

JOHN P. BOLTE

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PROFESSIONAL PREPARATION:

B.S. Plant Science, University of Florida, Gainesville, 1977

M.S. Agricultural Engineering, University of Florida, Gainesville, 1983

Ph.D. Agricultural Engineering, Auburn University, Alabama, 1987

ACADEMIC POSITIONS:

Associate Professor, Oregon State University, Bioengineering Department. July 1994 - present. Activities include development of simulation models, nonlinear analysis tools and geographic information systems for agricultural and natural resource management.

Assistant Professor, Oregon State University, Bioresource Engineering and Crop & Soil Science Departments. March 1998 - June 1994. Activities include development of expert systems and simulation models for agricultural and natural resource applications.

Post-Doctoral Systems Research Scientist, Oregon State University, Crop & Soil Science Department, April 1987 - March 1988. Activities similar to above position.

RECENT PUBLICATIONS:

K.B. Vaché, McDonnell, J., Bolte, J.P. 2004. On the use of multiple criteria for a posteriori model rejection: Soft data to characterize model performance. In Press: Geophysical Research Letters.

Berger, P.A. and J.P. Bolte. 2004. Evaluating the impact of policy options on agricultural landscapes: an alternative futures approach. *Ecological Applications*. 14(2):342-354.

Meleason, M.A., S.V. Gregory, and J. Bolte. 2003. Implications of selected riparian management strategies on wood in Cascade Mountain streams of the Pacific Northwest. *Ecological Applications* 13:1212-1221.

Brugnach, M., J.P. Bolte and G.A. Bradshaw. 2002. Determining the significance of threshold values uncertainty in rule-based classification models. *Ecological Modeling*. 160:63-67.

Hillyer, C., J. Bolte, F. VanEvert, and A. Lamaker. 2002. The MODCOM modular simulation system. *European Journal of Agronomy*. 18(3):333-343.

Lamy, F., J.P. Bolte, M. Santelmann and C. Smith. 2002. Development and Evaluation of Multiple Objective Decision-Making Methods for Watershed Management Planning. *J. Amer. Water Resources Assoc.* 38(2):517-529.

Nath, S., J.P. Bolte, L.G. Ross, and J. Aguilar-Manjarrez. 2000. Applications of Geographical Information Systems (GIS) For Spatial Decision Support in Aquaculture. *Aquacultural Engineering* 23:233-278.

Bolte, J.P. 1998. Object-oriented programming for decision systems. In: Agricultural Systems Modeling R. Peart and B. Curry, Editors. Marcel Dekker, Inc. New York

Bolte, J.P. 1996. Integrative frameworks for decisionmaking in resource management. In: Proceedings of the Ninth Florida Artificial Intelligence Research Symposium, J.H. Stewman, Editor. Key West, Florida, May 20-22, 1996.

OTHER RECENT PUBLICATIONS:

Bolte, J.P., S. Nath and D. Ernst. 2000. Development of Decision Support Tools for Aquaculture: The POND Experience. Aquacultural Engineering. 23:103-120.

Bolte, J.P. J.A. Fisher, and D.H. Ernst. 1993. An object-oriented, message-based environment for integrating continuous, event-driven and knowledge-based simulation. Proceedings: Application of Advanced Information Technologies: Effective Management of Natural Resources. ASAE. June 18-19, Spokane, WA.

SYNERGISTIC ACTIVITIES:

1. PI of a highly multidisciplinary EPA-funded project “Developing Methods and Tools for Restoration Decisionmaking: Design, Implementation and Assessment in the Willamette Basin.” This project integrates ecological, economic, and social scientists with information engineers and stakeholder groups to address the complexities of watershed restoration decisionmaking under constraints via spatially explicit multiobjective optimization.
2. CoPI of a multidisciplinary NSF Biocomplexity project studying the interactions of riparian policy evolution, land use, and riparian function in several Willamette basin watersheds. This effort, initiated Fall 2001, will use spatially explicit analysis with a multiobjective decisionmaking core and an agent-based simulation approach to evolve policy/pattern constructs to explore development of effective strategies for managing riparian areas under conditions of ecological and social function scarcity.
3. PI of an EPA project developing a range of software tools for simulation analysis, inferencing, and spatial analysis. These tools implement state of the art, computationally efficient analysis methodologies applicable to the analysis of complex systems, as well as associated visualization and data mining codes.
4. Involved in a highly multidisciplinary project collectively referred to as the Pacific Northwest Ecosystems Research Consortium, focused on applying multidisciplinary perspectives on watershed processes, data synthesis and landscape evolution modeling to alternative futures analysis in the Willamette basin, Oregon.

COLLABORATORS: Hillary Egna, Marshall English, Stanley Gregory, David Hannaway, James Moore, Mary Santelmann, P.J. Wigington, David Hulse, Tim Budd, Frank Chaplen, P.J. Wigington, Joan Baker, Hiram Li, Judy Li, Pau Jepson, Mary Kentula, Jeff McDonnell, Rich Adams, Junjie Wu, Bill Liss, Jeffrey Jenkins

THESIS ADVISEES: Necati Canpolat, Doug Ernst, Joe Fisher, Shree Nath, Priscila Darakjian, France Lamy, Satomi Inahara, Matt Cox, Kellie Vache, Trina Seibert, Pat Berger