGA), 26 days
- Collected preliminary data toward developing Ra and Rn as tracers of cold seep discharge

Synergistic Activities

2014, 2015	Technical Advisory Panelist, Consortium for Ocean Leadership National Ocean Sciences Board, Chemical Oceanography
2015	Panelist – NSF Chemical Oceanography Program
2015 – present	Affiliated Researcher – ECOGIG (Ecosystem Impacts of Oil & Gas Inputs to the Gulf) Consortium through the Gulf of Mexico Research Initiative
2014 – present	Editor, <i>Isotopes in Environmental & Health Studies</i>
2011	Panelist – Gulf of Mexico Research Initiative ‘Environmental Effects’ panel
2011 – present	Affiliated Investigator – Georgia Coastal Ecosystems Long Term Ecological Research (GCE-LTER) project
2010	Co-Organizer for Special Session and Interactive Session at ASLO-NABS summer meeting in Santa Fe, NM in June 2010.
2010	Co-Organizer for an Emerging Issues workshop in conjunction with ASLO-NABS 2010 summer meeting
2009	Organized and led Workshop on Marine Constituent Dynamics in Coastal Egypt in Alexandria, Egypt in November 2009.
2008	Invited to attend Dissertations Symposium on Chemical Oceanography (DISCO XXI) in Honolulu, Hawaii in October 2008

Oral Scientific Presentations

Nov. 19, '15	Invited Seminar: “Assessing Groundwater-Surface Water Interactions in Coastal Settings” University of the West Indies, Kingston, Jamaica
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- Apr. 13, '15 “Stability of the Orca Basin Brine Interface Determined Using Radium Isotopes:
Tenth International Conference on Methods and Applications of Radioanalytical Chemistry
Kona, Hawaii
- July 21, '14 “Radium Isotopes as Tracers of Hydrocarbon Discharge and Transport Through the Water Column”
5th International Ra/Rn Workshop
Rio de Janiero, Brazil
- Dec. 17, '13 “Impact of Beachface Geomorphology on Salt Marsh Flushing in Singleton Swash, Myrtle Beach”
Southeast Tidal Creeks Summit
Wilmington, NC
- Nov. 7, '13 Invited Seminar: “New Perspectives on Coastal Hypoxia: Natural Drivers Along a Highly Developed Shoreline”
Skidaway Institute of Oceanography
- Mar. 6, '13 Invited Seminar: “Groundwater – Surface Water Exchange: From Shallows to the Deep”
University of North Carolina at Chapel Hill, Dept. of Marine Sciences
- June 4-7, '12 “Ongoing fluid discharge near the Macondo wellhead revealed by radium isotopes:
4th International Ra-Rn Workshop
Narragansett, RI
- June 6-10, '10 “Assessing the Impact of a Varying Endmember when Employing a Radon Time-Series Box Model for SGD Quantification”
2010 ASLO-NABS Summer Meeting
Santa Fe, NM
- Mar. 14-19, '10 “Groundwater Discharge to Tidal Rivers Revealed by Rn-222”
Radium and Radon Isotopes as Environmental Tracers: Ra-Rn3 Meeting
Jerusalem, Israel
- Feb. 24, '10 Invited Seminar: “Particle Tracing in the Apalachicola-Chattahoochee-Flint (ACF) River System Using Natural Radioisotopes”
University of North Carolina at Chapel Hill, Dept. of Marine Sciences

- Nov. 17-20, '09 “Submarine Groundwater Discharge into Marina Lagoon, Egypt: Preliminary Results and Nutrient Impact”
3rd International Conference on Aquatic Resources
Alexandria, Egypt
- Oct. 16, '09 Invited Seminar: “A Look at Submarine Groundwater Discharge from a Different Perspective”
University of South Carolina, Dept. of Earth and Ocean Sciences
- Nov. 17-18, '08 “Tracing Suspended Particles with Naturally-Occurring Radionuclides and Chemical Tracers in the Apalachicola-Chattahoochee-Flint River System”
Lake Seminole Workshop
Bainbridge, GA
- Oct. 27-31, '08 “Comparing Measurement Methods for ²²⁶Ra on Mn-fiber”
54th Radiobioassay & Radiochemical Measurement Conference
Sandestin, Florida
- Oct. 5-10, '08 Invited Presentation: “Point-Source Groundwater Discharges from Leeward Hawaii”
DISCO Symposium 2008
Honolulu, Hawaii
- Oct. 1-3, '08 “Bohai Sea Coastal Transport Rates and Their Influence on Coastline Nutrient Inputs”
HydroChange 2008
Kyoto, Japan
- Apr. 18, '08 Invited Presentation: “Applications of Naturally-Occurring Radionuclides in Coastal Oceanography”
Florida Chapter – Health Physics Society Spring Meeting
Gainesville, Florida
- Apr. 7-11, '08 “Just What IS the Best Method for Measuring ²²⁶Ra on Mn-Fibers?”
2008 Ra-Rn Workshop
Venice, Italy
- Nov. 14, '07 “Water Budget Effects on Estuaries and the Coastal Zone from the Recent Drought in Florida”
Florida Oceans and Coastal Council
Harbor Branch Oceanographic Institution

- July 2-3, '07 “A Box Model to Quantify Groundwater Discharge Along the Kona Coast of Hawaii Using Natural Tracers”
International Union of Geodesy and Geophysics (IUGG) XXIV
General Assembly – Earth, Our Changing Planet
Perugia, Italy
- June 25, '07 “A Box Model to Quantify Groundwater Discharge Along the Kona Coast of Hawaii Using Natural Tracers”
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts
- Feb. 13-15, '07 “Analysis of Yellow River Mixing Processes into the Bohai Sea via Barium and Radium Isotopes”
The 3rd International Workshop on Yellow River Studies
Kyoto, Japan
- Nov. 6-11, '04 “Exchange in the Yellow River / Estuary / Bohai Sea System via Radium Isotopes”
The 2nd International Workshop on Yellow River Studies
Kyoto, Japan

Miscellaneous

Students Supervised

Graduate Students:

- Austin Waldorf (2015 – present) – Direct Advisor
Brittney Hoffnagle (2013 – 2015) – Committee Member
Samantha Corley (formerly Maness) (2013 – 2015) – Direct Advisor
Bradley Craig (2012 – 2014) – Committee Member
Matthew Carter (2012 – 2015) – Committee Member
Leigha Peterson (2012 – present) – Direct Advisor
Sarah Chappel (2011 –2013) – Direct Advisor – Now an officer with the NOAA
Commissioned Officer Corps
Patrick Hutchins (2010 – 2012) – Direct Advisor

Undergraduate Students:

- Kelly Gregorck (2011 – 2013) – Now a M.S. student at Univ. of New Hampshire
Chris McHugh (2011 – 2012) – Now a M.S. student at Univ. of Southern Mississippi
Leigha Peterson (2011) – Now a M.S. student at CCU
David Young (2011) – Now a M.S. student at East Carolina University
Lindsay Harmon (2010 – 2011) – Now a Web Producer and Research Assistant with
Climate Central
John Ledoux (2010 – 2011) – Now a M.S. student at the University of Georgia

Reviewer Service

Scientific Journals:

Applied Geochemistry, Aquatic Geochemistry, Biogeosciences, Brazilian Journal of Oceanography, Chemical Geology, Chinese Journal of Oceanology and Limnology, Continental Shelf Research, Deep Sea Research, Earth and Planetary Science Letters, Ecological Engineering, Environmental Pollution, Estuaries and Coasts, Estuarine Coastal and Shelf Science, Geophysical Research Letters, Ground Water, Hydrogeology, Hydrologic Sciences, Hydrological Processes, Isotopes in Environmental & Health Studies, Journal of Coastal Research, Journal of Environmental Radioactivity, Journal of Hydrology, Journal of Marine Systems, Limnology and Oceanography, Limnology and Oceanography: Methods, Marine Chemistry, Marine and Coastal Fisheries, Marine Pollution Bulletin, Radiation Measurements, Science of the Total Environment, Water, Water Resources Research, Water Science and Technology, and WIRES Water

Grant-Funding Agencies:

Australian Environmental Trust, California Sea Grant, Georgia Sea Grant, German Research Foundation, Gulf Research Initiative (panelist), Hawaii Sea Grant, Hawaii Water Resources Research Center, Israel Science Foundation, National Science Foundation (panelist and reviewer for Chemical Oceanography; Polar Programs), Texas Sea Grant, Wisconsin Sea Grant