

## Jaye E. Cable

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### a. Professional Preparation

University of South Carolina	Marine Science	B.S.	1989
Florida State University	Chemical Oceanography	Ph.D.	1996
University of Florida	Paleolimnology	Post-doc	1996-1997

### b. Appointments

2011 – present	Professor, Department of Marine Sciences, UNC-Chapel Hill
2012 – present	Chair, Curriculum in Environment and Ecology, UNC-Chapel Hill
2011 – 2013	Adjunct Faculty, Department of Oceanography and Coastal Sciences, LSU
2008 – 2010	Director of Undergraduate Programs, School of the Coast and Environment, LSU
2008 summer	Visiting Scientist (sabbatical), University of Tromsø, Norway
1998 – 2010	Asst, Assoc, Full Professor, Dept of Oceanography and Coastal Sciences, LSU
1998 – 2007	Joint Appointment, Coastal Ecology Institute, LSU
2001 – present	Courtesy Faculty, Environmental Sciences Institute, Florida A&M University

### c. Relevant Publications (of >60 total)

(i) Five publications closely related to the proposed project (\*student authors)

- Kolker, A., **Cable, J.E.**, Johannesson, K., Allison, M., Inniss, L. 2013, Pathways and processes associated with the transport of groundwater in deltaic systems, *Journal of Hydrology* 498: 319-334
- \*Roy, M., Martin, J.B., **Cable, J.E.**, \*Smith, C.G. 2013. Variations of iron flux and organic carbon remineralization in a subterranean estuary caused by inter-annual variations in recharge, *Geochimica et Cosmochimica Acta* 103: 301-315
- \*Dorsett, A., Cherrier, J., Cable, J.E., Martin, J.B. 2011, Assessing hydrologic and biogeochemical controls on pore water dissolved inorganic carbon cycling in a subterranean estuary: a <sup>14</sup>C and <sup>13</sup>C mass balance approach, *Marine Chemistry*. doi 10.1016/j.marchem.2011.07.007
- Smith, C.G., Cable, J.E., Martin, J.B., Roy, M. 2008. Evaluating the source and seasonality of submarine groundwater discharge using a radon-222 porewater transport model, *Earth Planet. Sci. Lett.*, doi:10.1016/j.epsl.2008.06.043.
- Cable, J. and Martin, J., 2008, In situ evaluation of nearshore marine and fresh pore water transport in Flamengo Bay, Brazil, *Estuarine Coastal and Shelf Science* 76: 473-483.

(ii) Five other significant publications

- \*Roy, Moutusi, Martin, J.B., \*Smith, C.G., and Cable, J.E. 2011. Reactive transport modeling of iron diagenesis and associated organic carbon remineralization in a Florida (USA) subterranean estuary, *Earth and Planetary Science Letters* 304: 191-201.
- Johannesson, K.A., \*Chevis, D., Burdige, D.J., Cable, J.E., Martin, J.B., \*Roy, M. 2011. Submarine groundwater discharge is an important net source of Nd and REEs to coastal waters of the Indian River Lagoon, Florida (USA), *Geochimica et Cosmochimica Acta* 75: 825-843, doi:10.1016/j.gca.2010.11.005
- Roy, M., Martin, J.B., Cherrier, J., Cable, J.E., Smith, C.G. 2010. Influence of sea level rise on iron diagenesis in an east Florida subterranean estuary, *Geochim. Cosmochim. Acta*, 74: 5560-5573
- Cable, J., Smith, C., Blanford, W., 2009, Dispersivity and distribution coefficients in permeable marine sediments using <sup>3</sup>H and <sup>226</sup>Ra, *Radioprotection* 44(5): 185-190, doi: 10.1051/radiopro/20095038
- Cable, J., Martin, J., Taniguchi, M. 2006. A review of submarine ground water discharge: biogeochemical inputs and leaky coastlines, p. 22-41, In: *Submarine Groundwater*, (eds) I. Zekster, R. Dzhamalov, and L. Everett, CRC Press, ISBN: 0849335760, 512 pp.

#### **d. Synergistic Activities**

Global SGD Data Synthesis Workshop, invited member, Seoul, Korea, Fall 2013

Land-Ocean Connectivity - from a Hydrological to Ecological Understanding of Groundwater Effects in the Coastal Zone, invited participant, sponsor: Europole Mer, L'Aber Wrac'h, France Fall 2012

Member, IAPSO Commission on Ground Water – Seawater Interactions; UNESCO-sponsored participant in SGD Intercomparison Experiments (2003 to 2007)

Advisor/Mentor for underrepresented students in science; First Ph.D. student under my direction was a minority (Inniss, see pubs); Courtesy Faculty on dissertation committee at Florida A&M University; mentor for LSU undergraduate (minority) chemistry major; over 60% of graduate students have been women

Mentor/Advisor for high school and undergraduate students to perform independent research projects; high school student won awards at regional and state science fairs, including Woman Geoscientist Award; one undergraduate presented results of his research Geological Society of America sectional meeting

#### **e. Collaborators and Other Affiliations**

##### *(i) Collaborators*

Mead Allison (Tulane/Water Inst), Dave Burdige (ODU), Q. Jim Chen (LSU), Robert Chen (UMass-Boston), Jennifer Cherrier (Florida A&M), Bernie Gardner (UMass-Boston), Karen Johannesson (Tulane), Alex Kolker (LUMCON), Jonathan B. Martin (Univ. Florida), Christof Meile (UGA), Irv Mendelssohn (LSU), Thomas Stieglitz (James Cook University), Martha Sutula (Southern California Water Resources Project), Robert Twilley (LSU), John White (LSU)

##### *(ii) Graduate and Post-Doctoral Advisors*

Dr. William C. Burnett (Emeritus Professor, Florida State University-Oceanography, retired)

Dr. Claire L. Schelske (Emeritus Professor, University of Florida-Geological Sciences, retired)

##### *(iii) Thesis Advisor and Postgraduate-Scholar Sponsor (11 MS and PhD completed; 4 current advisees)*

Lorna V. Inniss (Ph.D., 2002), Fulbright Fellow, Director of Coastal Zone Management, Barbados

Katherine V. Wheelock, (MS, 2001), NOAA OR&R Chief of Staff, Washington, DC

Allen H. Reed (Ph.D., 2004), ONR Fellow, Marine Geologist, Naval Research Laboratory, Stennis, MS

Gregg A. Snedden (Ph.D., 2006), Ecohydrologist, USGS-Baton Rouge, Louisiana

Christopher G. Smith (Ph.D., 2008), Geologist, Mendenhall Fellow, USGS-St. Petersburg, Florida

Jill M. Arriola (PhD advisee, current), NSF GRFP fellow, Seagrant Fellow, carbon sequestration in marshes

Margaret Esch (PhD advisee, current), salt marsh hydrology

Kaylyn S. Gootman (PhD advisee, current), Duke Energy Fellow, hyporheic exchange/streambed clogging

Jihyuk Kim (MS advisee, current), paleochannels in deltas as conduits of groundwater