

JENNIFER CHERRIER

Environmental Sciences Institute
Florida A & M University
Tallahassee, FL 32307

ph. (850) 561-2134
fax (850) 561-2248
email: jennifer.cherrier@famuedu

EDUCATION

- 1997: Ph. D., Biological/Chemical Oceanography, Florida State University, Tallahassee, FL, under the direction of J.E. Bauer and J.P. Chanton. Dissertation: *Carbon Flow Through Bacterioplankton in Eastern North Pacific Surface Waters*
- 1992: M.S., Biological Oceanography, Florida State University, Tallahassee, FL, under the direction of W.C. Burnett and P. LaRock. Masters Thesis: *Uptake and Cellular Distribution Patterns of Polonium by a Phosphogypsum Bacterial Isolate*
- 1989: B.S., Biology/Environmental Science, Florida International University, Miami, FL
- 1986: A.A., Indian River Community College, Fort Pierce, FL

PROFESSIONAL EXPERIENCE

- 8/05 – present: Associate Professor, Florida A&M University, Tallahassee, FL
- 8/99 – 8/05: Assistant Professor, Florida A&M University, Tallahassee, FL
- 8/98 - 8/99: NSF Post-Doctoral Fellow, Postdoctoral Fellowship in Science, Mathematics, Engineering and Technology Education
- 8/97- 8/98: DOE Post-Doctoral Research Associate, Florida A&M University, Tallahassee, FL
- 8/97- 12/97: Adjunct Instructor, Florida A&M University, Tallahassee, FL
- 1/97- 8/97: Research Scientist, Florida State University, Tallahassee, FL
- 5/97- 7/97: Adjunct Instructor, Florida State University, Tallahassee, FL
- 1/97- 4/97: Adjunct Instructor, Tallahassee Community College, Tallahassee, FL
- 1/96- 4/96: Adjunct Instructor, Tallahassee Community College, Tallahassee, FL
- 8/95- 12/95: Adjunct Instructor, Tallahassee Community College, Tallahassee, FL

RESEARCH INTERESTS

Biogeochemistry of aquatic environments with emphasis on fluxes of carbon and nitrogen; aquatic microbial ecology; hydrocarbon bioremediation; coastal zone management; ocean science education.

PUBLICATIONS

Published

- Martin, J.B., Cable, J.E., and J. Cherrier. 2007. Relative magnitudes of submarine ground water discharge from marine and terrestrial sources: Indian River Lagoon, Florida. *Water Resources Research. in press*

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- Surratt, D., Cherrier, J., Cable, J. and L. Robinson. 2007. Historical changes in N,C, P, and isotope ratios in Apalachicola Bay Florida. *Journal of Coastal Research. in press*
- Smith, C.G., Cable, J.E., Martin, J.B., Cherrier, J. and Roy, M., 2006. Mixing in the subterranean estuary: a comparison of Radon-222 pore water models. In: V.P. Singh and Y.J. Xu (Editors), Annual American Institute of Hydrology Meeting & International Conference: Challenges in Coastal Hydrology and Water Quality. Water Resources Publications, LLC, Baton Rouge, LA
- McCallister, S.L., Bauer, J.E., Cherrier, J., and H. Ducklow. (2004). Assessing sources and ages of organic matter supporting river and estuarine production: A multiple isotope ($\Delta^{14}\text{C}$, $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) approach. *Limnology and Oceanography*, 49(5): 1687-1702 (ASLO 2006 Lindeman Award MS)
- Cherrier, J., and J.E. Bauer. (2004). Bacterial utilization of transient plankton-derived dissolved organic carbon and nitrogen inputs in surface ocean waters. *Aquatic Microbial Ecology*, 35: 229-241
- Kerkhof, L., Corredor, J. Paul, J.P., Bronk, D. López, J. and J. Cherrier. (2003). Geochemical Rate/RNA Integration Study (GRIST): A Pilot Field Experiment for Inter-Calibration of Biogeochemical Flux and Nucleic Acid Measurements. *EOS, Transactions, American Geophysical Union* 84 (18):167-168
- Proctor, L.M., Toy, E. Cherrier, J., Lapham, L. and J. Chanton. (2001). Enhancement of Orimulsion Biodegradation through the addition of natural marine carbon substrates. *Environmental Science and Technology*, 35: 1420-1424
- Cherrier, J. (ed) (2001). Powerweb: Oceanography, McGraw-Hill / Dushkin, N.Y. , <http://register.dushkin.com> (an on-line peer-reviewed textbook, ISBN # 0072479975)
- Cherrier, J., Bauer, J.E., Druffel, E.R.M., Coffin, R. and J. Chanton. (1999). Radiocarbon in marine bacteria: Evidence for the ages of assimilated carbon. *Limnology and Oceanography*, 44(3):730-736 (ASLO 2001 Lindeman Award MS)
- Canton, E., Cherrier, J., Farnsworth, E., Franklin, S., Hufnagel, B., Klopfer, E., Russel, J., and B. Saylor. (1998). New Niches for Life Scientists. *Science*, 282:1265e
- Cherrier, J., Bauer, J.E. and E.R.M. Druffel. (1996). Utilization and turnover of labile dissolved organic matter by bacterial heterotrophs in eastern north Pacific surface waters. *Marine Ecology Progress Series*, 139:267-279
- Cherrier, J., Burnett, W.C. and P.A. LaRock. (1995) Uptake of polonium and sulfur by bacteria. *Geomicrobiology Journal*, 13:103-115

Submitted

- Hamill, B. J., and J. Cherrier. Light-mediated release of DOM by the centric diatom *Thalassiosira weissflogii*. *Marine Ecology Progress Series. submitted Feb. '07*

RESEARCH

Current Funding

- 2006: National Oceanic and Atmospheric Administration. "Regional Studies and Integrated Management of Coastal and Marine Ecosystems for Informed Decision Making." J. Cherrier (Co-PI) with L. Robinson (PI) et. al. \$12,000,000 for 5 years. 1.5 mos summer

- 2006: Florida Institute of Oceanography, “Instructional Cruise to Support Marine Ecosystem Studies at Florida A&M University” J. Cherrier (FAMU). Two 3-day cruise Sept. ’05 and March ’07 - **estimated total shiptime cost of \$15,000** (competitive award)
- 2005: National Science Foundation, “Tracing Carbon Flow in Estuarine Systems: A Case Study in Apalachicola Bay” J. Cherrier with H. Williams. \$998,820 for 3 years. Nov. ’05- Sept. ’08. 1 mos summer
- 2004: National Science Foundation, “Collaborative Research: Are Carbon Fluxes from Marine Sediments Enhanced by Submarine Groundwater Discharge?”. J. Cherrier (FAMU), with J. Martin (UF) and J. Cable (LSU). total award \$761,523, **FAMU contract \$279,395** Aug. ’04 - July ’07. 1 mos summer
- 2003: Department of Energy, Biological Investigations- Ocean Margins Program, “Diatom photorespiration and C/N cycling in the upper ocean: an integrated molecular-biochemical approach.” J. Cherrier (FAMU), With V. Armbrust (UW), R. Keil (UW), total grant award \$1,300,000, **FAMU subcontract \$450,000** Sept. ’03- Aug. ’06, 15% academic release, 1 yr NCE

Proposals Pending

- 2006: National Science Foundation, Collaborative Research: Are intertidal ecosystems a significant player in the carbon cycle? A model study of coastal outwelling in the Northeastern Gulf of Mexico. J. Cherrier with J. Cable (LSU), B. Chen (UMass Boston) and T. Dittmar (FSU), Total Proposal \$2,660,179 , FAMU contract \$410,179. Aug 2007- July 2011, 24% academic release time

Previous Funding

- 2005: Florida Institute of Oceanography, “Instructional Cruise to Support Marine Ecosystem Studies at Florida A&M University” J. Cherrier (FAMU). One 3-day cruise Oct. ’05, - **estimated total shiptime cost of \$6,600** (competitive award)
- 2005: Florida Institute of Oceanography, “A multidisciplinary approach for evaluating contrasting coastal environments in the Northern Gulf of Mexico” J. Cherrier (FAMU) with T. Dittmar (FSU). One 4-day cruise May ’06 **estimated total shiptime cost of \$12,000** (competitive award)
- 2004: National Oceanic and Atmospheric Administration. “Regional Studies in Sustainable Management of Coastal and Marine Habitats for Decision Making.” J. Cherrier (Co-PI) with L. Robinson (PI) et. al. \$5,000,000 for 2 years. 1 mos summer
- 2004: Florida Institute of Oceanography, “Instructional Cruise to Support Marine Ecosystem Studies at Florida A&M University” J. Cherrier (FAMU). One 3-day cruise Sept ’04, - **estimated total shiptime cost of \$6,600** (competitive award)
- 2004: Florida Institute of Oceanography, “A multidisciplinary approach for evaluating contrasting coastal environments in the Northern Gulf of Mexico” J. Cherrier (FAMU) with T. Dittmar (FSU). One 4-day cruise March ’05 **estimated total shiptime cost of \$12,000** (competitive award)
- 2003: Florida Institute of Oceanography, “Instructional Cruise to Support Marine Ecosystem Studies at Florida A&M University” J. Cherrier (FAMU). Two 3-day cruises October ’03, February ’04- **estimated total shiptime cost of \$18,600** (competitive award)

- 2002: National Science Foundation, Division of Geosciences. “Florida Center for Ocean Science Education Excellence. J. Cherrier (FAMU), With P. Coble (USF), T. Greely (USF), B. Kelly (FAMU), and J. Lambert (FAU). total award \$999,939, **FAMU subcontract \$177,700**, Sept. ’02- Aug. ’05 (1 yr NCE). 12.5% academic release
- 2001: National Oceanic and Atmospheric Administration. “Regional Studies in Sustainable Management of Coastal and Marine Habitats for Decision Making.” J. Cherrier (FAMU co-PI) with L. Robinson (PI) et. al., total award \$7,479,920, Oct. ’01- Sept. ’04, 1 mos summer
- 2001: Department of Energy, Biological Investigations- Ocean Margins Program, “Diatom photorespiration and C/N cycling in the upper ocean: an integrated molecular-biochemical approach.” J. Cherrier (FAMU), With V. Armbrust (UW), R. Keil (UW), and G. Chin-Leo (Evergreen), total award \$367,000, **FAMU subcontract \$133,938**, Sept. ’01- Aug. ’03, 1 mos summer
- 2001: Florida Institute of Oceanography, “Instructional Cruise to Support Marine Ecosystem Studies at Florida A&M University” J. Cherrier (FAMU). Two 3 day cruises Fall ’01 –Spring ’02, **estimated total shiptime cost of \$18,600** (competitive award)
- 2000: Department of Energy, Biological Investigations- Ocean Margins Program, “Diatom photorespiration and C/N cycling in the upper ocean: an integrated molecular-biochemical approach.” J. Cherrier (FAMU), With V. Armbrust (UW), R. Keil (UW), and G. Chin-Leo (Evergreen), total award \$200,000, **FAMU subcontract \$48,407**, Sept. ’01- Aug. ’02, 1 mos summer
- 2000: Department of Energy, Biological Investigations-Ocean Margins Program. “In Situ Hydrocarbon Degradation By Indigenous Nearshore Bacterial Populations”. J. Cherrier (FAMU). **FAMU contract \$74,962**, Feb. ’01- Feb. ’02, 1 mos summer
- 2000: National Science Foundation, Directorate of Education and Human Resources, “New Strategies for Teaching Introductory Oceanography: a Collaborative and Interactive Approach”, **FAMU contract \$49, 321**, May ’01- April ’01, 1 mos summer
- 1997: Department of Energy, Marine Biotechnology and Marine/Estuarine Environmental Science Research Program, “Contaminant Hydrocarbon Degradation by Indigenous Nearshore Bacterial Populations *via* Cometabolism and Photo-oxidation”, J Cherrier (FAMU), R. Hogg (FAMU), J. Chanton (FSU), and R. Gragg (FAMU), **FAMU contract \$834,000**, Sept. ’97- Aug. ’00.

AWARDS

- Recipient (2001) American Society of Limnology and Oceanography Raymond L. Lindeman Award for the Outstanding Paper in Aquatic Science by a Young Scientist: *Cherrier, J., Bauer, J.E., Druffel, E.R.M., Coffin, R.B., and J.P. Chanton. 1999. Radiocarbon in marine bacteria: Evidence for the ages of assimilated carbon, Limnology and Oceanography 44:(3) 730-736*
- NSF Postdoctoral Fellowship in Science, Mathematics, Engineering and Technology Education (1998)
- Florida State University Sigma Xi James R. Fisher Award (1996). University-wide competition for Best Graduate Student Paper: *Cherrier, J., Bauer, J.E. and E.R.M. Druffel. (1996). Utilization and turnover of labile dissolved organic matter by bacterial heterotrophs in*

eastern north Pacific surface waters. Marine Ecology Progress Series, 139:267-279
Outstanding Student Award, Dept. Oceanography, Florida State University, 1996
National Garden Club Scholarship Award 1993

PAPERS PRESENTED

International Meetings (abstracts published for each)

Bauer, J.E., Cherrier, J., Druffel, E.R.M. and R.B. Coffin. Radiocarbon Signatures of Marine Bacterial Nucleic Acids. Radiocarbon Conference, Gronigen, Netherlands, June 1997

National and Regional Meetings (abstracts published for each)

Cherrier, J., Cable, J.E., Martin, J.B., and C.G. Smith. Pore water dissolved organic carbon gradients in a subterranean estuary. American Society of Limnology and Oceanography Winter Meeting. Santa Fe, NM. Feb. 2007

Valentine, S.K., Cherrier, J., Leon-Soon, S. and B.J. Hamill. Release of DOM by coastal phytoplankton assemblages as a function of changing light intensity. American Society of Limnology and Oceanography Winter Meeting. Santa Fe, NM. Feb. 2007

Cable, J.E., Martin, J.B., Jaeger, J., Smith, C.G., and J. Cherrier. Submarine groundwater discharge of bioirrigation? American Society of Limnology and Oceanography Winter Meeting. Santa Fe, NM. Feb. 2007

Cherrier, J. and B. Kelley. The ocean science concept-driven teaching model: promoting inclusive learning. Forth National Oceanic and Atmospheric Administration Educational Partnership Program Education and Science Forum. Tallahassee, FL. Oct. 30- Nov. 1 2006

Valentine, SK., Leon-Soon, S. and J. Cherrier. Light-mediated DOM release by natural phytoplankton populations and implications for carbon cycling. Forth National Oceanic and Atmospheric Administration Educational Partnership Program Education and Science Forum. Tallahassee, FL. Oct. 30- Nov. 1 2006

Laurant, A., Cherrier, J. Morton, S., and L. Edmiston. Cumulative impacts of DOM and salinity on *Karenia brevis*: implications for Apalachicola Bay Florida. Forth National Oceanic and Atmospheric Administration Educational Partnership Program Education and Science Forum. Tallahassee, FL. Oct. 30- Nov. 1 2006

Turner, R.D., Cherrier, J. and B. Kelley. Implementation and assessment of a standards aligned secondary level lesson plan on global climate change. Forth National Oceanic and Atmospheric Administration Educational Partnership Program Education and Science Forum. Tallahassee, FL. Oct. 30- Nov. 1 2006

Simmons, C. and J. Cherrier. 2006. Influence of temperature on excess electron energy dissipation in the marine diatom *Thalassiosira pseudonana*. ASLO/AGU Ocean Sciences Meeting Honolulu HA, Feb. 2006

Smith, C.G., Cable, J.E., Martin, J.B., Roi, M., and Cherrier, J., 2006. Mixing in the subterranean estuary: the role of density-driven convection, American Institute of Hydrology Conference, Baton Rouge, Louisiana, 21-24 May 2006

Smith, C.G., Cable, J.E., Martin, J.B., Roi, M., and Cherrier, J., 2005, An inverse modeling approach to examine porewater mixing in the subterranean estuary, The Geological

- Society of America *Abstracts With Programs*, 37(7): p. 469, Salt Lake City, Utah, 16-19 October 2005
- Cherrier, J. and B. Hamill. The role of nutrient limitation in diatom response to varying light intensities. American Society of Limnology and Oceanography Winter Meeting. Salt Lake City, UT. Feb. 2005
- Brown, H.A., Morton, S. and J. Cherrier. The effects of salinity concentrations of *Karenia brevis* growth and toxin production. American Society of Limnology and Oceanography Winter Meeting. Salt Lake City, UT. Feb. 2005
- Simmons, C.C., Cherrier, J., and B. Hamill. Response of the marine coastal diatom *Thalassiosira pseudonana* to rapid increases in light intensity. American Society of Limnology and Oceanography Winter Meeting. Salt Lake City, UT. Feb. 2005
- Surratt, D., Cherrier, J., Robinson, L., and J. Cable. Chronology of nutrient geochemistry in Apalachicola Bay, FL. American Society of Limnology and Oceanography Winter Meeting. Salt Lake City, UT. Feb. 2005
- Cherrier, J. Promoting interactive learning at the post-secondary level: Ocean Science Collaborative Interactive (OSCI) teaching model. National Marine Educators Conference, St. Petersburg, FL July 2004
- Hamill, B. and J. Cherrier. Light-mediated DOM release by the centric diatom *T. weissflogii* and subsequent uptake by natural bacterial assemblages. American Society of Limnology and Oceanography Summer Meeting, Savannah, GA. June 2004
- Simmons, C., Cherrier, J., and B. Hamill. Effects of Light and Temperature on Nitrogen Cycling in the Marine Diatom *T. Pseudonana*. American Society of Limnology and Oceanography Summer Meeting. Savannah, GA. June 2004
- Armbrust, V.A., Cherrier, J. and R. Keil. Diatom photorespiration and microbial C and N in the upper ocean: An integrated molecular and biogeochemical approach. Department of Energy Biotechnological Investigations/ Ocean Margins Program 2004 Principal Investigators Workshop. Mayaguez, PR. Jan. 2004.
- Hamill, B. and J. Cherrier. Analysis of DOM constituents: the case for photorespiration. The Oceanography Society Meeting. New Orleans, LA. June 2003
- Cherrier, J. Inclusive learning in the ocean sciences. 14th International Conference on Teaching and Learning, Jacksonville, FL April 2003
- Hepburn, C., Cherrier, J. and J. Chanton. Tracing In Situ Petroleum Hydrocarbon Utilization Using Natural Carbon Isotope Abundances. American Society of Limnology and Oceanography Winter Meeting. Salt Lake City, UT. Feb. 2003
- Cherrier, J. A model for inclusive learning in the ocean sciences. American Society of Limnology and Oceanography Winter Meeting. Salt Lake City, UT. Feb. 2003
- Hamill, B. and J. Cherrier. Diatom photorespiration and DOM production American Society of Limnology and Oceanography Winter Meeting. Salt Lake City, UT. Feb. 2003
- Hamill, B. and J. Cherrier. Changes in DOM concentrations in near-shore surface waters, Tuckerton, NJ, USA. Department of Energy Biotechnological Investigations/ Ocean Margins Program 2002 Principal Investigators Workshop. St. Petersburg, FL. Dec. 2002
- Surratt, D.D., Cherrier, J., and L. Robinson. Historical trends in trophic status for the

- Apalachicola Bay – nitrogen, chl-a, salinity, and temperature as trophic indicators. American Society of Limnology and Oceanography Summer Meeting. Vancouver BC. June 2002
- Hamill, B. and J. Cherrier. Effects of diatom photorespiration on surface-ocean DOM. Joint American Geophysical Union/ American Society of Limnology and Oceanography Ocean Sciences Meeting, Honolulu HI. Feb. 2002
- Sharpe, K., Cornelisen, C. D., Thomas, F.I., and J. Cherrier. Effects of shade and temperature on ¹⁵N-Ammonium uptake by epiphytes of the seagrass *Thalassia Testudinum*. Estuarine Federation Conference, St. Petersburg, FL, Nov. 2001
- Hamill B.J., J. Cherrier, M.S. Parker, E.V. Armbrust, R.G. Keil and W.W.Y. Lau. Impact of photorespiration on surface-ocean DOC. The Oceanography Society Meeting, Miami FL April 2001
- Cherrier, J., Armbrust E.V., Keil, R.G., and G. Chin-Leo. University of Washington, Florida A&M University, and Evergreen State College BI-OMP Collaboration. Department of Energy Biotechnological Investigations/ Ocean Margins Program Principal Investigators Conference, Savannah, GA, March 2001
- Hamill, B.J. Cherrier, J. Parker, M.S., Armbrust, E.V., Keil, R.G., and W.W.Y. Lau. Impact of photorespiration of the concentration of DOC in marine surface waters. Department of Energy Biotechnological Investigations/ Ocean Margins Program 2001 Principal Investigators Workshop, Savannah GA, March 2001
- Brown, H., Hogg, R., Cherrier, J., Chanton, J., Ding, X., and R. Gragg. Isotope study of hydrocarbon degradation by indigenous nearshore bacterial populations through cometabolism. Department of Energy Biotechnological Investigations/ Ocean Margins Program 2000 Principal Investigators Conference, Tallahassee, FL, March 2000
- Clarke, M. Gragg, R., Cherrier, J., Ding, X., Hogg, R., and J. Chanton. Impact of ultra violet radiation on petroleum hydrocarbon degradation by indigenous marine bacteria. Department of Energy Biotechnological Investigations/ Ocean Margins Program 2000 Principal Investigators Conference, Tallahassee, FL, March 2000
- Jenkins, C., Cherrier, J., Hogg, R., Chanton, J., and R. Gragg. Tracing in situ heterotrophic utilization of hydrocarbons using stable carbon and radiocarbon abundances. Department of Energy Biotechnological Investigations/ Ocean Margins Program 2000 Principal Investigators Conference, Tallahassee, FL, March 2000
- Toy, E., Chanton, J., Proctor, L., and J. Cherrier. Enhancement of orimulsion degradation through the addition of natural substrates. Department of Energy Biotechnological Investigations/ Ocean Margins Program 2000 Principal Investigators Conference, Tallahassee, FL, March 2000
- Ruscher, P. Gallard, A., Cherrier, J., Hancock, E., Petrovich, F., Cerpa Bisha, Z., Lusher, W., and K. Ruscher-Rogers. Teaching earth and space science: a distance learning course for Dade county Florida teachers. 11th International Conference of the Society for Information Technology and Teacher Education, San Diego, CA, Feb. 2000
- Cherrier, J. New strategies for teaching introductory oceanography: a collaborative and interactive teaching approach. Joint American Geophysical Union/ American Society of Limnology and Oceanography Ocean Sciences Meeting, San Antonio, TX, Jan. 2000
- Cherrier, J. and J.E. Bauer. Oceanic bacterial utilization of plankton-derived dissolved organic

- matter constituents: preferential uptake of dissolved free amino acids. Joint American Geophysical Union/ American Society of Limnology and Oceanography Ocean Sciences Meeting, San Antonio, TX, Jan. 2000
- Cherrier J., Lapham, L.I., Chanton, J.P., and L.M. Proctor. Enhanced co-metabolism of Cerro Negro bitumen with amendments of natural marine carbon substrates. Society of Environmental Toxicology and Chemistry Meeting, Charlotte, NC, Nov. 1998
- Cherrier, J., Bauer, J.E., Druffel, E.R.M., Coffin, R.B., and J.P. Chanton. Radiocarbon in estuarine and oceanic Bacteria: evidence for the age of assimilated organic matter. Joint American Geophysical Union/ American Society of Limnology and Oceanography Ocean Sciences Meeting, San Diego, CA, Feb. 1998
- Bauer, J.E., Cherrier, J., Druffel, E.R.M., and R.B. Coffin, Radiocarbon signatures of marine bacterial nucleic acids. Radiocarbon Conference, Gronigen, Netherlands, June 1997
- Burnett, W.C., Hull, C., Cable, P., Cherrier, J., Cowart, J.B., LaRock, P., and J. Hyun. 1993. Radionuclides in phosphogypsum: migration and bacterial control. Forth International Conference on the Chemistry and Migration Behavior of Actinides and Fission Products in the Geosphere, Charleston, SC, Dec. 1993
- Cherrier, J., Bauer, J.E., Tai, W., Druffel, E.R.M., Wolgast, D., and P. M. Williams. Heterotrophic utilization of dissolved organic matter in the eastern North Pacific. The Oceanography Society Meeting, Seattle, WA, April 1993
- Cherrier, J., LaRock, P.A., and W.C. Burnett. Polonium: Bacterial uptake and incorporation. American Chemical Society National Meeting, San Francisco, CA, April 1992

Invited Seminars

- Cherrier, J. Balancing the carbon budget: what's DOM got to do with it? University of West Florida. Department of Biology, Pensacola, FL. December 2006.
- Cherrier, J. ECSC ecological processes thematic area: future directions. NOAA/FAMU Environmental Cooperative Science Center Principal Investigator Meeting. Jacksonville FL. Feb. 2006
- Cherrier, J. Effects of varying light intensities on DOM cycling in the upper ocean : mechanisms and implications. University of Georgia, Athens. Department of Marine Sciences. Athens, GA. November 2005
- Cherrier, J. Connections: dissolved organic matter and carbon fluvial sediments. NSF funded Carbon Fluvial Sediment Working Group. University of Washington, School of Oceanography. Seattle WA. June 2005.
- Cherrier, J. Overview of ECSC Research Activities at FAMU, NOAA/FAMU Environmental Cooperative Science Center Principal Investigator Meeting, Florida Keys, Jan. 2003
- Brown, H., Morton, S., and J. Cherrier. *Karenia Brevis* response to dissolved organic matter (DOM). Center for Coastal Health and Environmental Biomolecular Research, Biotoxins Seminar, Charleston, SC. Sept. 2002
- Brown, H., Morton, S., and J. Cherrier. *Karenia Brevis* response to inorganic nutrients. Center for Coastal Health and Environmental Biomolecular Research, Biotoxins Seminar, Charleston, SC. March 2002
- Cherrier, J. An inclusive teaching model for teaching the ocean sciences at the post-

secondary level. College of Engineering Sciences Technology and Agriculture, Florida A&M Univ., Tallahassee FL. Oct. 2002

Cherrier, J. Utilization of Plankton-Derived Dissolved Organic Matter Constituents by Bacterial Heterotrophs in North East Pacific Surface Waters: Preferential Uptake of Dissolved Free Amino Acids. USF College of Marine Science, St. Petersburg FL. Oct 2001

Cherrier, J. New Strategies for Teaching Introductory Oceanography- A Collaborative and Interactive Approach, UMass Boston, Department of Environmental Coastal & Ocean Sciences, Boston MA. Dec. 2001

Cherrier, J. Oceanic Bacterial Utilization of Plankton-Derived Dissolved Organic Matter Constituents: Preferential Uptake of Dissolved Free Amino Acids, UMass Boston, Department of Environmental Coastal & Ocean Sciences/ College of Education, Boston MA. Dec 2001

PROFESSIONAL SOCIETIES

American Society for Limnology and Oceanography

Sigma Xi, The Scientific Research Society

American Geophysical Union

The Oceanography Society

PUBLIC SERVICE (UNIVERSITY, PROFESSIONAL, COMMUNITY)

University

FAMU Faculty Senate Representative- FAMU College of Pharmacy Dean Search Committee, 2006

FAMU Faculty Coordinator- FAMU/TAPP Rain Garden, 2005-present

FAMU Faculty Senate Steering Committee, 2005- present

Committee Chair- Env. Sci. Inst. Space Committee, 2004-present

Committee Chair- Env. Sci Inst. Seminar Committee, 2004-present

Committee Chair- Env. Sci. Inst. Website Committee, 2003-present

Committee Chair- ESI Space Committee, 2004-present

Committee Chair- ESI Seminar Committee, 2004-2006

Committee Member- Faculty Senate Brown Bag Lunch Committee, 2003-present

Committee Chair- Environmental Sciences Institute Departmental Website Committee-Chair, 2003-present

Committee Member- Environmental Sciences Institute Planning, Regulations, Ethics, Curriculum and Testing Committee, 2000-present

FAMU Faculty Senator- 2000-present

Faculty Presenter- ESI's Summer Camp for High School Students, *The Movie 'The Day After' and the Oceans' Role in Global Climate Change*, Florida A&M University, Environmental Sciences Institute, Tallahassee, FL, July 2004

FAMU/ESI Faculty Coordinator and Representative- Mote Marine Laboratory / Florida Institute of Oceanography sponsored *2004 Oceans Day at the Capitol*:

Committee Chair- ESI Student Workshop and Seminar Committee, 1999-2003

Co-Organizer with Bernadette Kelley- Florida Center for Ocean Science Education Excellence Community Building Workshop, Tallahassee, FL May 2003
FAMU/ESI Faculty Participant- MOTE Marine Laboratory/Florida Institute of Oceanography sponsored *Oceans Day at the Capital*, 2001-2003
Faculty Presenter- ESI's Summer Camp for High School Students, *Carbon Flow in Marine Systems*, Florida A&M University, ESI, Tallahassee FL. June 2002
Judge- FAMU Student Research Forum, Florida A&M University, Tallahassee FL. Nov. 2002
FAMU/ESI Representative- Annual Advisory Board Meeting for the Florida Institute of Oceanography, St. Petersburg FL, Dec. 2002
Co-Organizer with Larry Robinson- Department of Energy Biotechnological Investigations/ Ocean Margins Program 2000 Principal Investigator Workshop. Tallahassee, FL March 2000

Professional

Committee Chair-American Society of Limnology and Oceanography Web Lecture Committee 2007-present
Proposal Reviewer- National Science Foundation, Office of Polar Programs, 2006
Manuscript Reviewer- *Geochimica et Cosmochimica Acta*, 2005
Manuscript Reviewer- *Hydrobiologia*, 2005
Proposal Reviewer- National Science Foundation, Directorate for Biological Sciences, 2004
Florida COSEE Representative, Center for Ocean Science Education Excellence National Strategic Planning Meeting, Washington DC, April 2004
Proposal Reviewer - National Science Foundation, Directorate of Geosciences 2002-present
Manuscript Reviewer - *Marine Chemistry*, 2003-present
Manuscript Reviewer - *Limnology and Oceanography*, 2001-present
Proposal Reviewer - Florida Institute of Oceanography, 2001-present
Panelist- Collaborative Research at Undergraduate Institutions Program Proposal Review Panel, National Science Foundation, Directorate for Biological Sciences, Arlington VA, June 2003
Co-Organizer with Bernadette Kelley- Florida Center for Ocean Science Education Excellence Community Building Workshop, Tallahassee FL, May 2003
Proposal Reviewer- National Science Foundation, Directorate for Education and Human Resources 2003
Proposal Reviewer - Apalachicola Florida National Estuarine Research Reserve Graduate Fellowship Program 2002-2003
Committee Member-American Society of Limnology and Oceanography Ruth Patrick Award Committee 2002-2006
Panelist- Ocean Carbon Sequestration Program Proposal Review Panel, Department of Energy, Office of Science, Washington DC, May 2002
Co-Organizer, Special Session- *Reforming Education in the Ocean Sciences for All Citizens*. Ocean Sciences Spring Meeting, Honolulu HI, Feb. 2002
Manuscript Reviewer - *Journal of Phycology*, 2000
Reviewer - Center for Ocean Science Education Excellence (COSEE) Report to the National Science Foundation, 2000

Participant- Florida Ocean Research Summit, Saint Petersburg FL, September 2000.
Participant- Center for Ocean Science Education Excellence (COSEE) Summit, Long Beach Mississippi, May 2000
Co-Organizer with Larry Robinson- Department of Energy Biotechnological Investigations/ Ocean Margins Program 2000 Principal Investigator Workshop. Tallahassee, FL March 2000.
Chair, Special Session- *Ocean Science Education-Innovative Career Strategies*. American Geophysical Union and American Society of Limnology and Oceanography joint Ocean Sciences Meeting, San Antonio, TX, Jan. 2000

Community

FAMU/TAPP Rain Garden, Faculty Coordinator, 2005-present
Science Fair Judge- Hartsfield Elementary School, 2005- present
Board Member– Damayan, The Garden Project Board of Directors and Volunteer, 2001-present
Video Producer- *From Education to Exploration- FAMU Students at Sea*, Spring 2004
Faculty Contact- Bond Elementary Poster Competition, Spring 2004
Presenter- *Introduction to the ocean ecosystem*, Hartsfield Elementary School, Tallahassee, FL, Fall 2003
Coordinator- Service Learning, FAMU DRS Elementary School Fall 2003
Coordinator- Service Learning, Bond Elementary School Fall 2003
Coordinator- Service Learning, Damayan- The Garden Project, Fall 2002
Judge- ESI's Annual Science Poster Competition, Sealey Elementary School, Tallahassee, FL, Fall 2002
Presenter- *The Ocean Food Web*, Hartsfield Elementary School, Tallahassee, FL, Spring 2001

EDUCATIONAL ACTIVITIES

GRADUATE

Graduate Courses Taught:

Marine and Estuarine Ecosystems, PCB 5315 (FAMU)
Principles of Ecology, EVR 6064 (FAMU)
Marine Microbial Ecology, EVR 5028 (FAMU)
Wetland Preservation and Restoration EVR 5029 (FAMU)
Marine Pollution EVS 5213 (FAMU)
Teaching Earth and Space Science SCE 5635r (FSU, distance learning course)

Graduate Students Advised:

Thesis/Dissertation Committee Chair

(*research supported by extramural funds garnered by J. Cherrier)

Brown, Holly (*M.S.-graduated, Ph.D.-current)
Dorsett, Amanda (*M.S.- current)
Hamill, Barbara (*Ph.D.- graduated, 2005)
Jenkins, Caroline (*M.S.-graduated, 1999)

Laurant, Akia (*M.S.- current)
Surratt, Donatto (*Ph.D.-graduated, 2005)
Turner, Ramona (*M.S.-current)
Valentine, SarahKeith (*M.S.- current)

Thesis/Dissertation Committee Member

Ayaovi Apeti (Ph.D.- graduated)
Milton Clarke (M.S.- graduated, Ph.D.- graduated)
Natasha Henry (M.S.- graduated, Ph.D.- current)
Clifford Louime (Ph.D.- graduated)
William Mwegoha (Ph.D.- graduated)
LaToya Luse-Myles (Ph.D.- graduated)
Shayla Williams (Ph.D.- graduated)

Co-Authored Graduate Student Manuscripts in Preparation (for Spring '05 submission)

Brown, H., Cherrier, J., and S. Morton. Impact of inorganic nitrogen and phosphorus loading *K. brevis* growth and toxin production. In prep for submission to the Journal of Phycology

Cherrier, J. and C. Jenkins-Hepburn. Tracing in situ petroleum hydrocarbon utilization using natural carbon isotope abundances. In prep for submission to Environmental Science and Technology

Clarke, M.A., Cherrier, J., Chanton, J., Robinson, L., and R. Gragg. Using respiration and stable isotopes to evaluate the impact of photooxidation, cometabolism, and bioaugmentation on hydrocarbon biodegradation. In prep for submission to Environmental Science and Technology.

Hamill, B. and J. Cherrier. The role of nitrogen limitation in response to varying light intensities. In prep for submission to Marine Ecology Progress Series.

Hamill, B. and J. Cherrier. Uptake and utilization of light-mediated phytoplankton exudate by natural bacterial assemblages. In prep for submission to Marine Ecology Progress Series.

Surratt, D., Cherrier, J., Kineman, J., Johnson E., and L. Robinson. A general phytoplankton habitat suitability niche model applied to Apalachicola Bay Florida. In prep for submission to Ecological Applications.

UNDERGRADUATE

Undergraduate Courses Taught:

Introduction to the Marine Environment, EVR 3023 (FAMU)
Marine Microbial Ecology , EVS 4024C (FAMU)
Wetland Preservation and Restoration, EVS 4027C (FAMU)
Environmental Science Forum and Colloquium, EVR 2920 (FAMU)
Introductory Oceanography, OCE1001 (FSU, TCC)
Environmental Systems, BSC 1050 (TCC)

Undergraduate Students Advised:

Senior Thesis Committee Chair

**research supported by extramural funds garnered by J. Cherrier*

Brown, Jarvis (*senior-graduated)
Chandler, LaToya (*senior- current)
Leon-Soon, Sherril (*senior- graduated)
Linton, Sabriya (B.S.-graduated)
Mays, Pennie (B.S.-graduated)
Sharp, Karen (*B.S.-graduated)
Simmons, Candice (*B.S.- graduated)
Thomas, Jessie (*junior- current)

Senior Thesis Committee Member

Harsh Jain (B.S.-graduated)
Lamarr Joseph (B.S.-graduated, M.S.- graduated)
Tamara Orr (B.S.-graduated)
Earlyn Turner (B.S.-graduated)

TEACHING MODEL DEVELOPMENT

Since 1997, with funding from the National Science Foundation and subsequently through the National Oceanic and Atmospheric Administration, I have been working on the development, implementation, and assessment of a postsecondary Ocean Science Concept-driven Interactive (OSCI) teaching model (<http://www.famu.edu/oldsite/acad/colleges/esi/osci/>). The OSCI teaching model has been designed for a typical post-secondary 16-week semester class period and setting. This model blends both traditional lecture-based and concept-driven/interactive methodologies through the integration of mini-lectures, readings, writing, and focused group discussions. An online peer-reviewed textbook, PowerWeb: Oceanography published by Dushkin-McGraw Hill (ISBN # 0072479975), was developed to support this non-traditional curriculum format. The model has been reviewed by 9 external reviewers (i.e. from UF, FSU, USF, FAU UWF, and NOAA AOML) for content accuracy, relevance, and pedagogical strategies. The ultimate goal of my work on the OSCI teaching model has been to make this teaching ‘tool’ available to all interested instructors at post-secondary institutions to aid with a transition from a traditional approach for teaching the ocean sciences to one that is more concept-driven, collaborative, interactive, and inclusive. To this end the OSCI teaching model has been completely digitized and is now presented on a CD-ROM in a user friendly PC and Macintosh compatible platform such that an instructor in any type of post-secondary institutional setting should be able to easily adopt the OSCI model either in part or in its entirety. The OSCI teaching model has been well received by scientists throughout the U.S. and has been adopted by professors at The University of Miami (RSMAS), The University of California at Irvine, The University of Pennsylvania, Louisiana State University, Savannah State University, Morgan State University, Florida State University, Jackson State University, Delaware State University. The teaching model was also recently adopted by professors at Leiden University in the Netherlands.

OCEANOGRAPHIC CRUISES

- 9/06 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle; Education cruise- the overall goal of this cruise was to provide ESI/FAMU and TCC students the opportunity to gain a greater appreciation of the complexity of marine ecosystem dynamics through the active participation in ocean science field research. The objective of the cruise was to carry out a series of ecosystem inventories in the northeastern Gulf of Mexico continental shelf to evaluate how ecosystem dynamics change along a transect moving away from protected nearshore regions to those that are further off shore. To evaluate these potential changes, a comparison of water, plankton, nekton, sediment and dredge samples were conducted for several station in a transect. Approximately 10 students participate on each cruise.
- 8/06 **R/V Clifford Barnes** (University of Washington, Seattle, WA.)
North Eastern Pacific- British Columbia; Diel studies of DOM cycling by natural phytoplankton and bacterial assemblages as a function of varying light intensity.
- 7/06 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle; Diel studies of DOM cycling by natural phytoplankton and bacterial assemblages as a function of varying light intensity.
- 10/05 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.
- 3/05 **R/V Suncoaster** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle; Tidal cycle study of carbon and nitrogen flux from Apalachicola and Apalachee Bays into the Gulf of Mexico.
- 10/04 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.
- 2/04 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.
- 10/03 **R/V Suncoaster** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.
- 2/03 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.
- 10/02 **R/V Suncoaster** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.
- 2/02 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.
- 10/01 **R/V Suncoaster** (Florida Institute of Oceanography, Tampa, Fla.)
North Eastern Gulf of Mexico, FL Panhandle. Education cruise- purpose of this cruise and associated sample collection stated above.

- 9/94 **R/V Atlantis II** (Woods Hole, Mass.)
Eastern North Pacific; this cruise was part of a multidisciplinary investigation of long-term and seasonal dissolved organic matter distributions and transformations in the open ocean to better understand how the oceanic component affects global warming. Seawater samples were collected to analyze for the following: inorganic and organic nutrients, stable carbon isotopes, natural carbon-14, oxygen, temperature, salinity, and bacterial abundances.
- 6/94, 2/94,
6/93, 2/92,
6/92 **R/V New Horizon** (Scripps Institute of Oceanography, CA)
Eastern North Pacific; these cruises were part of a multidisciplinary investigation of long-term and seasonal dissolved organic matter distributions and transformations in the open ocean to better understand how the oceanic component affects global warming. Seawater samples were collected to analyze for the following: inorganic and organic nutrients, stable carbon isotopes, natural carbon-14, oxygen, temperature, salinity, and bacterial abundances.
- 10/90 **R/V Point Sur** (Moss Landing, CA)
Northern California coastal waters; samples collected to study zooplankton dynamics
- 7/89 **R/V Bellows** (Florida Institute of Oceanography, Tampa, Fla.)
Dry Tortugas, Gulf of Mexico; nutrient analysis and bacterial growth studies.
- 5/86 **R/V Suncoaster** (Florida Institute of Oceanography, Tampa, Fla.)
Florida Keys/Gulf Stream; program offered through Indian River Community College designed to expose undergraduates to oceanographic sample collection techniques.