KENNETH W. MCLEOD

Savannah River Ecology Laboratory
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Aiken, South Carolina 29802
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EDUCATION:

1974 Ph.D. Michigan State University. Botany and Plant Pathology.
1971 M.S. Oklahoma State University. Botany and Plant Pathology.
1969 B.S. Oklahoma State University. Botany and Plant Pathology.

FACULTY APPOINTMENTS:

Associate Research Ecologist, Savannah River Ecology Laboratory. 1982-present
Adjunct Assistant Professor, School of Forest Resources, University of Georgia. 1987-present
Member, Graduate Faculty, University of Georgia. 1988-present

CURRENT RESEARCH PROGRAMS:

1. Ecological restoration of bottomland and swamp forests.
2. Physiological responses of tree species to environmental stress.
3. Effects of land management on structure and function of southeastern forests.
4. Phytoremediation potential of woody species.

RESEARCH INTERESTS:

As a plant ecophysiologist, I am interested in the unique mechanisms that allow plant species to inhabit marginal habitats has contributed to their individual distribution patterns, from large-scale continental patterns to patterns of individual trees in a forest. The elucidation of these mechanisms has been a fascination to me. While these unique characteristics help explain patterns in nature, they may also be useful in solving environmental problems caused by humans. For example, species that can naturally tolerate saline environments may be very useful in rehabilitation of anthropogenic disturbed habitats that have been contaminated with various salts.

PUBLICATIONS:

In Press

Conner, W. H., **K. W. McLeod**, and E. Colodney. Restoration methods for deepwater swamps. Proceedings of a symposium on *Sustainability of Wetlands and Water Resources* held in Oxford, MS. USDA Forest Service Southern Experiment Station General Technical Report.

2001

Imm, D. W., H. E. Shealy, Jr., **K. W. McLeod**, and B. Collins. Rare plants of Southeastern hardwood forests and the role of predictive modeling. Natural Areas Journal 21:36-49.

McLeod, K. W., M. R. Reed, and E. A Nelson. 2001. Willow control is not necessary for successful tree seedling establishment. Wetlands 21: xxx-xxx.

2000

Adriano, D. C., A. C. Doswell, T. G. Ciravolo, J. E. Pinder, III and **K. W. McLeod**. Radionuclide contents of subterranean vegetables as influenced by soil pH and culinary preparation. Journal of Environmental Radioactivity 49:307-317.

Barton, C., E. A. Nelson, R. K. Kolka, **K. W. McLeod**, W. H. Conner, M. Lakly, D. Martin, J. Wigginton, C. C. Trettin and J. Wisniewski. 2000. Restoration of a severely impacted riparian wetland system - The Pen Branch Project. Ecological Engineering 15(Supplement 1):S3-S15.

Donovan, L. A., J. B. West, and **K. W. McLeod**. *Quercus* species differ in water and nutrient characteristics in a resource limited fall-line sandhill habitat. Tree Physiology 20:929-936.

McLeod, K. W. Species selection trials and silvicultural techniques for the restoration of bottomland hardwood forests. Ecological Engineering 15(Supplement 1):S35-S46.

McLeod, K. W., M. R. Reed, and L. D. Wike. Elevation, competition control, and species affect bottomland forest restoration. Wetlands 20:162-168.

1999

Conner, W. H., **K. W. McLeod**, L. W. Inabinette, V. H. Parrish, and M. R. Reed. Successful planting of tree seedlings in wet areas. Proceedings of Tenth Biennial Southern Silvicultural Research Conference. (Edited by J. D. Haywood). p. 201-204.

McLeod, K. W. and T. G. Ciravolo. Species selection and seedling establishment for restoration of bottomland forests. In: Proceedings of the First Biennial North American Forest Ecology Workshop. (Compiled by J. E. Cook and B. P. Oswald). p. 222-236.

McLeod, K. W., J. K. McCarron, and W. H. Conner. Photosynthesis and water relations of four oak species: Impact of flooding and salinity. Trees: Structure and Function 13:178-187.

Pinder, J. E., III and **K. W. McLeod**. Indications of relative drought stress in longleaf pine from Thematic Mapper data. Photogrammetric Engineering and Remote Sensing 65:495-501.

1998

Conner, W. H., **K. W. McLeod**, and J. K. McCarron. Survival and growth of four bottomland oak species in response to increased flooding and salinity. Forest Science 44:618-624.

McCarron, J. K., **K. W. McLeod**, and W. H. Conner. Flood and salinity stress of wetland woody species, button bush (*Cephalanthus occidentalis*) and swamp tupelo (*Nyssa sylvatica* var. *biflora*). Wetlands 18:165-175.

McLeod, K. W. and T. G. Ciravolo. Boron tolerance and potential removal by bottomland tree seedlings. Wetlands 18:431-436.

1997

Conner, W. H., K. W. **McLeod** and J. K. McCarron. Flooding and salinity effects on growth and survival of four common forested wetland species. Wetland Ecology and Management 5:99-109.

McLeod, K. W. and T. G. Ciravolo. Differential sensitivity of *Nyssa aquatica* and *Taxodium distichum* grown in fly ash amended sand. Wetlands 17:330-335.

1996

McLeod, K. W., J. K. McCarron and W. H. Conner. Effects of flooding and salinity on photosynthesis and water relations of four Southeastern Coastal Plain species. Wetland Ecology and Management 4:31-42.

1995

Hardegree, W. S., D. B. Wenner, J. F. Dowd, and **K. W. McLeod**. Using $^{18}O/^{16}O$ data to examine the mixing of water masses in floodplain wetlands. Wetland Ecology and Management. 3:189-194.

Vaitkus, M. R. and **K. W. McLeod**. Photosynthesis and water-use efficiency of two sandhill oaks following additions of water and nutrients. Bulletin of the Torrey Botanical Club 122:30-39.

1994

McLeod, K. W., M. R. Reed and T. G. Ciravolo. Selection of woody species for bottomland restoration. In: *Proceedings of the 21st Annual Conference on Wetlands Restoration and Creation.* (Edited by F. J. Webb, Jr. p.106-118. Hillsborough Community College, Tampa, FL.

Reed, M. R. and **K. W. McLeod**. Planting unconsolidated sediments with flood-tolerant species. In: *Proceedings of the 21st Annual Conference on Wetlands Restoration and Creation.* Edited by F. J. Webb, Jr.) p. 137-146. Hillsborough Community College, Tampa, FL .

1993

McLeod, K. W., G. R. Wein, and R. R. Sharitz. Wetland restoration for habitat reconstruction and contaminant stabilization. In: *Proceedings of ER'93 Environmental Remediation Conference.* p. 1043-1047.

Vaitkus, M. R., T. G. Ciravolo, **K. W. McLeod**, E. M. Mavity, and K. L. Novak. Growth and photosynthesis of seedlings of five bottomland tree species following nutrient enrichment. American Midland Naturalist 129:42-51.

1991

Pinder, J. E., III, **K. W. McLeod**, R. F. Lide, and K. C. Sherrod. Mass loading of soil particles on a pasture grass. Journal of Environmental Radioactivity 13:341-354.

1990

Donovan, L. A., **K. W. McLeod**, and K. L. Grant. Direct heat injury of roots of woody swamp seedlings. Journal of Thermal Biology 15:245-249.

Kovacic, D. A., T. G. Ciravolo, **K. W. McLeod**, and J. S. Erwin. Potential nitrate leaching losses and nitrogen mineralization in an Atlantic Coastal Plain watershed following disturbance: Preliminary results. In: *Ecological Processes and Cumulative Impacts: Illustrated by Bottomland Hardwood Wetland Ecosystems.* (Edited by J.G. Gosselink, L.C. Lee, and T.A. Muir) p. 103-122. Lewis Publ., Chelsea, MI.

Pinder, J. E., III, **K. W. McLeod**, D. C. Adriano, J. C. Corey and A. L. Boni. Atmospheric deposition, resuspension and root uptake of plutonium in corn and other grain-producing agroecosystems near a nuclear fuel facility. Health Physics 59:853-867.

Jones, R. H. and **K. W. McLeod**. Growth and photosynthetic responses to a range of light environments in Chinese tallow tree and Carolina ash seedlings. Forest Science 36:851-862.

Workman, S. W. and **K. W. McLeod**. Vegetation of the Savannah River Site: Major Community Types. SRO-NERP-19. 137 p.

1989

Jones, R. H., R. R. Sharitz and **K. W. McLeod**. Effects of flooding and root competition on growth of shaded bottomland hardwood seedlings. American Midland Naturalist 121:165-175.

Pinder, J. E., III, **K. W. McLeod**, and D. C. Adriano. The accuracy of some simple models for predicting particulate interception and retention in agricultural systems. Health Physics 56:44-50.

Donovan, L. A., N. J. Stumpff, and **K. W. McLeod**. Thermal flooding injury of woody swamp seedlings. Journal of Thermal Biology 14:147-154.

Pinder, J. E., III and **K. W. McLeod**. Mass loading of soil particles on plant surfaces. Health Physics 57:935-942.

Jones, R. H. and **K. W. McLeod**. Shade tolerance in seedlings of Chinese tallow tree, American sycamore, and cherrybark oak. Bulletin of the Torrey Botanical Club 116:371-377.

Kovacic, D. A., A. A. Leff, T. G. Ciravolo, and **K. W. McLeod**. Potential cation leaching losses following disturbance across a Southeastern coastal plain landscape gradient. In: *Freshwater Wetlands and Wildlife.* (Edited by R.R. Sharitz and J.W. Gibbons) p. 113-126. NTIS, Springfield, VA.

1988

Topa, M. A. and **K. W. McLeod**. Promotion of aerenchyma formation in *Pinus serotina* seedlings by ethylene. Canadian Journal of Forest Research 18:276-280.

Donovan, L. A., **K. W. McLeod**, K. C. Sherrod, Jr., and N. J. Stumpff. Response of woody swamp seedlings to flooding and increased water temperature. I. Growth, biomass and survivorship. American Journal of Botany 75:1181-1190.

Pinder, J. E., III and **K. W. McLeod**. Contaminant transport in agroecosystems through retention of soil particles on plant surfaces. Journal of Environmental Quality 17:602-607.

Pinder, J. E., III, **K. W. McLeod**, and D. C. Adriano. Particulate transport processes in agroecosystems: Validation of predictive models. In: Desmet, G. (ed.). *Reliability of Radioactive Transfer Models.* Elsevier Science Publishers, NY. pp. 141-150.

1987

Brisbin, Jr., I. L., **K. W. McLeod**, and G. C. White. Sigmoid growth and the assessment of hormesis: A case for caution. Health Physics 52:553-559.

McLeod, K. W., L. A. Donovan, and N. J. Stumpff. Responses of woody seedlings to elevated flood water temperatures. In: *The Ecology and Management of Wetlands, Vol. 1: Ecology of Wetlands* (Edited by D. D. Hook et al.) p. 441-451. Croom Helm Ltd., London.

J. R. Pinder, III, J. J. Alberts, **K. W. McLeod**, and R. G. Schreckhise (eds.). Environmental Research on Actinide Elements. CONF-841142 US DOE, Office of Scientific and Technical Information, Washington, DC.

1986

Adriano, D. C., **K. W. McLeod**, and T. G. Ciravolo. Long-term availability of curium and plutonium to crop plants. Health Physics 50:647-651.

McLeod, K. W., C. E. Davis, K. C. Sherrod, and C. G. Wells. Understory response to sewage sludge fertilization of loblolly pine plantations. In: *The Forest Alternative for Treatment and Utilization of Municipal and Industrial Wastes* (Edited by D. W. Cole, C. L. Henry, and W.L. Nutter). p. 308-323. University of Washington Press, Seattle.

McKee, W. H., **K. W. McLeod**, C. E. Davis, M. R. McKevlin, and H. A. Thomas. Growth response of loblolly pine to municipal and industrial sewage sludge applied at four ages on upper coastal plain sites. In: *The Forest Alternative for Treatment and Utilization of Municipal and Industrial Wastes* (Edited by D. W. Cole, C. L. Henry, and W. L. Nutter). p.272-281. University of Washington Press, Seattle.

Ridgeway, G. L., L. A. Donovan, and **K. W. McLeod**. Response of loblolly pine to sewage sludge application: water relations. In: *The Forest Alternative for Treatment and Utilization of Municipal and Industrial Wastes* (Edited by D. W. Cole, C. L. Henry, and W. L. Nutter). p. 301-307. University of Washington Press, Seattle.

Topa, M. A. and **K. W. McLeod**. Responses of *Pinus clausa*, *Pinus serotina* and *Pinus taeda* seedlings to anaerobic solution culture. II. Changes in tissue nutrient concentration and net acquisition. Physiologia Plantarum 68:532-539.

Topa, M. A. and **K. W. McLeod**. Aerenchyma and lenticel formation in pine seedlings. A possible avoidance mechanism to anaerobic growth conditions. Physiologia Plantarum 68:540-550.

Topa, M. A. and **K. W. McLeod**. Responses of *Pinus clausa*, *Pinus serotina* and *Pinus taeda* seedlings to anaerobic solution culture. I. Changes in growth and root morphology. Physiologia Plantarum 68:523-531.

Topa, M. A., and **K. W. McLeod**. Effects of anaerobic growth conditions on phosphorus tissue concentrations and absorption rates of southern pine seedlings. Tree Physiology 2:327-340.

McLeod, K. W., L. A. Donovan, N. J. Stumpff, and K. C. Sherrod. Biomass, photosynthesis, and water use efficiency of woody swamp species subjected to flooding and elevated water temperature. Tree Physiology 2:341-346.

1985

Donovan, L. A., and **K. W. McLeod**. Morphological and root carbohydrate responses of bald cypress to water level and water temperature regimes. Journal of Thermal Biology 10: 227-232.

Martin, C. E., **K. W. McLeod**, C. A. Eades, and A. F. Pitzer. Morphological and physiological responses to irradiance in the CAM epiphyte *Tillandsia usneoides* L. (Bromeliaceae). Botanical Gazette 6:489-494.

Pinder, J. E., III, **K. W. McLeod**, J. R. Simmonds, and G. S. Linsley. Normalized specific activities for plutonium deposition onto foliage. Health Physics 49: 1280-1283.

1984

Adriano, D. C., **K. W. McLeod**, and T. G. Ciravolo. Long-term root uptake of radiocesium by several crops. Journal of Plant Nutrition 7:1415-1432.

McLeod, K. W., J. J. Alberts, D. C. Adriano, and J. E. Pinder, III. Plutonium contents of broadleaf vegetable crops grown near a nuclear fuel chemical separations facility. Health Physics 46:261-267.

McLeod, K. W., J. E. Pinder, III, and J. R. Watts. Contribution of a nuclear fuel chemical separations facility to the plutonium content of a tobacco crop. Health Physics 46:1205-1211.

Wells, C. G., **K. W. McLeod**, C. E. Murphy, J. R. Jensen, J. C. Corey, W. H. McKee, and E. J. Christensen. Response of loblolly pine plantations to two sources of sewage sludge. In: *The 1984 TAPPI Research and Development Conference.* Technical Association of the Pulp and Paper Industry, Technology Park. p. 1-10.

Pinder, J. E., III, **K. W. McLeod**, J. J. Alberts, D. C. Adriano, and J. C. Corey. Uptake of ^{244}Cm, ^{238}Pu, and other radionuclides by trees inhabiting a contaminated floodplain. Health Physics 47:375-384.

1983

Corey, J. C., A. L. Boni, J. R. Watts, D. C. Adriano, **K. W. McLeod**, and J. E. Pinder, III. The relative importance of uptake and surface adherence in determining the radionuclide contents of subterranean crops. Health Physics 44:19-28.

McLeod, K. W. and P. G. Murphy. Factors affecting the growth of *Ptelea trifoliata* seedlings. Canadian Journal of Botany 61:2410-2415.

1982

Adriano, D. C., J. E. Pinder, III, **K. W. McLeod**, J. C. Corey and A. L. Boni. Plutonium contents and fluxes in a soybean crop ecosystem near a nuclear fuel chemical separations facility. Journal of Environmental Quality 11:506-511.

Corey, J. C., J. E. Pinder, III, J. R. Watts, D. C. Adriano, A. L. Boni, and **K. W. McLeod**. Stack-released plutonium in the terrestrial environment of a chemical separations facility. Nuclear Safety 23:310-319.

Watts, J. R., **K. W. McLeod**, and J. C. Corey. Land application studies of industrial waste oils. Environmental Pollution (Series A) 28:165-175.

1981

Adriano, D. C., K. W. **McLeod** and T. G. Ciravolo. Curium uptake by crops from naturally-weathered contaminated soil. Health Physics 41:69-75.

Reinke, J. J., D. C. Adriano and **K. W. McLeod**. Effects of litter alterations on CO^2 evolution from a South Carolina pine forest floor. Soil Science Society of America Proceedings 45:620-623.

Adriano, D. C., **K. W. McLeod**, and T. G. Ciravolo. Plutonium, curium, and other radionuclide uptake by the rice plant from a naturally-weathered contaminated soil. Soil Science 132:83-88.

McLeod, K. W., D. C. Adriano, and T. G. Ciravolo. Uptake of plutonium from soils contaminated by a nuclear fuel chemical separations facility. Soil Science 132:89-98.

McLeod, K. W. and C. Sherrod, Jr. Baldcypress seedling growth in thermally altered habitats. American Journal of Botany 68:918-923.

1980

McLeod, K. W., D. C. Adriano, A. L. Boni, J. C. Corey, J. H. Horton, D. Paine, and J. E. Pinder, III. Influence of a nuclear fuel chemical separations facility on the plutonium contents of a wheat crop. Journal of Environmental Quality 9:306-315.

Sherrod, C., Jr., D. E. Somers, and **K. W. McLeod**. Potential for baldcypress establishment in thermally altered streams. Journal of Thermal Biology 5:107-111.

McLeod, K. W. and D. L. Dawson. Increased cesium uptake by water tupelo under inundated conditions. Health Physics 39:809-812.

1979

McLeod, K. W., C. Sherrod, Jr., and T. E. Porch. Response of longleaf pine plantations to litter removal. Forest Ecology and Management 2:1-2.

Ginter, D. L., **K. W. McLeod** and C. Sherrod, Jr. Water stress in longleaf pine induced by litter removal. Forest Ecology and Management 2:13-20.

1977

McLeod, K. W. and P. G. Murphy. Establishment of *Ptelea trifoliata* on Lake Michigan sand dunes. American Midland Naturalist 97:350-362.

McLeod, K. W. and P. G. Murphy. Germination ecology of *Ptelea trifoliata*. American Midland Naturalist 97:363-373.

Dahlman, R. C. and **K. W. McLeod**. Foliar and root pathways of plutonium contamination of vegetation. p.303-320. In: *Transuranics in Natural Environments*, M. White and P. B. Dunaway (eds.). NVO-178.

Martin, C. E., E. J. Christy and **K. W. McLeod**. Changes in the vegetation of a South Carolina swamp following cessation of thermal pollution. Journal of the Elisha Mitchell Scientific Society 93:173-176.

1976

McLendon, H. R., O. M. Stewart, A. L. Boni, J. C. Corey, **K. W. McLeod** and J. E. Pinder. Relationships among plutonium contents of soils, vegetation, and animals collected on and adjacent to an integrated nuclear complex in the humid southeastern United States of America. In: Proceedings of IAEA Symposium on *Transuranium Nuclides in the Environment.* p. 347-363.

1973

McLeod, K. W. and J. K. McPherson. Factors limiting the distribution of *Salix nigra*. Bulletin of the Torrey Botanical Club 100:102-110.

PRESENTATIONS:

Scientific Meetings

America Society of Agronomy
Association of Southeastern Biologists
Botanical Society of America
Ecological Society of America

International Botanical Congress
International Congress of Ecology
International Wetlands Conference
Society of Wetland Scientists
Society for Ecological Restoration

Symposia

Australian Forest Nutrition, Canberra
Coupling of Carbon, Water, and Nutrient Interactions in Woody Plant Soil Systems, Knoxville, TN
Ecology and Management of Wetlands, Charleston, SC
Energy and Environmental Processes in Terrestrial Systems, Gaithersburg, MD
Energy and Environmental Stress in Aquatic Systems, Augusta, GA
Environmental Research for Actinide Elements, Hilton Head Island, SC
ER'93 Environmental Remediation, Augusta, GA
Forest Land Applications, Seattle, WA
National Interagency Workshop on Wetlands, New Orleans, LA
North American Forest Ecology, Raleigh, NC
Pen Branch Wetland Restoration Workshop. Clemson, SC.
Southern Forest Tree Nutrition, Athens, GA
Southern Silvicultural Research Conference
Sustainability of Wetlands and Water Resources. Oxford, MS.
Wetlands Restoration and Creation, Tampa FL

Seminars

Appalachian State University, Boone, NC
College of Charleston, Charleston, SC
Georgia Southern College, Statesboro
Oklahoma State University, Stillwater
Southern Illinois University, Carbondale
Texas Christian University, Fort Worth
Texas Woman's University, Denton
Thomas More College, Ft. Mitchell, KY
University of Cincinnati, Cincinnati, OH
University of Georgia, Athens
University of Kentucky, Lexington
University of Oklahoma, Norman
University of Virginia, Charlottesville
Virginia Polytechnic Institute and State University. Blacksburg
Western Maryland College, Westminster

GRANTS/PROPOSALS:

Funded

Assessment of Harvesting Bottomland Hardwood Sites on Plant Competition and Ecosystem Processes. Funded by the USDA Forest Service/Savannah River Resource Management and Research Institute.

Photosynthetic Potential of Advanced Regeneration Following Four Silvicultural Regeneration Methods. Funded by the USDA Forest Service/Southern Research Station.

Wetland Treatability Study to Assess Potential Removal of Metals from A-01 Outfall. Funded by the Savannah River Technology Center.

Role of fire management in species composition, distribution of soil resources, and plant resource status for fall-line sandhill oak communities. Funded by the Savannah River National Environmental Research Park.

Four Mile Creek Bottomland Restoration Program. Funded by the Savannah River Technology Center.

The Impact of Energy Technologies on Natural Environmental Systems. Funded by the National Science Foundation.

COOPERATIVE RESEARCH PROGRAMS AND PARTNERS:

Biodiversity of Sandhills - Dr. M.E. Held, St. Peter's College, Jersey City, NJ.

Comparative Ecophysiology of Pond and Bald Cypress - Dr. H. S. Neufeld, Appalachian State University, Boone, NC.

Vegetation and Hydrology of Carolina Bays - Drs. J. B. Grace, G. R. Guntenspergen, and J. R. Keough, National Wetlands Research Center, National Biological Survey, Lafayette, LA.

Response of Forested Wetland Seedlings to Flooding and Increased Salinity - Dr. W. H. Conner, Baruch Forest Science Institute, Clemson University, Georgetown, SC.

Role of Fire Management in Species Composition, Distribution of Soil Resources and Plant Resource Status for Fall-Line Sandhill Oak Communities. - Drs. L. A. Donovan and C. J. Peterson, University of Georgia, Athens, GA.

Photosynthetic Potential of Advanced Regeneration Following Four Silvicultural Regeneration Methods. - Dr. M. K. Burke, USFS, Southern Research Station, Charleston, SC.

Wetland Treatability Study to Assess Potential Removal of Metals from A-01 Outfall. - Dr. E. A. Nelson, Savannah River Technology Center.

Assessment of Harvesting Bottomland Hardwood Sites on Plant Competition and Ecosystem Processes. - Dr. D. W. Imm, Savannah River Forest Station.

GRADUATE AND POST-GRADUATE EDUCATION:

Former Post Doctoral Associates -
Donald W. Imm. Ph.D. University of Georgia.
David A. Kovacic. Ph.D. Colorado State University.

Current`Graduate Students -
Major Professor
Steven D. Schaff. Ph.D. University of Georgia.
Committee Member
Javier Espeleta. Ph.D. Ph.D. University of Georgia.
Andrea Lowrance. M.S. University of Georgia.
Robert Pattison. Ph.D. Washington State University.
Laura Uhrich. M.S. University of Georgia.

Former Graduate Students -
Major Professor
Mary A. Topa. Ph.D. Duke University.
Sarah W. Workman. M.S. Western Washington University.

Committee Member
Stacey Fredenberg. M.S. Appalachian State University..
Loretta L. Battaglia. Ph.D. University of Georgia.
Bobby D. Keeland. Ph.D. University of Georgia.
Harwell E. Coale, III. M.F. University of Georgia.
Wesley S. Hardegree. M.S. University of Georgia.
Lisa J. Samuelson. M.S. University of Georgia.
Howard S. Neufeld. Ph.D. University of Georgia.
William Repaske. M.S. University of Georgia.

PROFESSIONAL SOCIETIES AND ACTIVITIES:

Ecological Society of America
Program Committee (National), 1998-2000
Council (National), 1998-2000
Chair (Southeastern Chapter), 1998-2000
Vice-Chair (Southeastern Chapter), 1989-1991
Secretary (Southeastern Chapter), 1982-1984
Co-Chair, By-Laws Revision Committee (Southeastern Chapter), 1983
Judge, Student Awards (Southeastern Chapter and National)

Society of Wetland Scientists
Chair (South Atlantic Chapter), 1992-1993
Vice-Chair (South Atlantic Chapter), 1991-1992
Chair, Nominations Committee (South Atlantic Chapter), 1997, 1999, 2000
Judge, Student Awards (National)

Botanical Society of America
Council (National), 1991-1994
Chair (Southeastern Section), 1991-1994
Activities Committee (Southeastern Section), 1982
Chair, Nominating Committee (Southeastern Section), 1980

Torrey Botanical Society
Physiological Ecology Subject Matter Editor, 1999-present

Association of Southeastern Biologists
Chair, Patron Committee, 1998-1999
Chair, Meritorious Teaching Award Committee, 1997-1998
Meritorious Teaching Award Committee, 1995-1998
Priorities in Public Affairs Committee, 1994-1995
Executive Committee, 1988-1991
Chair, Graduate Student Support Award Committee, 1987-1988
Graduate Student Support Award Committee, 1985-1988
Judge, Student Awards

International Association for Ecology
Society for Ecological Restoration
Southern Appalachian Botanical Society

PROFESSIONAL SERVICES:

Manuscript Review for Various Journals, Including: Advances in Environmental Science, American Journal of Botany, American Midland Naturalist, Biotropica, Bulletin of the Torrey Botanical Club, Canadian Journal of Forest Research, Castanea, Forest Science, Journal of Coastal Research, Journal of Environmental Quality, Journal of the Elisha Mitchell Scientific Society, Tree Physiology, Wetland Ecology and Management, and Wetlands

Chapter Review for the Book: Southern Forested Wetlands: Ecology and Management

Proposal Review for Funding Agencies, Including: Department of Agriculture (Forest Service), Department of Energy, Department of the Interior, Man and the Biosphere, National Park Service, National Science Foundation, National Atmospheric and Space Agency

SREL Committee Assignments, Including: Predoctoral Fellowship Program, Faculty Searches, Library, Education, Management Reorganization, Safety, Facilities, Faculty Evaluation, SRI-SREL Liaison and Strategic Planning.

SREL Administrative:

Nuclear Regulatory Commission Grant *Critical Pathways of Radionuclides to Man from Agro-Ecosystems*: responsible for the administration of this grant to study the uptake of transuranic elements by agricultural crops and factors which affect availability to plants; funded for six years from 1977 to 1982 at rates ranging from $125,000 to $200,000/year.

Department of Energy/Office of Health and Environmental Research Grant *Dynamic Processes and Functions of Southeastern Floodplain Wetlands* Coordinator of interdivisional program that investigated wetland ecosystem processes. Funded from 1985 to 1988 at rates between $390,000 to $470,000/year.

Division of Wetlands Ecology - Acting Head during 1987. Supervise research programs of ten Ph.D. scientists and $2,300,000 annual budget.

Ecotoxicology, Remediation and Risk Assessment Research Group - Representative to SREL Executive Council from December 1997 to December 1999.

Local: Active in local science fairs and the Regional Central Savannah River Area Science Fair, serving as judge, head judge, and award presenter for the past 5 years.