

# CURRICULUM VITAE

## Amanda Marie Sparkman

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### PROFESSIONAL PREPARATION:

Post-doctorate	Trent University	2009-2011
Graduate	Iowa State University	Ecology & Evolution Ph.D., 2009
Undergraduate	Westmont College	Biology BA, 2003 (Summa Cum Laude)
	Westmont College	English BA, 2003

### APPOINTMENTS:

2009-2011	Post-doctoral Researcher, Department of Biology, Trent University
2007-2008	Teaching Assistant, Human Anatomy and Physiology, Department of Biology, Iowa State University
Fall 2006	Research Assistant, Gerontology Fellow, Department of Ecology, Evolution, and Organismal Biology. Iowa State University
Spring 2006	Teaching Assistant, General and Comparative Endocrinology, Department of Biology. Iowa State University
2004-2005	Research Assistant, Biotechnology Fellow, Department of Ecology, Evolution, and Organismal Biology. Iowa State University
2003-2004	Biology Laboratory Coordinator, Department of Biology, Westmont College
2002-2003	Summer Research Assistant, Department of Biology, Westmont College
Fall 2003	Teaching Assistant, Genetics, Department of Biology, Westmont College
Spring 2003	Teaching Assistant, Physiological Ecology, Department of Biology, Westmont College

### PEER-REVIEWED PUBLICATIONS:

**Sparkman, A.M.**, Adams, J., Steury, T.D., Waits, L., Murray, D.L. (2011) Direct fitness benefits of delayed dispersal in the cooperatively breeding red wolf (*Canis rufus*). *Behavioral Ecology* 22(1):199-205.

Palacios, M.G., **Sparkman, A.M.**, and Bronikowski, A.M. (2011) Developmental plasticity of immune defence in two life-history ecotypes of the garter snake *Thamnophis elegans* – a common-environment experiment. *Journal of Animal Ecology* 80(2):431-437.

**Sparkman, A.M.**, Adams, J., Steury, T.D., Beyer, A., Waits, L., Murray, D.L. (2011) Helper effects on pup lifetime fitness in the cooperatively breeding red wolf (*Canis rufus*). *Proceedings of the Royal Society B: Biological Sciences* 278(1710)L1381-1389. Featured in New Scientist, 21 October 2010, <http://www.newscientist.com/article/dn19604>, Wired.com, 22 October 2010 <http://www.wired.com/wiredscience/2010/10/red-wolf-puppy-nanny>.

**Sparkman, A.M.**, Ford, N.B., Bronikowski, A.M. (2011) The Role of IGF-1 in Snake Reproduction. In: Aldridge, R.D., Sever, D.M. (Eds.), *Reproductive Biology and Phylogeny of Snakes*. Volume 9, Reproductive Biology and Phylogeny Series, Jamieson, B.G.M. (Ed). CRC Press, Boca Raton, Florida.

Byars, D.J., Ford, N.B., **Sparkman, A.M.**, Bronikowski, A.M. (2010) Influences of diet and family on age of maturation in brown house snakes, *Lamprophis fuliginosus*. *Herpetologica* 66(4):456-463.

**Sparkman, A.M.**, Byars, D., Ford, N.B., and Bronikowski, A.M. (2010) The role of insulin-like growth factor-1 (IGF-1) in growth and reproduction in female brown house snakes (*Lamprophis fuliginosus*). *General and Comparative Endocrinology* 168(3):408-414.

**Sparkman, A.M.**, and Palacios, M.G. (2009) A test of life-history theories of immune defense in two ecotypes of the garter snake, *Thamnophis elegans*. *Journal of Animal Ecology* 78(6): 1242-1248.

**Sparkman, A.M.**, Vleck, C.M., and Bronikowski, A.M. (2009) Evolutionary ecology of endocrine-mediated life-history variation in the garter snake, *Thamnophis elegans*. *Ecology* 90(3): 720-728. Featured in Faculty of 1000 Biology, 16 April 2009 (selected by Tim Coulson). <http://www.f1000biology.com/article/id/1158825>.

**Sparkman, A.M.**, Arnold, S.J., and Bronikowski, A.M. (2007) An empirical test of evolutionary theories for reproductive senescence and reproductive effort in the garter snake *Thamnophis elegans*. *Proceedings of the Royal Society B: Biological Sciences* 274(1612): 943-950.

## PRESENTATIONS & POSTERS:

Palacios, M. G., **Sparkman, A. M.**, and A. M. Bronikowski. 2010. Unraveling the causes of immune defense variation between life-history ecotypes of the garter snake *Thamnophis elegans*. American Physiological Society Intersociety Meeting: Global Change and Global Science: Comparative Physiology in a Changing World", August 4-7, 2010. Westminster, Colorado.

**Sparkman, A.M.**, Adams, J., Steury, T.D., Beyer, A., Waits, L., Murray, D.L. (2010) Socially-mediated sex differences in lifetime reproductive success in the red wolf, *Canis rufus*. Canadian Society for Ecology and Evolution, Quebec City, QC.

**Sparkman, A.M.**, Adams, J., Steury, T.D., Beyer, A. Waits, L., Murray, D.L. (2010) Effects of delayed dispersers on pup lifetime fitness in the red wolf, *Canis rufus*. Midwest Wolf Stewards Conference, Dorset, ON.

Bronikowski, A.M., **Sparkman, A.M.**, Byars, D. and Ford, N.B. (2009) The role of insulin/IGF1 signaling (IIS) in snake reproduction. Joint Meeting of Ichthyologists and Herpetologists, Portland, WA.

**Sparkman, A.M.**, Vleck, C.M., and Bronikowski, A.M. 2009. Hormones and life history: A Study of IGF-1 and population divergence in the garter snake *Thamnophis elegans*. Ecology and Evolution Department Seminar, University of Toronto, Toronto, ON.

**Sparkman, A.M.**, Vleck, C.M., and Bronikowski, A.M. 2008. Evolution of life histories in the garter snake: Endocrine control. Annual Meeting for the Society for the Study of Evolution, Minneapolis, MN.

**Sparkman, A.M.**, and Bronikowski, A.M. 2007. Endocrine-mediated evolution of life history traits: A study of IGF-1 and population divergence in the garter snake *Thamnophis elegans*. Annual Ecology and Evolutionary Biology Symposium, Ames, IA.

**Sparkman, A.M.**, Arnold, S.J., and Bronikowski, A.M. 2006. Evolutionarily divergent patterns of age-specific reproduction in the garter snake *Thamnophis elegans*. Annual Meeting for the Society of Integrative and Comparative Biology (SICB), Orlando, FL.

**Sparkman, A.M.**, Girod, Alison, and Schloss, Jeff. 2004. The photophilous myth: distributional patterns and biophysical adaptations of terricolous lichens in forest gaps. Point Loma Nazarene University, San Diego, CA.

Girod, Alison, **Sparkman, A.M.**, Hamann, Dathan, and Schloss, Jeff. 2004. Vasotocin modifies organismal water potential and direction of water flow across anuran ventral integument. Point Loma Nazarene University, San Diego, CA.