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Committee. He has served SSAR in a variety of capacities over the past 33 years. He has served as Secretary and President of *The Herpetologists' League*. He is also the herpetology historian for the *American Society of Ichthyologists and Herpetologists*. Joe is a Certified Senior Ecologist with the *Ecological Society of America*, self-employed, and currently lives in Gainesville, Florida.



**Robin Jung Brown** has served as Co-Chair with Joe Mitchell of the SSAR Herpetological Conservation series Committee since 2005. She has a Ph.D. in

Zoology from the University of Wisconsin-Madison; her thesis focused on amphibian ecotoxicology. She worked seven years at the USGS Patuxent Wildlife Research Center in Laurel, Maryland where she coordinated the Northeast Amphibian Research and Monitoring Initiative. It was during this work at Patuxent and other Parks and Refuges in the northeastern United States that her interest in urban herpetological issues took root.



**Breck Bartholomew** has been the Publications Secretary for SSAR since 2001. He has also served the society as Membership Secretary, a section editor

for *Herpetological Review*, and as a member of the Conservation Committee. Since 1995 Breck has owned Bibliomania — a bookstore specializing in herpetological literature.

“The detrimental impacts of increasing human populations and expanding urban centers on natural ecosystems have been recognized for years. What have not been adequately explored are the consequences of such human activity on amphibian and reptile populations and recommendations towards their mitigation. This volume brings together case studies and literature reviews from 120 researchers who provide answers to questions such as: what is the nature of the urban environment, do artificial habitats sustain populations, how do roads and other linear barriers impact movements, and what opportunities are available for educators, urban planners and citizen scientists to understand and minimize any negative impacts? This is a must-read for all persons interested in the conservation of amphibians and reptiles in today’s environment.”

— Roy W. McDiarmid, *National Museum of Natural History*

“Conserving native reptiles and amphibians should be a goal of our newly urban humanity. Urban Herpetology provides guidance on how we can attain this lofty goal. We will need to rethink our urban water management, use of chemicals and lights, recreation, road construction, and development proximity to sensitive streams, lakes, and ponds. Mostly we will need to creatively engage urban people to learn about and steward their herpetological legacy. Those wrestling with this difficult task will be inspired by the chapters and case studies herein that show how people can conserve and restore turtles, snakes, and frogs in urban areas.”

— John M. Marzluff, *University of Washington*

“This is what we are doing to the animals around us: we are pushing them out, running them over, isolating their populations, changing their sex, modifying their genes, making them mini-toxic waste sites, turning them into freaks, suppressing their immunity, changing their night into day, and stacking the deck in favor of non-native invasives.’... Here, Mitchell, Jung Brown, and Bartholomew have proposed a new field—urban herpetology—suggesting (following the notion that there is opportunity in crisis) that the interplay between the life history, behavioral, and ecological traits of (amphibian and reptile) species set against a backdrop of human-altered landscapes will provide a rich area for scientific study.”

— Michael J. Lannoo, *Indiana University*



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Mitchell  
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# Urban Herpetology



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Human impacts on herpetofauna have been pervasive for millennia largely through direct persecution of amphibians and reptiles for food or out of fear and through habitat alteration through agriculture. Only since the start of the industrial age has urbanization caused essentially permanent loss of natural habitats and the subsequent impacts on these animals. Herpetologists in some parts of the world, notably Europe, Russia, Australia, and the United States have actively engaged in research to elucidate the impacts of this human-generated phenomenon. Yet, the pervasiveness and rate of urban sprawl is progressing at such a rapid pace that we have been unable to ameliorate or prevent population extirpations and species declines. This, we believe, is partly a consequence of the lack of recognition of urban herpetology as a fruitful and critical endeavor. Our aim in this book is to show that studies of amphibians and reptiles in urban systems have much to offer scientists, conservation biologists, and land managers. We asked colleagues from countries around the world to submit original research papers or reviews on a wide variety of topics related to urban herpetology to illustrate this perception. The resulting 40 chapters and 13 case studies in this book will, we hope, set the stage for future research and conservation efforts around the world.

The front cover illustrates the potential for urban herpetology. The lizard facing away down the track suggests that herpetologists have a long and fruitful future in the world of urban studies. The future is not yet clear but it is bright and filled with opportunities.

The back cover illustrates the dangers to amphibians and reptiles in urban environments. The Box Turtle is cautious of the drop-off on the curb and the oncoming traffic. Its future is uncertain. Yet, many amphibians and reptiles survive and even thrive in some urban environments. What are the patterns to survival or extinction? How can we ensure that these animals will survive in a human-dominated landscape? The chapters in this book explore these issue and more.