

CHARLES M. WATSON, PH.D.

EDUCATION

- Ph.D. 2008 The University of Texas at Arlington, Arlington, Texas
Major: Quantitative Biology
Dissertation Topic: *Comparative thermal biology of the Plestiodon fasciatus species complex*
- M. S. 2004 The University of Texas at Arlington, Arlington, Texas
Major: Biology
Thesis topic: *The effects of controlled burning on ground skink populations in a mixed pine hardwood habitat in East Texas*
- B. S. 1998 Stephen F. Austin State University, Nacogdoches, Texas
Major: Wildlife Science Minor: Forestry
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ACADEMIC POSITIONS

- 2010- ***Adjunct Instructor***, Texas A&M Commerce
Instructing *Biogeography and Biodiversity**
- 2008- ***Lecturer / Laboratory Coordinator***, The University of Texas at Arlington
Lecturing: *Cellular & Molecular Biology*
Structure & Function of Organisms
Biology of Texas
Introduction to Biology I (Distance Education)
Introduction to Biology Lab (Distance Education)
Coordinating: *Cellular & Molecular Biology Lab*
Structure & Function of Organisms Lab
Introduction to Biology Lab
- 2008 ***Adjunct Faculty***, The University of North Texas, Denton, Texas
Instructed: *Comparative Vertebrate Anatomy Lab*
- 2006-2008 ***Graduate Teaching Assistant***, The University of Texas at Arlington
Instructed: *Plant Science Lab*
Comparative Vertebrate Anatomy Lab
Structure & Function of Organisms Lab
Non-Majors Biology Lab
Biostatistics
Human Anatomy & Physiology
- 2004-2005 ***Adjunct Lecturer***, Richland College, Dallas, Texas
Lectured: *Introductory Biology Lecture & Lab*
- 2004-2007 ***Research Associate***, The University of Texas at Tyler

*Graduate-Level Course

PROFESSIONAL POSITIONS

2003-2005 *Reptile Department Supervisor*, The Dallas Zoo, Dallas, Texas
2001-2003 *Reptile/Amphibian Keeper*, The Dallas Zoo, Dallas, Texas
1998-2001 *Reptile/Amphibian Keeper*, The Ellen Trout Zoo, Lufkin, Texas

PROFESSIONAL TRAINING

American Zoo and Aquarium Association Professional Training Program, Wheeling WV
2002 Managing for Success: Career Development
2003 Managing for Success: Organizational Development
2004 Population Management I

RESEARCH INTERESTS

I am an integrative ecologist with interest and training in biogeography, biodiversity, conservation, evolutionary ecology, and physiology. While I claim no taxonomic bias, I am particularly interested in reptiles, amphibians, terrestrial invertebrates, small mammals, aquatic life, and forest flora. Current projects integrate field ecology, physiology, laboratory trials, and GIS technology to answer broad-scale evolutionary and ecological questions.

SCIENTIFIC PUBLICATIONS

Watson, Charles M. 2009. Selection of available post-fire substrate by *Scincella lateralis* Say (Ground Skink). The Texas Journal of Science.61(3). 219-224.

Watson, Charles M. and M. L. Nicholson. The recovery of the macroarthropod community within the leaf-litter of an East Texas mixed hardwood-pine habitat following a prescribed burn. *In Press* for The Texas Journal of Science

Watson, Charles M. Thermal preference and specific dynamic action of the five-lined skinks (Genus *Plestiodon*). *In Review*

Watson, Charles M. and W.W. Burggren. Oxygen consumption and its temperature sensitivity suggest distinct thermal ecological niches among five-lined skinks (Genus *Plestiodon*) of the Eastern United States *In Review*

Watson, Charles M. and D. R. Formanowicz. The effect of temperature on locomotor performance among three morphologically similar lizards, the five-lined skinks (Genus *Plestiodon*). *In Review*

Watson, Charles M., C. Roelke, P. Pasichnyk, C. Cox. An empirical test of the adaptive significance of the autotomous blue tail in five-lined skinks (*Plestiodon*). *In Review*

Watson, Charles M. and R. Makowsky. A biogeographic assessment of the evolution of viviparity in North American lizards. *In Preparation*

Watson, Charles M. and L. Gough. Thermal habitat segregation among the five-lined skinks of the Southeastern United States. *In Preparation*

NOTES AND SHORTER COMMUNICATIONS

- Watson, Charles M. 2007. *Thamnophis proximus*: Foraging Biology. Herpetological Review. 38:3. p. 346
- Watson, Charles M. and D. R. Formanowicz. 2007. *Plestiodon fasciatus*: Prey. Herpetological Review. 38:1. p. 82.
- Watson, Charles M. and J. C. Watson. 2005. *Eumeces fasciatus*: Hatchlings. Herpetological Review. 36:3. p. 318.
- Watson, Charles M. and M. S. Vaughan. 2004. *Liophis typhlus*: Coloration. Herpetological Review. 35:2. p. 178.

MAGAZINE ARTICLES

- Watson, Charles M. 2007. The Five-Lined Skinks: "Scorpion Lizards of the Southeast" *Reptiles*. October. Pp. 59-65.
- Watson, Charles M. 2004. Setup and Maintenance of a Successful Herp Quarantine. *Reptiles USA*. Pp. 108-116.

PRESENTATIONS AND PUBLISHED ABSTRACTS

ORAL:

- Watson, C.M. and R. Makowsky. *Association of reproductive mode and abiotic factors among North and Meso-American Lizards of the genera Phrynosoma, Plestiodon, and Sceloporus*. 2nd Annual Joint Vertebrate Eco-Physiology Workshop UNT/ Universidad Autonoma del Estado de Mexico. Valle de Bravo, Mexico. **February 2010**.
- Watson, C.M. *Combining Field Data with Laboratory Trials to Explain Differences in the Thermal Niche of Three Species of Plestiodon*. 1st Annual Joint Vertebrate Eco-Physiology Workshop. Toluca, Mexico. **September 2008**.
- Watson, C. M. and W. W. Burggren. *Thermal Physiology and Field Observations Support Microhabitat Diversification and Spatial Resource Partitioning Among Plestiodon fasciatus, P. laticeps, and P. inexpectatus*. Joint Meeting of Ichthyologists and Herpetologists. Montreal, Quebec, Canada, **July 2008**.
- Watson, C. M. and L. Gough. *Comparative thermal biology of three morphologically similar syntopic lizards of the genus Plestiodon*. Evolution 2008. Minneapolis, MN, **June 2008**
- Watson, C.M. *Natural History and Ecology of the Five-Lined Skinks*. The Dallas-Fort Worth Herpetological Society. **March 2007**
- Watson, C.M. *Aren't we all enthusiasts? Finding common ground for cooperation across herpetological borders*. Fall 2005 Symposium of the Texas Herpetological Society, Austin, TX, **November 2005**
- Watson, C.M. *The effects of prescribed burning on ground skink (Scincella lateralis) populations in a mixed hardwood-pine habitat in East Texas*. 52nd Annual Meeting of the Southwestern Association of Naturalists, Huntsville, TX, **April 2005**
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POSTER:

Pasichnyk P.A., C. E. Roelke, and C. M. Watson, *In field conditions, avian predators attack blue sections of a potential prey item at a higher frequency than black sections: Empirical evidence of an underlying premise of the decoy hypothesis.* Fall 2009 Symposium of the Texas Herpetological Society, Bryan, TX. **November 2009**

Ismaili S. M., M. M. Behzadi, and C. M. Watson. *Thermal Extremes Describe Latitudinal Range Limitations in the Five-Lined Skinks, Plestiodon fasciatus, P. inexpectatus, and P. laticeps.* Annual Celebration of Excellence by Students (ACES). The University of Texas at Arlington, **March 2009.**

Watson, C. M. and M. L. Nicholson. *Recovery of leaf litter macroinvertebrate fauna following prescribed burning of a mixed hardwood-pine ecosystem.* 2006 Southeastern Ecology and Evolution Conference. Tuscaloosa, AL. **March 2006**

GRANTS AND AWARDS:

East Texas Herpetological Society	2006:	\$500
Phi Sigma Honor Society	2006, 2007:	\$750, \$750
UTA Biology Department	2006, 2007:	\$1000, \$1000
UTA College of Math and Science	2006, 2007:	\$500, \$500

FIELD CONSERVATION AND TRAVEL

2008- Present	Collaboration with UNAEM in Toluca, Mexico as part of an Annual Physiological Ecology Workshop. Charter member of MexHAC.
2006-2009	Ongoing field work throughout the Southeastern United States to investigate the ecology of <i>Plestiodon fasciatus</i> , <i>Plestiodon laticeps</i> , and <i>Plestiodon inexpectatus</i> .
2002 - 2004	Perform field work in Smith County, Texas regarding prescribed burning, associated resource availability, and herpetofaunal communities
2003:	Led research expedition to Amazonian Peru in attempt to radio track Caiman Lizards and document their movements throughout the flooded forest habitat.
2002:	Accompanied zoo professionals to Philippine Islands to promote <i>in situ</i> conservation by establishing relationships with numerous academic and conservation organizations.

SERVED AS REVIEWER:

Journal of Herpetology
Herpetological Review
African Journal of Herpetology

PROFESSIONAL AFFILIATIONS

Society for the Study of Amphibians and Reptiles Member
Texas Academy of Science Member
Texas Herpetological Society Member, Communications Officer
Phi Sigma Society Member, 2007 Chapter President

SERVICE

2008-present Teacher Education Council: Biology Representative
2009-present Biology Teacher Certification Advisor

UNDERGRADUATE MENTORING/RESEARCH

Shaliza Ismaili
Mitra Behzadi

Spring 2009:

Project: *Thermal Extremes Describe Latitudinal Range Limitations in the Five-Lined Skinks, Plestiodon fasciatus, P. inexpectatus, and P. laticeps*

**Winner: Annual Celebration of Excellence by Students (ACES)
President's Sustainability Award – 2009**

Paul Pasichnyk

Fall 2009/Spring 2010:

Project: *Is blue tail coloration effective at diverting avian attacks on five-lined skinks?*

Findings presented at 2009 Texas Herpetological Society Annual Symposium and the 2nd Annual EcoPhysiology Workshop in Valle de Bravo, Mexico.

**Winner: Annual Celebration of Excellence by Students (ACES)
President's Undergraduate Poster Award – 2010**

Scott Alford

Fall 2010/Spring 2011:

Project: *The Texas Horned Lizard, Phrynosoma cornutum, manipulates its body morphology to maximize heat acquisition and retention*

In Progress
