

## Mark June-Wells, Ph.D. Resume

### Education:

- Rutgers University: Doctorate: Botany/Plant Ecology 2010
- Rutgers University: Masters' Degree: Biological Sciences 2005
- Southern Connecticut State University: Bachelors' of Science 2003

### Private Consultation Experience:

Skills – QC/QA, permitting, lake management, water quality analysis, project design and management, GPS/GIS, Sonar mapping/analysis, data management, progress reporting, Pine-Oak/Grass Prairie/Pond-Lake restoration, wetland design, suction dredging.

### Aquatic Ecosystem Research LLC (11/2014 – present)

*Principal Owner/Limnologist*

[www.aerlimnology.com](http://www.aerlimnology.com)

- Design protocols for management of algae, water quality, and invasive plant species in lentic systems.
- Act as a specialist in the areas of data analysis, mapping, and surveying aquatic systems.
- Project manager and liaison to company clients.
- Act as an expert in plant taxonomy and management methodology.
- Use of multivariate analytical protocols for developing management strategies.
- Design and manage aquatic plant management initiatives.
- Dredging protocol, design, and sediment handling.

### New England Environmental Inc. (2/2013-9/2014)

*Limnologist/Plant Ecologist*

- *See Above*
- Characteristic Projects: Candlewood Lake Data Analysis, Beseck Lake Lake-Manager, Lake Wononscopomuc Data Analysis, Endicott College Assessment, UMASS Amherst Lake Manager.
- **Supervisor: Mickey Marcus, Owner, (413)-658-2050 (May Contact)**

### Academic Experience:

Skills- Univariate/Multivariate statistical analysis; risk assessment; plant taxonomy; water quality analysis; experimental design; computer skills (R, Excel, Statistica, SPSS, SAS, Systat); literature search/review; technical writing/data presentation.

### The Connecticut Agricultural Experiment Station, (08/2010 – 9/2012)

*Post-Doctoral Research Scientist*

- Develop ecological research initiatives that evaluate the abiotic (soils/water/transport) processes driving plant community structure.
- Develop risk assessment models for the State's invasive aquatic macrophyte species.
- Act as the program's "in-house" statistician; acting as an expert in multivariate and univariate statistical analysis.
- Analyze LTER program data and present results at national/regional meetings.

- Survey lakes and ponds for submerged and floating leafed vegetation. Map plant communities using GPS and GIS technologies.
- Act as a public outreach agent and educate the general public in the identification invasive aquatic flora at lake association and scientific meetings.
- Act as a grant writer in the acquisition of funding for the program.
- Publish research initiatives in peer-reviewed journals and participate in public education programs.
- **Supervisor: Gregory Bugbee, Invasive Aquatic Plant Program Lead, (203)-974-8512 (May Contact)**

### Rutgers University, (01/2006-5/2010)

#### *Ph.D. Candidate/Lecturer*

- Duties included planning and conducting research in the field of community ecology with a focus on plant interactions. Using statistical methods in experimental design, data analysis, and hypothesis testing.
- Writing grant proposals, research plans, and peer reviewed papers.
- Teaching classes including basic biology, botany, and field ecology. Plan assessment guidelines and experiment initiatives for students. Report student performance and consult with students on their performance and potential strategies for improvement.

**Supervisor: Claus Holzapfel, Assistant Professor (973)-353-5385 (May Contact)**

#### Publications:

- Monitoring Report **2011**: Lakes Candlewood, Lillinonah, and Zoar – State Bulletin  
([http://www.ct.gov/caes/lib/caes/invasive\\_aquatic\\_plant\\_program/pdf\\_reports/firstlightbulletinfinal2012\\_05\\_08final\\_jag\\_gjb.pdf](http://www.ct.gov/caes/lib/caes/invasive_aquatic_plant_program/pdf_reports/firstlightbulletinfinal2012_05_08final_jag_gjb.pdf))
- The Aquarium Trade: A Potential Risk for Non-native Plant Introductions in Connecticut, USA. **2012**. Lake and Reservoir Management, 20:200-205
- Water Chemistry Preferences of Five Nonnative Aquatic Macrophyte Species in Connecticut: A Preliminary Risk Assessment Tool. **2013**. Lake and Reservoir Management 29:303-314
- Evaluating Population Border Dynamics Among *Artemisia vulgaris* and Community Constituents in an Urban Successional Plant Assemblage. **2014**. Torrey Botanical Journal 141(1):14-28
- Are Tropical Butterflies More Colorful? **2014**. Ecological Research, DOI 10.1007/s11284-014-1154-1
- Control of Curlyleaf Pondweed with Diquat in Crystal Lake, CT: Persistence and Movement of Diquat and the Effectiveness of Limnobarriers. **2014**. Journal of Aquatic Plant Management, 52:39-46
- Efficacy of Single and Consecutive Early-season Diquat Treatments on Curlyleaf Pondweed and Associated Macrophytes: A Case Study. **2015**. Journal of Aquatic Plant Management 53:171-177
- The Relative Influences of Fine-scale and Landscape Scale Factors on the Structure of Lentic Plant Assemblages. **2016**. Lake and Reservoir Management 32:2:116-131
- Seventeen Years of Grass Carp: An Examination of Vegetation Management and Collateral Impacts in Ball Pond, New Fairfield, Connecticut. **2017**. Lake and Reservoir Management 33:1:84-100



**Licenses:**

NALMS Certified Lake Manager

ESA Certified Ecologist

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## Larry Marsicano, MA Resume

### EDUCATION AND TRAINING

- **Professional Certification** in GIS, Pace University, 2014
- **Certification** by National Project WET as a Teacher Training Facilitator, CT DEP 2002
- **Graduate Certification** in GIS Technology, University of New Haven 2001
- **M.A. in Botany**, Connecticut College 1993
- **B.A. in Biology**, Western Connecticut State University 1988

### PROFESSIONAL EXPERIENCE

- **Principal Partner – Aquatic Ecosystem Research, LLC.** July 2017 to present
- **Adjunct Faculty** – Western Connecticut State University, Biological and Environmental Science Department. August 2011 to present
- **Executive Director** – Candlewood Lake Authority, Sherman, CT 06784. April 2003 to 2017
- **Lake Preservation Director** – Candlewood Lake Authority, Sherman, CT 06784. April 1998 to Oct. 2002
- **Academic Research Associate** – Connecticut College, New London, CT 06320. Sept. 1989 to Jan. 1998
- **Visiting Lecturer** – Connecticut College, New London, CT 06320. August 1997 to January 1998
- **Research Assistant** – Western Connecticut State University, Danbury, CT 06810. 1987 to 1989

### PEER-REVIEWED SCIENTIFIC PAPERS

Siver, P., L. Marsicano, A. Lott, S. Wagener, N. Morris. In press. Wind Induced Impacts on Hypolimnetic Temperature and Thermal Structure of Candlewood Lake (Connecticut, U.S.A.) from 1985-2015. *Geo: Geography and the Environment*

Kohli, P., Siver, P.A., Marsicano, L.J., Hamer, J.S., and Coffin, A.M. 2017. Statistical Assessment of Long-term Trends for Management of Candlewood Lake, Connecticut, USA. *Journal of Lake and Reservoir Management*. 33:280-300

Lonergan, T., L. Marsicano, and M. Wagener. 2014. A laboratory examination of the effectiveness of winter seasonal drawdown to control invasive Eurasian watermilfoil (*Myriophyllum spicatum*). *Journal of Lake and Reservoir Management*. 30:381-392

Moore H.H., Niering W.A., Marsicano L.J, and Dowdell M. 1999. Vegetation change in created emergent wetlands (1988–1996) in Connecticut (USA). *Wetland Ecology and Management*. 7:177-191.

Siver, P.A. A. M. Lott, E. Cash, J. Moss, and L.J. Marsicano. 1999. Century changes in Connecticut, USA, lakes as inferred from siliceous algal remains and their relationship to land use changes. *Limnology and Oceanography* 44:1928-1935.

Siver, P.A. and L.J. Marsicano. 1996. Inferring trophic conditions using scaled chrysophytes. *Beiheft zur Nova Hedwigia* 114:233-246.

Siver, P.A., Canavan, R.W. IV, Field, C., Marsicano, L.J. and A.M. Lott. 1996. Historical changes in Connecticut lakes over a 55-year period. *Journal of Environmental Quality* 25: 334-345

Marsicano, L.J., J.L. Hartranft, P.A. Siver, and J.S. Hamer. 1995. An historical account of water quality changes in Candlewood Lake, Connecticut, over a sixty-year period using paleolimnology and ten years of water quality data. *Journal of Lake and Reservoir Management* 11:15-28.

Lott, A.M., Siver, P.A., Marsicano, L.J., Kodama, K.P. and R.E. Moeller. 1994. The paleolimnology of a small waterbody in the Pocono Mountains of Pennsylvania, USA: reconstructing 19th-20th century specific conductivity trends in relation to changing land use. *Journal of Paleolimnology* 12: 75-86.

Marsicano, L.J. and P.A. Siver. 1993. A paleolimnological assessment of lake acidification in five Connecticut lakes. *Journal of Paleolimnology* 9:202-221.

Siver, P.A. and L.J. Marsicano. 1993. *Mallomonas connensis* sp. nov., a new species of Synurophyceae from a small New England lake. *Nordic Journal Botany*. 13: 337-342

Siver, P.A. and L.J. Marsicano. 1991. Assessing acidification trends in Connecticut lakes using a paleolimnological approach. CT. Department of Environmental Protection Bulletin, 44 pp. + appendices

#### **POLICY PAPERS AND SUBMITTALS**

Marsicano, L.J. 2009. An Examination of Recreational Pressures on Candlewood Lake, CT. Candlewood Lake Authority. Sherman, CT. 68 pp.

Marsicano, L.J., et al. 2000 – 2012. Submittals of the Candlewood Lake Authority to the Federal Energy Regulatory Commission during license renewal and management plan processes for Housatonic Hydro, FERC Docket No. P-2576.

Marsicano, L.J. and A.H. Brawley. 1997. Land use, watersheds and aquatic resources. *Connecticut Woodlands* 62(3): 21-23

Marsicano, L.J. and P.A. Siver. 1994. Preserving forests, preserving lakes. *Connecticut Woodlands* 59: 4.

#### **REPORTS**

Tarsi, M., K. Ponak, and L. Marsicano. 2007. Creating a GIS to Monitor the Shoreline of Connecticut's Largest Lake. *ArcNews*. 29:34

Marsicano, L.J. 1993 – 2006. Water Quality Monitoring of Candlewood Lake and Squantz Pond: Completion Reports to the Candlewood Lake Authority. Sherman, CT.

Marsicano, L.J., B.A. Lockhart, G.W. Kupper. 1998. Candlewood Lake: Watershed Awareness and Lake Preservation. Candlewood Lake Authority. Sherman, CT. 43 pp.

#### **LICENSES**

NALMS Certified Lake Manager