

Amy Louise Russell

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EDUCATION

- Ph.D. University of Tennessee, Knoxville. 2003.
Ecology and Evolutionary Biology. Advisor: Gary F. McCracken.
- M.S. Bowling Green State University. 1997.
Biological Sciences. Advisor: Ron C. Woodruff.
- B.S. Bowling Green State University. 1994.
Biology and Environmental Science.

POSITIONS HELD

- Research Associate – Arizona Research Laboratories.
Division of Biotechnology. Supervisor: Michael F. Hammer. 2005-present.
- Postdoctoral Fellow – Gaylord Donnelley Environmental Fellowship.
Yale University Institute for Biospheric Studies. Supervisor: Anne D. Yoder. 2003-2005.

PUBLICATIONS

- Russell, A. L.**, J. Ranivo, E. P. Palkovacs, S. M. Goodman, and A. D. Yoder, in press. Working at the interface of phylogenetics and population genetics: a biogeographic analysis of *Triaenops* spp. (Chiroptera: Hipposideridae). *Molecular Ecology*.
- Goodman, Steven M., Scott G. Cardiff, Julie Ranivo, **Amy L. Russell**, and Anne D. Yoder, in press. A new species of *Emballonura* (Chiroptera: Emballonuridae) from the dry regions of Madagascar. *American Museum Novitates*.
- Russell, Amy** and Gary F. McCracken, 2006. Population genetic structure of very large populations: the Brazilian free-tailed bat, *Tadarida brasiliensis*. In “*Functional and Evolutionary Ecology of Bats*” (A. Zubaid, G.F. McCracken, T.H. Kunz, eds.), pp 227-247. Oxford University Press, New York.
- Russell, A. L.**, R. A. Medellín, and G. F. McCracken, 2005. Genetic variation and migration in the Mexican free-tailed bat (*Tadarida brasiliensis mexicana*). *Molecular Ecology* 14(7): 2207-2222.
- Yoder, Anne D., Link E. Olson, Carol Hanley, Kellie Heckman, Rodin Rasoloarison, **Amy L. Russell**, Julie Ranivo, Voahangy Soarimalala, K. Praveen Karanth, Achille P. Raselimanana, and Steven M. Goodman, 2005. A multidimensional approach for detecting species patterns in Malagasy vertebrates. *Proceedings of the National Academy of Sciences, USA* 102(S1): 6587-6594.
- Russell, A. L.**, A. S. Turmelle, V. A. Brown, and G. F. McCracken, 2005. Extremely variable di- and tetranucleotide microsatellite loci in Brazilian free-tailed bats (*Tadarida brasiliensis*). *Molecular Ecology Notes* 5(3): 669-671.

Russell, A. L. and R. C. Woodruff, 1999. The genetics and evolution of the *mariner* transposable element in *Drosophila simulans*: worldwide distribution and experimental population dynamics. *Genetica* 105(2): 149-164.

MANUSCRIPTS IN PREP

Russell, Amy L., Murray P. Cox, in prep. Coalescent analyses support multiple mainland-to-island dispersal events in Malagasy and African bats. *Molecular Biology and Evolution*.

Russell, Amy L., Steven M. Goodman, Isabella Fiorentino, David Weisrock, and Anne D. Yoder, in prep. Genetic analyses reveal speciation and secondary hybridization in *Myzopoda*. *Biological Journal of the Linnean Society*.

Heckman, K. L., **A. L. Russell**, A. D. Yoder, in prep. Demographic history of sister species in *Microcebus*: a test of the peripatric speciation model. *Evolution*.

O'Brien, John, Carol Hanley, **Amy L. Russell**, Link Olson, Ludovic Say, and Anne Yoder, in prep. Phylogeography of the fruit bat genus *Pteropus* (Megachiroptera: Pteropodidae) in the western Indian Ocean. *Molecular Phylogenetics and Evolution*.

Russell, Amy L., Myriam Favi, Rosane V. Marques, Rodrigo A. Medellín, Susi M. Pacheco, Marcelo Romano, and Gary F. McCracken, in prep. Genetic structuring and subspecies status of mainland populations of the Brazilian free-tailed bat (*Tadarida brasiliensis*). *Molecular Phylogenetics and Evolution*.

Russell, Amy L., Calvin Butchkoski, Leslie Saidak, and Gary F. McCracken, in prep. Assessing the impacts of road construction on the endangered Indiana bat (*Myotis sodalis*) using roadkilled individuals. *Acta Chiropterologica*.

McCracken, Gary F., **Amy L. Russell**, Anne P. Brooke, Veronica Brown, and Ruth C. B. Utzurrum, in prep. Genetic analyses reveal differing evolutionary histories in two sympatric species of *Pteropus* in the South Pacific. *Molecular Ecology*.

Russell, Amy L., and Gary F. McCracken, in prep. Extremely large effective population size in a migratory bat species. *Molecular Ecology*.

Iannacone, Penny A., **Amy L. Russell**, Gary F. McCracken, Edward C. Ramsay, and Stephen Kania, in prep. Gender determination by application of DNA analysis techniques in bats. *Mammalia*.

SELECTED AWARDS AND GRANTS

The Leakey Foundation, Research Grant. "Evolutionary Genomics of Wild Chimpanzee Populations". 2006-2009. \$16,000.

Yale University, Yale Institute for Biospheric Studies, Gaylord Donnelley Environmental Fellowship. 2003-2005.

University of Tennessee Division of Biology, Science Alliance Award for Outstanding Scholarly Achievement. 2003, \$3000.

North American Symposium on Bat Research, Karl Koopman Award for Outstanding Oral Presentation, 2002.

University of Tennessee Graduate School, Hilton A. Smith Graduate Fellowship, 2002. \$15,000.

University of Tennessee Department of Ecology and Evolutionary Biology Graduate Student Summer Research Grant, 2002. \$1000.

University of Tennessee Office of Research, Scholarly Activities Research Incentive Fund (SARIF) Summer Graduate Research Assistantship, 2001. \$3000.

Sigma Xi, the Scientific Research Society, Grant-in-aid-of-Research, 2000. \$300.

University of Tennessee Department of Ecology and Evolutionary Biology Graduate Merit Award, 2000. \$2500.

University of Tennessee Department of Ecology and Evolutionary Biology Graduate Student Summer Research Grant, 2000. \$1500.

Bat Conservation International Student Scholarship, 2000. \$2500.

Sigma Xi, the Scientific Research Society, Grant-in-aid of Research, 1999. \$700.

American Museum of Natural History, Theodore Roosevelt Memorial Grant, 1998. \$1300.

Case Western Reserve University, Howard Hughes Medical Institute Summer Research Grant, 1993, 1994. \$2500.

INVITED SEMINARS, WORKSHOPS, AND SYMPOSIA

Russell, Amy L. Integrating phylogenetics and population genetics for biogeographical analyses: a biogeographic reconstruction of *Triadenops* bats in Madagascar. National Evolutionary Synthesis Center (NESCent) Catalysis Meeting: Patterns of Biodiversity in Madagascar. 2006.

Russell, Amy L., Steven M. Goodman, Anne D. Yoder. An integrative approach to historical biogeography: picking up where phylogenetics leaves off. Workshop on Phylogeography and Phylogenetics, Mathematical Biosciences Institute, Ohio State University. 2005.

Russell, Amy L. Phylogeographic approaches to understanding bat diversity in Madagascar. Systematics Seminar Series, American Museum of Natural History. 2005.

Russell, Amy L., Eric Palkovacs, Steven M. Goodman, J. Ranivo, Anne D. Yoder. Trees on islands: biogeographic patterns of diversification in Madagascar. Special Session on Phylogenetic Approaches to Understanding Bat Biodiversity, North American Symposium on Bat Research. 2004.

Russell, Amy L. The lords of the wings: Population genetic structure and gene flow in a widely dispersing bat species. Seminar series, Yale Institute for Biospheric Studies. 2004.

Russell, Amy L. The lords of the wings: Population genetic structure and gene flow in a widely dispersing bat species. Department of Ecology and Evolutionary Biology seminar, Yale University. 2004.

Workshop on Molecular Evolution, Marine Biological Laboratory, Woods Hole, MA. 2003.

Russell, Amy L. Does size matter? Determining the size and genetic diversity of populations of the Brazilian free-tailed bat, *Tadarida brasiliensis*. Evolutionary and Behavioral Ecology seminar, University of Tennessee. 2002.

Russell, Amy L. Bats and panmixis: Investigating population genetic structure in large populations of migratory bats. Department of Ecology and Evolutionary Biology Graduate Student Symposium, University of Tennessee. 2002.

Russell, Amy and Gary F. McCracken. Population genetic structure of very large populations: the Mexican free-tailed bat, *Tadarida brasiliensis*. Symposium on Roosting Ecology and Population Genetic Structure of Bats, International Bat Research Conference, Universiti Kebangsaan, Malaysia. 2001.

Saidak, Leslie and **Amy Russell**. Beginner's guide to molecular markers: definitions and simple explanations of popular genetic techniques. Meeting of the Southeastern Bat Diversity Network. 2001.

ORAL PRESENTATIONS

Russell, Amy L., Julie Ranivo, Eric P. Palkovacs, Steven M. Goodman, Anne D. Yoder. Integrating phylogenetics and population genetics for biogeographic analyses. Annual meeting of the Society for Molecular Biology and Evolution. 2006.

Russell, Amy L. The power of hypothesis testing in phylogeography and population genetics: lessons learned from *Tadarida brasiliensis*. North American Symposium on Bat Research. 2004.

Utzurum Ruth C. B., **Amy L. Russell**, Anne P. Brooke, Veronica Brown, Gary F. McCracken. Genetic analyses reveal differing evolutionary histories in two sympatric species of *Pteropus* in the South Pacific. North American Symposium on Bat Research. 2004.

Russell, Amy L., Eric Palkovacs, Steven M. Goodman, J. Ranivo, Anne D. Yoder. A complex inter-species phylogeny reveals distinctive biogeographic patterns of diversification in triple leaf-nosed bats (*Triaenops* spp.) in Madagascar. International Bat Research Conference, Mikolajki, Poland. 2004.

Russell, Amy L., Eric Palkovacs, Steven M. Goodman, J. Ranivo, Anne D. Yoder. A complex inter-species phylogeny reveals distinctive biogeographic patterns of diversification in triple leaf-nosed bats (*Triaenops* spp.) in Madagascar. Joint meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and the American Society of Naturalists. 2004.

Russell, Amy L. Phylogeography and the designation of subspecies in the Brazilian free-tailed bat, *Tadarida brasiliensis*. North American Symposium on Bat Research. 2003.

Russell, Amy L. Bats and panmixis: Investigating population genetic structure in large populations of migratory bats. North American Symposium on Bat Research. 2002.

Hallam Thomas G., Paula Frederico, Thomas H. Kunz, Gary F. McCracken, **Amy Russell**. Physiologically-based models of bat population dynamics. North American Symposium on Bat Research. 2002.

Russell, Amy L., Calvin Butchkoski, Gary F. McCracken. Bats, roadkill, and the FBI (flat bat investigation). Colloquium on the Conservation of Mammals in the Southeastern United States. 2002.

Russell, Amy L. Does size matter? Determining the size and geographic extent of populations of *Tadarida brasiliensis*. Colloquium on the Conservation of Mammals in the Southeastern United States. 2001.

Russell, Amy L. Population genetic structuring of the Brazilian free-tailed bat as determined by mitochondrial DNA sequencing. North American Symposium on Bat Research. 2000.

Russell, Amy L. Conservation and population genetics in migratory and non-migratory populations of the Brazilian free-tailed bat, *Tadarida brasiliensis*. Sigma Xi Graduate Research Competition, University of Tennessee. 2000.

Russell, Amy L. Phylogeography of the Brazilian free-tailed bats *T. b. mexicana* and *T. b. cynocephala* as determined by mitochondrial DNA sequencing. North American Symposium on Bat Research. 1999.

Russell, Amy L. Genetic structuring of migratory and non-migratory populations of Brazilian free-tailed bats *T. b. mexicana* and *T. b. cynocephala*. Colloquium on the Conservation of Mammals in the Southeastern United States. 1999.

Russell, Amy L. Genetic structuring of migratory and non-migratory populations of Brazilian free-tailed bats *T. b. mexicana* and *T. b. cynocephala*. North American Symposium on Bat Research. 1998.

POSTER PRESENTATIONS

Russell, Amy L., Eric Palkovacs, Steven M. Goodman, J. Ranivo, Anne D. Yoder. A complex inter-species phylogeny reveals distinctive biogeographic patterns of diversification in triple leaf-nosed bats (*Triaenops* spp.) in Madagascar. North American Symposium on Bat Research. 2004.

Meyer, Wynn, **Amy L. Russell**, Danielle Rakotomalala, Anne D. Yoder. The impact of habitat destruction on population genetic structuring in Malagasy chameleons (Chamaeleonidae: Calumma). Joint meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and the American Society of Naturalists. 2004.

Hanley, Carol, Steven M. Goodman, **Amy L. Russell**, Anne D. Yoder. Examining gene flow in the endangered Malagasy narrow-striped mongoose (*Mungotictis decemlineata*) using a novel panel of microsatellite loci. Joint meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and the American Society of Naturalists. 2004.

Russell, Amy L., Calvin Butchkoski, Annie Tibbels, Leslie Saidak, Gary F. McCracken. Bats, road-kill, and the FBI (Flat Bat Investigation). North American Symposium on Bat Research. 2002.

Russell, A. L. and R. C. Woodruff. The *mariner* transposable element: frequency and distribution in natural populations of *Drosophila simulans*. Meeting of the Southeastern Ecology and Evolution Association. 1998.

Comeaux, Lisa, Gary McCracken and **Amy Russell**. Exposing the polygamous behavior at the Lube Foundation, Inc. North American Symposium on Bat Research. 1997.

Russell, A. L. and R. C. Woodruff. The *mariner* transposable element: frequency and distribution in natural populations of *Drosophila simulans*. Joint meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and the American Society of Naturalists. 1996.

Russell, A. L. and R. C. Woodruff. The frequency and geographical distribution of the *mariner* transposable element in natural populations of *Drosophila simulans*. Joint meetings of the Society for the Study of Evolution, Society of Systematic Biologists, and the American Society of Naturalists. 1995.

Russell, A. L. and R. C. Woodruff. The frequency of the *mariner* transposable DNA element in natural populations of *Drosophila simulans*. *Drosophila* Research Conference. 1995.

TEACHING EXPERIENCE

Guest lecturer, Principles of Evolution, Ecology and Behavior. Yale University.

Guest lecturer, Evolution of the Mammals. Yale University.

Mentor for senior research project, Melodie Zamora. Cryptic speciation in Malagasy bats, *Myzopoda* and *Emballonura*.

Mentor for senior research project, Wynn Meyer. The impact of habitat destruction on population genetic structuring in Malagasy chameleons (Chamaeleonidae: *Calumma*).

Guest lecturer, Conservation Biology. University of Tennessee.

Guest lecturer, General Genetics. University of Tennessee.

Teaching assistant, General Genetics, Conservation Biology, Evolution, Introductory Biology for majors. University of Tennessee.

Head teaching assistant, Introductory Biology for non-majors. Bowling Green State University

Teaching assistant, Introductory Biology for non-majors, Introductory Biology for majors. Bowling Green State University.

ACADEMIC SERVICE

Reviewer for National Science Foundation, Caribbean Journal of Science, Current Biology, Ecosystems, Evolution, Genetica, International Journal of Primatology, Journal of Mammalogy, Molecular Phylogenetics and Evolution, Proceedings of the National Academy of Sciences USA, *Functional and Evolutionary Ecology of Bats*, *Evolution, Ecology, and Conservation of Island Bats*.

Lecturer for Niarchos Collaboration program between the Natural History Museum of Crete and the Yale Peabody Museum of Natural History. 2004.

Volunteer for the Joint Meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and American Society of Naturalists at Knoxville, Tennessee. 2001.

Organization committee for Women In Science workshop. University of Tennessee. 2001.

Graduate student representative for faculty search committee. University of Tennessee. 2000-2001.

Vice-President of Graduate Researchers in Ecology, Behavior, and Evolution (GREBE), University of Tennessee, Knoxville, Tennessee. 1999-2000.

Departmental delegate to Graduate Student Association (GSA), University of Tennessee. 1999-2000.

GSA representative on the Faculty Senate Research Council, University of Tennessee. 1999-2000.

PUBLIC SERVICE

Presentations on bat diversity and conservation to elementary schools in Lancaster, OH, Knoxville, TN, and Nashville, TN. 1999-2005.

Bat Walk, a public education class offered through the Spring Wildflower Pilgrimage at the Great Smoky Mountains National Park. 1998-2003.

Presentation on PCR and conservation genetics to Tenth grade biology class at Maryville High School in Maryville, Tennessee. May, 2000.

Bat Walk in the Smokies, a public education class offered through the Smoky Mountain Field School at the Great Smoky Mountains National Park. August, 1998.

ORGANIZATION MEMBERSHIPS

Society for the Study of Evolution. 2004-present.

Genetics Society of America. 1994-1998.