



# LILI CARPENTER

## Senior Scientist

### Academic Background

Doctor of Philosophy, Biology, University of Memphis, August 2007

Master of Science, Fisheries Science, University Of Washington, December 1987

Bachelor of Science, Biology, Guilford College, May 1984

### Specialized Professional Competence

Dr. Carpenter is an experienced scientist working in the fields of biological and ecological monitoring and management of Florida's ecosystems, wetland plant ecological physiology, hydrogeomorphic assessment of wetland function, restoration of wetlands, and fisheries ecology and management. She is an effective manager for biological studies, including preparation of research proposals; coordination with county, State and federal agencies; planning for field activities; and training and supervising project staff. Her research publications (under Carpenter and former name of Martin) include first authorship of three and contributions to seven peer-reviewed publications, and contributions to technical reports for U.S. Department of Agriculture, South Florida Water Management District, and Florida Fish and Wildlife Conservation Commission. She is also proficient in statistical analysis for data sets using Excel, SPSS and Sigma Plot. She works as a contract employee with SWC and also has her own consulting practice.

### Representative Professional Experience

**Senior Scientist, SWC**, August 2009-present, Key West, Fort Myers & Miami, FL

Serve as manager of research and field services associated with Florida freshwater wetland systems, including development of methodologies, designing studies, collecting field data, analyzing results, and preparing reports to present findings.

**Staff Biologist**, South Florida Water Management District, October 2008-March 2009, West Palm Beach, FL

Full time position assisting senior scientists at South Florida Water Management District with wetland restoration project in Florida Everglades. Duties included field collection of vegetation and water quality data, data management, data analysis, technical writing, and production of summary report for root ingrowth study. Work was through sub-contractor contract.

**Staff Biologist**, September 2007-September 2008, US Army Corps of Engineers, Vicksburg, MS

Full time position assisting senior scientists at the US Army Corps of Engineers with wetland assessment projects. Duties included literature searches and development of electronic, searchable database; development of research proposals including hypotheses; experimental design and methodologies for data collection; field collection of stream and watershed data as indicators of environmental quality; and data management. Work was through sub-contractor contract.

**Graduate Assistant**, August 2000-August 2007, University of Memphis, Memphis, TN

Investigated physiological responses of wetland plants to environmental stresses in eroded riparian ecosystems. Duties included formulation of scientific hypotheses and experimental design; developing methodologies for data collection and analyses; planning and conducting data collection activities in the field, greenhouse and laboratory; validating and interpreting data; presenting the results at scientific meetings; publishing the manuscripts in scientific journals; and training and supervising research assistants.

**Project Leader (Biological Scientist III)**, September 1991-November 1993, Florida Fish and Wildlife Conservation Commission, Orlando, FL

Central Florida Urban Fishery Project, also called "Fish Orlando!" – Management of four Fish Management Areas (181 acres). Duties included interacting with federal, State and local governments, collecting water quality and fish samples, managing data, preparing monthly and annual progress reports, developing and teaching kids fishing clinics (1,000 participants in 1993), and training and supervising one full-time and ten volunteer staff members.



**Fisheries Biologist**, July 1989-September 1991, Florida Fish and Wildlife Conservation Commission, Lake City, FL

Monitored fish populations in the Northeast Florida Region. Duties included: collecting fish samples, conducting biological surveys of fishing effort, data management, technical writing, and pond management and fish kill assessment. Florida Fish and Wildlife Conservation Commission, Lake City, FL, Jul 89 to Sep 91

### Refereed Journal Articles and Other Publications

Carpenter, LT, SR Pezeshki and FD Shields, Jr. 2008. *Responses of nonstructural carbohydrates to shoot removal and soil moisture treatments in Salix nigra*. *Trees*. 22:737-748.

Li, S, SR Pezeshki, FD Shields, Jr., LT Martin, 2007. *Factors governing survival of black willow (Salix nigra) cuttings in a streambank restoration project*, *Ecological Engineering* 29: 56-65.

Martin, LT, SR Pezeshki and FD Shields, Jr. 2005. *Soaking treatment increases survival of black willow posts in a large-scale field study*. *Ecological Restoration* 23(2):95-98.

Li, S, L.T Martin, SR Pezeshki and FD Shields, Jr. 2005. *Responses of black willow (Salix nigra) cuttings to simulated herbivory and flooding*. *Acta Oecologica* 28:173-180.

Martin, LT, S. R Pezeshki and FD Shields, Jr. 2004. *High oxygen level in a soaking treatment improves early root and shoot development of black willow cuttings*. *The Scientific World JOURNAL* 4:899-907.

Pezeshki, S. R. and L. T. Martin. 2003. *Improving success of willow cuttings planted in damaged riparian zones: Little Topashaw Creek Study*. Annual Progress Report, USDA-ARS National Sedimentation Laboratory, Oxford, MS., Project # 58-6408-1-098, pg. 83.

Pezeshki, S. R. and L. T. Martin. 2002. *Improving success of willow cuttings planted in damaged riparian zones: Little Topashaw Creek Study*. Annual Progress Report, USDA-ARS National Sedimentation Laboratory, Oxford, MS., Project # 58-6408-1-098. pg. 53.

Carpenter, L. T. and J. Arnold. 1993. *Annual Performance Report, Central Florida Urban Fishery Project*. Florida Fish and Wildlife Conservation Commission, Ocala, FL.

Carpenter, L. T. and J. Arnold. 1992. *Annual Performance Report, Central Florida Urban Fishery Project*. Florida Fish and Wildlife Conservation Commission, Ocala, FL.

Carpenter, L. T. 1990. *Preliminary investigations into the impact of Jumping Gully Creek on the quality of the fish population of the Withlacoochee River*. Florida Fish and Wildlife Conservation Commission, Lake City, FL.

Krummrich, J., L. T. Carpenter, G. Byerley, D. Jones and C. Cobb. 1990. *Fish Management Report, Northeast Florida Region, 1988-1990*. Florida Fish and Wildlife Conservation Commission, Tallahassee, FL.

Cichra, C. E. and L. T. Carpenter. 1989. *Fee fishing as an economic alternative for small farms*. The University of Florida, Department of Fisheries and Aquaculture, Gainesville, FL.

Carpenter, L. T. 1987. *A comparative study of short-term swimming performance in fry of five salmonid species at different temperatures*. Thesis. The University of Washington, School of Fisheries, Seattle, WA.

Brannon, E., A. Setter, M. Miller, S. Brewer, G. Winans, F. Utter, L. T. Carpenter and W. Hershberger. 1986. *Columbia River white sturgeon (Acipenser transmontanus) population genetics and early life history study*. Bonneville Power Administration, Seattle, WA.

### Invited Professional Presentations

Martin, L. T., S. R. Pezeshki and F. D. Shields, Jr., 2003. *Restoration of a riparian forest in southeastern USA*. Ecological Society of Japan 50<sup>th</sup> Annual Meeting, Tsukuba International Congress Center, Tsukuba, Japan, March 19-23, 2003. Travel funded by Tottori University, Japan.

Martin, L. T., S. R. Pezeshki and F. D. Shields, Jr., 2003. *Threatened riparian ecosystems and restoration efforts*. Tottori University, Department of Biology seminar, Tottori, Japan, March 19, 2003.

