

**Ai Ning Loh**  
*Curriculum Vitae*

**Assistant Professor of Marine Science**

Florida Gulf Coast University  
College of Arts and Sciences  
Division of Ecological Studies  
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**Education**

- Ph.D. Marine Science; Geochemistry concentration; December 2002.  
School of Marine Science, College of William and Mary, Gloucester Point, VA.  
Dissertation Title: **Chemical, Isotopic and Microbial Characterization of Dissolved and Particulate Organic Matter in Estuarine, Coastal and Open Ocean Systems.**
- M.S. Marine Science; Geochemistry concentration; August 1998.  
School of Marine Science, College of William and Mary, Gloucester Point, VA.  
Thesis Title: **Distribution, Partitioning and Fluxes of Dissolved and Particulate Organic Carbon, Nitrogen and Phosphorus in the Eastern North Pacific and Southern Oceans.**
- B.S. *cum laude*; Chemistry major, Marine Science minor; May 1995.  
University of South Carolina, Columbia, SC.

**Professional Experience**

- 2004-present *Assistant Professor of Marine Science*, Division of Ecological Studies, College of Arts and Sciences, Florida Gulf Coast University, Fort Myers, FL.
- 2003-2004 *Visiting Assistant Professor of Marine Science*, Division of Ecological Studies, College of Arts and Sciences, Florida Gulf Coast University, Fort Myers, FL.
- 2000-2002 *Graduate Research Assistant*, School of Marine Science, College of William and Mary, Gloucester Point, VA.
- 1998-2000 *Graduate Fellow*, School of Marine Science, College of William and Mary, Gloucester Point, VA.
- 1995-1998 *Graduate Research Assistant*, School of Marine Science, College of William and Mary, Gloucester Point, VA.
- May 1995-Aug. 1995 *Summer Aide*, School of Marine Science, College of William and Mary, Gloucester Point, VA.
- 1993-1995 *Undergraduate Research Assistantship Program*, Marine Science Program, University of South Carolina, Columbia, SC.

- 1993-1995                    ***Pritchard's Island Research Program***, Marine Science Undergraduate Society, University of South Carolina, Columbia, SC.
- Nov. 1991-July 1992       ***Research Assistant***, Chemistry Department, Universiti Malaya, Kuala Lumpur, Malaysia.

### **Research Interests**

Isotope geochemistry of aquatic organic matter  
Cycling, fate and transport of nutrients in aquatic environments  
Aquatic (marine, estuarine and riverine) biogeochemistry

### **Grants and Contracts**

Research Programs at Florida Gulf Coast University Related to the Study of Coastal Watersheds in Southwest Florida. \$1,341,200 (**dates**). US Environmental Protection Agency. PI: S.G. Tolley; Co-PIs: A.K. Volety, M. Savarese, A.N. Loh and G.-h. Lee.

Florida Sea Grant. Elise B. Newell Seminar Grant. \$843 (March 2004). Seminar title: Benthic-Pelagic Coupling in Littoral Zone Systems: How Tight is the Coupling (Dr. Iris C. Anderson, SMS/VIMS, College of William and Mary.).

Characterization of Community Assemblages in Oyster-Reef Habitats of the Estero Estuary: Monitoring the Ecological Impact of Watershed Management. \$54,343 (November 2003 - October 2004). Charlotte Harbor National Estuary Program. PI: A.K. Volety; Co-PIs: M. Savarese, S.G. Tolley and A.N. Loh.

Environmental and Hydrologic History of Estero Bay: Implications for Watershed Management and Restoration. \$73,000 (June 2003 - May 2004). South Florida Water Management District. PIs: M. Savarese, A.N. Loh and J.H. Trefry.

### **Honors and Awards**

- 2001 William Rucker Greenwood Scholarship, Association for Women Geoscientists, Potomac Area Chapter.
- 2001 College of William and Mary Minor Research Grant. "Sources and reactivity of ultrafiltered dissolved organic matter and suspended particulate organic matter in the Chesapeake Bay determined by lipid biomarker analyses."
- 2001 School of Marine Science/Virginia Institute of Marine Science, College of William and Mary Student Research Grant. "Chemical characterization and sources of ultrafiltered dissolved organic matter in the Chesapeake Bay."
- 2001 Graduate Student Association, School of Marine Science/Virginia Institute of Marine Science, College of William and Mary Student Research Grant. "Chemical characterization and sources of ultrafiltered dissolved organic matter in the Chesapeake Bay."
- 2001 School of Marine Science/Virginia Institute of Marine Science, College of William and Mary Best Student Paper Award, M.S. Category.

- 2000 Graduate Assistantship, School of Marine Science, College of William and Mary, Gloucester Point, VA (2 years).
- 1998 Graduate Fellowship, School of Marine Science, College of William and Mary, Gloucester Point, VA (2 years).
- 1995 Graduate Assistantship, School of Marine Science, College of William and Mary, Gloucester Point, VA (3 years).
- 1996 School of Marine Science/Virginia Institute of Marine Science, College of William and Mary Minor Research Grant. "Distribution and transformation of dissolved and colloidal organic matter in the York River and Chesapeake Bay estuaries."

### **Publications**

**Loh, A.N.**, Bauer, J.E. 2000. Distribution, partitioning and fluxes of dissolved and particulate organic C, N and P in the eastern North Pacific and Southern Oceans. *Deep-Sea Research I* 47: 2287-2316.

### **Manuscripts submitted or in preparation**

**Loh, A.N.**, Bauer, J.E, Druffel, E.R.M. Variable aging and storage of dissolved organic components in the open ocean. *Submitted to Nature*.

**Loh, A.N.**, Bauer, J.E, Canuel, E.A. Chemical and isotopic characterization of estuarine dissolved organic matter.

**Loh, A.N.**, Canuel, E.A., Bauer, J.E. Lipid composition of dissolved and particulate organic matter in the North Central Pacific Ocean and the Sargasso Sea.

**Loh, A.N.**, Bauer, J.E. Elemental composition and ratios of dissolved and particulate organic matter in the Atlantic, Southern and Pacific Oceans.

**Loh, A.N.**, Bauer, J.E. Microbial degradation of dissolved organic matter in the South Atlantic Bight and the Chatham Rise.

**Loh, A.N.**, Bauer, J.E. Selective regeneration of P and N in the oceans.

### **Invited Talks**

**Loh, A.N.** 2002. Chemical, isotopic and microbial characterization of dissolved and particulate organic matter in estuarine, coastal and open ocean systems. Dissertations Symposium on Chemical Oceanography (DISCO) XVII, Honolulu, HI.

### **Published Abstracts and Presentations**

Rein, H., Savarese, M., **Loh, A.N.** 2004. The effect of late Holocene sea-level rise on the geomorphology of southern Estero Bay, Florida. Geological Society of America Joint Meeting, Tysons Corner, VA.

- Loh, A.N.**, Canuel, E.A., Bauer, J.E. 2003. Chemical and isotopic characterization of estuarine dissolved organic matter. Chemical Oceanography Gordon Research Conference, Tilton, NH.
- Loh, A.N.** 2002. Chemical, isotopic and microbial characterization of dissolved and particulate organic matter in estuarine, coastal and open ocean systems. Dissertations Symposium on Chemical Oceanography (DISCO) XVII, Honolulu, HI.
- Druffel, E.R.M., Bauer, J.E., Griffin, S., Bailey, E., **Loh, A.N.**, Hwang, J. 2002. Penetration of the bomb  $^{14}\text{C}$  signal into the central North Pacific Ocean and Sargasso Sea over the last decade. Ocean Sciences Meeting, Honolulu, HI.
- Loh, A.N.**, Bauer, J.E., Canuel, E.A. 2002. Chemical and isotopic characterization of dissolved and particulate organic compound classes in the North Pacific and Atlantic oceans. Ocean Sciences Meeting, Honolulu, HI.
- Loh, A.N.**, Canuel, E.A., Bauer, J.E. 2001. Sources of Chesapeake Bay organic matter determined by lipid biomarker analyses. Estuarine Research Federation Meeting, St. Pete Beach, FL.
- Loh, A.N.**, Canuel, E.A., Bauer, J.E. 2001. Sources of estuarine and open ocean particulate organic matter determined by lipid biomarker analyses. Chemical Oceanography Gordon Research Conference, Tilton, NH.
- Loh, A.N.**, Canuel, E.A., Bauer, J.E. 2001. Lipid biomarker compositions in Chesapeake Bay particulate organic matter. Goldschmidt Conference, Hot Springs, VA.
- Loh, A.N.**, Bauer, J.E., Wolgast, D.M. 1999. Fluxes and ratios of dissolved and particulate organic C, N and P in the eastern North Pacific and Southern Oceans. American Society of Limnology and Oceanography Aquatic Sciences Meeting, Santa Fe, NM.
- Loh, A.N.**, Bauer, J.E., Wolgast, D.M. 1998. Distribution and partitioning of dissolved, colloidal and particulate organic carbon, nitrogen and phosphorus in the Northeast Pacific and Southern Oceans. Ocean Sciences Meeting, San Diego, CA.
- Jestel, E.A., **Loh, A.N.**, Bauer, J.E. 1997. Distribution and fractionation of dissolved nitrogen and phosphorus in the York River estuary. Estuarine Research Foundation Meeting, Providence, RI.
- Loh, A.N.**, Bauer, J.E., Wolgast, D.M. 1997. Distribution and partitioning of dissolved, colloidal and particulate organic carbon, nitrogen and phosphorus in the Northeast Pacific and Southern Oceans. Chesapeake Region Association of Biogeochemists Meeting, Gloucester Point, VA.

### **Scholarly Services**

- 2003 Manuscript Reviewer, Limnology and Oceanography.
- 2002 Manuscript Reviewer, Deep-Sea Research I.
- 1999 Submitted questions for National Ocean Sciences Bowl.

### **Students Mentored**

- 2004 Berry, Gerald. FGCU Biology Senior Research Project.
- 2004 Diddle, Kamila. FGCU Environmental Studies Senior Research Project.
- 2003 Berry, Gerald. FGCU Biology Intern.
- 1997 Richardson, Cory. NSF Female Initiation into Research in Science and Technology (FIRST) Intern.
- 1997 Jestel, Alex. NSF Research Experience for Undergraduates (REU) Intern.

### **Courses Taught**

- Marine Chemistry (upper division undergraduate and graduate level)
- Marine Systems (general oceanography for non-majors)

### **Current and Past Collaborators**

- Dr. Ellen R.M. Druffel, University of California, Irvine, CA
- Dr. Julie Hall, National Institute of Water and Atmosphere, New Zealand
- Dr. Michael Savarese, Florida Gulf Coast University, Fort Myers, FL
- Dr. John Trefry, Florida Institute of Technology, Melbourne, FL

### **Field Experience**

- April 2003 Teaching cruise to West Florida Continental Shelf, 1 day (co-Chief Scientist).
  - June 2000 Oceanographic cruise to Sargasso Sea, 21 days.
  - January 2000 Oceanographic cruise to Chatham Rise, 21 days (as visiting scientist with NIWA, New Zealand)
  - June 1999 Oceanographic cruise to North Central Pacific Gyre, 21 days.
  - March 1999 Oceanographic cruise to South Atlantic Bight, 7 days.
  - August 1998 Oceanographic cruise to Northeast Pacific Ocean, 10 days.
  - June 1996 Oceanographic cruise to Northeast Pacific Ocean, 10 days.
  - December 1995 Oceanographic cruise to Southern Ocean, 21 days.
  - June 1995 Oceanographic cruise to Northeast Pacific Ocean, 10 days.
  - May 1992 Oceanographic cruise to South China Sea, 14 days.
- Various field experiences sampling in estuarine and riverine settings throughout my career.

### **Professional Services**

- 2003 College of Arts and Sciences Faculty Representative, Library Committee, Florida Gulf Coast University, FL.
- 2003 Faculty Member, Environmental Sciences Graduate Admissions Committee, Florida Gulf Coast University, FL.

- 1999 Executive Council Member, Student Assembly, College of William and Mary, Williamsburg, VA.
- 1998 Panel Member, Graduate Student Association Student Research Grants, School of Marine Science, College of William and Mary, Gloucester Point, VA.
- 1997 Panel Member, Graduate Student Association Student Research Grants, School of Marine Science, College of William and Mary, Gloucester Point, VA.
- 1996 Student Representative, Admissions Committee, School of Marine Science, College of William and Mary, Gloucester Point, VA.
- 1996 Student Representative, Search Committee for Associate Director of Development, School of Marine Science, College of William and Mary, Gloucester Point, VA.

### **Educational and Community Outreach**

- 2004 Edison Regional Science Fair Grand Jury Judge
- 2004 Edison Regional Science Fair Science Review Committee
- 2003 Edison Regional Science Fair "Ask the Expert" Session
- 2001 National Ocean Sciences Blue Crab Bowl Official
- 2000 Hampton Bay Days Volunteer
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- 1999 National Ocean Sciences Blue Crab Bowl Official
- 1998 Hampton Bay Days
- 1998 National Ocean Sciences Blue Crab Bowl Official
- 1997 Year of the Ocean Open House Presenter
- 1995 Estuaries Day Volunteer

### **Professional and Honor Societies**

- American Chemical Society
- American Geophysical Union
- American Society of Limnology and Oceanography