

## KEVIN G. SMITH

DEPARTMENT OF BIOLOGY, WASHINGTON UNIVERSITY IN ST. LOUIS  
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### GENERAL TEACHING AND RESEARCH INTERESTS

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Ecology and conservation, biological diversity, the ecology and impacts of invasive species, aquatic ecology, ecology of wildlife diseases, anatomy and physiology

### PRESENT POSITION

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2007- Tyson Postdoctoral Fellow, Tyson Research Center and Dept. of Biology, Washington University in St. Louis

### EDUCATION

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2005 Ph.D., The University of Tennessee, Ecology and Evolutionary Biology  
Dissertation title: "Nonindigenous Herpetofauna of Florida: Patterns of Richness and Case Studies of the Impacts of Two Invasive Amphibians, *Osteopilus septentrionalis* and *Bufo marinus*."  
Committee members: Arthur C. Echternacht (chair), Daniel Simberloff, James A. Drake, Michael L. McKinney

1998 M.Z.S., Auburn University, Zoology

1996 B.A., Colby College, Biology, Environmental Science Concentration (*cum laude*, Distinction in Biology)

1995 School for Field Studies, Center for Wildlife Management Studies, Kenya

### PREVIOUS PROFESSIONAL AND RESEARCH EXPERIENCE

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2005-2006 South Africa National Research Foundation Postdoctoral Fellow, African Amphibian Conservation Research Group, Dept. of Zoology, North-West University, South Africa

2001-2005 Doctoral Student, Teaching Assistant, and Dissertation Fellow, Dept. of Ecology and Evolutionary Biology, The University of Tennessee

2000-2001 Wildlife Biologist, U.S. Geological Survey, Florida Integrated Science Center, Gainesville, FL

1999 Biological Field Aide, Dept. of Wildlife Ecology and Conservation, The University of Maine

1998-1999 Senior Research Technologist, Charles River Laboratories, Wilmington, MA

1996-1998 Master's Student and Teaching Assistant, Dept. of Zoology and Wildlife Science, Auburn University

### AWARDS AND HONORS

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2004 University of Tennessee Dept. of Ecology and Evolutionary Biology Merit Award for Excellence in Teaching and Research  
University of Tennessee Division of Biology Science Alliance Graduate Teaching Assistant Award  
University of Tennessee Chancellor's Award for Extraordinary Professional Promise

2000 United States Department of the Interior STAR Award

**TEACHING EXPERIENCE (\* indicates course development in addition to instruction)**

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*Instructor*

- Dept. of Biology, Washington University in St. Louis  
\*Biological Conservation (2007)  
\*Practical Skills in Environmental Biology Research (2007)
- Dept. of Zoology, North-West University, South Africa  
\*Wetlands and Wetlands Management (2006)

*Guest Lecturer*

- Dept. of Ecology and Evolutionary Biology, The University of Tennessee  
Human Anatomy (2003)  
Introductory Biology (“Humankind in a Biotic World”) (2004)  
Special Topics in Organismal Biology: Herpetology (2005)

*Laboratory Instructor*

- Dept. of Ecology and Evolutionary Biology, The University of Tennessee  
Human Anatomy (2001-2004)  
Introductory Biology (“Humankind in a Biotic World”) (2002)
- Dept. of Zoology and Wildlife Science, Auburn University  
Human Physiology (1997)  
Mammalian Physiology I (1996-1998)  
Mammalian Physiology II (1996-1998)  
Animal Physiology (1998)

*Laboratory Assistant*

- Dept. of Biology, Colby College  
General Biology (1994)  
Animal Cells, Tissues, and Organs (1995)

**SELECTED GRANTS AND FELLOWSHIPS**

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*Research Grants*

- 2006 Declining Amphibian Populations Task Force Rapid Response Fund, “*Batrachochytrium dendrobatidis* as a Threat to Amphibians of the Drakensberg Mountains of Southern Africa” (PI; \$2000)
- South Africa National Research Foundation Travel Grant to participate in African Amphibian Working Group Meeting, Benin (PI; R2500)
- 2003-2004 U.S. Geological Survey, Cooperative Ecosystem Study Unit Agreement Grant, “Impacts of Nonindigenous Amphibians on Native Larval Amphibian Communities in Florida,” Parts I and II (PI; \$42,000 over two years)
- 2003 Bermuda Zoological Society Research Grant, “An Assessment of Variation in Toxicity of Adult Cane Toads, *Bufo marinus*, among Native and Introduced Populations” (PI; \$1500)
- The University of Tennessee Department of Ecology and Evolutionary Biology Summer Research Grant (PI; \$850)
- Chicago Herpetological Society Grant for Graduate Research (PI; \$250)
- 2002 Exploration Fund of The Explorers Club (PI; \$1200)
- The University of Tennessee Department of Ecology and Evolutionary Biology Summer Research Grant (PI; \$500)

*Fellowships*

- 2006 South Africa National Research Foundation Supplementary Postdoctoral Fellowship, “Conservation of South African Amphibians: Present Diversity and Future Threats”
- 2004 University of Tennessee Yates Dissertation Fellowship
- 2002 University of Tennessee Hilton A. Smith Graduate Fellowship

**PEER-REVIEWED JOURNAL ARTICLES AND BOOK CHAPTERS** (\* = supervised students)

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- Smith, K.G.**, C. Weldon, W. Conradie\*, and L.H. du Preez. 2007. Relationships among size, development, and *Batrachochytrium dendrobatidis* infection in African tadpoles. *Diseases of Aquatic Organisms* 74:159-164.
- Smith, K.G.** 2007. Use of quantitative PCR assay for amphibian chytrid detection: Comment on Kriger et al. (2006a,b). *Diseases of Aquatic Organisms* 73:253-255.
- Smith, K.G.** 2006. Keystone predators (eastern newts, *Notophthalmus viridescens*) reduce the impacts of an aquatic invasive species. *Oecologia* 148:342-349.
- Smith, K.G.** 2006. Patterns of nonindigenous herpetofaunal richness and biotic homogenization among Florida counties. *Biological Conservation* 127:327-335 (*special issue*).
- Smith, L.L., W.J. Barichivich, J.S. Staiger, **K.G. Smith**, and C.K. Dodd, Jr. 2006. Detection probabilities and site occupancy estimates for amphibians at Okefenokee National Wildlife Refuge. *American Midland Naturalist* 155:149-161.
- Smith, K.G.** 2005. Effects of nonindigenous tadpoles on native tadpoles in Florida: Evidence of competition. *Biological Conservation* 123:433-441.
- Smith, K.G.** 2005. An exploratory assessment of Cuban treefrog (*Osteopilus septentrionalis*) tadpoles as predators of native and nonindigenous tadpoles in Florida. *Amphibia-Reptilia* 26:571-575.
- Smith, L.L., **K.G. Smith**, W.J. Barichivich, C.K. Dodd, Jr., and K. Sorensen. 2005. Roads and Florida’s herpetofauna: A review and mitigation case study. Pp. 32-40 In “Amphibians and Reptiles: Status and Conservation in Florida.” W.E. Meshaka, Jr. and K.J. Babbitt, eds., Krieger Publishing, Malabar, Florida.
- Smith, K.G.** and J.L. Hunt. 2004. On the use of spleen mass as a measure of avian immune system strength. *Oecologia* 138:28-31.

*Under review or revision*

- Smith, K.G.** *Submitted*. A predictive, mechanistic study of competitive effects of an invasive species, the Cuban treefrog (*Osteopilus septentrionalis*).
- Smith, K.G.** and C. Weldon. *Submitted*. A conceptual framework for screening tadpoles for oral chytridiomycosis.

*Additional publications include 10 peer-reviewed species accounts and natural history notes, three official reports, and one book review.*

**UNDERGRADUATE AND GRADUATE ADVISING**

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- 2007 Joseph Lancaster and Ruth Poland, undergraduate researchers at Washington University in St. Louis
- 2005-2006 Werner Conradie (co-supervised), Master’s Student in Zoology at North-West University, South Africa (Thesis Title: “Seasonal variation in anuran diversity and activity in the Vredefort Dome Conservation Area”)

**PROFESSIONAL AND UNIVERSITY SERVICE**

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- 2007 Judge, SSAR Henri Seibert Award for best student oral presentation (conservation category) at the 2007 Joint Meeting of Ichthyologists and Herpetologists
- 2005-2006 8<sup>th</sup> Conference of the Herpetological Association of Africa, November 2006  
Local Organizing Committee Member and Co-organizer of Amphibian Decline Workshop
- 2002-2003 University of Tennessee Graduate Researchers in Ecology, Behavior, and Evolution  
Executive Assistant and Fundraising Committee Chair
- 2002-2005 The Herpetologists' League, Graduate Studies Committee member
- Journal Reviewer: *Biological Conservation*, *Biological Invasions*, *Ecography*, *Journal of Herpetology*

**PRESENTATIONS AT PROFESSIONAL MEETINGS (primary authorship and presentation only)**

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- 2006 Symposium of the Herpetological Association of Africa, Potchefstroom, South Africa.  
12<sup>th</sup> Meeting of the African Amphibian Working Group, Abomey, Benin
- 2005 Joint Meeting of Ichthyologists and Herpetologists (*Special symposium, "Introduced Amphibian and Reptile Research: From Case Studies to Solutions"*), Tampa, FL
- 2004 Joint Meeting of Ichthyologists and Herpetologists, Norman, OK  
Southeastern Ecology and Evolution Conference, Atlanta, GA
- 2003 Southeastern Ecology, Population Genetics, and Evolution Meeting, Lake Sequoia, VA

**INVITED WORKSHOPS, PRESENTATIONS, AND SEMINARS**

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- 2007 Ecology and Evolution of Emerging Infectious Disease course, Department of Ecology and Evolutionary Biology, The University of Tennessee, "*Batrachochytrium dendrobatidis*: An Emerging Threat to Global Amphibian Biodiversity."
- Ecology, Evolution, and Population Biology Program Weekly Seminar Series, Department of Biology, Washington University in St. Louis, "Nonindigenous Herpetofauna of Florida: Biotic Homogenization and Case Studies of the Effects of Two Invasive Species."
- 2006 Symposium of the Herpetological Association of Africa, Amphibian Declines Workshop, "Amphibian Monitoring: What and how should we be monitoring?"
- 12<sup>th</sup> Meeting of the African Amphibian Working Group, Field Techniques Workshop, "Background and Practical Techniques of Amphibian Chytrid Field Research."

**COMMUNITY SERVICE AND ACTIVITIES**

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- 2004 Volunteer survey leader for the rare Tennessee cave salamander in Johnson Cave, Knoxville, TN, as part of an environmental impact assessment
- 2003 Volunteer salamander identification expert, All Taxa Biodiversity Inventory, Great Smoky Mountains National Park  
Volunteer Judge, West Valley (TN) Middle School Science Fair
- 2002 Volunteer, University of Tennessee Darwin Day  
Volunteer Instructor, University of Tennessee Kid's U course, "Snakes Alive!"
- 2001 Member, *ad hoc* committee on controlling feral cat colonies, Alachua Co., FL
- 1997-1998 Volunteer Environmental Educator, S.E. Raptor Rehabilitation Center, Auburn, AL

**PROFESSIONAL REFERENCES**

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- Dr. Arthur Echternacht Department of Ecology and Evolutionary Biology, The University of Tennessee  
569 Dabney Hall  
Knoxville, TN 37996-1610  
*echterna@utk.edu*  
(865) 974-3065
- Dr. C. Kenneth Dodd U.S. Geological Survey, Florida Integrated Science Center (Ret.)  
5222 NW 56<sup>th</sup> Ct  
Gainesville, FL 32653  
*caretta@ufl.edu*  
(352) 264-3507
- Dr. Daniel Simberloff Department of Ecology and Evolutionary Biology, The University of Tennessee  
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Knoxville, TN 37996-1610  
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