John G. Mickelson   501 Stage Road, Monroe, NY 10950-3217

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PROFILE

Landscape ecologist and geospatial engineer with 18 years' experience designing and developing conservation assessment and planning projects. Focus past five years: integrating water, land use, biodiversity, and invasive species planning with technology transfer, outreach and education; Hudson Valley, NY and abroad.

EXPERIENCE

2007 to Present   Geospatial & Ecological Services   Monroe, NY

Principal\Owner

Designing and developing conservation planning services, natural resource surveys, data and mapping strategies to municipalities, non-profits and resource agencies.

• Developed on-line *Hudson River Watershed Atlas* as consultant to the Hudson Valley Regional Council and the Hudson River Watershed Alliance. NY-DEC\HREP funded project.

• Designed and engineered watershed-wide riparian corridor assessment and water quality model for the Moodna Creek watershed, Orange County NY. Part of watershed management plan (NEIWPCC, NYSDEC, Orange County Water Authority).

• Produced town-wide natural resource and biodiversity surveys, conservation planning and mapping services for Town of Clarkstown, NY, 2009 Comprehensive plan.

2011 to 2013   New York Restoration Project   New York, NY

GIS & Information Manager

Brought new geospatial & ecological skills, assets and capacity to this lead NYC greening and neighborhood restoration agency.

• Created Urban Residential Tree Cover Prioritization model, part of the MillionTreesNYC project to restore 1 million trees and 9,000 acres of NYC tree canopy.

• Designed, developed and implemented founding GIS data, hardware, networking and information systems arrays

2000 to 2007   Columbia University – Lamont-Doherty Earth Observatory   Palisades, NY

Land Information Specialist

In addition to original applied geospatial research (Bahamas, Sri Lanka, Uruguay, Brazil, NE U.S.), designed, developed and managed integrated GIS, remote sensing data projects. As a senior geospatial lead in NASA and USGS partner programs, developed environmental, data and socio-economic research projects focusing on land information systems, water resources, biodiversity and invasive species issues. Accomplishments included:

• Development support of Northeast Information Node (NIN) of the USGS National Biological Information Infrastructure (NBII), funded at $400k+/year.

• Development and production of Population, Landscape and Climate Estimates (PLACE) for NASA Socio-Economic Data Application Center (SEDAC)

EDUCATION

1997   University of Connecticut   Storrs, CT

M.S., Land, Air, Water Resources specialty Forest Remote Sensing
Thesis: "Delineating Landscape Scale Vegetation Patterns for Northwestern Connecticut Using Multi-seasonal Satellite Imagery and GPS Referenced Field Data" 1998 PERS ERDAS Award, Best paper in Remote Sensing, 2nd place.

1993   University of Connecticut   Storrs, CT

B.S., Natural Resource Management & Engineering

ADDITIONAL SKILLS & ASSETTS

• Remote sensing-based land cover, vegetation, biogeographic and community ordination, habitat classification and landscape pattern analysis. Proficiency with: ERDAS Imagine, eCognition, IDRISI, ArcGIS, Fragstats, CANOCO, Twinspan,

• Hydrological, watershed, terrain and soils mapping and modeling, Proficiency with ArcHydro, TauDEM, SWAT, AGWA.

• Geospatial application scripting, programming, modeling languages: Avenue, AML, Python, SQL, Model Maker.

SELECTED PUBLICATIONS, PRESENTATIONS & RESEARCH PROJECTS

"Comparison of Fine and Coarse Scale Geospatial Assessments: Riparian Corridors of the Moodna Creek Watershed, Orange County, NY". Project Implementation Contract: NYDEC\NEIWPCC\Hudson River Estuary Program (HREP) supporting the Orange County, NY Planning and Water Authority's development of a watershed plan for the Moodna Creek Watershed. June 2008.

"Spatial Tools for Uruguay's Protected Areas System: Capacity Building and Development of a Biodiversity Conservation GIS." *U.S. State Department OESI in collaboration with the Government of Uruguay's Dirección Nacional de*. CIESIN, SEDAC, Columbia University, January 2007. Co-Principal Investigator. Funded at $90,000.

"Utilizing Multi-Date Satellite Imagery to Delineate Trans-boundary Wetland-Cropland Mosaics - Laguna Merin, Uruguay-Brazil. ." *Part of Invited Symposium Conservation Biology Capacity Building and Practice in a Globalize World. Society for Conservation Biology Annual Meeting. .* Brazilia, Brazil , July 2005.

"Evolving Spatial Tools & Data to Support Global Sustainability Research. ." *Part of Special Session on Sustainable Development and Humanitarian Affairs*. ESRI User Conference, San Diego, CA, July 2004

"Geospatial Assessments of Urban\Rural Gradients: Developing Biogeographic Baselines.." *Invited symposium presentation*. Columbia University, Earth Institute Fellows Seminar. April 2004

"Delineating forest canopy species in the northeastern United States using multi-temporal TM imagery. Mickelson, J. G., Jr., D. L. Civco, and J. A. Silander, Jr.." *Photogrammetric Engineering and Remote Sensing*. ASPRS, October 1998, 891-904. Received ERDAS Award, Best Paper in Remote Sensing 1998, 2nd place.

AFFILIATIONS & MEMBERSHIPS

- International Association for Landscape Ecology - US
- Society for Conservation GIS
- Society for Ecological Restoration International