

# Curriculum vitae

Sigrun N. Gadwa, MS, PWS  
Ecologist/Botanist/Wetland Scientist

## EDUCATION:

M.S., Plant Ecology, University of Connecticut, Storrs, CT, 1997  
B.A., Biology, Brown University, Providence, R.I., 1975

### *Continuing Education*

16 credit hours in Soil Science and Geology, 1993 – 2001  
University of Connecticut, Storrs  
Five Plant Pathology courses, Cook College, Rutgers University, New Brunswick, N. J. 1978 - 1979  
Graduate Phycology course. Pan American U., Brownsville, Texas, 1982  
Arboriculture course, Quinnipiac College, Hamden, CT, 1984  
CT DEEP training workshop Series: Rapid Bioassessment Techniques, & Stream Ecology Workshops, Bethany, 1996 - 7  
Marking, Measuring & Planning Turtle Surveys. H. Gruner, CT Science Museum, workshop for QRWA Turtle Crossing Program, 1998  
Riparian Buffer Function, Performance & Limitations. Urban Riparian Buffers Conference & Technical Training Session. April 1999  
Sedimentation and Erosion Control Review Session. USDA Natural Resource Conservation Service and CPESC (Certified Professionals in Erosion Control), Concord, NH, September 2001  
Freshwater Mussel Workshop. New Hampshire Department of Environmental Conservation. August 2004  
Moss Identification & Ecology, Eagle Hill Institute. 2019

## CERTIFICATIONS:

*Registered Soil Scientist,*  
Society of Soil Scientists of Southern New England  
*Certified Professional Wetland Scientist*  
Society of Wetland Scientists  
*Organic Land Care Professional.* NOFA (NE Organic Farming Association)

## EXPERIENCE:

As a plant ecologist Ms. Gadwa inventories, assesses, photographs, and monitors ecological communities, often in support of open space acquisition initiatives. She plans and guides control programs for invasive plants, searches for listed plant and turtle populations, and assesses their habitat. Botanical specialties include vascular plant identification and winter botany. She is experienced with third-party reviews of development projects, assessments of functions and values, wetland and watercourse delineation, planning and implementing wetland and habitat restoration, vernal pools studies, water quality testing and data analysis, and in-stream bio-assessments.

## Curriculum vitae: *(continued)*

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### EMPLOYMENT HISTORY:

- 1999 to present      **Carya Ecological Services, LLC, Principal**  
Ecological and wetland assessments, botany & habitat inventories, Vegetation planning. CTDEEP surveys for rare plants and turtles.
- Recent **Carya** clients include the Berlin Land Trust, Hamden Land Conservation Trust, Avalonia Land Conservancy, East Lyme Land Trust, Brookfield North, LLC, Black & Veatch for the Town of West Haven, Mumford Cove Association, Town of Colebrook, SCS-Bethmour Rd., and private landowners.
- 1999 to present      **Carya Ecological Services, LLC, Principal, Subcontractor to Rema Ecological Services, LLC**, Vernon, CT, an environmental science collaborative; ecological fieldwork, planning, and reporting
- 2015 to 2022      **Post University, Waterbury Campus**  
*Adjunct Professor* of Botany & Ecology.
- 2013 to 2018      **K & W Construction**, Southbury, CT, *Subcontractor*  
Erosion & Sediment Control Inspections, Turbidity testing for CT DEEP
- 2014 to 2019      **South Central CT Regional Water Authority**, New Haven, CT  
*Subcontractor*. Annual vegetation monitoring and reporting for compliance with CT DEEP Wellfield Diversion Permit
- 2001 to 2004      **CT DEEP Wildlife Division**, *Subcontractor*  
Vegetation and wetland inventories, and mapping of large Wildlife Management Areas (WMAs).
- 2003 to May 2016      **Ships' Hole Farm Partnership**, Smithtown, Long Island, NY  
*Farm Tenant Supervisor*. Responsible for vegetation management & invasive control; grew and collected seed of native species on family farm, and advised the monitors of the Eastern turtle population.
- 1995 to 2000      **Quinnipiac River Watershed Association (QRWA)**  
*Executive Director/Staff Scientist*  
Led botany hikes and a volunteer monitoring program, including stream bio-assessments, turbidity testing, and bird/turtle surveys; site plan reviews of projects impacting the watershed; wrote testimony, grants, publicity, and educational materials; liaison with officials. Chair of Habitat Work Group of the **Watershed Partnership**, which identified and documented Quinnipiac watershed habitats in need of protection or restoration until 2003.

## Curriculum vitae: *(continued)*

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### EMPLOYMENT HISTORY: *(continued)*

- 1996-2018                      **QRWA Turtle Crossing Program**  
*Volunteer monitoring - Coordinator/instructor.*  
Instructed citizens on preparing detailed accurate record forms for the Natural Diversity Database. Over 50 records submitted. Outreach on Eastern box turtles and wood turtles: behavior through the seasons, habitat usage, and conservation needs. Multi-year wood turtle study in north Cheshire
- 1991 to 1995                      **De Leuw-Cather, Inc.,** East Hartford, CT  
*Environmental Planner/Field Ecologist*  
Field data collection, analysis, and report preparation, mostly for high-way projects; specialties included listed plant searches, assessment of wetland functions, mitigation design, and wetland delineation (ACOE method).
- 1987 to 1991                      **Univ. of Connecticut Department of Civil Engineering,** Storrs, CT  
*Wetlands Researcher*  
Part of an interdisciplinary team, studying man-made replication wetlands and natural reference wetlands. Took part in research design; collected vegetation, soils, and hydrologic data; literature searches; data analysis. Research used for wetlands mitigation-related manual for the Connecticut Department of Transportation and for master's thesis.
- 1974 to 1975                      **Brown University,** Providence, R.I.  
*Teaching Assistant, Plant Systematics*
- 1968 to 1975                      **Long Island Nature Conservancy, Stewardship Volunteer**  
Nature trail development and maintenance, botanical inventories, wrote preserve descriptions and self-guided nature trail brochures.

### PROFESSIONAL AFFILIATIONS:

Connecticut Botanical Society (Board Member, Chair of Ecology & Conservation Committee, frequent field trip leader)  
Connecticut Invasive Plant Working Group (CIPWG)  
Connecticut Association of Wetland Scientists  
Society of Soil Scientists of Southern New England  
Connecticut Ornithological Society  
Connecticut Entomological Society  
Ecological Society of America  
Native Plant Trust, PCV (Plant Conservation Volunteer) Program

## Curriculum vitae: *(continued)*

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- PUBLICATIONS:** Lefor, M.W. Barklay, J.S. Cooke, R.S. Craig, S.N. Gadwa, T.S. Murray, April 1990. *Annotated Bibliography for Wetland Mitigation*.
- August 1990. *Patterns of Herb Layer Species Association*. In Lefor, M.W. et al *Wetland Mitigation: Interim Report* No. CT-RD-JHR-90-8, The Transportation Institute, Storrs, Conn. 97 pp.
- May 1995. *Wetland Mitigation: Botany*. Volume 1 of 6. Lefor, M.W. and S.N. Gadwa. Report No. JR95-241. Dept. Civil Engineering, Joint Highway Research Council, Transportation Institute, Storrs, Conn. 259 pp.
- December 1997. *Plant Colonization Processes and Patterns along Shorelines of Man-made Mitigation Basins in Relation to Reproductive and Life History Traits*. MS Thesis. Dept. Ecology & Evolutionary Biology. Univ. of Connecticut, Storrs, Conn. 181 pp.
- River Resources Education Series, Quinnipiac River Watershed Association, Meriden, CT. May 1995 *New Haven Oysters*; June 1996 *What Good are Streamside Woods?* August 1996 *Taking a Close Look at Streamside Woods*; June 1997 *Foraging in the Quinnipiac Estuary*; March 1998 *Stream Biosurveys* (G.T. Logan & S. Gadwa); September 2000 *Muddy Waters*.
- Logan, G.T. & S.N. Gadwa. *Quinnipiac River Watershed Assoc. Stream Study: Water Quality in the Quinnipiac River*. In Proceedings of a Symposium on Impact of Nonpoint Source Pollution in the Quinnipiac River Watershed, pp. 66-70.
- October 2000. *A Report on the Water Quality of the Quinnipiac River*. M. Tyrell, C. Cappannari, D. Galt, S. Gadwa, L. MacMillan, R. Walters. Report to the Steering Committee of the Quinnipiac River Watershed Partnership. Q.R.W.P. Water Quality Workgroup, New Haven, CT. 19 pp.
- Winter 2003. *Management of Invasive Plants: On-Site Open Space Management*. The Habitat 15(2):3-4. Connecticut Association of Conservation and Inland Wetland Commissions, Inc.
- Spring 2003. *Management of Invasive Plants: Protecting Open Space and Wetlands, Tools for Land Use Boards and Town Staff*. The Habitat 15(3):4-5. CT Association of Conservation and Inland Wetland Commissions, Inc. July 2003.
- Interpreting Quinnipiac Songbird Surveys: Effects of Landscape Setting on Avian Community Composition*. The Connecticut Warbler 23(3): 81-114
- June 2004. *Connecticut's Turtles of Special Concern*. Quinnipiac River Watershed Association. Illustrations by Tony Ianello. *Educational Brochure*.

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### PUBLICATIONS, cont. :

Fall 2005. S. N. Gadwa. *Preliminary Assessment of the Habitat & Historic Resources in North Cheshire, West of Route 10 & Recommended Protection Measures*. Cheshire Land Trust & Quinnipiac Watershed Partnership.

October 2011 S. N. Gadwa & G.T. Logan. *The Scientific Basis for Wetland & Watercourse Buffer Zones*. 23 pp. White Paper. Rema Ecological Services, LLC.

Spring 2014. Sigrun N. Gadwa. *The Invasive Threat to Connecticut's Upland Critical Habitats*. 3pp. Connecticut Botanical Society Newsletter 41: 1.

Spring 2020. Sigrun N. Gadwa. *Gabbro Habitats in Southeastern Connecticut*. Connecticut Botanical Society Newsletter 47: 1.

Fall 2020. Connecticut Botanical Society Ecology and Conservation Committee. *Recommendations for Electrical Utility Right-of-Way Vegetation Management*. See also website: [www.caryaecological.com](http://www.caryaecological.com).

Fall 2023. Sigrun N. Gadwa. *The Role of Shade along Forest Edges in Limiting Invasive Colonization*. Connecticut Botanical Society Newsletter 50: 2.

### WORKSHOPS & CONFERENCES

ESA Mid-Atlantic Chapter Symposium, Blacksburg, Virginia.

Lessons for Mitigation Design from Shoreline Seedling Colonization Patterns. April 12-14. 2012. *(Poster presentation based on MS thesis)*

New England Invasive Plant Summit, Framingham Massachusetts: *Wetlands permitting – a potentially powerful tool to control invasive plants*. September 19-20. 2003. *(Poster Presentation)*

*Environmentally Sensitive Development along the Ten Mile River*. Riverside Landscaping Conference. June 1998. Rivers Alliance of CT. *(Guest Lecturer)*

*Water Quality in the Quinnipiac River: A Symposium on the Impact of Non-Point Source Pollution in the Quinnipiac River Watershed*. Nov. 1998. *(Presenter)*

October, 2014. *Documenting and Conserving Eastern Box Turtles in Central Connecticut: 19 years of Citizen Monitoring*. Berlin Land Trust and Nature Center. Evening Membership Program. *(Guest Lecturer)*

October 2016. Sigrun Gadwa, MS & Todd Mervosch, PHD. Connecticut Invasive Plant Working Group (CIPWG) Symposium, UConn College of Agriculture, Health, & Natural Resources. *Artemisia vulgaris (Mugwort): Overlooked Infiltrator of Meadow Habitats*. *(Poster Presentation)*