

# PROFESSIONAL RESUME

*Sigrun N. Gadwa, MS, PWS*

**Principal Ecologist**

## EDUCATION:

M.S., Plant Ecology, Natural Resources, 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

Graduate course in Phycology, Pan American University, Brownsville, Texas, 1982

Arboriculture course, Quinnipiac College, Hamden, CT, 1984

Five Plant Pathology courses, Cook College, Rutgers University, New Brunswick, N. J. 1978 - 1979

Series of CT DEEP training workshops: Rapid Bioassessment techniques, & Stream Ecology Training Workshops. Bethany Laboratory & Field Sites. 1996 and 1997.

## CERTIFICATIONS:

Registered Soil Scientist,

Society of Soil Scientists of Southern New England

Certified Professional Wetland Scientist

Society of Wetland Scientists

## EXPERIENCE:

An ecologist specializing in the assessment, monitoring, and delineation of wetlands and water resources, in assessment and control of invasive plant species, in botanical and habitat inventories of ecological communities, listed plants, and turtle populations. Nearly twenty five years of experience in site plan reviews, water quality testing and data analysis, preparation of comprehensive mitigation plans and habitat restoration/management plans, open space acquisition planning, highway alternatives analyses, delineation of jurisdictional wetland boundaries (CT and U.S. Army Corps of Engineers), wetland functional assessment & impact analyses, permitting, & low-impact landscaping/ IPM plans. Specialties in stream bio-assessments & wetland mitigation design.

## PROFESSIONAL AFFILIATIONS:

Connecticut Botanical Society (Board of Directors)

Long Island Native Plant Initiative (Advisory Board)

Connecticut Invasive Plant Working Group (CIPWG)

Connecticut Association of Wetland Scientists

Society of Soil Scientists of Southern New England

Connecticut Ornithological Society

Ecological Society of America



## Professional Resume: (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*. M.W.

P.H. Rich & R.S. Siegel. Dept. Civil Engineering. Joint Highway Research Council. Report NO. FHWA-CYT-RD-JH87-6-FAB-90-2. 112 pp.

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.

1994. *Forests*. In Chesanow et al. *Trails*. The Cheshire Land Trust and the Cheshire Environment Commission, Cheshire, CT 96 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.

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)

Sept. 2000 *Muddy Waters*

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, CT. 181 pp.

1999. Logan, G.T. & S.N. Gadwa. *Quinnipiac River Watershed Association Stream Study*. Water Quality in the Quinnipiac River. Proceedings of a Symposium on the 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. Connecticut Association of Conservation and Inland Wetland Commissions, Inc.

## Professional Resume: *(continued)*

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### PUBLICATIONS:

July 2003. Interpreting Quinnipiac Songbird Surveys: Effects of Landscape Setting on Avian Community Composition. *The Connecticut Warbler*. 23(3):81-114.

June 2004. *Connecticut Turtles of Special Concern*. Quinnipiac River Watershed Association. 4pp. (with Tony Ianello)

Fall 2004, revised Fall 2005. S. N. Gadwa. *Preliminary Assessment of the Habitat & Historic Resources in North Cheshire, West of Route 10 & recommended Protection Measures*. The Cheshire Land Trust & the Habitat Workgroup of the 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.

### WORKSHOPS & CONFERENCES *(selected)*:

ESA Mid-Atlantic Chapter Symposium, Blacksburg Virginia  
Lessons for Mitigation Design from Shoreline Seedling Colonization  
Patterns April 12-14, 2012. *(Poster Presentation)*

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

Freshwater Mussel Workshop. New Hampshire Department of  
Environmental Conservation. August 2004.

Sedimentation and Erosion Control Review Session. USDA Natural  
Resource Conservation Service and CPESC (Certified Professionals in  
Erosion Control), Concord, NH, September, 2001.

Riparian Buffer Function, Performance & Limitations. Urban Riparian  
Buffers Conference & Technical Training Session. April 1999.

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

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

Our Hidden Wetlands: Vernal Pools in Connecticut. Co-sponsored by CT  
DEP & Center for Coastal & Watershed Systems. November, 1997

Instructor: Quinnipiac River Watershed Association Workshop Series.  
September 1997, May 1998, June 1999, January 2000.

## Professional Resume: *(continued)*

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### EMPLOYMENT HISTORY:

1999 to present

**Rema Ecological Services, LLC**

(an environmental science collaborative in Manchester, CT)

**Principal Ecologist/Wetland Scientist**

Ecological fieldwork and reporting: vegetation, invasives, and wetland inventories, site plan reviews; listed plant species searches, baseline biological data collection, wetland impacts assessment, vernal pool surveys, wildlife habitat monitoring, stream bio-assessments (EPA family level macro-invertebrate RBA protocol); preparing wetland restoration & mitigation plans and low impact landscaping plans; water quality monitoring; wetland delineation & boundary verification (ACOE plots); sedimentation & erosion inspections; over 140 projects.

Contractor for **CTDEP Wildlife Division**: vegetation and wetland inventories & mapping of large Wildlife Management Areas (WMAs). For the **Quinnipiac River Watershed Association**, developed purple loosestrife biological control program, and advisor for turtle monitoring program. Active in the Habitat Work Group of the **Watershed Partnership**, directed project to identify and document Quinnipiac watershed habitats in need of protection or restoration 1998 to 2003.

2003 to present

**Ships Hole Farm Partnership, Smithtown, Long Island, NY**

**Partner**

Responsible for vegetation management & invasives control; growing seed and nursery stock of native species (small scale at present). Assisting with other farm management.

1995 to 1999

**Quinnipiac River Watershed Association, Meriden, CT**

**Executive Director and Staff Scientist**

Development & coordination of volunteer monitoring program, including stream bioassessments, turbidity monitoring, and bird and wildlife surveys; site plan reviews of projects impacting the watershed; writing testimony, publicity, educational materials, and grant reports and applications; organizing canoe trips, ecology workshops, and clean-ups; liaison with town and state officials.

1991 to 1995

**De Leuw-Cather, Inc., East Haven, CT**

**Environmental Planner/Field Ecologist**

Field data collection, analysis, and report preparation, primarily for large highway projects; specialties included listed plant searches, wetland functional assessments, mitigation design, vegetation monitoring, & wetland delineation (ACOE method).

## Professional Resume: *(continued)*

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### EMPLOYMENT HISTORY:

*(continued)*

1987 to 1991

**University 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, & hydrologic data; literature searches; data analysis. Research used in producing a wetlands mitigation-related manual for the Connecticut Department of Transportation and for master's thesis.

1974 to 1975

**Brown University, Teaching Assistant, Plant Systematics**

1968 to 1975

**Long Island Nature Conservancy, Stewardship Volunteer**

Nature trail development & maintenance, botanical inventories, wrote preserve descriptions & self-guided nature trail brochures.