

Tina Miller-Way

Chair, Discovery Hall Programs for Education & Outreach
Dauphin Island Sea Lab
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Education

Dauphin Island Sea Lab, Dauphin Island, AL; Post-doctoral Research Associate; 1994-1996
University of Louisiana, Lafayette, LA; Post-doctoral Research Associate; 1994
Louisiana State University, Baton Rouge, LA; Oceanography & Coastal Studies; Ph.D.; 1994
Oregon State University, Corvallis, OR; Biological Oceanography; M.S.; 1985
Miami University, Oxford, OH; Major: Zoology; B.A.; 1980

Professional Appointments

1/2014-present	Education Director, Mississippi-Alabama Sea Grant
1/2010-present	Chair, Discovery Hall Programs for Education & Outreach, Dauphin Island Sea Lab
9/2007-12/2009	Scientist-Educator, Northern Gulf Institute Liaison, Dauphin Island Sea Lab
1/1999 -5/2007	Associate Professor, Department of Natural Sciences, University of Mobile, Mobile, AL
2003-2007	Instructor, Undergraduate Summer Program, Dauphin Island Sea Lab
2005-2007	Facilitator, Mentor, NSF REU program, Dauphin Island Sea Lab
1998-2007	Consultant (on demand), B.A. Vittor and Associates, Inc., Mobile, AL
1/2000-5/2001	Adjunct Faculty, Dept. of Biology, University of South Alabama, Mobile, AL
6/1986-12/1989	Biologist, Coastal Ecology Group, Aquatic Habitat Group, USAE Waterways Experiment Station, Vicksburg, MS
9/1984-5/1986	Instructor, Mathematics, Computer Science and Biology, Alderson-Broadus College, Philippi, West Virginia

Management

- Develop and maintain onsite marine science education programs for K-12 students
- Obtain funding, develop and manage traveling marine science programs
- Obtain funding, develop and teach professional development programs for K-16 educators
- Select and schedule community outreach events
- Develop and maintain virtual field trip experiences for K-12 students across state
- Hire, manage and evaluate educational staff, interns, summer counselors
- Manage departmental budgets, supplies, equipment and infrastructure
- Departmental reporting, committee service, public relations, advertising
- Develop educational programs for specific events or organizations (Estuary Corps, Gulf Detectives, World Ocean Day, National Estuary Day, Coastal Ecosystem Learning Center Student Summits, Alabama Master Naturalists – Coastal Program, Mobile County Public School System Bryant High Coastal Studies Academy, Emerging Scholars Environmental Health Sciences Academy, Sea Stars (special needs camp), NOAA Adopt-a-Drifter, Gulf of Mexico Alliance Oceanographic Technology Tools for Education & Research, Dauphin Island Sea Lab Foundation gifts, etc.)

Grants

Principal Investigator or Co-PI

- Alabama Center for Ecological Resilience* (DISL), funding - Gulf of Mexico Research Initiative; CO-PI - Education & Outreach: curriculum development, professional development for teachers, blogging, social media activity, community outreach
- Watershed Education using Bivalves* (DISL), funding - NOAA Bay Watershed Education & Training Program; PI: K-12 student field trip activities, professional development for teachers, service project
- Diversity Internship Program* (DISL), funding – NOAA Cooperative Institute - Northern Gulf Institute; PI: internships for undergraduate and graduate students for underrepresented groups in STEM disciplines
- Coastal Hazard Collaboratory* (LSU), funding – National Science Foundation; Co-PI – Education & Outreach: curriculum development – coastal hazards, storm surge

State / Organization Lead

- Deep-C: Deep Sea to Coast Connectivity in the Eastern Gulf of Mexico* (FSU), funding - Gulf of Mexico Research Initiative; Collaborating partner – Education & Outreach: development and support of student ROV competition, professional development for educators
- Gulf Alliance Partnership: Building Cultural Competency in Experiential Environmental Education (FL DEP)*; funding - EPA Gulf of Mexico Program; Collaborating partner, State Lead: experiential education programs for middle school students
- Climate Change Community Outreach Initiative* (Florida Aquarium), funding – NOAA/AZA; Collaborating partner: climate change game development, professional development for educators, community outreach
- Gulf Coast ADVANCE* (Univ. Southern Mississippi), funding - National Science Foundation; Organization Lead: women in STEM - professional network organization, strategic planning
- Enhanced Public Awareness and Understanding of the Gulf of Mexico Alliance's Priority Issues Through Hands-on Exhibitory Within Coastal Ecosystem Learning Centers in the Gulf* (Univ. Southern Mississippi); funding – EPA Gulf of Mexico Program; collaborating partner, organization Lead; exhibitry development
- Creating jobs to protect shorelines, restore oyster reefs and enhance fisheries production* (The Nature Conservancy), funding - Coastal Alabama Economic Recovery and Ecological Restoration Project; collaborating partner - Education & Outreach: curriculum development exhibit development
- A Deepwater Horizon Education Project for Formal and Informal Educators Around the Gulf of Mexico* (Institute for Marine Mammal Studies), funding - NOAA Office of Education; Collaborating partner, State Lead; Professional development for educators
- Centers for Ocean Sciences Education Excellence: Central Gulf of Mexico* (DISL), funding - National Science Foundation; Collaborating partner, State Lead; Statewide oil spill community outreach via video-conferencing
- Northern Gulf Institute Gulf Research Initiative Phase I & II Education and Outreach Support* (DISL); funding – NOAA Cooperative Institutes; Organization partner – education and outreach: community outreach on the oil spill

Research

- US EPA. Functional ecology of marine infaunal communities. \$10,000. 6/96 - 9/96
- DISL. Site characterization of Weeks Bay National Estuarine Research Reserve. \$16,000. 12/95 - 6/96.
- USACE Waterways Experiment Station, Rates of sediment diagenesis in the San Juan Bay system. \$40,000. 5/95 - 11/95.
- Smithsonian Institution, Caribbean Coral Reef Ecosystem Program. The coupling of seagrass and mangrove prop root communities via nutrient cycling in mangrove reef ecosystems. \$1000. 1994
- NOAA Coastal Ocean Program; Nutrient-Enhanced Coastal Ocean Productivity. Study of sediment processes to investigate the fate of organic matter in the Louisiana shelf ecosystem. \$115,000. Co-PI with R.R. Twilley and B.A. McKee. 4/92-4/94
- Smithsonian Institution; Caribbean Coral Reef Ecosystem Program. Nutrient regeneration associated with mangrove prop root communities in Twin Cays, Belize. \$1080. 1992
- Louisiana Universities Marine Consortium Foundation, Inc. The effect of infaunal and epifaunal suspension feeders on denitrification and nitrification rates in a shallow estuarine system in Louisiana. \$2000. 6/91-6/92

Smithsonian Institution; Caribbean Coral Reef Ecosystem Program. The significance of nutrient cycling to the productivity of mangroves in oligotrophic ecosystems. \$750. 1991

Publications and Reports

Miller-Way, T., J. Ort. 2015, America's Amazon, The Mobile-Tensaw Delta: A Teacher's Guide.

<http://americasamazon/net>

- Twilley, R.R., S. Brandt, D. Breaux, J. Cartwright, J. Chen, G. Easson, P. Fitzpatrick, K. Fridley, S. Graves, S. Harper, C. Kaiser, A. Maestre, M. Maskey, W. McAnally, J. McCorquodale, E. Meselhe, T. **Miller-Way**, K. Park, J. Pereira, T. Richardson, J. Tao, A. Ward, J. Wiggert and D. Williamson. **2014**. Simulation Management Systems developed by the Northern Gulf Coastal Hazards Collaboratory (NG-CHC): An overview of cyberinfrastructure to support the coastal modeling community in the Gulf of Mexico. *Advances in Coastal and Marine Resources: Remote Sensing and Modeling* edited by Charles W. Finkle, Antonio H.F. Klein, and Christopher Makowski. Coastal Research Library (CRL) series. ISBN 978-3-319-06326-3. 460 pages
- Twilley, R.R., Cowan, J., **Miller-Way, T.**, Montagna, P.A. and B. Mortazavi. 1999. Benthic nutrient fluxes in selected estuaries in the Gulf of Mexico. *In* Bianchi, T.S., Pennock, J.R. and R.R. Twilley (eds.), *Biogeochemistry of Gulf of Mexico Estuaries*, J. Wiley and Sons., New York.
- Miller-Way, T.**, M.R. Dardeau and G. Crozier. 1996. Weeks Bay National Estuarine Research Reserve: An estuarine profile and bibliography. Dauphin Island Sea Lab Technical Report 96-01.
- Miller-Way, T.** and R.R. Twilley. 1996. A comparison of batch and continuous flow methodologies for determining benthic fluxes. *Marine Ecology Progress Series* 140:257-269.
- Miller-Way, T.**, G.S. Boland, G.T. Rowe and R.R. Twilley. 1994. Sediment oxygen consumption and benthic nutrient fluxes on the Louisiana Continental Shelf: A methodological comparison. *Estuaries* 17(4): 809-815.
- Way, C.M., A.J. Burky and **C.A. Miller-Way**. 1993. Development and application of a thermistor current meter. USAE Waterways Exp. Stn. TR-EL-94-1.
- Carney, R.C., C.J. Madden, C.L. Zarate, **T. Miller-Way**, and J.H. Day, Jr. 1992. A technical evaluation of knowledge concerning the environmental effects of shell dredging in Lake Pontchartrain, Louisiana. Technical Report submitted to the Louisiana State Fisheries and Wildlife Commission.
- Clarke, D. and **C.A. Miller-Way**. 1992. An environmental assessment of the effects of open-water disposal of maintenance dredged material on benthic resources in Mobile Bay, Alabama. USAE Waterways Exp. Stn. MP-D-92-1.
- Payne, B.S., A.C. Miller, **C.A. Miller-Way**, and C.R. Bingham. 1991. Macroinvertebrates of Luxapalila Creek, Mississippi and Alabama, 1987-1989. USAE Waterways Exp. Stn. EL-91-5.
- Fredette, T.J., D.A. Nelson, **T. Miller-Way**, J.A. Adair, V.A. Sotler, J.E. Clausner, E.B. Hands, and F.J. Anders. 1990. Selected tools and techniques for physical and biological monitoring of aquatic dredged material disposal sites. USAE Waterways Exp. Stn. TR-D-90-11.
- Miller-Way, C.A.** and D. Clarke. 1990. The effects of bioturbation on the physical properties of sediments. USAE Waterways Exp. Stn. MP-D-90.
- Way, C.M., D.J. Hornbach, **C.A. Miller-Way**, B.S. Payne, and A.C. Miller. 1990. Dynamics of filter feeding in *Corbicula fluminea* (Bivalvia: Corbiculidae). *Can. J. Zool.* 68: 115-120.
- Miller-Way, C.A.** and C.M. Way. 1989. The life history of *Leptoxis dilatata* (Conrad) (Prosobranchia: Pleuroceridae) from the Laurel Fork River, West Virginia. *Am. Midl. Nat.* 122: 193-198.
- Miller-Way, C.A.** and D.A. Nelson. 1988. Preliminary investigation on the short-term effects of storms on sedimentary characteristics and the nearshore fauna using the sediment profiling camera system. USAE Waterways Exp. Stn. MP-D-88-4.

Workshop Facilitator/Lead Instructor/Session Convener

2016

Teacher Workshop, How do we explore?, Exploring the Deep Ocean with NOAA

Teacher Workshop, Climate Change in the Gulf of Mexico

Teacher Workshop, Marine Technology: ROVs

2015

- Teacher Workshop, BWET-WEB: Watershed education using bivalves
 Teacher Workshop, Why do we explore?, How do we explore?
 Teacher Workshop, Marine Technology: ROVs
- 2014
 Teacher Workshop, Our ABC's: Alabama's Biodiverse Coast
 Teacher Workshop, BWET-WEB: Watershed education using bivalves
 Teacher Workshop, Marine Technology: ROVs
- 2013
 Teacher Workshop, BWET-WEB: Watershed education using bivalves
 Teacher Workshop, Marine Technology: ROVs
 Teacher Workshop, Reefs, Rhizomes and Restoration
 Teacher Workshop, Climate Change in the Gulf of Mexico
- 2012
 Teacher Workshop, Regional Issues in the Gulf of Mexico
 Teacher Workshop, Reefs, Rhizomes and Restoration
 Teacher Workshop, Climate Change in the Gulf of Mexico
 Teacher Workshop, The Delta
- 2011
 Teacher Workshop, Regional Issues in the Gulf of Mexico
 Teacher Workshop, Reefs, Rhizomes and Restoration
- 2010
 Teacher Workshop, Regional Issues in the Gulf of Mexico
 Teacher Workshop, Reefs, Rhizomes and Restoration
 Teacher Workshop, Climate Change in the Gulf of Mexico
- 2008
 Teacher Workshop, The Delta
- 1999
 Teacher Workshop, The CBL system in the classroom
- 1998
 Teacher Workshop, The CBL system in the classroom
- 1997
 Teacher Workshop, The CBL system in the classroom
- 1996
 Teacher Workshop, The CBL system in the classroom
- 1990
 Training Workshop, Stella, a dynamic simulation modeling program, Dept. of Aquatic Resources, Honolulu, HI

Teaching Experience

University of Mobile

Majors: General Biology (BIO112), General Physiology (BIO313), Invertebrate Zoology (BIO330), Marine Science (BIO/MAR340), Aquatic Ecology (BIO437), Environmental Science (ES111), Environmental Regulations (ES345), Technical Writing for the Sciences (BIO/CH/ES390), Oral Presentations (BIO/CH/ES 490), How to Read & Interpret Scientific Literature (BIO/CH/ES 497), Special Topics: Readings from Great Books in Science (BIO498)
 Non-majors: Introduction to Marine Science, Environmental Science, Introduction to Biology, The Underwater World (education majors)

Dauphin Island Sea Lab

Marine Biology, Introduction to the Business of Science (Research Experience for Undergraduates)

University of South Alabama

General Biology I, II (BIO121, BIO122); Marine Biology (BIO367); Life Science II (BIO102)

Alderson-Broadus College

Marine Science, Algebra, BASIC Programming
 Invertebrate Zoology

Introduction to Biological Principles
Introduction to Statistics
College Algebra
Introductory Algebra
Introduction to Programming
Introduction to Computer Science

Professional Development

2016 National Network for Climate Change Interpretation (NNOCCI), National Science Foundation; (in person)
2016 ALEX Lesson Plan Summit, Alabama State Department of Education (in person)
2013 C-DEBI workshop – Beneath the Deep: The Science of Life beneath the sea floor; Woods Hole Science & Technology Partnership (online)
2012 NEON Project Budburst, National Science Foundation (online)
2012 NOAA Climate Stewards Program, NOAA (online)
2011 NOAA Climate Stewards Program, NOAA (online)
2002 New Approaches and Techniques for Teaching Science: Addressing Environmental Problems to Stimulate Undergraduate Learning, National Science Foundation (in person)

Service

Professional Organizations

2009-2015 Secretary/Treasurer – Gulf Estuarine Research Society, CERF regional affiliate
2013-2015 Education Committee, Coastal and Estuarine Research Federation (CERF)

Reviewer

Manuscript reviews - Journal of Geoscience Education, Gulf and Caribbean Research, Marine Ecology Progress Series, Estuaries, Limnology & Oceanography, Biogeochemistry, Continental Shelf Research (1995, 2006, 2010, 2012, 2014)
Proposals – NOAA Environmental Literacy Grants (2016), Sea Grant Program
Applicant Review Panel - NSF/ASLO DIALOG Symposium (2004)
Textbook reviews - Castro & Huber, Miller & Hartley, Lytle

Advisory / Committee Service

Faculty Advisor, Beta Chi Science Club, University of Mobile
Member, Pre-Health Advisory Committee, University of Mobile
Member, Career Development Committee, University of Mobile
Member, Institutional Review Board, University of Mobile
Liaison Officer, University of Mobile to the Dauphin Island Sea Lab Program Committee
Faculty Council Science representative, University of Mobile

Meetings

Planning Committee - Gulf-wide Regional Sea Grant meeting, 2017
Session organizer – Oil Spill Science, Bays and Bayous Symposium, 2016
Planning Committee - Gulf-wide Regional Sea Grant meeting, 2015
Session organizer – Oil Spill Science, Gulf of Mexico Research Initiative annual meeting, 2014
Planning Committee - National Marine Educators Association annual meeting, 2013
Session organizer - Combating Nature Deficit Disorder, National Marine Educators Association annual meeting, 2013
Session organizer - Water Quality, Bays and Bayous Symposium, 2012
Session co-organizer - Coastal and Estuarine Research Federation, Collaborations among Research, Education and Outreach professionals, 2011

Science Education Events

Judge - Mobile County regional Science Fair(s), Mobile Regional Science Fair (multiple years)
Presenter - Mobile County Marine Science Career Day, Mobile County Public Schools (multiple years)

Event Supervisor, Science Olympiad, University of Mobile

Oceanographic/vessel experience

- 1996 –present RV *Verrill*, RV *Alabama Discovery* (DISL), daily cruises with college, school groups, Mobile Bay, offshore, AL
- 1993-1995 Small boat (20'-24') based field program (DISL), 20-30 trips per field season, EPSCoR Program, Mobile Bay, AL
- 1993, 1994 RV *Pelican* (LUMCON); 2 seasonal 2 wk cruises, Nutrient-enhanced Coastal Ocean Productivity (NECOP) program, Gulf of Mexico continental shelf
- 1989-1991 RV *Acadiana* (LUMCON); 7 seasonal 4 d cruises, LA Sea Grant sponsored research, Atchafalaya Bay system, LA
- 1989, 1990 RV *Pelican* (LUMCON); 4 quarterly 2 wk cruises, LaSER program, Gulf of Mexico continental shelf
- 1990 RV *Deborah B.* (Dauphin Island Sea Lab), USAE sponsored research, Mobile Bay, AL
- 1982 RV *Wecoma* (OSU); 10 d cruise, ONR sponsored research, Oregon continental slope/offshore plain

Honors

- 2005 Who's Who among America's Teachers (based on student nominations)
- 2002 William A. Megginson Teaching Award, University of Mobile
- 1994 Invited participant, NSF/ASLO sponsored DIALOG Symposium, Bermuda
- 1991 Best Student Paper, North American Benthological Society Annual Meeting
- 1991 Best Student Oral Presentation, Estuarine Research Federation Biennial Meeting