

SUMMARY CURRICULUM VITAE

[Lora L. Smith, Ph.D.](#)

Associate Scientist



Dr. Lora L. Smith's research program is centered on the ecology of amphibians and reptiles of the Southeastern Coastal Plain, and in particular on herpetofaunal linkages between aquatic and terrestrial systems and keystone species in these systems. She is also investigating the interactions between natural and human disturbance legacies in longleaf pine forests and herpetofaunal communities. Aspects of her research program are incorporated into field courses for university students and regional science teachers.

Education:

PhD in Wildlife Ecology and Conservation, University of Florida, December 1999

MS in Wildlife Ecology and Conservation, University of Florida, August 1992

BS in Biology, Eckerd College, May 1982

Professional Experience:

2007- present: Associate Scientist, J.W. Jones Ecological Research Center

2001-2007: Assistant Scientist, J.W. Jones Ecological Research Center

2000-2001: Research Wildlife Biologist, U.S. Geological Survey

1999: Visiting Assistant Professor, Department of Natural Sciences, University of North Florida.

1998-1999: Research Wildlife Biologist, U.S. Geological Survey

1998: Field Biologist, Florida Museum of Natural History, University of Florida

1996-1997: Zoologist, Florida Natural Areas Inventory

1992: Field Ecologist, The Nature Conservancy

1985-1988: Associate Scientist, Water and Air Research, Inc.

Adjunct faculty positions

- University of Georgia
- Auburn University
- Texas A&M University
- University of Florida
- University of Maine

Professional Affiliations:

Herpetologists' League

Society for the Study of Reptiles and Amphibians

American Society of Ichthyologists and Herpetologists

Association of Southeastern Biologists

Society for Conservation Biology

The Wildlife Society

International Union for the Conservation of Nature, Species Survival Commission

Recent Research Publications: (Past 7 years)

Kirkman, L. K., S. W. Golladay, L. L. Smith, S. Opsahl, and E. Whitehead. Potential linkages between isolated wetland ecology and disease ecology in the southeastern US. *Ecological Research*. (In Press).

Kirkman, L. K., L. L. Smith, and S.W. Golladay. Southeastern depressional wetlands. In: D. Batzer, and A. Baldwin (eds.). *Wetland Habitats of North America: Ecology and Conservation Concerns*. University of California Press, Berkeley, CA. (In Press).

- Steen, D. A., C. Guyer, and L. L. Smith. Relative abundance in snakes: A case study. In: M. S. Foster, and C. Guyer (eds.) Reptile Biodiversity, Standard Methods for Inventory and Monitoring. University of California Press. (In Press).
- Hoss, S. K., G. W. Schuett, R. L. Earley, and L. L. Smith. 2011. Reproduction in male *Crotalus adamanteus* Beauvois (Eastern Diamond-backed rattlesnake): relationship of plasma testosterone to testis and kidney dimensions and the mating season. *Southeastern Naturalist* 10:95-108.
- Steen, D. A., J. A. Stiles, S. H. Stiles, C. Guyer, J. B. Pierce, D. C. Rudolph, and L. L. Smith. 2011. [Regina rigida \(Glossy Crayfish Snake\). Terrestrial movement.](#) *Herpetological Review* 42:102.
- Sterrett, S. C., L. L. Smith, S. W. Golladay, S. H. Schweitzer, and J. C. Maerz. 2011. The conservation implications of riparian land use on river turtles. *Animal Conservation* 14:38-46.
- Conner, L. M., J. C. Rutledge, and L. L. Smith. 2010. Effects of mesopredators on nest survival of shrub-nesting songbirds. *Journal of Wildlife Management* 74:73-80.
- Hoss, S. K., C. Guyer, L. L. Smith, and G. W. Schuett. 2010. [Multiscale influences of landscape composition and configuration on the spatial ecology of Eastern diamond-backed rattlesnakes \(Crotalus adamanteus\).](#) *Journal of Herpetology* 44:110-123.
- Linehan, J. M., L. L. Smith, and D. A. Steen. 2010. [Ecology of the Eastern Kingsnake \(Lampropeltis getula getula\) in a longleaf pine \(Pinus palustris\) forest in southwestern Georgia.](#) *Herpetological Conservation and Biology* 5:94-101.
- Opsahl, S. P., S. W. Golladay, L. L. Smith, and S. E. Allums. 2010. Resource-consumer relationships and baseline stable isotopic signatures of food webs in isolated wetlands. *Wetlands* 30:1213-1224.
- Steen, D. A., J. M. Linehan, and L. L. Smith. 2010. Multiscale habitat selection and refuge use of common kingsnakes, *Lampropeltis getula*, in southwestern Georgia. *Copeia* 2010:227-231.
- Steen, D. A., L. L. Smith, and M. A. Bailey. 2010. [Suggested modifications to terrestrial box traps for snakes.](#) *Herpetological Review* 41:320-321.
- Steen, D. A., G. G. Sorrell, N. J. Paris, K. J. Paris, D. D. Simpson, and L. L. Smith. 2010. [Heterodon platirhinos \(Eastern Hog-nosed Snake\). Predator/prey mass ratio.](#) *Herpetological Review* 41:365.

- Steen, D. A., A. D. Steen, S. Pokswinski, S. P. Graham, and L. L. Smith. 2010. Snakes using stumpholes and windfall tree-associated subterranean structures in longleaf pine forests. *IRCF Reptiles & Amphibians* 17(1):49-51.
- Steen, D. A., S. C. Sterrett, A. M. Heupel, and L. L. Smith. 2010. [Snapping turtle, *Chelydra serpentina*, overland movements near the southeastern extent of its range.](#) *Georgia Journal of Science* 68:196-201.
- Sterrett, S. C., L. L. Smith, S. H. Schweitzer, and J. C. Maerz. 2010. [An Assessment of two methods for sampling river turtle assemblages.](#) *Herpetological Conservation and Biology* 5:490-497.
- Stober, J. M., and L. L. Smith. 2010. Total counts versus line transects for estimating abundance of small gopher tortoise populations. *Journal of Wildlife Management* 74:1595-1600.
- Farmer, A. L., L. L. Smith, S. B. Castleberry, and J. W. Gibbons. 2009. A comparison of techniques for sampling amphibians in isolated wetlands in Georgia, USA. *Applied Herpetology* 6:327-341.
- Heupel, A. M., K. E. McKean, J. M. Linehan, D. A. Steen, and L. L. Smith. 2009. [Ambystoma sp. Habitat use.](#) *Herpetological Review* 40:66.
- Smith, L. L., J. M. Linehan, J. M. Stober, M. J. Elliott, and J. B. Jensen. 2009. An evaluation of distance sampling for large-scale gopher tortoise surveys in Georgia, USA. *Applied Herpetology* 6:355-368.
- Steen, D. A., and L. L. Smith. 2009. Eastern kingsnake, *Lampropeltis getula getula*, home ranges exhibit limited overlap. *Southeastern Naturalist* 8:553-558.
- Subalusky, A. L., L. A. Fitzgerald, and L. L. Smith. 2009. Ontogenetic niche shifts in American Alligators establish functional connectivity between aquatic systems. *Biological Conservation* 142:1507-1514.
- Subalusky, A. L., L. L. Smith, and L. A. Fitzgerald. 2009. Detection of American alligators in isolated, seasonal wetlands. *Applied Herpetology* 6:199-210.
- Liner, A. E., L. L. Smith, S. W. Golladay, S. B. Castleberry, and J. W. Gibbons. 2008. [Amphibian distributions within three types of isolated wetlands in southwest Georgia.](#) *American Midland Naturalist* 160:69-81.
- Miller, G. J., S. A. Johnson, and L. L. Smith. 2008. [Ecological engineers: southeastern pocket gophers are one of nature's architects.](#) Department of Wildlife Ecology and Conservation, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida. WEC241, 4p.

- Muenz, T. K., S. W. Golladay, L. L. Smith, and G. Vellidis. 2008. [Diet and abundance of southern two-lined salamander larvae \(*Eurycea cirrigera*\) in streams within an agricultural landscape, southwest Georgia.](#) Southeastern Naturalist 7:691-704.
- Smith, L. L. 2008. Tiger salamander, *Ambystoma tigrinum*. Pages 145-147 in J. Jensen, C. Camp, J. W. Gibbons, and M. Elliott (eds.). Amphibians and Reptiles of Georgia. University of Georgia Press, Athens, Georgia.
- Smith, L. L. 2008. Central Florida crowned snake, *Tantilla relicta*. Pages 409-410 in J. Jensen, C. Camp, J. W. Gibbons, and M. Elliott (eds.). Amphibians and Reptiles of Georgia. University of Georgia Press, Athens, Georgia.
- Sterrett, S. C., L. L. Smith, M. B. Howze, A. M. Heupel, and C. L. Atkinson. 2008. [Pseudemys concinna \(Eastern River Cooter\). Movement.](#) Herpetological Review 39:464.
- Tyson, A., D. A. Steen, and L. L. Smith. 2008. [Nerodia taxispilota \(Brown Watersnake\). Diet.](#) Herpetological Review 39:472.
- Liner, A. E., L. L. Smith, and S. B. Castleberry. 2007. [Effects of toe-clipping on survival and growth of *Hyla squirella*.](#) Herpetological Review 38:143-145.
- Steen, D.A., L. L. Smith, L. M. Conner, J. C. Brock, and S. K. Hoss. 2007. [Habitat use of sympatric rattlesnake species within the Gulf Coastal Plain.](#) Journal of Wildlife Management 71:759-764.
- Steen, D. A., S. C. Sterrett, S. A. Miller, and L. L. Smith. 2007. [Terrestrial movements and microhabitat selection of overwintering subadult Eastern Mud Turtles \(*Kinosternon subrubrum*\) in southwest Georgia.](#) Journal of Herpetology 41:532-535.
- Muenz, T. K., S. W. Golladay, L. L. Smith, and G. Velledis. 2006. [Stream buffer effectiveness in an agriculturally influenced area, southwestern Georgia: responses of water quality, macroinvertebrates, and amphibians.](#) Journal of Environmental Quality 35:1924-1938.
- 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, L. L., D. T. Bryan, and E. D. Hight. 2006. Potential treatment for ingestion of fish hooks in turtles. Turtle and Tortoise Newsletter 9:11-12.

- Smith, L. L., D. A. Steen, J. M. Stober, M. C. Freeman, S. W. Golladay, L. M. Conner, and J. C. Cochrane. 2006. [The vertebrate fauna of Ichauway, Baker County, GA](#). Southeastern Naturalist 5:599-620.
- Smith, L. L., T. D. Tuberville, and R. A. Seigel. 2006. Workshop on the ecology, status and management of the gopher tortoise (*Gopherus polyphemus*), Joseph W. Jones Ecological Research Center, 16-17 January 2003: final results and recommendations. Chelonian Conservation and Biology 5:326-330. [This document may be obtained from publisher's website](#).
- Steen, D. A., A. J. Aresco, S. G. Beilke, B. W. Compton, E. P. Condon, C. K. Dodd, Jr., H. Forrester, J. W. Gibbons, J. L. Greene, G. Johnson, T. A. Langen, M. J. Oldham, N. D. Oxier, R. A. Saumure, F. W. Schueler, J. Sleeman, L. L. Smith, J. K. Tucker, and J. P. Gibbs. 2006. Relative vulnerability of female turtles to road mortality. Animal Conservation 9:269-273.
- Steen, D. A., and L. L. Smith. 2006. Road surveys for turtles: consideration of possible sampling biases. Herpetological Conservation and Biology 1:9-15.
- Steen, D. A., and L. L. Smith. 2006. Tortoises and roads. The Tortoise Burrow, Newsletter of the Gopher Tortoise Council 27(1): 2-3.
- Steen, D. A., L. L. Smith, G. J. Miller, and S. C. Sterrett. 2006. [Post-breeding terrestrial movements of *Ambystoma tigrinum* \(Eastern Tiger Salamanders\)](#). Southeastern Naturalist 5:285-288.
- Sterrett, S. C., D. A. Steen, and L. L. Smith. 2006. [Ambystoma tigrinum tigrinum \(Eastern Tiger Salamander\). Burrow description](#). Herpetological Review 37:435-436.
- 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. Pages 32-40 in W. E. Meshaka, Jr., and K. J. Babbitt (eds.). Status and Conservation of Florida Amphibians and Reptiles. Kreiger Publishing Company, Malabar, Florida.
- Steen, D. A., S. N. Becker, and L. L. Smith. 2005. [Heterodon platirhinos \(Eastern Hognosed Snake\). Reproduction](#). Herpetological Review 36:457.
- Steen, D. A., G. J. Miller, S. C. Sterrett, and L. L. Smith. 2005. [Gopherus polyphemus \(gopher tortoise\). Juvenile use of gopher tunnel](#). Herpetological Review 36:442.
- Dodd, C. K., Jr., W. J. Barichivich, and L. L. Smith. 2004. Effectiveness of a barrier wall and culverts in reducing wildlife mortality on a heavily traveled highway in Florida. Biological Conservation 118: 619-631.

Pedrono, M., L. L. Smith, J. Clobert, M. Massot, and F. Sarrazin. 2004. Wild-captive metapopulation viability analysis. *Biological Conservation* 119:463-473.

Borg, C. K., S. K. Hoss, and L. L. Smith. 2004. A method for preventing flying squirrel mortality in PVC pipe treefrog refugia. *Wildlife Society Bulletin* 32:1313-1315.

Outreach Publications and Reports to Natural Resource Agencies: (Past 7 years)

Smith, L. L., and J. M. Stober. 2010. Gopher Tortoise Survey, Ft. Gordon Military Reservation. Final report to The Nature Conservancy.

Smith, L. L., and J. M. Stober. H. E. Balbach, and W. D. Meyer. 2009. Gopher Tortoise Survey Handbook. U.S. Army Corps of Engineers. ERDC/CERL TR-09-7.

Smith, L. L., J. M. Stober, and J. M. Linehan. 2008. Gopher Tortoise Survey, Population Evaluation, and Habitat Suitability. Final Report to Georgia DNR.

Smith, L. L., and L. M. Conner. 2004. The Impacts of Non-Native and Native Subsidized Predators on Gopher Tortoise Populations. Final Report to the Jack Berryman Institute.

Smith, L. L., and L. M. Conner. 2004. Development of a GIS-based Model for Identifying Potential Flatwoods Salamander Habitat in the Coastal Plain of Georgia. Final Report to Georgia DNR.

Smith, L. L., and L.M. Conner. 2003. Impacts of human land use on natural habitats and nongame wildlife species in the Flint River Basin. Final Report to Georgia DNR.

Current Jones Center Research:

Conner, L. M., and L. L. Smith. The ecological role of mesopredators, the effects of mesopredator control and habitat approaches for managing predation.

Golladay, S. W., S. P. Opsahl, L. L. Smith, and D. W. Hicks. Hydrologic variation and human development in the Lower Flint River Basin: An ongoing landscape-scale experiment.

Kirkman, L. K., S. W. Golladay, L. L. Smith, S. P. Opsahl, and D. W. Hicks. Depressional wetlands in the coastal plain landscape: Maintenance of regional biological diversity.

Mitchell, R. M., S. B. Jack, R. K. McIntyre, L. K. Kirkman, L. L. Smith, and L. M. Conner. Ecological forestry project: Silviculture that sustains and restores native biodiversity of pinelands in the Southeastern Coastal Plain: Legacies, fire and recovery periods.

Grants and Contracts: (Past 5 years)

Mitchell, R. J., L. K. Kirkman, L. M. Conner, L. L. Smith, J. Priddy, P. Yates, M. C. Mack, J. R. Walters and R. D. Sutter. Developing dynamic reference models and a decision support framework for southeastern ecosystems: An integrated approach. Strategic Environmental Research and Development Program. March 26, 2009–March 25, 2014. \$1,351,138. Received in 2009, \$268,902. Received in 2010, \$250,084.

Smith, L. L., and J. M. Stober. Gopher tortoise surveys at Ft. Gordon, Georgia. The Nature Conservancy. November 6, 2009–May 31, 2010. \$55,578. Received in 2009, \$3,244. Received in 2010, \$38,212.

Smith, L. L. and J. M. Stober. Gopher tortoise surveys and population evaluation. Georgia Department of Natural Resources. May 01, 2010–August 31, 2011. \$81,852. Received in 2010, \$24,886.

Maerz, J., S. W. Schweitzer, and L. L. Smith. Patterns of riparian disturbance and their influence on aquatic turtles in the lower Flint River Basin, Georgia, Georgia State Wildlife Grant Program. Budget: \$19,659. January 2006-December 2008.

Smith, L. L., and S. A. Johnson. Ecology and Conservation of large terrestrial snakes in the longleaf pine ecosystem: Do upland snakes partition resources? Florida State Wildlife Grants Program. Budget: \$55,191.50. November 2005-December 2008. (Principal Investigator)

Smith, L. L., and J. Stober. Development of a Gopher Tortoise Survey Handbook. U.S. Army Corps of Engineers, Engineer Research and Development Center. Budget: \$23,424. May 2006-July 2007.

Conner, L. M., and L. L. Smith. The ecological role of predators in the longleaf pine ecosystem and habitat management approaches for reducing nest predation. National Fish and Wildlife Foundation. Budget: \$49,257. June 2005-May 2006.

Smith, L. L., and L. K. Kirkman. Coastal plains ecosystems-Ecology and conservation management. Georgia Department of Natural Resources-Nongame Wildlife & Natural Heritage Section. Budget: \$1008. June 2005.

Recent Student Advisement:

David A. Steen. Current. Associations between upland snake assemblages and longleaf pine forests. Ph.D., Biological Sciences, Auburn University, Auburn, AL. (Co-advisor with Mike Conner and Craig Guyer).

Ashley Free. Current. Gopher tortoise surveys and population evaluations. M.S. Thesis, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA. (Co-advisor with Steven Castleberry).

Jess Gonynor. Current. Gopher tortoise population health in a changing landscape. Ph.D., Warnell School of Forestry and Natural Resources and Southeastern Cooperative Wildlife Disease Study, University of Georgia, Athens, GA. (Co-advisor with Michael Yabsley).

Anna McKee. Current. Correlations between community diversity and within-species genetic diversity in an amphibian assemblage: Potential processes and implications for conservation management. Ph.D., Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA. (Co-advisor with John Maerz and Travis Glen).

Beth Schlimm. Current. Patterns of snake diversity relative to gopher tortoise population size on protective areas in Georgia. M.S. Thesis, Warnell School of Forestry and Natural Resources University of Georgia, Athens, GA. (Co-advisor with Steven Castleberry).

Sean C. Sterrett. 2009. The ecology and influence of land use on river turtles in southwest Georgia. M.S. Thesis, Warnell School of Forestry, Natural Resources and the Environment, University of Georgia, Athens, GA. (Co-advisor with John Maerz and Sara Schweitzer).

Gabriel Miller. 2008. Home range size, habitat associations and refuge use of the Florida pine snake, *Pituophis melanoleucus mugitus*, in southwest Georgia, U.S.A. M.S. Thesis, Wildlife Ecology and Conservation, University of Florida, Gainesville, FL. Co-advisor with Steve A. Johnson).

Shannon K. Hoss. 2007. Spatial ecology of the Eastern diamond-backed rattlesnake (*Crotalus adamanteus*). M.S. Thesis, Biological Sciences, Auburn University, Auburn, AL. (Co-advisor with Craig Guyer).

Amanda Subalusky. 2007. The role of seasonal wetlands in the ecology of the American alligator. M.S. Thesis, Department of Wildlife and Fisheries Sciences Texas A&M University, College Station, TX. (Co-advisor with Lee Fitzgerald).

- Jon McClosky. 2006. Modeling the effects of an altered fire regime on vegetation succession and amphibian habitat associations within the Okefenokee Swamp. Ph.D. Dissertation, Wildlife Ecology, University of Maine, Orono, ME. (Graduate committee member).
- Anna Liner. 2006. Wetland predators of amphibian distributions and diversity within the southeastern U.S. Coastal Plain. M.S. Thesis, Warnell School of Forest Resources, University of Georgia, Athens, GA. (Co-advisor with Steven Castleberry).
- Brooke Talley. 2005. Salamander species community of headwater streams and surrounding habitats in southwest Georgia, pre-and post-harvesting. M.S. Thesis, Environmental Engineering Sciences, University of Florida, Gainesville, FL. (Graduate committee member).
- Tara Muenz. 2004. Indicators of stream health: the use of benthic macroinvertebrates and amphibians in an agriculturally impacted area, southwest Georgia. M.S. Thesis, Institute of Ecology, Conservation Ecology and Sustainable Development. University of Georgia, Athens, GA. (Graduate committee member).