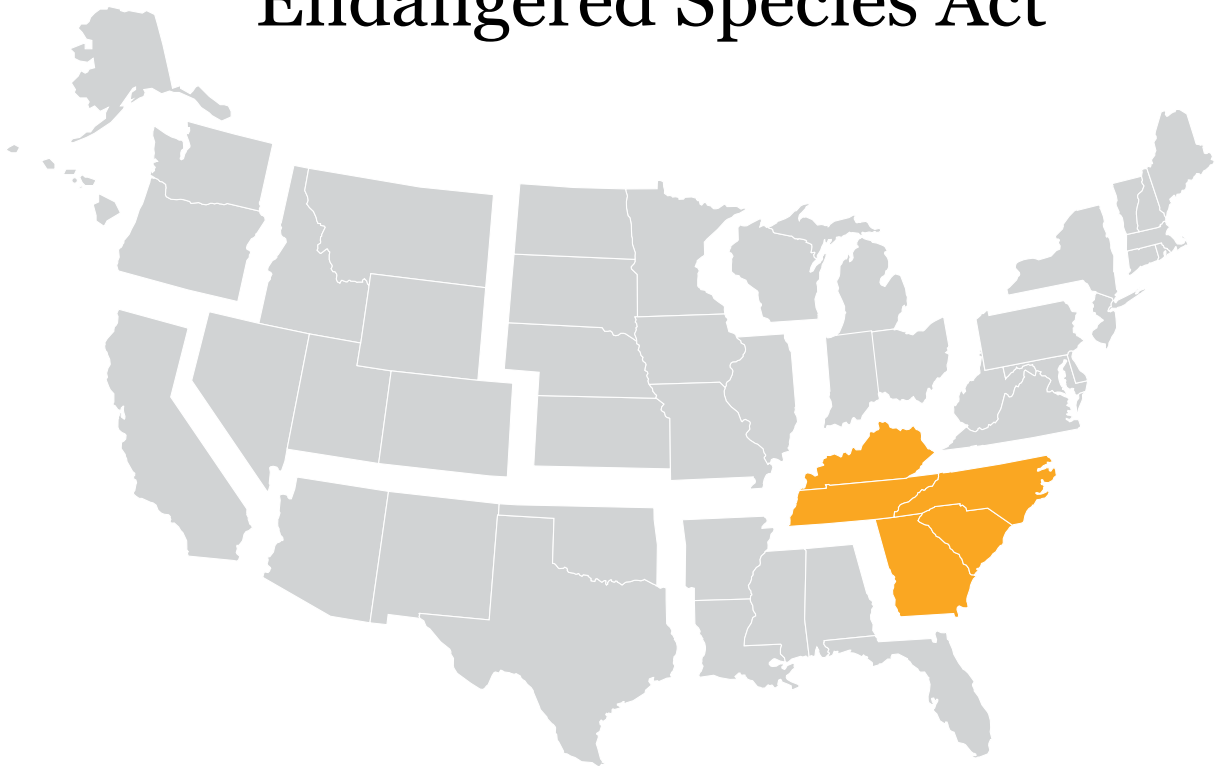


M A R C H 2 0 0 6



A Letter from Biologists  
to the United States Senate  
Concerning Science in the  
Endangered Species Act



SOUTHEAST

***The Endangered Species Act is scientifically sound and its goals are important to human well-being. We should improve its performance, not reduce its protections.***

**Jane Lubchenco, Marine Ecologist**

Valley Professor of Marine Biology and Distinguished Professor of Zoology, Oregon State University; member, National Academy of Sciences; MacArthur Fellow; past president, American Association for the Advancement of Science, Ecological Society of America, and International Council for Science

***As children, small creatures endlessly fascinate us; as adults, we can protect them so as to inspire future children.***

**Les E. Watling, Marine Ecologist**

Professor of Biological Oceanography and former director, Darling Marine Center, University of Maine; Pew Fellow in Marine Conservation; and past president, Crustacean Society

***Scientists know we must protect species because they are working parts of our life-support system.***

**Paul Ehrlich, Entomologist, Population Biologist**

Bing Professor of Population Studies and president, Center for Conservation Biology, Stanford University, California; member, National Academy of Sciences; MacArthur Fellow; and Crafoord Prize winner in Bioscience

***For what DNA literacy if we have extinguished the books?***

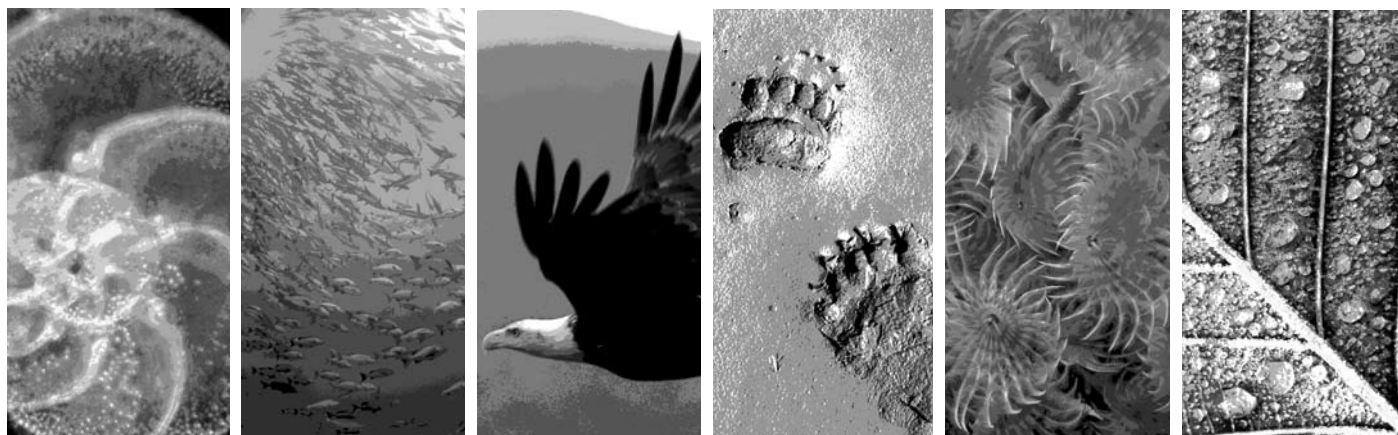
**Daniel H. Janzen, Evolutionary Ecologist**

Professor of Biology, University of Pennsylvania; member, National Academy of Sciences; MacArthur Fellow; and Crafoord Prize winner in Bioscience

***To weaken the scientific foundation of the Endangered Species Act is to doom more species to extinction.***

**Walter V. Reid, Ecologist**

Consulting professor, Institute for the Environment, Stanford University, California; former director, Millennium Ecosystem Assessment; and past board member, Society for Conservation Biology



A Letter from Biologists  
to the United States Senate  
Concerning Science in the  
Endangered Species Act

M A R C H 2 0 0 6

# A Letter from 5,738 Biologists to the United States Senate Concerning Science in the Endangered Species Act

Dear Senators:

**W**E ARE WRITING AS BIOLOGISTS WITH EXPERTISE IN A VARIETY OF SCIENTIFIC disciplines that concern biological diversity and the loss of species. With the Senate considering policies that could have long-lasting impacts on this nation's species diversity, we ask that you take into account scientific principles that are crucial to species conservation. Biological diversity provides food, fiber, medicines, clean water, and myriad other ecosystem products and services on which we depend every day. If we look only at well-studied species groups, nearly one-third of native species in the United States are at risk of disappearing.<sup>1</sup> Extinction is truly irreversible — once gone, individual species and all of the services that they provide us cannot be brought back.

On December 8, 1973, President Richard Nixon signed the Endangered Species Act ("ESA") with the goal of conserving endangered and threatened species and the ecosystems on which they depend. For species that have been listed and provided protection under the ESA, much of that purpose has been achieved. According to an article in the September 30, 2005, edition of *Science*, less than one percent of listed species have gone extinct since 1973, while 10 percent of candidate species still waiting to be listed have suffered that fate. In addition to the hundreds of species that the Act has protected from extinction, listing has contributed to population increases or the stabilization of populations for at least 35 percent of listed species, and perhaps significantly more, as well as the recovery of such signature species as the peregrine falcon. While complete recovery has been realized for just two percent of species listed, given the precarious state of most species when listed, this represents significant progress.

One of the great strengths of the Endangered Species Act is its foundation in sound scientific principles and its reliance on the best available science.<sup>2</sup> Unfortunately, recent legislative proposals would critically weaken this foundation. For species conservation to continue, it is imperative both that the scientific principles embodied in the Act are maintained, and that the Act is strengthened, fully implemented, and adequately funded.

## ► LISTING

Objective scientific information and methods should be used in listing species, subspecies, and distinct population segments as endangered or threatened under the Act. While non-scientific factors may appropriately be considered at points later in the process of protecting species, their use in listing decisions is inconsistent with biologically defensible principles. Due to the fragile state of many of those species that require the Act's protections, the listing process needs to proceed as promptly as possible; otherwise, species will go extinct while waiting to be listed.

## ► HABITAT

Habitat provides the unique food, shelter, and other complex requirements that each species needs for its survival; habitat loss and degradation are the principal reasons for the decline of most species at risk. Habitat protection is essential if species are to be conserved and the goals of the ESA are to be met. The relationship between species, their habitats, and the threats they face can be exceedingly complex. Therefore, the chances of species recovery are maximized when habitat protection is based on sound scientific principles, and when the determinations of the biological needs of at-risk species are scientifically well informed.

---

1 From NatureServe, an international network of scientists cataloguing biological diversity.

2 The National Academy of Science's National Research Council said in its seminal 1995 report, *Science and the Endangered Species Act*: "...there has been a good match between science and the ESA...[and] the ESA is based on sound scientific principles."

---

The obligation for federal agencies to consult with the appropriate wildlife agency and its biologists when federal actions could affect habitat for listed species is an indispensable provision in the ESA. It provides the means for science to inform decisions about the habitat-dependent survival and recovery of species at-risk. The designation of critical habitat places further obligations on the federal government to, among other things, protect the habitat essential to species recovery. It is far more effective, far easier, and far less expensive to protect functioning natural habitats than it is to recreate them once they are gone.

► **SCIENTIFIC TOOLS**

The current Endangered Species Act standard of “best available science” has worked well and has been flexible enough over time to accommodate evolving scientific information and practice. Failure to keep the ESA open to the use of scientific information from the best available research and monitoring, and to rely on impartial scientific experts, will contribute to delays in species recovery and to species declines and extinctions. Critical scientific information should not only include current empirical data, but also, for example, historic habitat and population information, population surveys, habitat and population modeling, and taxonomic and genetic studies. Use of scientific knowledge should not be hampered by administrative requirements that overburden or slow the Act’s implementation, or by limiting consideration of certain types of scientific information.

► **RECOVERY PLANS**

Recovery plans must be science-based documents that are developed with the input of scientists and are responsive to new information. Recovery plans must be based on the best possible information about the specific biology of each species, must identify threats to each species and address what is needed to mitigate those threats, and must predict how species are likely to respond to mitigation measures that may be adopted. To be most effective, recovery plans need to incorporate scientific principles of adaptive management, so they can be updated as new information on species and their habitats becomes available. Changes to the ESA that would delay completion of recovery plans, or provide for inflexible recovery goals that cannot be informed by new or additional scientific knowledge, should be avoided.

► **SCIENTIFIC ADVANCES AND NEW ISSUES**

The scientific community has contributed significant new information on imperiled species, their uses of habitats, and threats to those resources since the ESA was first passed into law. Serious, new, and as yet insufficiently addressed issues, such as global warming and invasive species, have emerged as primary environmental concerns that affect the fate of our native species diversity. We urge Congress to initiate thorough studies to consider the foremost problems that drive species toward extinction.

Losing species means losing the potential to solve some of humanity’s most intractable problems, including hunger and disease. The Endangered Species Act is more than just a law — it is the ultimate safety net in our life support system. As Earth has changed and as science has progressed since the Endangered Species Act was authorized in 1973, the ESA has served our nation well, largely because of its flexibility and its solid foundation in science. It is crucial to maintain these fundamental principles. The challenges of effective implementation of the Act should not be interpreted to require substantive rewriting of this valuable, well-functioning piece of legislation.

Thank you very much for taking our concerns into account. We are available to discuss any and all of the issues we have raised.

Sincerely,

*5,738 Scientific Experts Concerned About Endangered Species and Their Habitats*

# Georgia

**Brett Albanese, Ph.D.**

Fish Ecologist  
Watkinsville, GA

**Christopher Beck, Ph.D.**

Senior Lecturer  
Department of Biology  
Emory University  
Atlanta, GA

**Bradley Bergstrom, Ph.D.**

Professor  
Department of Biology  
Valdosta State University  
Valdosta, GA

**William S. Birkhead, Ph.D.**

Professor  
Department of Biology  
Columbus State University  
Columbus, GA

**Donald L. Brockway, Ph.D.**

Athens, GA

**Bonnie A. Buxton, Ph.D.**

Associate Professor  
Department of Basic Sciences  
Georgia Campus, Philadelphia  
College of Osteopathic Medicine  
Suwanee, GA

**Ron Carroll, Ph.D.**

University of Georgia  
Athens, GA

**Jaime M. Collazo, M.S.**

Environmental Scientist  
Department of Ecology  
Office of Environment and Location  
Georgia Department of  
Transportation  
Atlanta, GA

**Gaylon Cook, Ph.D.**

Assistant Professor  
Department of Biology  
Waycross College  
Waycross, GA

**Henry DeGrazia, Ph.D.**

Atlanta, GA

**Joseph M. Dirnberger, Ph.D.**

Professor  
Department of Biological  
and Physical Sciences  
Kennesaw State University  
Kennesaw, GA

**Duncan Elkins, M.S.**

Department of Ecology  
University of Georgia  
Athens, GA

**Mark A. Farmer, Ph.D.**

Professor  
Department of Cell Biology  
University of Georgia  
Athens, GA

**Carol Flaute**

Master's Candidate  
Institute of Ecology  
University of Georgia  
Athens, GA

**Debra Forthman, Ph.D.**

Douglasville, GA

**Michael Fost**

Lilburn, GA

**James Franklin, Ph.D.**

Athens, GA

**Jill Gannon, Ph.D.**

Warnell School of Forest Resources  
University of Georgia  
Athens, GA

**Judith E. Gordon, Ph.D.**

Associate Professor  
Department of Biology  
Augusta, GA

**Connie P. Gray, M.L.A.**

Ecological Resource Specialist  
Parks  
DeKalb County  
Decatur, GA

**Laura Hartt, M.S.**

Environmental Policy Specialist  
Society for Natural Resource  
Conservation  
National Wildlife Federation  
Atlanta, GA

**Sarah Harvey, M.S.**

Atlanta, GA

**Kirsten Rebecca Hazler, M.S.**

Doctoral Candidate  
Department of Forest Resources  
University of Georgia  
Athens, GA

**Bob Herrington, Ph.D.**

Professor and Chair  
Department of Biology  
Georgia Southwestern  
State University  
Americus, GA

**Steve Holzman, M.S.**

Bishop, GA

**Dale Hoyt, Ph.D.**

Athens, GA

**Stephen Hubbell, Ph.D.**

Distinguished Professor  
Department of Plant Biology  
University of Georgia  
Atlanta, GA

**Rebecca W. Hull, M.S.**

Decatur, GA

**Donald W. Imm, Ph.D.**

Technical Liaison  
Savannah River Ecology Laboratory  
Columbus, GA

**Krista Lee Jones, M.S.**

Research Analyst  
Department of Ecology  
University of Georgia  
Athens, GA

**John A. Keinath, Ph.D.**

Professor  
Savannah, GA

**Rosmaire Kelly, Ph.D.**

Medical Entomologist  
Atlanta, GA

**Dustin Kemp, M.S.**

Doctoral Candidate  
Department of Ecology  
University of Georgia  
Athens, GA

**Cynthia E. Kicklighter, Ph.D.**

Post-doctoral Researcher  
Department of Biology  
Georgia State University  
Atlanta, GA

**Ron Kneib, Ph.D.**

Senior Research Scientist  
Marine Institute  
University of Georgia  
Sapelo Island, GA

**John S. Kominoski, Ph.D.**

Institute of Ecology  
University of Georgia  
Athens, GA

**Lisa M. Kruse, M.S.**

Botanist  
Georgia Department  
of Natural Resources  
Georgia Natural Heritage Program  
Atlanta, GA

**Jeffrey K. Lake, M.S.**

Doctoral Candidate  
Athens, GA

**Ken Leonard**

Graduate Researcher  
Institute of Ecology  
University of Georgia  
Athens, GA

**Alison J. Lipman**

Doctoral Candidate  
Department of Ecology  
University of Georgia  
Athens, GA

**Bernard Majdi, M.A.**

Assistant Professor  
Waycross College  
Waycross, GA

**Lori Marino, Ph.D.**

Emory University  
Atlanta, GA

**Brady Mattsson**

Doctoral Candidate  
Department of Forest Resources  
University of Georgia  
Athens, GA

**Jennifer McCabe**

Doctoral Candidate  
Institute of Ecology  
University of Georgia  
Athens, GA

**Donald B. McCormick, Ph.D.**

Professor Emeritus  
Department of Biochemistry  
Emory University  
Atlanta, GA

**Mary Anne McGuire, M.S.F.**

Doctoral Candidate  
Department of Forest Resources  
University of Georgia  
Athens, GA

**Joseph V. McHugh, Ph.D.**

Department of Entomology  
University of Georgia  
Athens, GA

**Angela McMellen**

Doctoral Candidate  
University of Georgia  
Athens, GA

**Judy L. Meyer, Ph.D.**

Research Professor  
Institute of Ecology  
University of Georgia  
Athens, GA

# Georgia

**Corwin Mokler, Ph.D.**

Athens, GA

**Michael K. Moore, Ph.D.**

Associate Professor  
Department of Biology  
Mercer University  
Macon, GA

**Katrina M. Morris, M.S.**

Wildlife Biologist  
Athens, GA

**Stephen Opsahl, Ph.D.**

Newton, GA

**Beth Orcutt**

Master's Candidate  
Department of Marine Sciences  
University of Georgia  
Athens, GA

**Whitney Palefsky, M.S.**

Doctoral Candidate  
University of Georgia  
Athens, GA

**Geoffrey Poole, Ph.D.**

Eco-Metrics, Inc.  
Tucker, GA

**Brenda Rashleigh, Ph.D.**

Athens, GA

**Allison Reid, M.S.**

Atlanta, GA

**Alex Reynolds, M.S.**

Athens, GA

**Jennifer Rhode, Ph.D.**

Assistant Professor  
Milledgeville, GA

**David G. Riley, Ph.D.**

Tifton, GA

**Jane Rogers, M.S.**

University of Georgia  
Athens, GA

**Sylvia Schaefer**

Master's Candidate  
Department of Ecology  
University of Georgia  
Athens, GA

**Charles W. Seyle, M.S.**

U.S. Army Corps of Engineers  
Savannah, GA

**Thomas Shannon**

Doctoral Candidate  
Department of Ecology  
University of Georgia  
Athens, GA

**Rebecca Sharitz, Ph.D.**

Department of Plant Biology  
University of Georgia  
Athens, GA

**Katherine Smith**

Doctoral Candidate  
University of Georgia  
Athens, GA

**Bruce A. Snyder, Ph.D.**

Institute of Ecology  
University of Georgia  
Athens, GA

**Rebecca J. Snyder, Ph.D.**

Curator of Giant Pandas  
Department of Large Mammals  
Zoo Atlanta  
Atlanta, GA

**Amy Squire, M.S.**

Athens, GA

**Emmett F. Stallings, Ph.D.**

Environmental Consultant (Retired)  
Donalsonville, GA

**Cynthia J. Tant**

Doctoral Candidate  
Institute of Ecology  
University of Georgia  
Athens, GA

**Thomas Toney, Ph.D.**

Professor  
Department of Biology  
Georgia College  
Milledgeville, GA

**Dorset Trapnell, Ph.D.**

Research Scientist  
Department of Ecology  
University of Georgia  
Athens, GA

**James B. Wallace, Ph.D.**

Professor  
Department of Entomology  
and Ecology  
University of Georgia  
Athens, GA

**John Wares, Ph.D.**

Assistant Professor  
Department of Genetics  
University of Georgia  
Athens, GA

**Monica H. M. Watkins, M.S.**

Graduate Assistant  
Department of Forest Resources  
University of Georgia  
Winterville, GA

**Meredith L. Welch Devine, M.S.**

Doctoral Candidate  
Department of Ecology  
University of Georgia  
Athens, GA

**Julie Wieczkowski, Ph.D.**

Assistant Professor  
Department of Anthropology  
University of West Georgia  
Carrollton, GA

**Jason Wisniewski, M.S.**

Aquatic Zoologist  
Section of Natural Heritage  
Georgia Department  
of Natural Resources  
Social Circle, GA

**Dale Youngkin, M.S.**

Atlanta, GA

**Caralyn B. Zehnder, Ph.D.**

Institute of Ecology  
University of Georgia  
Athens, GA

# Kentucky

**Thomas G. Barnes, Ph.D.**

Professor  
Department of Forestry  
University of Kentucky  
Lexington, KY

**Thomas C. Barr, Ph.D.**

Professor Emeritus  
Department of Biological Sciences  
University of Kentucky  
Lexington, KY

**Joel Beverly, M.S.**

Ermine, KY

**Richard L. Boyce, Ph.D.**

Assistant Professor  
Department of Biological Sciences  
Northern Kentucky University  
Highland Heights, KY

**Cara Lin Bridgman, Ph.D.**

Assistant Professor  
Louisville, KY

**Jessica Buckingham**

Doctoral Candidate  
Department of Biology  
University of Louisville  
Louisville, KY

**Margaret M. Carreiro, Ph.D.**

Associate Professor  
Department of Biology  
University of Louisville  
Louisville, KY

**Daniel Cottle, M.S.**

Nicholasville, KY

**John J. Cox, Ph.D.**

Department of Forestry  
University of Kentucky  
Lexington, KY

**Terry Derting, Ph.D.**

Biologist  
Murray, KY

**Kim Feeman, M.S.**

Botanist  
Campton, KY

**John W. Ferner, Ph.D.**

Professor  
Department of Biology  
Thomas More College  
Independence, KY

**Charles W. Fox, Ph.D.**

Associate Professor  
Department of Entomology  
University of Kentucky  
Lexington, KY

**Jay Gulledge, Ph.D.**

Adjunct Assistant Professor  
Department of Biology  
University of Louisville  
Louisville, KY

**Madhuja Gupta, M.S.**

Department of Biology  
University of Louisville  
Louisville, KY

**Susan Hendrick**

Master's Candidate  
Department of Biology  
Louisville, KY

**Deborah Brooks Hill, Ph.D.**

Professor  
Department of Forestry  
University of Kentucky  
Lexington, KY

**Tom Kimmerer, Ph.D.**

Chief Scientist  
Hutton Loyd Tree Farm  
Lexington, KY

**John J. Metz, Ph.D.**

Associate Professor  
Department of History  
and Geography  
Northern Kentucky University  
Highland Heights, KY

**Barry Nichols**

Louisville, KY

**Holly Niehoff**

Environmental Health Specialist  
Goshen, KY

**John J. Obyrcki, Ph.D.**

Professor  
Department of Entomology  
University of Kentucky  
Lexington, KY

**Robert C. Oney**

Environmental Biologist  
Environmental Division  
Palmer Engineering  
Winchester, KY

**Christopher Owen, Ph.D.**

Louisville, KY

**Brent Palmer, Ph.D.**

Department of Biology  
University of Kentucky  
Lexington, KY

**Thomas C. Pelletier, M.S.**

Department of Biology  
University of Louisville  
Louisville, KY

**T. K. Phillips, Ph.D.**

Department of Biology  
Western Kentucky University  
Bowling Green, KY

**Stephen C. Richter, Ph.D.**

Assistant Professor  
Department of Biological Sciences  
Eastern Kentucky University  
Richmond, KY

**Lisa Schmoetzer, M.S.**

Educator  
Lawrenceburg, KY

**Ralph J. Schuler, Jr., M.S.**

Environmental Biologist  
Palmer Engineering  
Winchester, KY

**James B. Sickel, Ph.D.**

Professor Emeritus  
Department of Biological Sciences  
Murray State University  
Murray, KY

**Madhusudan P. Srinivasan, Ph.D.**

Lexington, KY

**Piper Thomas**

Master's Candidate  
Louisville, KY

**Conrad Toepfer, Ph.D.**

Assistant Professor  
Department of Biology  
Brescia University  
Owensboro, KY

**Tara L. Trammell**

University Fellow  
Doctoral Candidate  
Louisville, KY

**Monica Unseld, M.S.**

Doctoral Candidate  
Louisville, KY

**Robert Vanderpool**

University of Louisville  
Louisville, KY

**Jason Weese, M.S.**

Department of Forestry  
University of Kentucky  
Lexington, KY

**Rodney J. White**

Doctoral Candidate  
Louisville, KY

**Howard Whiteman, Ph.D.**

Associate Professor  
Department of Biological Sciences  
Murray State University  
Murray, KY

**Eric Wong, Ph.D.**

Assistant Professor  
Department of Biology  
University of Louisville  
Louisville, KY

**Edmund Zimmerer, Ph.D.**

Department of Biology  
Murray State University  
Murray, KY

## North Carolina

**Greg Adkison, Ph.D.**

Visiting Assistant Professor  
Department of Biology  
Western Carolina University  
Cullowhee, NC

**John Alderman**

President  
Alderman Environmental  
Services, Inc.  
Pittsboro, NC

**Juliann E. Aukema, Ph.D.**

David H. Smith Conservation  
Research Fellow  
Department of Zoology  
North Carolina State University  
Raleigh, NC

**Michael J. Baranski, Ph.D.**

Professor  
Department of Biology  
Catawba College  
Salisbury, NC

**Art Blundell, Ph.D.**

Greensboro, NC

**Arthur E. Bogan, Ph.D.**

Research Curator  
Department of Aquatic Invertebrates  
North Carolina Museum of Natural  
Sciences  
Raleigh, NC

**Eric G. Bolen, Ph.D.**

Professor Emeritus  
Department of Biological Sciences  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Alvin Braswell, M.S.**

Research Laboratory Director  
Department of Research  
and Collections  
North Carolina State Museum  
of Natural Sciences  
Raleigh, NC

**Steven W. Brewer, Ph.D.**

Assistant Professor  
Department of Biology  
and Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Robert Bringolf, Ph.D.**

Research Associate  
Department of Toxicology  
North Carolina State University  
Raleigh, NC

**Mark Brinson, Ph.D.**

Department of Biology  
East Carolina University  
Greenville, NC

**Margit A. Bucher, M.S.**

Durham, NC

**Lawrence B. Cahoon, Ph.D.**

Professor  
Department of Biology  
and Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Barney Caton, Ph.D.**

Ecologist  
Hillsborough, NC

**Gregory Chandler, Ph.D.**

Assistant Professor  
Department of Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Bharat Chandramouli, Ph.D.**

Chapel Hill, NC

**Ileana E. Clavijo, Ph.D.**

Associate Professor  
Department of Biology  
and Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Wendy M. Cluse, M.E.M.**

Atlantic Beach, NC

**John E. Cooper, Ph.D.**

Crustacean Curator  
Research Laboratory  
North Carolina State Museum  
of Natural Sciences  
Raleigh, NC

**William J. Cooper, Ph.D.**

Professor  
Department of Chemistry  
and Biochemistry  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Pat Corry, Ph.D.**

Department of Biology  
University of North Carolina,  
Chapel Hill  
Chapel Hill, NC

**Jason T. Craig**

University of North Carolina,  
Greensboro  
Stokesdale, NC

**Amanda Curtin, Ph.D.**

Duke University  
Durham, NC

**Lisa C. Davenport**

Doctoral Candidate  
Biology  
University of North Carolina, Chapel  
Hill  
Chapel Hill, NC

**Dennis Desmond, M.S.**

Franklin, NC

**Kyle Dexter**

Doctoral Candidate  
Department of Biology  
Duke University  
Durham, NC

**Robert S. Dial, M.S.**

President  
Dial Cordy and Associates Inc.  
Wilmington, NC

**Phillip D. Doerr, Ph.D.**

Professor  
Department of Forestry  
North Carolina State University  
Raleigh, NC

**Daniel C. Dunn, C.E.M.**

Beaufort, NC

**Michael Durako, Ph.D.**

Professor  
Wilmington, NC

**Chris Eads, M.S.**

North Carolina State University  
Raleigh, NC

**Karen Lind Eckert, Ph.D.**

Executive Director  
Nicholas School of the Environment  
and Earth Sciences  
Duke University  
Beaufort, NC

**Steven D. Emslie, Ph.D.**

Professor  
Department of Biology and  
Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Steven H. Everhart, Ph.D.**

North Carolina Wildlife Resources  
Commission  
Wilmington, NC

**Pamela Evers, J.D.**

Associate Professor  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Todd Folsom, Ph.D.**

SAS Institute, Inc.  
Cary, NC

**Misty A. Franklin, M.S.**

Botanist  
Chapel Hill, NC

**Mary Frazer, M.S.**

Raleigh, NC

**Lisa J. Gatens, M.S.**

Curator of Mammals  
Department of Research  
and Collections  
North Carolina Museum  
of Natural Sciences  
Raleigh, NC

**Chris Gawle, M.S.**

Department of Marine Sciences  
University of Charleston  
Charlotte, NC

**Bruce Gillingham, Ph.D.**

Cape Fear Community College  
Wilmington, NC

**Robert J. Goldstein, Ph.D.**

President  
Robert J. Goldstein and  
Associates, Inc.  
Raleigh, NC

**Hermann Gucinski, Ph.D.**

Fairview, NC

**Nick Haddad, Ph.D.**

Associate Professor  
Department of Zoology  
North Carolina State University  
Raleigh, NC

**Matthew Hamilton**

Master's Candidate  
Department of Statistics  
and Biomathematics  
North Carolina State University  
Raleigh, NC

## North Carolina

**Ron Hardman**

Doctoral Candidate  
Nicholas School of the Environment  
and Earth Sciences  
Duke University  
Durham, NC

**Emily Harwell, Ph.D.**

Greensboro, NC

**Lucie Hazen, M.S.**

Duke University  
Beaufort, NC

**Harold F. Heatwole, Ph.D.**

Professor  
Department of Zoology  
North Carolina State University  
Raleigh, NC

**Joseph Hightower, Ph.D.**

Fishery Biologist  
Raleigh, NC

**David W. Hollar, Ph.D.**

Assistant Professor  
School of Medicine  
University of North Carolina,  
Chapel Hill  
Chapel Hill, NC

**Robin Hopkins, Ph.D.**

Department of Biology  
Duke University  
Durham, NC

**Jonathan Horton, Ph.D.**

Department of Biology  
University of North Carolina,  
Asheville  
Asheville, NC

**Ann Huyler**

Master's Candidate  
Department of Biology  
Appalachian State University  
Boone, NC

**Rebecca Hylton, M.S.**

Doctoral Candidate  
Department of Zoology  
North Carolina State University  
Raleigh, NC

**Rebecca C. Jann, Ph.D.**

Professor Emerita  
Department of Biology  
Queens University of Charlotte  
Charlotte, NC

**Clinton N. Jenkins, Ph.D.**

Research Associate  
Nicholas School of the Environment  
and Earth Sciences  
Duke University  
Durham, NC

**Claudia Jones, M.S.**

Department of Zoology  
University of Maryland  
Nags Head, NC

**Dawoon Jung, M.S.**

Duke University  
Durham, NC

**Krithi K. Karanth, M.E.S.**

Durham, NC

**Christine A. Kelly, M.S.**

Nongame Wildlife Biologist  
Asheville, NC

**John King, Ph.D.**

Tree Physiologist  
Department of Forestry and  
Environmental Resources  
North Carolina State University  
Raleigh, NC

**Sarah B. King, M.S.**

Environmental Scientist  
Beaufort, NC

**Lynde Knowles-Jonas, M.D.**

Burlington, NC

**Andrew Kota, M.S.**

Morganton, NC

**Alexander Krings**

Doctoral Candidate  
Department of Botany  
North Carolina State University  
Raleigh, NC

**Michael Kunz, M.A.**

Durham, NC

**Jennifer Laliberte, M.E.M.**

Nicholas School of the  
Environment and Earth Sciences  
Duke University  
Durham, NC

**Edward J. Laurent, Ph.D.**

Research Associate  
Department of Zoology  
North Carolina State University  
Raleigh, NC

**David S. Lee, M.S.**

Curator (Retired)  
Raleigh, NC

**Allison K. Leidner**

Doctoral Candidate  
Department of Zoology  
North Carolina State University  
Raleigh, NC

**Barry Lentz, Ph.D.**

Director  
Department of Biochemistry and  
Biophysics  
University of North Carolina, Chapel  
Hill  
Chapel Hill, NC

**J. Merrill Lynch**

Apex, NC

**Sarah E. Mabey, Ph.D.**

Research Fellow  
Department of Zoology  
North Carolina State University  
Raleigh, NC

**Krisztian Magori, Ph.D.**

Department of Entomology  
North Carolina State University  
Raleigh, NC

**Lynn Maguire, Ph.D.**

Professor  
Nicholas School of the Environment  
and Earth Sciences  
Duke University  
Durham, NC

**Henry Mainwaring, Ph.D.**

Department of Biology  
Western Carolina University  
Cullowhee, NC

**Michael A. Mallin, Ph.D.**

Research Professor  
Center for Marine Science  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Randy Martin, Ph.D.**

Department of Biology  
Davidson County Community  
College  
Salisbury, NC

**Sara Martin, M.S.**

Director of Research  
Long Branch Environmental  
Education Center  
Canton, NC

**Thomas H. Martin, Ph.D.**

Associate Professor  
Department of Biology  
Western Carolina University  
Cullowhee, NC

**Martha Martinez, M.S.**

Program Director  
Nicholas School of the Environment  
and Earth Sciences  
Duke University  
Durham, NC

**Jason W. Mays**

Environmental Specialist  
Master's Candidate  
Raleigh, NC

**Michael A. McCartney, Ph.D.**

Assistant Professor  
Biology and Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Catherine M. McClellan, M.S.**

Doctoral Candidate  
Beaufort, NC

**William O. McLarney, Ph.D.**

Little Tennessee Watershed  
Association  
Franklin, NC

**Brian McRae, M.S.**

Raleigh, NC

**Sarah McRae, M.S.**

Freshwater Ecologist  
North Carolina Natural Heritage  
Program  
Raleigh, NC

**Erin Meagher**

Doctoral Candidate  
Department of Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Amanda Medori, M.E.M.**

Nicholas School of the  
Environment and Earth Sciences  
Duke University  
Washington, NC

**Robert W. Merriam, Ph.D.**

Cell Biologist (Retired)  
Durham, NC

**Jeffrey Moore, Ph.D.**

Center for Marine Conservation  
Duke University  
Beaufort, NC

**Zack E. Murrell, Ph.D.**

Associate Professor  
Department of Biology  
Appalachian State University  
Boone, NC

## North Carolina

**Howard S. Neufeld, Ph.D.**

Professor  
Department of Biology  
Appalachian State University  
Boone, NC

**Jason Nichols, Ph.D.**

Postdoctoral Associate  
Department of Chemical and  
Biomolecular Engineering  
North Carolina State University  
Raleigh, NC

**Maggy M. Nugues, Ph.D.**

Assistant Professor  
Center for Marine Science  
University of North Carolina,  
Wilmington  
Wilmington, NC

**D. Ann Pabst, Ph.D.**

Professor  
Department of Biology and  
Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Jaime B. Palter, M.S.**

Doctoral Candidate  
Department of Earth and  
Ocean Sciences  
Duke University  
Durham, NC

**Christopher J. Paradise, Ph.D.**

Associate Professor  
Department of Biology  
Davidson College  
Davidson, NC

**Kathryn E. Perez, Ph.D.**

Department of Biology  
Duke University  
Durham, NC

**Daniel G. Perlmutter, Ph.D.**

Department of Biology  
Western Carolina University  
Cullowhee, NC

**Stuart Pimm, Ph.D.**

Doris Duke Chair  
Nicholas School of the  
Environment and Earth Sciences  
Duke University  
Durham, NC

**J. Dan Pittillo, Ph.D.**

Professor (Retired)  
Department of Biology  
Western Carolina University  
Cullowhee, NC

**Gerald Pottern, M.S.**

Environmental Studies and Permits  
Goldstein & Associates  
Raleigh, NC

**Ben Prater, M.E.M.**

Ecologist  
Student Association Programming  
Board  
Asheville, NC

**H. Douglas Pratt, Ph.D.**

Research Curator  
Department of Research  
and Collections  
North Carolina Museum  
of Natural Sciences  
Raleigh, NC

**Steven J. Price, M.S.**

Research Coordinator  
Department of Biology  
Davidson College  
Davidson, NC

**Molly Puente**

Doctoral Candidate  
Department of Entomology  
North Carolina State University  
Durham, NC

**Andrew J. Read, Ph.D.**

Associate Professor  
Nicholas School of the  
Environment and Earth Sciences  
Duke University  
Beaufort, NC

**Steve Rebach, Ph.D.**

Associate Director  
North Carolina Sea Grant  
North Carolina State University  
Raleigh, NC

**Julie A. Reynolds, Ph.D.**

Mellon Instructor  
Department of Biology  
Duke University  
Durham, NC

**Don Richardson, M.D.**

Pathologist  
Brevard, NC

**Lisa Richardson-Calfee, Ph.D.**

Charlotte, NC

**Angeline Rodgers, M.S.**

Raleigh, NC

**Fred C. Rohde, M.S.**

Wilmington, NC

**Matthew Rubino, M.S.**

Department of Zoology  
North Carolina State University  
Raleigh, NC

**Laela S. Sayigh, Ph.D.**

Research Associate Professor  
Department of Biology and  
Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Frederick Scharf, Ph.D.**

Department of Biology and  
Marine Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Jim Schellenberg, Ph.D.**

Newport, NC

**William H. Schlesinger, Ph.D.**

Dean  
Nicholas School of the  
Environment and Earth Sciences  
Duke University  
Durham, NC

**Jeffrey Schmitt, Ph.D.**

Professor  
Winston-Salem, NC

**Michelle Schroeder, Ph.D.**

Raleigh, NC

**Eckert A. Scott, Ph.D.**

Director of Science  
Nicholas School of Environment  
and Earth Sciences  
Duke University  
Beaufort, NC

**John R. Seed, Ph.D.**

Professor  
Department of Epidemiology  
University of North Carolina,  
Chapel Hill  
Chapel Hill, NC

**Amanda Senft, M.S.**

Department of Biology  
University of North Carolina,  
Chapel Hill  
Chapel Hill, NC

**Rowland M. Shelley, Ph.D.**

Raleigh, NC

**Andrew Shepard, M.S.**

Director  
National Oceanic and  
Atmospheric Administration  
Undersea Research Center  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Miles Silman, Ph.D.**

Associate Professor  
Department of Biology  
Wake Forest University  
Winston-Salem, NC

**Stephen A. Skrabal, Ph.D.**

Associate Professor  
Department of Chemistry  
and Biochemistry  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Peggy Sloan, M.S.**

Curator  
Department of Biology  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Robin A. Smith, Ph.D.**

Post-doctoral Fellow  
Department of Biology  
Duke University  
Durham, NC

**Anthony G. Snider, Ph.D.**

Center for Marine Science  
University of North Carolina,  
Wilmington  
Wilmington, NC

**Phillip S. Southern, Ph.D.**

Professor  
Department of Entomology  
North Carolina State University  
Raleigh, NC

**Wayne C. Starnes, Ph.D.**

Research Curator  
Department of Research  
and Collections  
North Carolina Museum  
of Natural Sciences  
Raleigh, NC

**Jeffrey Steinmetz, Ph.D.**

Assistant Professor  
Department of  
Environmental Science  
Queens University of Charlotte  
Charlotte, NC

## North Carolina

**Kelly Stewart, M.S.**

Doctoral Candidate  
Nicholas School of the  
Environment and Earth Sciences  
Duke University  
Beaufort, NC

**Ron Sutherland**

Doctoral Candidate  
Duke University  
Durham, NC

**Ariana Sutton-Grier**

Doctoral Candidate  
Duke University  
Durham, NC

**Yui Suzuki**

Doctoral Candidate  
Department of Biology  
Duke University  
Durham, NC

**Alina M. Szmant, Ph.D.**

Professor  
Department of Biology  
and  
Marine Biology University of North  
Carolina, Wilmington  
Wilmington, NC

**Judy Teague**

Durham, NC

**Stanton K. Tefft, Ph.D.**

Professor Emeritus  
Winston-Salem, NC

**John Terborgh, Ph.D.**

Professor  
Nicholas School of the  
Environment and Earth Sciences  
Duke University  
Durham, NC

**Bryn H. Tracy, M.S.**

Environmental Biologist III  
North Carolina Division  
of Water Quality  
North Carolina Department of  
Environment and Natural Resources  
Raleigh, NC

**Dean Urban, Ph.D.**

Associate Professor  
Division of Environmental  
Sciences and Policy  
Duke University  
Durham, NC

**Joseph F. Ustach, Ph.D.**

Department of Oceanography  
Duke Marine Laboratory  
Beaufort, NC

**Russell C. Van Horn, Ph.D.**

Research Associate  
Department of Biology  
Duke University  
Durham, NC

**Heather Vance-Chalcraft, Ph.D.**

Greenville, NC

**Erin E. Vos, M.S.**

Environmental Educator  
Durham, NC

**Bryan Wallace, Ph.D.**

Post-doctoral Research Associate  
Center for Marine Conservation  
Duke University Marine Laboratory  
Beaufort, NC

**Alan Weakley, Ph.D.**

Adjunct Assistant Professor  
Curriculum in Ecology  
University of North Carolina,  
Chapel Hill  
Chapel Hill, NC

**Allison E. Weakley, M.S.**

Biologist  
Chapel Hill, NC

**Lori Ann Williams, M.S.**

Asheville, NC

**Michael Windelspecht, Ph.D.**

Assistant Professor  
Department of Biology  
Appalachian State University  
Boone, NC

**Anthony C. Yannarell, Ph.D.**

Researcher  
Institute of Marine Sciences  
Atlantic Beach, NC

**Bora D. Zivkovic, M.S.**

Raleigh, NC

## South Carolina

**Dennis M. Allen, Ph.D.**

Research Professor  
Baruch Institute of Marine Science  
University of South Carolina  
Georgetown, SC

**William D. Anderson, Jr., Ph.D.**

Professor Emeritus  
Grice Marine Biological Laboratory  
College of Charleston  
Charleston, SC

**Tamatha R. Barbeau, Ph.D.**

Assistant Professor  
Department of Biology  
Francis Marion University  
Florence, SC

**Bray Beltran, M.E.S.**

College of Charleston  
Charleston, SC

**Claudia Benitez-Nelson, Ph.D.**

Assistant Professor  
Department of Geological Sciences  
and Marine Science Program  
University of South Carolina  
Columbia, SC

**Ronald Benner, Ph.D.**

Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Sarah Berke**

Doctoral Candidate  
University of South Carolina  
Columbia, SC

**Deborah Bidwell, M.S.**

Department of Biology  
College of Charleston  
Charleston, SC

**Pamela Brannock, Ph.D.**

Columbia, SC

**Kurt Bretsch, Ph.D.**

Georgetown, SC

**Renaë Brodie, Ph.D.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Albert L. Bryan, Jr., M.S.**

Savannah River Ecology Laboratory  
Aiken, SC

**Louis Burnett, Ph.D.**

Professor  
Department of Biology  
College of Charleston  
Charleston, SC

**Evan W. Carson, Ph.D.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Erin Casey, M.S.**

Aiken, SC

**G. Thomas Chandler, Ph.D.**

Professor and Chairman  
Department of Environmental  
Health Sciences  
University of South Carolina  
Columbia, SC

**Robert W. Chapman, Ph.D.**

Marine Resources Research Institute  
South Carolina Department of  
Natural Resources  
Charleston, SC

**Melissa Chernick**

Master's Candidate  
Department of Biological Sciences  
Clemson University  
Clemson, SC

**Janice B. Chism, Ph.D.**

Professor  
Department of Biology  
Winthrop University  
Rock Hill, SC

**Bruce Coull, Ph.D.**

Dean  
Columbia, SC

**Melissa J. Cramer, M.S.**

Department of Biology  
University of South Carolina  
Columbia, SC

**Jennifer E. Creech, M.S.**

Charleston, SC

**Tanya L. Darden, Ph.D.**

Assistant Professor  
Department of Biology  
College of Charleston  
Charleston, SC

**Marie DeLorenzo, Ph.D.**

Research Assistant Professor  
Department of Environmental  
Health Sciences  
University of South Carolina  
Columbia, SC

**Saara DeWalt, Ph.D.**

Assistant Professor  
Department of Biological Sciences  
Clemson University  
Clemson, SC

**Guy DiDonato, Ph.D.**

Ecologist  
Charleston, SC

**Phillip Dustan, Ph.D.**

Professor  
Department of Biology  
College of Charleston  
Charleston, SC

**Andrew Dyer, Ph.D.**

Department of Biology and Geology  
University of South Carolina  
Aiken, SC

**Colin Finney, Ph.D.**

Wetlands Support  
Folly Beach, SC

**Madilyn Fletcher, Ph.D.**

Director and Professor  
Baruch Institute  
University of South Carolina  
Columbia, SC

**William E. Franklin, III, Ph.D.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Sharon L. Gilman, Ph.D.**

Assistant Professor  
Department of Biology  
Coastal Carolina University  
Conway, SC

**Jenice Godley, M.S.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Kevin S. Godwin, Ph.D.**

Assistant Professor  
Department of Biology  
Coastal Carolina University  
Conway, SC

**Ellen Goldey, Ph.D.**

Professor  
Department of Biology  
Wofford College  
Spartanburg, SC

**Judith Greene-McLeod**

Research Coordinator  
Savannah River Ecology Laboratory  
University of Georgia  
Aiken, SC

**DuBose Griffin, M.S.**

Wildlife Biologist  
Charleston, SC

**Kelly Gunnell, M.S.**

Department of Biological Sciences  
Clemson University  
Clemson, SC

**Danny J. Gustafson, Ph.D.**

Assistant Professor  
Department of Biology  
The Citadel  
Charleston, SC

**Lauren E. Harvey**

Master's Candidate  
Department of Entomology  
Clemson University  
Clemson, SC

**Brian Helmuth, Ph.D.**

Associate Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**John M. Herr, Jr., Ph.D.**

Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Laurel Hester, Ph.D.**

Lecturer  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Kevin Higgins, Ph.D.**

Assistant Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Jerry Hilbish, Ph.D.**

Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Chris Hill, Ph.D.**

Associate Professor  
Department of Biology  
Coastal Carolina University  
Conway, SC

**Bill Hilton, Jr., M.S.**

Executive Director  
Hilton Pond Center for Piedmont  
Natural History  
York, SC

## South Carolina

**Melissa Hughes, Ph.D.**

Assistant Professor  
Department of Biology  
College of Charleston  
Charleston, SC

**John Hutchens, Ph.D.**

Assistant Professor  
Department of Biology  
Coastal Carolina University  
Conway, SC

**Kalan L. Ickes, Ph.D.**

Research Assistant Professor  
Department of Biological Sciences  
Clemson University  
Clemson, SC

**Melissa R. Ide, M.S.**

Statistical Research Analyst  
Georgetown, SC

**Jennifer A. Jost**

Doctoral Candidate  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Karl Kaiser, M.S.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Charlie Kaufman**

Master's Candidate  
College of Charleston  
Charleston, SC

**Paul Kenny**

Baruch Institute  
University of South Carolina  
Georgetown, SC

**Kristen L. King**

Charleston, SC

**Travis W. Knowles, M.S.**

Professor  
Department of Biology  
Francis Marion University  
Florence, SC

**Trevor Krabbenhoft, M.S.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Sandra F. Larson, Ph.D.**

Assistant Professor  
Department of Biology  
Furman University  
Greenville, SC

**Sarah Lauerman**

Graduate Research Assistant  
Master's Candidate  
Department of Wildlife and  
Fisheries Biology  
Clemson University  
Clemson, SC

**Joseph Ledvina**

Master's Candidate  
Department of Forestry and  
Natural Resources  
Clemson University  
Clemson, SC

**Jean Leitner**

Department of Natural Resources  
State of South Carolina  
Columbia, SC

**Gregory P. Lewis, Ph.D.**

Assistant Professor  
Department of Biology  
Furman University  
Greenville, SC

**Min-Ken Liao, Ph.D.**

Associate Professor  
Department of Biology  
Furman University  
Greenville, SC

**David E. Lincoln, Ph.D.**

Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Charles R. Lovell, Ph.D.**

Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Stacy A. Luthy, Ph.D.**

Department of Marine Science  
Coastal Carolina University  
Georgetown, SC

**Barton C. Marcy, M.S.**

Ichthyology Researcher (Retired)  
Aiken, SC

**F. Douglas Martin, Ph.D.**

Principal Scientist  
Department of Environmental  
Sciences and Biotechnology  
Savannah River National Laboratory  
Aiken, SC

**Kenneth W. McLeod, Ph.D.**

Associate Research Ecologist  
Savannah River Ecology Laboratory  
University of Georgia  
Aiken, SC

**Nova Mieszkowska, Ph.D.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Richard R. Montanucci, Ph.D.**

Department of Biological Sciences  
Clemson University  
Clemson, SC

**Kirt E. Moody, Ph.D.**

Department of Biological  
and Physical Sciences  
Columbia College  
Columbia, SC

**Richard H. Moore, Ph.D.**

Professor  
Department of Biology  
Coastal Carolina University  
Conway, SC

**Amy Moran, Ph.D.**

Department of Biological Sciences  
Clemson University  
Clemson, SC

**James Morris, Ph.D.**

Professor  
Department of Biological  
and Marine Sciences  
University of South Carolina  
Columbia, SC

**John C. Morse, Ph.D.**

Professor  
Department of Entomology  
Clemson University  
Clemson, SC

**John Nelson, Ph.D.**

Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Joy O'Keefe, M.S.**

Graduate Assistant  
Department of Forestry  
and Natural Resources  
Clemson University  
Clemson, SC

**David W. Owens, Ph.D.**

Professor  
Department of Biology  
College of Charleston  
Charleston, SC

**Travis W. Perry, Ph.D.**

Assistant Professor  
Department of Biology  
Furman University  
Greenville, SC

**Melissa A. Pilgrim, Ph.D.**

Assistant Research Scientist  
Savannah River Ecology Laboratory  
University of Georgia  
Aiken, SC

**James L. Pinckney, Ph.D.**

Associate Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Al P. Plan**

Master's Candidate  
College of Charleston  
Charleston, SC

**Robert Podolsky, Ph.D.**

Assistant Professor  
Department of Biology  
College of Charleston  
Charleston, SC

**Christopher S. Potter, M.S.**

Charleston, SC

**James Powell, M.S.**

Marine Biologist  
Division of Marine Resources  
South Carolina Department  
of Natural Resources  
Charleston, SC

**Jennifer Price, Ph.D.**

Biologist  
Department of Fisheries Research  
South Carolina Department  
of Natural Resources  
Eastover, SC

**Margaret B. Ptacek, Ph.D.**

Associate Professor  
Department of Biological Sciences  
Clemson University  
Clemson, SC

**Joseph Quattro, Ph.D.**

Department of Biology  
University of South Carolina  
Columbia, SC

**John G. Rae, Ph.D.**

Shirley Malloy Professor of Biology  
Department of Biology  
Francis Marion University  
Florence, SC

**Robert A. Raguso, Ph.D.**

Associate Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

## South Carolina

**Lisa Rapaport, Ph.D.**

Department of Biological Sciences  
Clemson University  
Clemson, SC

**William Rogers, Ph.D.**

Professor  
Department of Biology  
Winthrop University  
Rock Hill, SC

**Gorka Sancho, Ph.D.**

College of Charleston  
Charleston, SC

**Gabriel Sataloff, M.S.**

College of Charleston  
Charleston, SC

**Amy Scaroni**

Environmental Scientist  
Charleston, SC

**Kimberly R. Schneider**

Doctoral Candidate  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Timothy Shannon, Ph.D.**

Department of Biology  
Francis Marion University  
Florence, SC

**Richard M. Showman, Ph.D.**

Associate Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**John Snyder, Ph.D.**

Professor  
Department of Biology  
Furman University  
Greenville, SC

**Erik Sotka, Ph.D.**

Assistant Professor  
Grice Marine Laboratory  
College of Charleston  
Charleston, SC

**Stephen E. Stancyk, Ph.D.**

Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Joseph Staton, Ph.D.**

Department of Biology  
University of South Carolina  
Bluffton, SC

**Johannes W. Stratmann, Ph.D.**

Assistant Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Ryan C. Templeton, M.A.**

Doctoral Candidate  
University of South Carolina  
Columbia, SC

**John Thrift, M.S.**

Department of Forestry  
and Natural Resources  
Clemson University  
Clemson, SC

**Briana Timmerman, Ph.D.**

Director  
Biology Undergraduate Program  
University of South Carolina  
Columbia, SC

**Catherine A. Toline, Ph.D.**

Resource Coordinator  
University of South Carolina  
Georgetown, SC

**David W. Tonkyn, Ph.D.**

Associate Professor  
Department of Biological Sciences  
Clemson University  
Clemson, SC

**Steven B. Traynum**

Master's Candidate  
Marine Science Program  
University of South Carolina  
Columbia, SC

**Daniel Tufford, Ph.D.**

Research Assistant Professor  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Ann Weaver, M.S.**

Coastal Specialist  
Charleston, SC

**Allison Welch, Ph.D.**

Research Associate  
Adjunct Professor  
Department of Biology  
College of Charleston  
Charleston, SC

**Shane M. Welch**

Doctoral Candidate  
Clemson, SC

**Julie Weston, Ph.D.**

Post-doctoral Researcher  
Department of Biological Sciences  
University of South Carolina  
Columbia, SC

**Susan Bennett Wilde, Ph.D.**

Research Assistant Professor  
Baruch Institute of Marine Science  
University of South Carolina  
Charleston, SC

**Teresa Wilson, M.S.**

Clemson, SC

**Christopher T. Winne, M.S.**

Savannah River Ecology Laboratory  
University of Georgia  
Aiken, SC

**D. Reid Wisema, Ph.D.**

Charleston, SC

**Robert F. Young, Ph.D.**

Associate Professor and Chair  
Conway, SC

**Shawn Young, Ph.D.**

Department of Biological Sciences  
Clemson University  
Clemson, SC

**John D. Zardus, Ph.D.**

Department of Biology  
The Citadel  
Charleston, SC

**Richard Zingmark, Ph.D.**

Marine Science Program  
University of South Carolina  
Columbia, SC

# Tennessee

**Steven A. Ahlstedt, M.S.**  
Biologist (Retired)  
Water Resources Division  
U.S. Geological Survey  
Norris, TN

**Roger D. Applegate, M.S.**  
Wildlife Biologist  
Antioch, TN

**Kim H. Bailey, M.A.**  
Naturalist  
Nashville, TN

**Jonathan D. Baker, M.A.**  
Department of Anthropology  
University of Tennessee  
Knoxville, TN

**Mary Ball, Ph.D.**  
Professor  
Department of Biology  
Carson Newman College  
Jefferson City, TN

**Arijana Barun, Ph.D.**  
Doctoral Candidate  
Department of Ecology  
and Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Carol J. Baskauf, Ph.D.**  
Professor  
Department of Biology  
Austin Peay State University  
Clarksville, TN

**Steven J. Baskauf, Ph.D.**  
Department of Biological Sciences  
Vanderbilt University  
Nashville, TN

**Vernon Bates, M.S.**  
Ouachita Mountain Biological  
Station  
Nashville, TN

**Amanda Benson, Ph.D.**  
Department of Biological Sciences  
Vanderbilt University  
Nashville, TN

**Mark Bevelhimer, Ph.D.**  
Knoxville, TN

**Brian Bowen, M.S.**  
Nashville, TN

**Christopher A. Brown, Ph.D.**  
Department of Biology  
Tennessee Technological University  
Cookeville, TN

**Danny L. Bryan, M.S.**  
Assistant Professor  
Department of Biology  
Cumberland University  
Lebanon, TN

**Nancy Buschhaus, Ph.D.**  
Associate Professor  
Department of Biological Sciences  
University of Tennessee, Martin  
Martin, TN

**Glenn Cada, Ph.D.**  
Senior Research Staff  
Oak Ridge, TN

**Mary G. Cafilisch**  
Department of Ecology  
and Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Earl Calfee, D.V.M.**  
Nashville Veterinary Surgical  
Specialists  
Nashville, TN

**Geoff Call, M.S.**  
Endangered Species Biologist  
Morrison, TN

**Marcia S. Carter, M.S.**  
Fisheries Biologist  
U.S. Forest Service  
Greeneville, TN

**Kefyn M. Catley, Ph.D.**  
Professor  
Department of Teaching  
and Learning and Biology  
Vanderbilt University  
Nashville, TN

**Aimee Classen, Ph.D.**  
Research Assistant Professor  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Michael Collins, M.S.**  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Patricia B. Cox, Ph.D.**  
Botanist  
Discover Life in America  
Knoxville, TN

**Patricia M. Deegan, Ph.D.**  
Nashville, TN

**Susan A. DeRiemer, Ph.D.**  
Associate Professor  
Nashville, TN

**Belinda Esham, M.S.**  
Graduate Research Assistant  
Department of Forestry,  
Wildlife and Fisheries  
University of Tennessee  
Knoxville, TN

**David A. Etnier, Ph.D.**  
Professor Emeritus  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Kevin Fitch, M.S.**  
Science Director  
Natural Heritage, Natural Areas  
Tennessee Department of  
Environment and Conservation  
Nashville, TN

**Matthew C. Fitzpatrick, M.S.**  
Department of Ecology  
and Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Robert C. Foehring, Ph.D.**  
Professor  
Department of Anatomy  
and Neurobiology  
University of Tennessee  
Memphis, TN

**James A. Fordyce, Ph.D.**  
Assistant Professor  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Michael Fuller, Ph.D.**  
Post-doctoral Fellow  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Daniel J. Funk, Ph.D.**  
Assistant Professor  
Nashville, TN

**Phil Ganter, Ph.D.**  
Associate Professor  
Department of Biology  
Tennessee State University  
Franklin, TN

**Timothy J. Gaudin, Ph.D.**  
Professor  
Department of Biological  
and Environmental Sciences  
University of Tennessee, Chattanooga  
Chattanooga, TN

**Jacqueline M. Grebmeier, Ph.D.**  
Research Professor  
Department of Ecology  
and Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Stanley Z. Guffey, Ph.D.**  
Division of Biology  
University of Tennessee  
Knoxville, TN

**Steven W. Hamilton, Ph.D.**  
Professor  
Department of Biology  
Austin Peay State University  
Clarksville, TN

**William W. Hargrove, Ph.D.**  
Senior Scientist  
Division of Environmental Sciences  
Oak Ridge National Laboratory  
Oak Ridge, TN

**Jim Herring, M.S.**  
Forest Fisheries Biologist  
Cherokee National Forest Service  
U.S. Department of Agriculture  
Cleveland, TN

**Theresa Hogan, M.S.**  
Ecologist  
U.S. National Park Service  
Murfreesboro, TN

**Dennis D. Horn, M.S.**  
Vice President  
Tennessee Native Plant Society  
Tullahoma, TN

**Don W. Hubbs, M.S.**  
Division of Fisheries  
Tennessee Wildlife Resources Agency  
Nashville, TN

**Lisa Huff, M.S.**  
Ecologist  
Knoxville, TN

**Karen W. Hughes, Ph.D.**  
Professor  
Department of Botany  
University of Tennessee  
Knoxville, TN

**Henriette I. Jager, Ph.D.**  
Oak Ridge, TN

# Tennessee

**Carl H. Johnson, Ph.D.**

Professor  
Department of Biological Sciences  
Vanderbilt University  
Nashville, TN

**Sandra L. Johnson, Ph.D.**

Associate Professor  
Department of Biology  
Middle Tennessee State University  
Murfreesboro, TN

**Susan Karr, M.S.**

Biology Laboratory Technician  
Department of Biology  
Carson Newman College  
Jefferson City, TN

**Kimberly S. Kennard, M.S.**

Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**David Kesler, Ph.D.**

Professor  
Department of Biology  
Rhodes College  
Memphis, TN

**Wallace LeSturgeon, Ph.D.**

Professor  
Department of Biological Sciences  
Vanderbilt University  
Nashville, TN

**Edgar B. Lickey, Ph.D.**

Post-doctoral Research Associate  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Sarah Lundin-Schiller, Ph.D.**

Associate Professor  
Department of Biology  
Austin Peay State University  
Clarksville, TN

**Laura J. McCall, M.S.**

Outreach Coordinator  
Center for Environmental Education  
Department of Biology  
Middle Tennessee State University  
Lynchburg, TN

**Virginia L. McDaniel, M.S.**

Lead Fire Effect Monitor  
Gatlingburg, TN

**Michael L. McMahan, Ph.D.**

Professor  
Department of Biology  
Union University  
Jackson, TN

**Brian T. Miller, Ph.D.**

Professor  
Department of Biology  
Middle Tennessee State University  
Murfreesboro, TN

**Carrie Miller, M.S.**

Invasive Plant Manager  
Tulahoma, TN

**Gina M. Morgan, M.S.**

Department of Biology  
University of Memphis  
Memphis, TN

**Rufus Morison, Ph.D.**

Bristol, TN

**Patrick J. Mulholland, Ph.D.**

Oak Ridge, TN

**Steve Murphree, Ph.D.**

Professor  
Department of Biology  
Belmont University  
Nashville, TN

**Wolf Naegeli, Ph.D.**

Senior Research Scientist  
Department of Energy,  
Environment and Resources Center  
University of Tennessee  
Knoxville, TN

**John P. Nelson, Ph.D.**

Professor  
McKenzie, TN

**Becky J. Nichols, Ph.D.**

Entomologist  
Great Smoky Mountains National Park  
U.S. National Park Service  
Gatlinburg, TN

**Richard J. Norby, Ph.D.**

Oak Ridge National Laboratory  
Oak Ridge, TN

**John R. Ouellette, M.S.**

Research Coordinator  
Department of Research  
and Conservation  
Memphis Zoo  
Memphis, TN

**Stesha Pasachnik**

Doctoral Candidate  
Department of Ecology  
and Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Ronald H. Petersen, Ph.D.**

Distinguished Professor  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Patrick L. Rakes, M.S.**

Director  
Conservation Fisheries, Inc.  
Knoxville, TN

**Randall S. Reiserer, Ph.D.**

Research Fellow  
Department of Pharmacology  
Vanderbilt University  
Nashville, TN

**Susan Rishell, Ph.D.**

Oak Ridge, TN

**Liane B. Russell, Ph.D.**

Oak Ridge, TN

**Michael Ryon, M.S.**

Research Ecologist  
Department of Environmental Sciences  
Oak Ridge National Laboratory  
Oak Ridge, TN

**Kim C. Sadler, Ed.D.**

Assistant Professor  
Department of Biology  
Middle Tennessee State University  
Murfreesboro, TN

**Torsti P. Salo, Ph.D.**

Professor Emeritus  
University of Tennessee  
Maryville, TN

**Nathan Sanders, Ph.D.**

Department of Ecology  
and Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Christopher W. Schadt, Ph.D.**

Staff Scientist  
Oak Ridge, TN

**Joseph Schiller, Ph.D.**

Associate Professor  
Department of Biology  
Austin Peay State University  
Clarksville, TN

**Phil H. Schoggen, Ph.D.**

Professor Emeritus  
Department of Human Development  
Cornell University  
Nashville, TN

**Andrea Sessions, M.S.**

Andersonville, TN

**Daniel Sherry, M.S.**

Biologist  
Department of Environmental Services  
Tennessee Wildlife Resources Agency  
Brentwood, TN

**Stephanie M. Shorter-Jacobi, Ph.D.**

Research Associate Professor  
Vanderbilt Vision Research Center  
Vanderbilt University  
Nashville, TN

**Ben S. Thatcher, M.S.**

Doctoral Candidate  
Department of Forestry,  
Wildlife and Fisheries  
University of Tennessee  
Knoxville, TN

**Barbara B. Turner, Ph.D.**

Professor  
Johnson City, TN

**Robert S. Turner, Ph.D.**

Knoxville, TN

**LinnAnn Welch, M.S.**

State Park Biologist  
Department of Environment  
and Conservation  
Tennessee State Parks  
Nashville, TN

**Jacob T. Westhoff, M.S.**

Cookeville, TN

**Christopher M. Whitten, M.S.**

Researcher  
Department of Veterinary  
Basic Sciences  
Royal Veterinary College  
Townsend, TN

**Dawn Wilkins, Ph.D.**

Martin, TN

**Joseph H. Williams, Ph.D.**

Assistant Professor  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

**Robley Williams, Ph.D.**

Professor Emeritus  
Department of Biological Sciences  
Vanderbilt University  
Nashville, TN

**Mark A. Woelfle, Ph.D.**

Senior Lecturer  
Department of Biological Sciences  
Vanderbilt University  
Nashville, TN

**B. Eugene Wofford, Ph.D.**

Herbarium Director  
Department of Ecology and  
Evolutionary Biology  
University of Tennessee  
Knoxville, TN

***Once species become extinct, no corrective legislation can bring them back—they are gone forever.***

**Allen M. Solomon, Paleoecologist**

Senior research global ecologist, Environmental Protection Agency (retired); and former senior policy analyst, White House Office of Science and Technology Policy

***The Endangered Species Act is crucial to our nation's ecological health, and solid science is crucial to the ESA.***

**Gary K. Meffe, Conservation Biologist**

Professor of Conservation Biology, University of Florida, Gainesville; and editor, *Conservation Biology*

***The Endangered Species Act has protected our natural heritage for 30 years; it must continue to do so.***

**Stuart Pimm, Conservation Biologist**

Doris Duke Chair of Conservation Ecology, Nicholas School of the Environment and Earth Sciences, Duke University, North Carolina; Pew Fellow in Conservation and the Environment; and LaRoe Prize winner for biodiversity protection

***People can visit sacred shrines and imagine the spirits and the murmur of the voices of past generations. Likewise, we should go into natural places and imagine the spirits and murmurs of future generations hoping to experience the diversity of nature.***

**Paul Dayton, Marine Ecologist**

Professor of Oceanography, Scripps Institution of Oceanography, La Jolla, California; Pew Fellow in Marine Conservation; and member, U.S. Marine Mammal Commission



To view and download signers in your state, visit  
[www.ucsusa.org/biologistsletter](http://www.ucsusa.org/biologistsletter)

*Each species on our planet plays a role in the healthy functioning of natural ecosystems, on which humans depend.*

**William H. Schlesinger, Biogeochemist**

Dean, Nicholas School of the Environment and Earth Sciences and James B. Duke Professor of Biogeochemistry, Duke University, North Carolina; member, National Academy of Sciences; and past president, Ecological Society of America

*Biodiversity is our nation's natural wealth. The Endangered Species Act safeguards these riches.*

**Judy L. Meyer, Aquatic Ecologist**

Research professor of Limnology, Institute of Ecology, University of Georgia; fellow, American Association for the Advancement of Science; and past president, Ecological Society of America

*Science is the foundation for preserving biodiversity to benefit all life on Earth.*

**Jerry Schubel, Marine Biologist**

President and CEO, Aquarium of the Pacific, Long Beach, California; former dean and director, SUNY at Stony Brook's Marine Sciences Research Center; and board member, Census of Marine Life

*We share this planet with many species. It is our responsibility to protect them, both for their sakes and our own.*

**Pamela A. Matson, Ecologist**

Dean, School of Earth Sciences and Goldman Professor of Environmental Studies, Stanford University, California; member, National Academy of Sciences; MacArthur Fellow; and past president, Ecological Society of America

