

# Smith Fellows

The David H. Smith Conservation Research Fellowship Program



2010-2011

The Smith Fellowship Program is a partnership between the Cedar Tree Foundation and the Society for Conservation Biology



## Clare Aslan

Ph.D. University of California, Davis



### Project

Dissecting taxon substitution: Can nonnative mutualists rescue native species from extinction?

### Mentors

Dr. Erika Zavaleta, University of California, Santa Cruz; Dr. Robert Robichaux, Hawaiian Silversword Foundation

### Background

Clare's dissertation research explored the role of bird dispersal in plant invasiveness. This fed her general interest in mutualism function in the context of human-caused extinctions. Her Smith Fellowship focuses on plant-animal interactions and particularly mutualisms under various drivers of environmental change in an effort to predict and prevent extinction cascades. Clare's previous experiences include an internship with the National Park Service and serving for three years as a Natural Resources volunteer in Honduras with the Peace Corps.



## Keryn Gedan

Ph.D. Brown University



### Project

Ecosystem services provided by shellfish: Improving water quality in nutrient-polluted estuaries

### Mentors

Dr. Denise Breitburg, Smithsonian Environmental Research Center; Dr. Rob Brumbaugh, The Nature Conservancy

### Background

Keryn is a marine community ecologist who studies estuarine conservation issues. Her dissertation research explored past, present, and future human impacts in New England salt marsh ecosystems. Keryn has also investigated climate change and eutrophication impacts on rocky intertidal communities and the potential for coastal wetland vegetation to protect shorelines from erosion and storms. Prior to becoming a Smith Fellow, Keryn taught Environmental Science at American University. She earned a B.A. in Biology and Environmental Science at Tufts University. Keryn lives in Washington, D.C.



## Liana Joseph

Ph.D. University of Queensland



### Project

Implications for farming as a conservation tool:  
Consumer preference for the wild

### Mentors

Dr. Franck Courchamp, Université Paris Sud;  
Dr. Kent Redford, Wildlife Conservation Society

### Background

Liana is based at the Wildlife Conservation Society and is currently examining strategies for protecting species threatened by illegal and unsustainable trade. She also develops tools for planning for cost-efficient and effective management of endangered species. Past projects include work with the New Zealand and Australian governments to design strategies that resulted in the management of 100s of endangered species that were previously unfunded. She is the treasurer of the Society of Conservation Biology Oceania Section and Director of the Bridled Nailtail Wallaby Trust. Liana is also a dedicated and widely published Conservation and Wildlife Photographer.



## Benjamin Sikes

Ph.D. University of Guelph



### Project

Utilizing natural soil biotic communities to  
enhance ecosystem resilience and recovery

### Mentors

Dr. Christine Hawkes, University of Texas  
at Austin; Dr. Doria Gordon, The Nature  
Conservancy; Dr. Eric Menges, Archbold  
Biological Station

### Background

Ben has worked on a diverse set of research including lobster vision, introduced deer impacts on pollinators, and Louisiana marsh restoration. His dissertation research went below ground in Great Lakes sand dunes to determine if changes in soil mycorrhizal fungi (which form symbioses with >85% of plants) alter plant communities over time. Ben's Smith project uses addition of specific microbes to try to accelerate restoration of an endangered Florida ecosystem and increase its resilience to future disturbance. His long-term goal is to integrate soil microbial ecology into modern conservation to enhance our understanding and management of terrestrial ecosystems.



## Malin Pinsky

Ph.D. Stanford University



### Project

Conservation in a changing climate: Predicting range shifts for marine spatial planning

### Mentors

Drs. Simon Levin and Jorge Sarmiento at Princeton University, Drs. Peter Kareiva and Mike Beck of the The Nature Conservancy and Dr. Michael Fogarty of the Northeast Fisheries Science Center, National Oceanic and Atmospheric Administration

### Background

Malin's research focuses on the spatial ecology of the coastal ocean and the application of this knowledge to marine conservation around the world. He maintains a field program in the Philippines, and has also done research in Papua New Guinea, Antarctica, and Madagascar. Before graduate school, he worked with the Wild Salmon Center on international watershed conservation and with the National Outdoor Leadership as an outdoor educator. He holds a Ph.D. in Biology from Stanford University and an A.B. from Williams College. Malin grew up in downeast Maine.



## Maureen Ryan

Ph.D. University of California, Davis



### Project

Restoring resilience to climate change: Synergistic benefits of exotic predator removal for preserving wetland biodiversity

### Mentors

Dr. Alan Hamlet at the University of Washington and Drs. Wendy Palen and Nicholas Dulvy of Simon Fraser University, Lara Hansen of EcoAdapt and Dr. Michael Adams of the U.S. Geological Survey

### Background

Maureen studies the effects of species introductions and environmental change on wetland diversity and ecosystem resilience. She is collaborating with National Park Service and U.S. Forest Service managers to develop a climate adaptation strategy for mountain wetland ecosystems affected by climate-induced hydrologic change and introduced fish. Prior research identified ways to reduce stresses on the threatened California tiger salamander caused by landscape change and hybridization with an introduced species. Maureen has worked as a wilderness educator and is also an instructor at Fairhaven College of Interdisciplinary Studies.



## Sara Souther

Ph.D. West Virginia University



### Project

Disrupting environmental and genetic associations: Can managed relocation rescue species threatened by climate change?

### Mentors

Dr. Don Waller at the University of Wisconsin – Madison and in partnership with Patricia Ford of the U.S. Fish and Wildlife Service

### Background

Sara is interested in how the genetic background of a species or population influences demographic response to climate change, with the ultimate goal of using this information to conserve biodiversity in a warming world. Her dissertation research examined range-wide variation in ginseng response to climatic variation, and has highlighted the role of local adaptation as a determinant of species response to climate change. Prior to beginning her graduate career, Sara served in Peace Corps Paraguay, working to promote sustainable agricultural techniques.



## Kimberly Terrell

Ph.D. University of New Orleans



### Project

Conservation physiology of the eastern hellbender: Identifying biological constraints to climate change adaptation for effective management of Appalachian salamanders

### Mentors

Dr. Brian Gratwicke at the Smithsonian Conservation Biology Institute and John Kleopfer of the Virginia Department of Game and Inland Fisheries

### Background

Kimberly is a conservation physiologist working with the Smithsonian Conservation Biology Institute and the Virginia Department of Game and Inland Fisheries. Her dissertation focused on sperm metabolism (i.e., energy production) in the domestic cat and cheetah, with the goal of improving assisted reproduction in endangered felids. This research caused Kim to become interested in understanding how vertebrate metabolism can be influenced by environmental change. She is particularly interested in how these processes will affect wild salamanders – a diverse group of species, many of which inhabit her own backyard.

# Staff



**Executive Director, Dr. Michael Dombeck** is one of the most renowned and respected contemporary conservationists. He dedicated a quarter of a century to managing federal lands and natural resources in the long-term public interest. His leadership in the Bureau of Land Management and as former chief of the Forest Service left a legacy of steadfast stewardship for the land. Dr. Dombeck now serves as University of Wisconsin System Fellow and Professor of Global Conservation at the University of Wisconsin - Stevens Point.

**Program Coordinator, Shonda Gilliland Foster** is a graduate of the Sustainable Development and Conservation Biology Master's program at the University of Maryland, College Park, where her research focused on the valuation of ecosystem services provided by the U.S. National Wildlife Refuge System. She has experience in the congressional office of U.S. Senator Carl Levin and with the North American Amphibian Monitoring Program at the Patuxent Wildlife Research Center in Laurel, Maryland. She has been the Coordinator of the David H. Smith Conservation Research Fellowship Program since its move to the Society for Conservation Biology in 2005.

## About the David H. Smith Conservation Research Fellowship

This post-doctoral fellowship program identifies and supports early-career scientists who will shape the field of applied conservation biology. Smith Fellowships are available to post-doctoral researchers (of any nationality) affiliated with a United States institution, proposing research that addresses pressing conservation issues for the United States.

Conservation biology as a discipline experienced dramatic growth over the past two decades and a growing body of academic research focuses on conservation applications. Nonetheless, post-doctoral opportunities for conservation biology graduates have been very limited. In 1998, to help address this need, the foundation for David H. Smith (The Cedar Tree Foundation) and founding partner The Nature Conservancy established the David H. Smith Conservation Research Fellowship Program, devoted exclusively to applied conservation research problems. By fostering the development of promising conservation scientists, the Smith Fellowship Program helps encourage this rapidly expanding field of scientific inquiry and links it to the practice of conservation. In 2005, the Program moved to the Society for Conservation Biology. The Society for Conservation Biology's relationships with leaders from a diverse constituency of conservation organizations world-wide offers Smith Fellows a broad range of research, application, and policy experiences.

Smith Fellows are awarded two years of support for applied research in the field of biological conservation. Fellowship applicants must have received their doctorate within the last five years, demonstrate high potential for innovative research and leadership in their field, and propose a research plan that creatively and effectively addresses a pressing conservation question. Each Fellow is mentored by both an academic sponsor who encourages the Fellow's continued development as a conservation scientist, and a conservation practitioner who helps to connect the Fellow and her/his research to practical conservation challenges. We envision that the cadre of scientists supported by the Smith Fellows Program eventually will assume leadership positions across the field of conservation science.

## David H. Smith

Visionary. Conservationist. Leader.

These are some of the words used to describe Dr. David Hamilton Smith, founder and sole benefactor of the David H. Smith Conservation Research Fellowship Program. From the inception of his career, Dr. Smith did things differently. Beginning with his early days as a pediatrician and ending with his final days as an active member of The Nature Conservancy cadre, Dr. Smith was the epitome of quiet yet bold ambition in making positive changes. The changes for which he worked, in fields ranging from conservation to public health, are still present today. They are examples for all of us to follow. David Smith willed something even more valuable than his bequest - the legacy and example of himself.

## Contact

For questions, email [smithinfo@smithfellows.org](mailto:smithinfo@smithfellows.org). For detailed proposal guidelines and current deadlines, please visit [www.smithfellows.org](http://www.smithfellows.org).

The David H. Smith Conservation Research Fellowship is a partnership between the Cedar Tree Foundation and the Society for Conservation Biology, a global community of conservation professionals.



Society for Conservation Biology

# Science Advisory Board

Providing overall guidance for science, research, and training aspects of the program



Dr. Louis Provencher is the Director of Conservation Ecology of The Nature Conservancy of Nevada. His training was in predator-prey theory, foraging theory, community ecology, fire ecology, individual-based modeling, and arachnology. Louis has interviewed every Smith Fellows finalist since the inception of the program.



Dr. Jake Vander Zanden is a professor at the Center for Limnology and the Department of Zoology at the University of Wisconsin, Madison. Jake is an aquatic ecologist with research interests including food webs, invasive species, salmonid ecology and conservation biology. He was a Smith Fellow at the University of California, Davis.



Dr. David Wilcove is a professor of ecology and evolutionary biology and public affairs at Princeton University. He is author of two books and many technical and popular articles in the fields of conservation biology, ornithology, and endangered species protection.



Dr. Erika Zavaleta is an associate professor of Environmental Studies at University of California, Santa Cruz. Erika is interested foremost in narrowing the divide between conservation science and environmental problem-solving. She was a Smith Fellow at the University of California, Berkeley.

# Smith Fellows

David H. Smith Conservation Research Fellowship

Smith Fellowships provide two years of postdoctoral support to outstanding early-career scientists (of any nationality) affiliated with a United States institution. Research approaches may include comparative studies, synthetic analyses across sites, experimental or observational studies, applied modeling, or any combination of these. Applications are due in late September of each year. The Smith Fellowship Program is a partnership between the Cedar Tree Foundation and the Society for Conservation Biology.

For information about these organizations, visit:

[www.cedartreefound.org](http://www.cedartreefound.org)

[www.conservationbiology.org](http://www.conservationbiology.org)

## Contact

For questions, email [smithinfo@smithfellows.org](mailto:smithinfo@smithfellows.org). For detailed proposal guidelines and current deadlines, please visit [www.smithfellows.org](http://www.smithfellows.org).

## Photography

Smith Fellows submitted all photographs. Cover photo by Clare Aslan.

## Design

Autumn-Lynn Harrison, Society for Conservation Biology

## Printing

Greener Printer on 100% Recycled, 50% Post-consumer Waste, FSC Certified paper