

KATHRYN R. MADDEN

EMPLOYMENT

Instructor Department of Education
University of South Carolina, Beaufort
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EDUCATION

Edd, STEM Education cognate in Problem-based Learning, University of South Carolina (graduation date, Spring 2020, *dissertation focus: fostering a science identity through local learning*).

MS in Biological Sciences, Clemson University.

MS in Science Education, Montana State University.

BS in Biology, University of South Carolina, Aiken.

CERTIFICATIONS, APPOINTMENT, PROFESSIONAL DEVELOPMENT

South Carolina Teachers Certification, HQ Biology, R2S,
Educator Identification 230053 (2025)

NEIT Certified SC Evaluator, March 2020-23

Program Coordinator of Secondary Teacher Education Biology, USC Beaufort, Appointment
2019-2021, Department of Natural Sciences

Project Lead the Way, University of Minnesota, Institute of Technology, 2009

TEACHING, ADVISING, PROFESSIONAL DEVELOPMENT EXPERIENCE

Instructor, Department of Education, University of SC Beaufort (present)

- Teaching Science in Elementary School, EDEL 432
- Social Studies and Science, EDED B436
- Senior Seminar, Education Internship Course:
ENGL B482, EDEL B476, EDEC B476, EDME B476
- Clinical Observation and Analysis, EDCI B100
- Family Life in Early Childhood, EDEC B345
- Practicum Clinical Experience, EDRD B450
- University Supervisor of Teacher Candidates In Practicum Field Experience
- Field Placement Coordinator for Student Teachers Clinical Experiences, 2022-2023

- Led Summer Institute Workshop: Active Learning Techniques for K-6 Training (August 2023)
- Led Summer Institute Workshop: Active Learning Techniques for Secondary Teachers Training (August 2023)
- First Days, class for new undergraduate freshman students, “Ready, Set, Activate” (August 2023)
- Assist and guide area school teachers on a variety of environmental education after-school programs, including gardening, pollinator gardens, pollinator studies, and attracting wildlife to campus areas (2015 – ongoing)

Instructor, Department of Natural Sciences, University of SC Beaufort 2016-2022

- Introductory Biology, BIO 101 (lecture and lab)
- Introductory Biology, BIO 102 (lecture and lab)
- Introduction of Environmental Biology, BIO 270 (lecture and lab)
- Introduction of Environmental Biology, BIO 270W (online lecture and lab)
- Ecology and Evolution, BIO 303 (lab)
- Research, BIO B399 *Impacts of runoff on germination of Spartina alterniflora*
- Development, Implementation, and Guidance of Introductory Biology Inquiry-based Labs

Academic Advisor, University of SC Beaufort (present)

- Education Majors
- Secondary Teacher Education, Biology Majors
- Biology Majors

Adjunct Instructor, Department of Natural Sciences, University of SC Beaufort 2014-16

- Introduction of Environmental Biology, BIO 270 (lecture and lab)
- Introductory Biology 101 and 102 (labs)

Formal Classroom Educator Secondary and Primary Science, Aiken and Beaufort County 2006-11; 2012-14

- High School Biology and Life Sciences
- Environmental Science for 5th-8th grades
- Fifth grade Science
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Development of Curricula and Educational Programs 2007-11; 2012-14; 2014-2016

- Beaufort County Schools development of HS Biology Curriculum
 - Beaufort County Schools development of Elementary and Middle STEM Curriculum
 - Beaufort County and Keep Beaufort County Clean “Eco-cyclers” environmental program for K-12
 - Beaufort County Environmental Liaisons Teacher Program
 - Beaufort County Recycling Internship Program
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RESEARCH EXPERIENCE, EMPLOYMENT

- Research Coordinator, Project Manager, Plant Ecology, University of Ga, Savannah River Ecology Laboratory 2002-07 , Dr. Rebecca Sharitz Lab, primary research *Effects of a Single Species Management Approach, Effects of Military Training and Forest Management on a Suite of TES Species within Longleaf Pine and Sandhill Communities*
- Plant Ecology Technician, University of Ga, Savannah River Ecology Laboratory 1998-01, Dr. Ken McLeod, primary research *Effects of Forest Management on Bottomland Hardwood Forests*
- Senior Environmental Scientist, Scientific Application International Corporation 2001-02, *Predicating the Movement and GIS Modeling of Contaminants with Soils and Waters, Remediation of Fly-coal Ash Basins on Savannah River Site, QA/QC DOE Environmental Databases*
- Research Technician, University South Carolina Aiken 1997-99, *Phytoremediation studies in Heavy Metal Uptake of Plants with Fly-coal Ash Basins located on Savannah River Site*
- Plant Ecology Research Technician, National Audubon Society 1997-99, *Plant Community Surveys within Four Managed Forests and Herbarium Collection*

OTHER SUPERVISORY EXPERIENCE

- Executive Director, Port Royal Sound Foundation 2011-12
- Executive Director, Keep America Beautiful – Beaufort 2014-16
- Recycling Coordinator, Beaufort County 2014-16
- Supervising Senior Editor, Woodward White Publishing 1994-97
- Medical Referral Specialist, Woodward White Publishing, Best Doctors 1995-97

AWARDS

\$40,000.00 SC DHEC, Solid Waste Twin the Bin Oceanfront (BCPW)
\$2000.00 SC DHEC, Composting 2015 (BCPW)
\$5200.00 SC DHEC, Oil Recycling Education 2015 (BCPW)
\$7200.00 SC DHEC Tire Recycling Education 2015 (BCPW)
\$5000.00 United Parcel Service and Keep America Beautiful Tree Grant 2015 (BCPW)
\$2300.00 Keep America Beautiful Law Enforcement 2014 (BCPW)
\$8000.00 Keep America Beautiful Community Beatification Grant 2014 (BCPW)
\$700.00, Foundation for Education Excellence 2013, 2014 (BCSD)
\$700.00, Champions for the Environment, 2012 (BCSD)
\$75, 000.00 Community Foundation of the Lowcountry, 2012 (PRSF)
\$25,000.00 Community Foundation of the Lowcountry, 2012 (PRSF)
\$25,000.00 Carolina Clear ,2012 (PRSF)
\$6,200.00 Sheldon Township for Aquaponics Project and Future Farming (BCSD)

CERTIFICATIONS, MEMBERSHIPS, TRAINING

Problem-Based Learning Training, Arizona State University, May 2021
Foundations in Excellence Teaching Online, January 2021
Get Ready to Teach Online, USC Beaufort June 2020
SC DHEC Recycling Professionals Certification
South Carolina State Master Naturalist
40 Hours HAZMAT
Project WET, Project WILD, Project Lead the Way, Project Learning Tree

Environmental Education Association of SC, Green Steps
School Mentor, 2016 Mentor of the Year SC Department of
Natural Resources Volunteer
National Science Teaching Association
Palmetto State Teachers Association
SC Lowcountry Master Naturalist Association

Proficient in Microsoft Office, Publisher, Access, SAS, PCOrd, SiSTAT, CAD
packages, ArcGIS, Blackboard and Canvas Platforms

Other Certifications:

South Carolina Master Naturalist, Clemson University
Yoga and Pilates Instructor, FiTour

PUBLICATIONS

Book

The Best Lawyers in America, 1997-1998, Woodward/White Publication. Stephen Naifeh and Gregory White Smith, Kathryn Madden (Senior Supervising Editor, co-editor)

The Best Doctor in America, Southeastern Regional Guide, 1996-1997 ,
Woodward/White Publication. Stephen Naifeh and Gregory White Smith, Kathryn Madden (Senior Supervising Editor, and co-editor)

The Best Doctor in America, Northeastern Regional Guide, 1996-1997 ,
Woodward/White Publication. Stephen Naifeh and Gregory White Smith, Kathryn Madden (Senior Supervising Editor, and co-author)

MS in Science Education Theses

Madden, Kathryn. 2011. The Use of Inquiry-based Instruction to Increase Motivation and Academic Success in a High School Biology Classroom.
<http://etd.lib.montana.edu/etd/2011/madden/MaddenK0811.pdf>

Peer-reviewed Journal

Sharitz, R. R., D. W. Imm, K. R. Madden and B. S. Collins. 2009. Impacts of military training and land management on threatened and endangered species in the southeastern Fall Line sandhills communities. Strategic Environmental Research and Development Program. Final Technical Report(SI-1302).

Collins, B., R. Sharitz, K. Madden and J. Dilustro. 2006. Comparison of sandhills and mixed pine hardwood communities at Fort Benning, Georgia. *Southeastern Naturalist* 5:93-102.

Selected Published Technical Abstracts

Kingsley-Smith, P., B. Keppler, S. Lovelace, K. Madden and J. Leffler. 2014. You Can't Always Get What You Want....Or Can You? A Collaborative Approach to Oyster Reef Habitat Restoration In The ACE Basin NERR, South Carolina, USA. Social COAST Forum 2014, Charleston, SC

Madden, K., S. Harper and R. Sharitz. 2003. Comparisons of tree composition, canopy openness, and soil characteristics between and among Fall Line sandhills communities. *Southeastern Biology* 50:192.

Madden, K., R. Sharitz, D. Imm and S. Harper. 2003. Tree composition and soil characteristics of Fall Line sandhill communities. Ecological Society of America. Savannah, GA.

Madden, K, R. Sharitz, and D. Imm. 2004. Comparisons of vegetation and soil composition of select sandhill plant TES populations of three military installations. Society for Conservation Biology. New York, NY.

Madden, K., R. Sharitz, D. Imm and S. Turner. 2005. Comparisons among habitat variables of TES plants of the southeastern Fall-line Sandhills. International Association for Ecology and Ecological Society of America. Montreal, Quebec.

Ornes, W. H., K. S. Sajwan, R. W. Taylor, S. Guisti, and K. Madden. 1999. Preliminary Assessment of Water Fern (*Salvinia*) Plants for uptake of Cd, Al, Mn, and Fe. In W. W. Wenzel, D. C. Adriano, B. Alloway, H. E. Doner, C. Keller, N. W. Lepp, M. Mench, R. Naidu, and G. Pierzynski, eds., p. 490-491. In Proc 5th Intl. Conf. Biogeochemistry of Trace Elements, Vienna, Austria.

Guisti, S., K. Madden, and H. Ornes. 1998. Effects of Coal Pile Runoff on Wetland Plants: Tests for pH Tolerance and Cd Uptake/Toxicity in Several Wetland Plants. SWS, Anchorage, Alaska, 6/8-12, 1998.
