

RESUME

DAVID MADDOX, PHD

SOUND SCIENCE LLC

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David is committed to the health of the natural environment, the implementation of effective ideas for the sustainable and productive use of natural resources, and the application of ecosystem services for human welfare and livelihoods. As a co-founder of Sound Science LLC and a long-time Nature Conservancy scientist, he has over 20 years of professional and entrepreneurial experience in conservation and natural resources management issues, and has published widely in scientific journals, books, and the semi-popular literature.

His work combines strategic management skills with the robust use of scientific information, knowledge, and principles to craft effective programs across a diverse range of issues. This has included strategic program management and research, urban ecology, livelihoods and the human-ecological connection, climate change, wind energy, endangered species, sea bird populations, statistical methodology, measures of success and impact, and evolutionary biology. He has consulted for a variety of organizations, including NatureServe, the Nature Conservancy, World Resources Institute, the USDA Forest Service, New York City Department of Parks and Recreation, Earth Explorer Group for Environmental Education, the Lanzhou Center for Grassland Ecology (China), the U.S. Army Environmental Command, and others.

As an entrepreneur in conservation, his consulting group, Sound Science LLC, has built a diverse client base, from large federal land management agencies, to the City of New York, and opinion research firms. In addition to his expertise in conservation biology and statistics, David is relied on for his communication and facilitation skills, as well as his ability to manage partnerships. He holds a PhD in Ecology and Evolutionary Biology from Cornell University.

PROFESSIONAL HISTORY

Chief Scientist, Manager, and Co-Founder, Sound Science LLC, 2001-present

Directs and/or supervises a variety of consulting projects in conservation and natural resource management contexts, from biocontrol to urban ecology; conducts statistical analyses in biology and opinion research; conducts meeting facilitation and training events; strategic planning. In addition, David directs business development and manages the company's staff and budget of almost \$1 million. (www.sound-science.org)

Stewardship Ecologist, The Nature Conservancy, 1992-2001

Developed new methods for measuring the impact of land management strategies; taught workshops on design and analysis; evaluated TNC stewardship programs.

Botanist, The Nature Conservancy (Global Climate Change), 1990-1992

Directed a study on the biogeographic effects of global climate change on North American plant species.

Endangered Species Biologist, Maryland Natural Heritage Program, 1988-1989
Conducted research on Federally Listed Endangered species; authored an Endangered Species Recovery Plan for the US Fish & Wildlife Service.

Consultant, Cary Institute of Ecosystem Studies, Millbrook, NY, 1988
Created interactive database to track projects and personnel for a large research grant.

Statistical Analysis Assistant, Department of Sociology, Duke University, 1977-1980
Statistical analysis of longitudinal data in sociology and aging; data preparation; assisted in teaching of courses in "Statistics for Sociologists" and structural equation modeling.

EDUCATION

Ph.D. 1987 Cornell University (Ecology and Evolution, Biostatistics)
B.S. 1980 Duke University (Zoology)

RECENT BOARD AND PROFESSIONAL SERVICE

MillionTreesNYC Science Advisory Sub-Committee
Review Panelist for 8th WindPower/Wildlife Research Meeting
Editorial Panel for LandScope America

TEACHING, MEETING FACILITATION, AND SPEAKING

Extensive teaching experience in workshop and classroom settings
Meeting facilitation and coordination
Scientific papers at professional meetings

Recent workshops include:

- "Monitoring in a management context", delivered to US Army Environmental Command and associated staff in Ft. Campbell, KY, 2007
- "Monitoring in a management context", delivered to US Forest Service and others in Salt Lake City, UT, 2008

Recent facilitated meetings include:

- "Mission Scope Analysis", Fort Benning, GA, January 2008
- "MillionTreesNYC, Green Infrastructure, and Urban Ecology: Building a Research Agenda" New York City, 2009
- "MillionTreesNYC, Green Infrastructure, and Urban Ecology: A Research Symposium" New York City, 2010
- (upcoming) "Supporting Success: Making the transition to Green Collar Jobs" New York City, 2010

PERSONAL

Proficient in Spanish (oral and written), basic Portuguese, published playwright and composer, musician, photography, extensive worldwide travel (China, Africa, South Asia, Europe, Latin America), Board of Directors for Sutton House Inc (\$2.8 million annual budget, \$27 million in property), runner (including NYC Marathon), kayaker, bird watcher.

PUBLICATIONS

Books, book chapters, and semi-popular articles:

Jacqueline W.T. Lu, Megan Shane, Erika Svendsen, Lindsay Campbell, Cristiana Fragola, Marianne Krasny, Gina Lovasi, **G. David Maddox**, Simon McDonnell, P. Timon McPhearson, Franco Montalto, Andrew Newman, Ellen Pehek, Ruth A. Rae, Richard Stedman, Keith G. Tidball, Lynne Westphal, Tom Whitlow 2009. MillionTreesNYC, Green Infrastructure, and Urban Ecology: Building a Research Agenda. 48pp.

Ottke, C., P. Kristensen, **G. David Maddox** and E. Rodenburg 2000. *Monitoring for Impact: A Handbook on Natural Resources Monitoring based on Lessons from 13 NGOs, Volume 1*. World Resources Institute, 90pp.

Ottke, C., P. Kristensen, **G. David Maddox** and E. Rodenburg 2000. *Monitoring for Impact: A Handbook on Natural Resources Monitoring based on Lessons from 13 NGOs, Volume 2*. World Resources Institute, 70pp.

Maddox, G. David, K.E. Poiani and R.E. Unnasch 1999. Evaluating Management Success: using ecological models to ask the right monitoring questions. *IN N. Johnson (Ed.) The Ecological Stewardship Project: A common reference for Ecosystem Management (3 Volumes)* Elsevier Science: Oxford.

Maddox, G. David 1991. Plants, populations, and ecosystems: Conservation of a rare plant in Maryland's Sideling Hill Creek watershed. *Atlantic Naturalist* 41: 25-29.

Maddox, G. David and L.E. Morse 1990. Plant conservation and global climate change. *The Nature Conservancy Magazine*. July/August 1990.

Technical (partial list):

Maddox, G. David and C. Wisnewski 2009. *Measure Success*. Landscape America. <http://www.landscape.org/>

Maddox, G. David and C. Wisnewski 2009. *Adaptive Management*. Landscape America. <http://www.landscape.org/>

Maddox, G. David and R.E. Unnasch 2008. *Plan for Successful Conservation Projects*. Landscape America. <http://www.landscape.org/>

Maddox, G. David and R.E. Unnasch 2007. Monitoring large biological landscapes using two-stage sampling. Manual to the U.S. Army Environmental Command, 135pp.

Morse, L.E, L.S. Kutner, **G. David Maddox**, L.L. Honey and C.M. Thurman 1993. The potential effects of climate change on the native vascular flora of North America: A preliminary climate envelope analysis. Report to the Electric Power Research Institute, 90pp.

Maddox, G. David and R.L. Bartgis 1990 Harperella (*Ptilimnium nodosum*) recovery plan. US Fish and Wildlife Service, Newton, MA, 60pp.

Refereed journals:

R.E. Unnasch, **Maddox, G. David**, G. Steinhauer, and C. Helzer 2010. Floristic Quality Index and the detection of change in plant communities: Results from field and simulation studies. *In preparation*.

Steinhauer, Gerry, and C. Helzer, **Maddox, G. David**, and R.E. Unnasch, 2010. Grassland monitoring using Floristic Quality Index. *In preparation*.

- Kress, W.J., **G. David Maddox** and R.L. Bartgis 2010. Genetic relationships and the taxonomic status of Harperella, *Ptilimnium nododum* (Apiaceae), an endangered plant of the eastern United States. 24pp. To be submitted to American Journal of Botany.
- Kress, W.J., **G. David Maddox** and S. Roesel 1993. Population genetics of the endangered semi-aquatic plant, *Ptilimnium nodosum*. Conservation Biology 22: 225-230.
- Bartgis, R.L. and **G. David Maddox** 1991. Designing and implementing a riverine preserve for the endangered plant *Ptilimnium nodosum*: Sideling Hill Creek as a case study. *IN* A.E. Schuyler (Ed.) Symposium on rare plants of Pennsylvania. Bartonia 57: 49-52.
- Maddox, G. David** and R.B. Root 1990. Structure of the encounter between goldenrod (*Solidago altissima*) and its diverse insect fauna. Ecology 71: 2115-2124.
- Maddox, G. David** and R.B. Root 1987. Resistance to 16 diverse species of herbivorous insects within a population of *Solidago altissima*: Genetic variation and heritability. Oecologia 72: 8-14.
- Maddox, G. David**, R.E. Cook, P.H. Wimberger and S. Gardescu 1987. Clone structure in four *Solidago altissima* (Asteraceae) populations: Rhizome connections within genotypes. American Journal of Botany 76: 318-326.
- Maddox, G. David** and N. Cappuccino 1986. Genetic determination of plant susceptibility to an herbivorous herbivore depends on environmental context. Evolution 40: 863-866.
- Abrahamson, W.G., P.O. Armbruster and **G. David Maddox** 1983. Numerical relationships of the *Solidago altissima* stem gall insect-parasitoid guild food chain. Oecologia 58: 351-357.
- P.F. Cannell and **G. David Maddox** 1983. Population change in three species of seabirds at Kent Island, New Brunswick. Journal of Field Ornithology 54: 29-35.
- Maddox, G. David** and J. Antonovics 1983. The ecological genetics of *Plantago*: Structural equation modeling and plant performance. Ecology 64: 1076-1094.
- Maddox, G. David** and P.F. Cannell 1982. The butterflies of Kent Island, Grand Manan, New Brunswick. J Lepidopterist Soc 36: 264-268.