

# Curriculum Vitae

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Name: T. M. "Mike" Hardig

Address: Department of Biology, Chemistry, and Mathematics  
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University of Montevallo  
Montevallo, Alabama, 35115-6480  
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Position: Professor

Telephone: Work: (205) 665-6463

Birth date: 19 November 1960; Stockton, California

Education: Graduated Bret Harte Union High School; Angels Camp, California, 1979  
B.S. (Cellular-Molecular Biology) Humboldt State University, 1990  
M.A. (Biology) Humboldt State University, 1995  
PhD (Botany) Washington State University, 1997

Military Experience:

Branch of service: U.S. Army  
Military specialty: 19D, Armor Reconnaissance  
Military Education:  
Noncommissioned Officer Academy Primary Leadership Development Course 87-05, 1987  
Dates of active duty: 2/14/84 - 5/13/88  
Rank obtained: E-5, Sgt.  
Decorations, Medals, Badges, Ribbons Received:  
Army Good Conduct Medal  
Army Achievement Medal, with two oak leaf clusters (3x)  
Army Commendation Medal  
Noncommissioned Officers Professional Development Ribbon  
Army Service Ribbon  
Overseas Service Ribbon  
Discharge: Honorable

Professional Civilian Experience:

Professor, Department of Biology and Chemistry, University of Montevallo, 2010 to present.  
Associate Professor, Department of Biology and Chemistry, University of Montevallo, 2005-2010.  
Assistant Professor, Department of Biology and Chemistry, University of Montevallo, 1999-2005.  
Post-doctoral Fellow, Department of Forest Resources, University of Idaho, 1997-1999.  
Visiting Assistant Professor, Department of Biological Sciences, University of Idaho, Spring 1997.  
Teaching Assistant, Plant Systematics, Washington State University. Spring 1997.  
Teaching Assistant, Principles of Organic Development, Washington State University. Fall 1996.  
Teaching Assistant, Evolutionary Ecology, Washington State University. Spring 1996.  
Teaching Assistant, Field Ecology, Washington State University. Spring 1996.  
Teaching Assistant, Principles of Organic Development, Washington State University. Fall 1995.  
Teaching Assistant, Community Ecology, Washington State University. Fall 1995.  
Teaching Assistant, General Botany, Washington State University. Fall 1994 to Spring 1995.  
Teaching Assistant, General Biology, Washington State University. Fall 1993 to Spring 1994.  
Teaching Assistant, General Bacteriology, Humboldt State University. Spring 1993.  
Teaching Assistant, Plant Taxonomy, Humboldt State University. Fall 1992.  
Teaching Assistant, General Botany, Humboldt State University. Fall 1991 to Spring 1992.

#### Awards and Honors:

University Scholar, University of Montevallo, 2011-2012  
Outstanding Commitment to Teaching Award, UMNAA, 2007  
University of Montevallo Research and Special Projects Grant, 2007  
Lexemual and Esther Hesler Visiting Professor Grant, University of Tennessee, 2004  
Shelby County Quality of Life Enrichment Grant, 2003  
University of Montevallo Research and Special Projects Grant, 2002  
University of Montevallo Research and Special Projects Grant, 2001  
Winner of Life Raft Debate, University of Montevallo, 1999  
Biddulph Summer Research Fellowship, 1995  
American Society of Plant Taxonomist Honors Grant, 1995  
Sigma Xi Grants-in-Aid of Research recipient, 1993  
Aase Memorial Fellowship, Washington State University, 1993-1995

#### Areas of Expertise:

Conservation Biology	Evolutionary Biology/Ecology
Plant Systematics/Taxonomy	Genetic manipulation of domesticated species

#### Membership in Professional/Academic Societies:

Botanical Society of America  
American Society of Plant Taxonomist  
Association of Southeastern Biologist  
Southern Appalachian Botanical Society  
βββ, Biology Honor Society  
OAK, Leadership Society

#### Professional Responsibilities

Manuscript reviews  
*Heredity*  
*Great Basin Naturalist*  
*Biological Journal of the Linnean Society*  
*American Journal of Botany*  
*Journal of Tropical Forest Science*  
*Systematic Botany*  
*New Phytologist*

#### Creative Endeavors:

A Guide to the Natural History of the City of Montevallo's Shoal Creek Park, with Particular Focus on its Flora, author. 2017.

Biology program brochure; development and design. 2010.

AMSTI Grade 5 Ebenezer Swamp-based *Ecosystems* science kit; development in collaboration with AMSTI-UM. 2010.

UM Ebenezer Swamp boardwalk interpretive plaques; conceptualization, design, and installation. 2009.

The University of Montevallo's Ebenezer Swamp Development Plan, author. 2008.

#### Papers, Talks, and Presentations:

##### **Abstracts of Papers Presented at Meetings.**

Barrett, K., H. Cost, S. Bell, T. Metz, and M. Hardig. *Montevallo Matters: Collaborative Community Enhancements*, at COPLAC Annual Conference 2010, Engaging Students in the Community: Student Affairs and Academic Affairs Collaborations. Asheville, NC.

- Hardig, T. M., Pamela S. Soltis, Douglas E. Soltis, and R. B. Hudson. 2001. Diploid hybrid speciation in *Ceanothus*: morphomolecular analysis of two putative hybrid species and their proposed parent species. (American Institute of Biological Sciences).
- Brunsfeld, S. J. and T. M. Hardig. 1999. Phylogeography of eastern North American *Salix*: evidence for invasive hybridization, refugial isolation and dispersion associated with recurring glaciation. (XVI International Botanical Congress).
- Hardig, Terry M., Pamela S. Soltis, and Douglas E. Soltis. 1996. Taxonomic and biogeographic implications for *Ceanothus* (Rhamnaceae) based on phylogenetic analysis of *matK* sequences. (American Institute of Biological Sciences).
- Mayer, Michael S., Pamela S. Soltis, Douglas E. Soltis, and Terry M. Hardig. 1996. Evolution of the *Streptanthus glandulosus* complex: insights from comparison of three molecular data sets. (American Institute of Biological Sciences).
- Soltis, Pamela S., Stephen J. Novak, Terry M. Hardig, and Douglas E. Soltis. 1995. Phylogenetic relationships and rapid radiation in *Lomatium* (Apiaceae). (American Institute of Biological Sciences).
- Hardig, Terry M. and Pamela S. Soltis. 1994. Monophyly and interspecific relationships of the *Euryptera* group (*Lomatium*) based on ITS sequences. (American Institute of Biological Sciences).
- Publications.**
- Hudson, R. B. and T. M. Hardig. 2015. Isolated Wetland Commons and the Constitution, 2014 *BYU Law Review*. 1443.
- Hardig, T. M. Mesic Forests of Upland Alabama. In: Bailey, M. E. Soehren, and D. Folkerts, eds. *Natural Communities of Alabama*. University of Alabama Press, Alabama. (ACCEPTED)
- Hardig, T. M., C. K. Anttila, and S. J. Brunsfeld. 2010. A phylogenetic analysis of *Salix* (Salicaceae) based on *matK* and ribosomal DNA sequence data. *Journal of Botany*, vol. 2010, Article ID 197696, 12 pages, doi: 10.1155/2010/197696.
- Pugnaire, F. I., F. S. Chapin III, and T. M. Hardig. 2006. Evolutionary changes in correlations among functional traits in *Ceanothus* in response to Mediterranean conditions. *Web Ecology* 6: 17-26.
- Hardig, T. M., J. R. Allison, and E. E. Schilling. 2005. Molecular evidence of hybridization between *Liatris oligocephala* J. Allison (Asteraceae) and a more wide-spread congener: a preliminary assessment of the potential for extinction. *Castanea* 70: 246-254.
- Hardig, T. M., P. S. Soltis, D. E. Soltis, and R. B. Hudson. 2002. Morphological and molecular analysis of putative hybrid speciation in *Ceanothus* (Rhamnaceae). *Systematic Botany* 27: 734-746.
- Hardig, T. M., S. J. Brunsfeld, R. S. Fritz, M. Morgan, and C. M. Orians. 2000. Morphological and molecular evidence for hybridization and introgression in a willow (*Salix*) hybrid zone. *Molecular Ecology* 9: 9-24.
- Hardig, T. M., P. S. Soltis, and D. E. Soltis. 2000. Diversification of the North American shrub genus *Ceanothus* (Rhamnaceae): conflicting inferences from nuclear ribosomal DNA and chloroplast DNA. *American Journal of Botany* 87: 108-123.
- Hardig, T. M. and P. S. Soltis. 1999. An ITS-based phylogenetic analysis of the *Euryptera* species group in *Lomatium* (Apiaceae). *Plant Systematics and Evolution* 219: 65-78
- Conti, E., D. E. Soltis, T. M. Hardig, and J. Schneider. 1999. Phylogenetic relationships of the Silver Saxifrages (*Saxifraga*, Sect. *Ligulatae* Haworth): implications for the evolution of substrate specificity, life histories, and biogeography. *Molecular Phylogenetics and Evolution* 13: 536-555.

Milleneux, A., T. M. Hardig, and M. Mesler. 1998. Molecular confirmation of hybrid swarms in *Polystichum*. *Systematic Botany* 23: 421-426.

### **Invited Lectures and Talks.**

Guest Presenter, Montevallo Arbor Day Celebration, 2010. *Introduction to UM's Ebenezer Swamp Facility.*

Guest Speaker, Alabama Wildlife Center Audubon Teaches Nature Series, 2010. *Swamp Life at Ebenezer Swamp.*

Guest Speaker, State meeting of AMSTI personnel, Oak Mountain H.S., 2009. *Educational Opportunities at UM's Ebenezer Swamp.*

Guest Speaker, Montevallo Civitan Club, 2009. *Environmental studies in UM's Ebenezer Swamp.*

Guest Lecturer, Youth Leadership Shelby County, 2009. *Wetlands and development: a difficult, yet essential, balancing act.*

Guest Speaker, Future Falcons Day, 2009. *Educational Opportunities at UM's Ebenezer Swamp.*

Guest Presenter, Montevallo Arbor Day Celebration, 2009. *Introduction to UM's Ebenezer Swamp Facility.*

Guest Speaker, Alabama Fern Society (Birmingham Chapter), 2008. *Hardy ferns of Ebenezer Swamp.*

Guest Lecturer, Montevallo Library & Fresh Air Families Nature Camp, 2008. *An introduction to the ecology and practical application of local tree species.*

Guest Lecturer, Youth Leadership Shelby County, 2008. *Wetlands and development: a difficult, yet essential, balancing act.*

Guest Presenter, Montevallo Arbor Day Celebration, 2008. *Introduction to UM's Ebenezer Swamp Facility.*

Guest Speaker, Centralia Gardening Club, 2008. *Wetlands and Ebenezer Swamp: an update.*

Guest Lecturer, Youth Leadership Shelby County, 2007. *Wetlands and development: a difficult, yet essential, balancing act.*

Guest Co-speaker (with Lois George, PELA Inc.), ADEM Groundwater Conference, 2007. *Hydrogeology of Ebenezer Swamp and Vicinity.*

Guest Speaker, Alabama Wildflower Society (Birmingham Chapter) 2007. *Distinctive plants of Ebenezer Swamp*

Guest Lecturer, Youth Leadership Shelby County, 2006. *Wetlands and development: a difficult, yet essential, balancing act.*

Guest Speaker, Sigma Xi Society (UAB Chapter), 2006. *Hybridization in the local endemic Liatris oligocephala: assessing the risk of extinction and An Introduction to the Ebenezer Swamp Project.*

Guest Speaker, Centralia Gardening Club, 2006. *Wetlands and Ebenezer Swamp: Eden under Siege.*

Guest Speaker, Montevallo Study Club, 2005. *Wetlands and Ebenezer Swamp: Eden under Siege.*

Guest Speaker, Alabama Wildflower Society, 2005 annual fall meeting. *Wetlands and Ebenezer Swamp: Eden under Siege.*

Guest Lecturer, Youth Leadership Shelby County, 2005. *Wetlands and development: a difficult, yet essential, balancing act.*

Guest Speaker, Montevallo branch of AAUW, 2005. *Water, Wetlands, and Ebenezer Swamp.*

Guest Speaker, Bibb County Wildflower Society, 2005. *Liatris oligocephala*: assessing the risk of extinction for a rare Alabama endemic.

Guest Speaker, Montevallo Civitans, 2005. *Water, Wetlands, and Ebenezer Swamp*.

Guest Speaker, Montevallo Evening Gardening Club, 2005. *Ebenezer Swamp: A new research environment at UM*.

Guest Speaker, 81<sup>st</sup> annual meeting banquet of The Alabama Academy of Science, 2004. *Wetlands research and education: Preparing for the future today*.

Guest Lecturer, New Horizons Program, the University of Alabama at Birmingham, 2004. *The development of modern evolutionary thought*.

Invited Speaker, UM Tuscaloosa County Alumni, 2004. *Ebenezer Swamp: A new research environment at UM*.

Invited Speaker, Bibb County Wildflower Society, 2004. *Botanical treasures of Ebenezer Swamp*.

Invited Speaker, UM Jefferson County Alumni, 2004. *Ebenezer Swamp: A new research environment at UM*.

Guest Lecturer, Youth Leadership Shelby County, 2004. *Wetlands and development: a difficult, yet essential, balancing act*.

Guest Lecturer, Department of Biological Sciences, Biological Sciences Seminar Series, Mississippi State University, 2003. *Diversification in the shrub genus Ceanothus: where have all the species gone?*

Invited Speaker, UM Madison County Alumni, 2003. *Ebenezer Swamp: A new research environment at UM*.

Invited Speaker, UM Huntsville County Alumni, 2003. *Ebenezer Swamp: A new research environment at UM*.

Invited Lecturer, Our Lady of the Valley Catholic school Environmental Topics class, 2003. *The importance of wetlands*.

Invited Speaker, Phi Kappa Phi Spring initiation banquet, 2003. *The value of a research experience: excellence through exploration*.

Invited Speaker, UM Board of Trustees meeting, 2003. *An introduction to UM's Ebenezer Swamp development plan*.

Invited Speaker, Montevallo Rotary, 2001. *The University of Montevallo's Ebenezer Swamp ecological preserve: Research and education opportunities for UM students*

Invited Lecturer, Alabama Science in Motion Workshop, 2001. *Performing basic water quality testing with the LaMott's test kit*.

#### **Presentations of Mentored Undergraduate Research.**

Hutchens, Erica. 2016. A Comparison of Vinegar and RoundUp™ on the Germination Rates of *Raphanus sativus* L. Seeds. (University of Montevallo Undergraduate Research)

Willard, Andrea M. 2012. Potential Allelopathic Effects of Invasive Species *Ligustrum sinense* Lour. (Chinese Privet) and *Triadica sebifera* L. Small (Chinese Tallow Tree) on the Germination of *Raphanus sativum* L. Radish) Seeds. (McNair Scholars Undergraduate Research)

Hyde, Stephen. 2009. An analysis of bacterial communities in Ebenezer Swamp, Shelby County, Alabama, U.S.A. (National Council on Undergraduate Research)

Weil, Lauren. 2007. Molecular analysis of hybridization and introgression in two species of *Liatris* (Asteraceae.) (National Council on Undergraduate Research)

Cassidy, Lewis. 2002. Preliminary survey of fish species in Ebenezer Swamp, Shelby County, Alabama. (National Council on Undergraduate Research)

Little, Michelle and Timothy Wynn. 2002. Survey of terrestrial salamander species in Ebenezer Swamp, Shelby County, Alabama using natural and artificial cover. (National Council on Undergraduate Research)

Hudson, Ryan B. 2001. Morphometric analysis of putative hybrid species in *Ceanothus* (Rhamnaceae.) (National Council on Undergraduate Research)

Courses Taught:

Bio 100 – Principles of Biology	Bio 106 – Introductory Biology II
Bio 206 – Genetics	Bio 310 – Plant Systematics
Bio 440 – Evolution	Bio 450 – Field Botany
Bio 480 – Special Projects	Bio 540 – Evolution
Bio 550 – Current Topics in Biology (Mutualisms)	Bio 550 – Current Topics in Biology (Biotechnology)
Bio 550 – Current Topics in Biology (Plants & Society)	

Grants Awarded:

*National*

Federal Congressional Grant – for the construction of a boardwalk in Ebenezer Swamp, 2005, \$225,000  
(**Awarded the University of Montevallo, Department of Biology, Chemistry, and Mathematics**)

Federal Congressional Grant – for the outfitting of an environmental laboratory, 2003, \$400,000 (**Awarded the University of Montevallo, Department of Biology, Chemistry, and Mathematics**)

*Academic Institutions (other than UM)*

“Morphogenetic analysis of putative hybridization between *Liatrix oligocephala* and *L. cylindracea*” funded by the Lexemual and Esther Hesler Visiting Professor endowment fund, University of Tennessee, 2004, \$4224 (**Awarded to Mike Hardig**)

*Private Foundations*

The Daniel Foundation, to fund remodeling of the UM Ebenezer Swamp Preserve interpretive center. 2016-2017, Award: \$50,000 (**Awarded to the University of Montevallo Foundation**)

The Greater Birmingham Community Foundation, to fund remodeling of the UM Ebenezer Swamp Preserve interpretive center. 2016-2017, Award: \$50,000 (**Awarded to the University of Montevallo Foundation**)

The Alabama Power Foundation, to fund UM Ebenezer Swamp Preserve activities. 2016, Award: \$25,000 (**Awarded to the University of Montevallo Foundation**)

Legacy, Inc. Competitive Grant Program, to fund The University of Montevallo’s Ebenezer Swamp Boardwalk Interpretive Plaques. FY2009. Award: \$9,717.71. (**Awarded to Mike Hardig**)

Hearin-Chandler Foundation – for construction/maintenance of a boardwalk in Ebenezer Swamp, 2004. Award: \$35,000. (**Awarded to the University of Montevallo Foundation**)

Stewart Organization – for development of Ebenezer Swamp Wetlands Research and Interpretive Center development, 2004. Award: \$5,000. (**Awarded to the University of Montevallo Foundation**)

Vulcan Materials – for construction/maintenance of a boardwalk in Ebenezer Swamp, 2004. Award: \$180,000. (**Awarded to the University of Montevallo Foundation**)

“An assessment of the risk of extinction by hybridization in *Liatrix oligocephala*” funded by the Alabama Nature Conservancy, Grants-in-aid-of-research, 2001-2002, Award: \$300. (**Awarded to Mike Hardig**)

*Local Government Agencies*

Shelby County Quality of Life Enrichment grant program, to fund preliminary architectural and engineering costs associated with the development of the Ebenezer Swamp Wetlands Research and Interpretive Center, 2002-2003, Award: \$15,937 (**Awarded to the University of Montevallo**)

*Montevallo Research and Special Projects*

“Genetic analysis of recurrent hybridization in *Liatris* (Asteraceae)” funded by University of Montevallo Research and Special Projects Committee, 2006-2007, Award: \$1372.58 (**Awarded to Mike Hardig**)

“Molecular analysis of hybridization in *Liatris* (Asteraceae)” funded by University of Montevallo Research and Special Projects Committee, 2001-2002, Award: \$1105 (**Awarded to Mike Hardig**)

“Biogeographical analysis of *Salix eriocephala* Michaux” funded by University of Montevallo Research and Special Projects Committee, 2000-2001, Award: \$770 (**Awarded to Mike Hardig**)