# JOHN R. KRUMMEL

Natural Resource Systems and Integrated Assessments
Environmental Science Division
Argonne National Laboratory


**Education:**

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| Ph.D. | Cornell University, Ecology, 1978 |
| B.S. | University of Wisconsin - Madison |
| | Natural Science/Wildlife Ecology, 1973 |


**Professional Experience:**

1997-Present    Strategic Area Manager, Natural Resource Systems and
Integrated Assessments
Environmental Science Division
Argonne National Laboratory

Responsible for direction and oversight of the Division's natural resource systems and integrated assessments programs and for the development of innovative initiatives in these areas.

1986-1997       Environmental Assessment Division, Argonne National Laboratory

Responsible for managing and coordinating the research and assessment activities of 26 scientific and 9 support staff. Group is responsible for ecological, land use, demographic, sociological and natural resource assessment of energy technology impacts on the biological and human components of the environment. Within the Group resides the environmental spatial analysis laboratory that has the vector and raster geographic information system (GIS) hardware and software to support assessment studies. Research and assessment activities have resulted in numerous publications on animal population dynamics, the impacts of energy technology on natural ecosystems, and the application of GIS techniques in landscape ecology. Served as project leader on Environmental Impact Statements that analyzed the affects of proposed waste disposal technologies and construction and operation of energy facilities. Current work focuses on the use of GIS tools in the modeling and statistical analysis of ecosystem perturbations.


**Summary of Previous Experience:**

5/79-1/86       Ecologist

Environmental Sciences Division
Oak Ridge National Laboratory

Principal Investigator of the biophysical regions of influence project that supported transport and fate studies, regional environmental characterization and siting criteria project that screened for areas suitable for the disposal of high-level waste, landscape systems analysis project that conducted basic model development and data analysis of spatial patterns in landscape systems, and the landscape vegetation project that used remote sensing techniques and air dispersion modeling to locate vegetation "at risk" from $SO_2$ and ozone.

8/77-5/79      Research Associate
College of Agriculture and Life Sciences
Cornell University

Duties included basic research on the management of energy and pesticides in agroecosystems. Initiated and taught a graduate course in agroecosystem analysis.

**Research Interests:**

The development and use of spatial models in landscape ecology.
Application of ecological methods to integrated assessments of ecosystems perturbation.
Development and application of geographic information system for agroecosystem management.

**Professional Activities:**

American Institute of Biological Sciences
Ecological Society of America
American Association for Advancement of Science
Treasurer (1983-84), Society for Human Ecology
Reviewer; Science, Ambio, Wetlands, Journal of Environmental Management, NSF, DOE

**Publications:**

Author of 70+ journal, book chapters, reports, and conference publications.