

Biographical Sketch: Laura Murray

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Professional Preparation:

Mississippi Junior College		A.A., 1969
University of West Florida	Marine Sciences	B.S., 1971
University of West Florida	Biology/Education	M.A., 1973
Virginia Institute of Marine Science (College of William & Mary)	Wetlands Ecology	Ph.D., 1983

Positions Held:

Associate Research Professor, Head of Environmental Science Education. University of Maryland, Center for Environmental Science, Horn Point Laboratory. Cambridge, MD 1994—Present
Associate Professor, Biology Department. Salisbury University. Salisbury, MD. 1982—1994
Assistant Professor of Biology. Salisbury State University, Salisbury, Maryland. 1982-1990
Graduate Assistant (Ph.D. dissertation) in Estuarine Ecology. Seagrass investigations in the lower Chesapeake Bay. College of William and Mary, Marine Science Institute, Gloucester Point, VA. 1979-1981
High School Biology and Science Teacher. Biology, Marine Science, Quantitative Physical Science, Norcum High School, Portsmouth, VA. 1975-1979

Publications:

Murray, L and D. Gibson. 2008. *Real-Time Ocean Data in the Classroom*. The Science Teacher. October pp.44-48.

Murray, L., W. M. Kemp, D. Hinkle, D. Shafer. *Production and Field Planting of Vegetative Propagules for Restoration of Redhead Grass and Sago Pondweed in Chesapeake Bay*. Army Corps of Engineers. Tech Notes. (in press)

Murray, L., W.M. Kemp. 2008. *Biological factors: Aquatic grasses*, pp. 115-120, In: J. Petersen, V. Kennedy, W. Dennison and W.M. Kemp (eds.). 2008. Experimental ecosystems and scale: Tools for understanding and managing coastal ecosystems. Springer, New York.

Kemp, W.M., L. Murray. 2008. *Nutrient enrichment and aquatic grass restoration*, pp. 172-178, In: J. Petersen, V. Kennedy, W. Dennison and W.M. Kemp (eds.). 2008. Experimental ecosystems and scale: Tools for understanding and managing coastal ecosystems. Springer, New York.

Sanford, L, S. Suttles, W.M. Kemp, J. Petersen, L. Murray. 2008. *Physical factors: Materials exchange*, pp. 75-81, In: J. Petersen, V. Kennedy, W. Dennison and W.M. Kemp (eds.). 2008. Experimental ecosystems and scale: Tools for understanding and managing coastal ecosystems. Springer, New York.

Lemus, J. and L. Murray. 2007. *Leveraging COSEE: Going Above and Beyond*. Special Issue of *Currents*. Currents. (Spring 2007).

Hengst, A., J. Melton and L. Murray. *Restoration of mesohaline submerged aquatic vegetation : The nursery bed effect*. Submitted to Restoration Ecology.

Synergistic Activities:

1. CD-ROM Publications

- Boicourt, W. A Kelley, L. Murray. Density: Lessons for High School Science. Feb 2006
- Murray, L., DS Lloyd, J Whitelock. Wetlands: Applications for Education. Maryland Association of Outdoor Educators. Jan 31, 2003.
- Murray, L., JH Melton, L May, M Parks. Submersed Aquatic Vegetation: Applications for Education. Maryland Association of Outdoor Educators. Jan 31, 2003.

2. Teacher Workshops

- Murray, L, Ecology of Bay Grasses. Teacher Workshop presented at Horn Point Laboratory. Cambridge, MD. April 2001.
- Fisher, T. and L. Murray. Land Use and Water Quality: Making the Connection. Teacher Workshop presented at Horn Point Laboratory. Cambridge MD. Nov. 2000.

3. Presentations to Educators

- Boicourt, W., A. Kelley, L. Murray. Density Currents: Application of Science to Education. American Geophysical Union. Honolulu, HW. Feb. 2006
 - Murray, L, J. McDonnell, L. Hotaling, M. DeLuca, M. Newman, D. Gibson. Using Observing Systems to Enhance Ocean Science Education. Marine Technology Society. Washington D.C. Sept. 2005.
 - Murray, L., J. Melton, M. Parks and L. May. Submersed aquatic vegetation: Application to Education. Workshop and CD presentation at the Maryland Association of Environmental and Outdoor Educators Conference. Ocean City, MD. January 2003.
 - Murray, L., D. Lloyd, J. Whitelock. Wetlands: Applications to Education. Workshop and CD presentation at the Maryland Association of Environmental and Outdoor Educators Conference. Ocean City, MD. January 2003
 - Murray, L. How can environmental research enhance science education? Maryland Association of Science Teachers Conference. Salisbury, MD. March 2001.
- 4. Recent Courses Taught for Educators: Taking the Pulse of our Ocean, COSEE-MA.*
Chesapeake Bay Ecology for Teachers (Biol 502, MEES 698 M), Ecology of the Chesapeake Bay Watershed (MEES 698 I), Wetlands Ecology for Educators, Tropical Wetland Ecology (MEES 698M), Marine Science (Biol 599).
- 5. Teachers, students mentored in research fellowships*
15 teachers since 1995, 26 REU students since 1991.
- 6. National Service*
National Academy of Sciences. Review of National NOAA Education (2008)
Director, COSEE Coastal Trends (2007-2008)
COSEE National Council (2004-2008)

Collaborators and Other Affiliations:

Advisor: R. Wetzel (VIMS)

Students: J. Melton, W. Severn, B. Sturgis, A. Hengst

Colleagues: J. Borum, W. Dennison, M. Kemp, C. Madden, J. McDonnell, D. Gibson, E. North, B. Crump, C.

Stylinski, J. Takacs, A. Frederick L. Spense