

Charles M. Watson, Ph.D.

Texas A&M University – San Antonio
Department of Life Sciences
San Antonio, Texas

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<http://www.watsonecolab.com>

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**

ACADEMIC POSITIONS

Full-Time

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|--------------|---|--|
| 2021-present | <i>Associate Professor of Biology</i> (tenured) | Texas A&M University - San Antonio |
| 2016-2021 | <i>Associate Professor of Biology</i> (tenured) | Midwestern State Univ., Wichita Falls TX |
| 2013-2016 | <i>Assistant Professor of Biology</i> | Midwestern State Univ., Wichita Falls TX |
| 2011-2013 | <i>Assistant Professor of Biology</i> | McNeese State Univ., Lake Charles LA |
| 2008-2011 | <i>Lecturer / Laboratory Coordinator</i> | The University of Texas at Arlington |

Adjunct/Part-Time

- | | | |
|-----------|------------------------------------|-------------------------------------|
| 2010-2011 | <i>Instructor</i> | Texas A&M Commerce, Commerce TX |
| 2008 | <i>Instructor</i> | The Univ. of North Texas, Denton TX |
| 2006-2008 | <i>Graduate Teaching Assistant</i> | The Univ. of Texas at Arlington |
| 2004-2005 | <i>Lecturer</i> | Richland College, Dallas TX |

PROFESSIONAL POSITIONS

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|-----------|-------------------------------------|--------------------------------|
| 2003-2005 | <i>Reptile/Amphibian Supervisor</i> | The Dallas Zoo, Dallas TX |
| 2001-2003 | <i>Reptile/Amphibian Keeper</i> | The Dallas Zoo, Dallas TX |
| 1998-2001 | <i>Reptile/Amphibian Keeper</i> | The Ellen Trout Zoo, Lufkin TX |

HONORS AND AWARDS

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|-----------------------|--------------------------------------|-------------------------------|
| 2014-15, 16-17, 18-19 | <i>Biology Professor of the Year</i> | MWSU |
| 2014-2015 | <i>Faculty Member of the Year</i> | MWSU Student Government Assn. |
| 2012, 2013 | <i>Endowed Professor in Science</i> | McNeese State University |
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FUNDING:**EXTRAMURAL:**

- 2021 *Thermal Physiology of Central Texas Lizard Communities*, PI, Ian Rockel as Primary Author
Texas Ecolabs Funding \$2,800.00
- 2017 *Modernization and Consolidation of the Natural History Collections at MSU into the Xeric Ecosystem Research Center (XERC)*, Co-PI and Primary Author
NSF Collections in Support of Biological Research (funded) \$472,804.00

INTRAMURAL:

- 2019 *Dietary Niche Partitioning between an Island Endemic Anole and its Invasive Congener*
MWSU Faculty Research Grant \$7,300.00
- 2017 *Completion of research on chitinase production by Scincella lateralis during digestion.*
MWSU COSM Faculty Research Award \$875.00
- 2016 *Determining the physiological effects of hypoxia on developing leopard gecko embryos*
MWSU Faculty Research Grant \$6,702.00
- 2015 *Physiological and Chemical Ecology of Milkweed and Milkweed Specialists*
MWSU Faculty Research Grant \$7,491.00
- 2014 *Ecology and Local Biogeography of the Texas Horned Lizard, Phrynosoma cornutum*
MWSU Faculty Research Grant \$7,474.00
- 2014 *Optimal Foraging Frequency in Snakes Phase II: Infrequently Feeding Species*
MWSU COSM Faculty Research Award \$2,270.00
- 2013 *Using Three-dimensional Printing to Study the Ecological Physiology of Lizards: A Novel Application for New Technology*
MWSU Faculty Research Grant \$4,966.73
- 2013 *Digestive Physiology of Scincella lateralis and Reproductive Physiology of Plestiodon obsoletus: Field Data Collection and Laboratory Trials*
MWSU COSM Faculty Research Award \$1,310.00
- 2012 *Temperature induced incubation time plasticity in the five-lined skinks.*
Shearman Research Initiative Fund Grant \$3,500.00
- 2012 *Substrate matching and self-recognition in cryptic snakes: Do they know they are hiding?*
Shearman Research Initiative Fund Grant. \$3,300.00
- 2012 *Enhancing pre-med recruitment and recognition of McNeese State University through undergraduate involvement in an international academic conference*
MSU Alumni Association Endowment Award \$2,000.00
- Total: \$519,992.73**

SCIENTIFIC PUBLICATIONS**PUBLISHED/IN PRESS**

- Richards, H. & **C.M. Watson**. (In Press) Evidence of alternative prey selection by the ant specialist, *Phrynosoma cornutum*. *The Southwestern Naturalist*
- Esquivel, C.* & **C.M. Watson**. (In Press) Variation in Energy and moisture content of milkweed (*Asclepias*) foliage across species. *The Southwestern Naturalist*
- Alujević, K., L. Bakewell, I. Clifton, C. Cox, L. Frishkoff, E. Gangloff, G. Garcia-Costoya, M. Gifford, M. Glenwinkel, S. Gulati, A. Head, M. Miles, C. Pettit, **C. Watson**, K. Wuthrich, & M. Logan, (2023) 3D printed models are an accurate, cost-effective, and reproducible tool for quantifying terrestrial thermal environments. *Journal of Thermal Biology*. 119.
- Gripshover, N. D., Hennessey, P., McBrayer, L. D., Meik, J. M., **Watson, C. M.**, & Cox, C. L. (2023). When food fights back: skull morphology and feeding behavior of centipede-eating snakes. *Integrative And Comparative Biology*.

- Watson, C.M.** & C. Cox. 2021. Elevation, oxygen, and the origins of viviparity. *Journal of Experimental Zoology-B*. 336. 457-469.
- Heninger, R.* , **C.M. Watson**, & C. Cox. 2020. Relative fitness of decoy coloration is mediated by habitat type. *Zoology*. 125820
- Kravchuk, L.* & **C.M. Watson**. 2020. Corn snakes can behaviorally enhance crypsis by choosing complex backgrounds and substrate. *Animal Behavior and Cognition* 7. 39-48.
- Watson, C.M.**, Z. Degon*, W. Krogman, C. Cox. 2019. Evolutionary and ecological forces underlying ontogenetic loss of decoy coloration. *Biological Journal of the Linnean Society* 128. 138–148.
- Watson, C.M.** & W.W. Burggren. 2016. Interspecific differences in metabolic rate and metabolic temperature sensitivity create distinct thermal ecological niches in lizards. *PLoS One*
- Watson, C.M.** & G. Francis*. 2015. Three-dimensional printing as an effective method of producing anatomically accurate models for studies in thermal ecology. *Journal of Thermal Biology* 51. 42-46.
- Watson, C.M.**, R. Makowsky, & J. C. Bagley. 2014. Reproductive mode evolution in lizards revisited: updated analyses examining geographic, climatic and phylogenetic effects support the cold-climate hypothesis. *Journal of Evolutionary Biology* 27 (12), 2767-2780
- Watson, C.M.** & L. Gough. 2012. The role of temperature in determining distributions and coexistence of three species of *Plestiodon*. *Journal of Thermal Biology* 37(5) 374-379.
- Watson, C.M.** & D. R. Formanowicz. 2012. A comparison of maximum sprint speed among the five-lined skinks (*Plestiodon*) of the Southeastern United States at ecologically relevant temperatures. *Herpetological Conservation and Biology* 7(1) 75-82.
- Watson, C.M.**, C. Roelke, P. Pasichnyk*, & C. Cox. 2012. The fitness consequences of the autotomous blue tail in lizards: An empirical test of predator response using clay models. *Zoology* 115(5) 339-344
- Watson, C.M.** and M. L. Nicholson. 2011 (Published 2014). The recovery of the macroarthropod community within the leaf-litter of an East Texas mixed hardwood-pine habitat following a prescribed burn. *The Texas Journal of Science* 64(1)
- Watson, C.M.** 2009. Selection of available post-fire substrate by *Scincella lateralis* Say (Ground Skink). *The Texas Journal of Science* 61(3) 219-224.

*Undergraduate Researcher

SHORT COMMUNICATIONS

- Arzate-Garay, L., J.R. Flores-Santin, E. Oviedo-Hernandez, G. Andrade-Soto, G.P.Hernandez-Lopez, & **C.M. Watson**. 2023 *Barisia imbricata* (Transvolcanic Alligator Lizard) Coloration. *Herpetological Review* 54 (2) p 292.
- Arzate-Garay, L., J.R. Flores-Santin, G.P. Hernandez-Lopez, & **C.M. Watson**. 2022. *Barisia imbricata*, Arboreal Habitat Use. *Herpetological Review* 53(2). p 320.
- Suárez-Rodríguez, O., G. Suárez-Varón, M. Marín-Vera, & **C.M. Watson**. 2020. Tail bifurcation in *Plestiodon copei*. *Revista Latinoamericana de Herpetologia* 3(2): 146-149.
- Watson, C.M.**, G. Estep, N. Barrier, & I.H. Watson. 2018. *Pantherophis obsoletus*, Vulnerability During Predation. *Herpetological Review*. 49(1). p 137.
- Thibodeau, M.C., R.C. Vogtsberger, & **C.M. Watson**. 2017. *Phrynosoma cornutum*, Diet. *Herpetological Review*. 48(2). p. 440.
- Merchant, M., M.H. Shirley & **C.M. Watson**. 2016. *Paleosuchus spp.* and *Osteolaemus spp.* Defense Mechanisms. *Herpetological Review* 47(4). 660-663

- Fox, M.R.*, R.W.Stewart & C.M Watson. 2014. *Plestiodon tetragrammus breviliniatus*. **Geographic Distribution**. *Herpetological Review*. 45(3)
- Watson, C.M. 2007. *Thamnophis proximus*: **Foraging Biology**. *Herpetological Review*. 38(3). p. 346
- Watson, C.M. and D. R. Formanowicz. 2007. *Plestiodon fasciatus*: **Prey**. *Herpetological Review*. 38(1). p. 82.
- Watson, C.M. and J. C. Watson. 2005. *Eumeces fasciatus*: **Hatchlings**. *Herpetological Review*. 36(3). p. 318.
- Watson, C.M. and M. S. Vaughan. 2004. *Liophis typhlus*: **Coloration**. *Herpetological Review*. 35(2). p. 178.
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MAGAZINE ARTICLES

- Watson, C.M. 2007. **The Five-Lined Skinks: “Scorpion Lizards of the Southeast”** *Reptiles*. October. pp. 59-65.
- Watson, C.M. 2004. **Setup and Maintenance of a Successful Herp Quarantine**. *Reptiles USA*. Annual Issue. pp. 108-116.
-

INVITED PRESENTATIONS:

- Tails of Deception: A Decade of Research Uncovering the Adaptive Advantage of Decoy Coloration in Lizards*** – Biology Department Seminar, Trinity University, San Antonio, TX, **March 2023**
- Living to tell the tail....the adaptive advantage of anti-predation coloration in lizards.***
- Ecol., Evol., and Conservation Biol. Colloquium Series, University of Nevada – Reno, **April 2022**
- Decoy Coloration in Lizards: A Tail of Deception***
- Department of Biology Seminar. Texas State University, San Marcos, TX. **February 2022**
- Science is a Team Sport: Darwin’s Indelible Stamp on Collaborative Research in my Laboratory***
- Darwin Day Keynote. Cameron University, Lawton, OK. **February 2019**
- The Physiology of Fitness: Trade-offs in the Evolution of Complex Traits.***
- The Universidad Autónoma del Estado de México. **May 2017**
- Out of thin air...Temperature, Hypoxia, and the Evolution of Viviparity in Lizards.***
- Georgia Southern Department of Biology, **September 2016**
- University of North Texas Department of Biology, **October 2016**
- Managing Game Species to Maximize Nongame Species Conservation.***
- Texas Horned Lizard Conservation Coalition Meeting. Mason, TX. **February 2016**
- Insights into the Evolution of Metabolic, Digestive, and Reproductive Phenotypes of Reptiles.***
- Howard Payne University Department of Biology, **February 2015**
- A tail’s tale: The functional significance and evolution of brightly colored tails in lizards.***
- The Dallas-Fort Worth Herpetological Society, **October 2014**
- Natural History and Ecology of the Five-Lined Skinks.***
- The Dallas-Fort Worth Herpetological Society. **March 2007**
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CONFERENCE PRESENTATIONS:

- The ecology and evolution of decoys, a paradoxical antipredator strategy.***
- Society for Integrative and Comparative Biology. Seattle, WA. **Jan. 2024.**
- Promoting a Standard Methodology for Physiological Phenotyping of Squamate Reptiles.***
- Integrative Biology Workshop VII. Toluca, MX. **October 2023.**
- Sex-specific interactions among signal expression, energetics, and parasitism in canyon lizards.***
- Society for Integrative and Comparative Biology. Austin, TX. **Jan. 2023.**

Temperature, Oxygen, and the Origins of Viviparity

- Society for Integrative and Comparative Biology. Virtual Meeting **Jan. 2021.**

Comparative Ecology and Physiology of Anoles on Dominica

- Society for Integrative and Comparative Biology. Austin, TX **Jan. 2020.**

The adaptive significance of an ontogenetic shift in coloration among skinks

- Society for Integrative and Comparative Biology. Tampa, FL **Jan. 2019.**

Variation and evolutionary dynamics of squamate metabolism

- Society for Integrative and Comparative Biology. San Francisco, CA **Jan. 2018.**

Optimal Feeding Frequency and its Physiological “Brackets”

- Society for Integrative and Comparative Biology. New Orleans, LA. **Jan. 2017.**

Out of thin air...Temperature, Hypoxia, and the Evolution of Viviparity in Lizards.

- Integrative Biology Workshop VI. Toluca, MX. **September 2016**

Optimal feeding frequency and the physiological mechanisms underlying its evolution.

- Evolution 2016, Austin TX. **June 2016**

A Lizard’s Tail in Three Acts: Physiology, Reproduction, and Predator Avoidance.

- Midwestern State University Faculty Forum. Wichita Falls, TX. **March 2015.**

Thermal Effects on Innate Immune Response, Respiration, and Locomotor Performance in the Spectacled Caiman, Caiman crocodilus. (with M. Merchant)

- Society for Integrative and Comparative Biology. West Palm Beach, FL. **Jan. 2015.**
- 4th Annual Joint Vertebrate Eco-Physiology Workshop. Malinalco, Mexico. **June 2013**

Optimal foraging frequency: a physiological component of optimal foraging theory.

- Integrative Biology Workshop V. Wichita Falls, TX. **September 2014**

Convergent evolution of the brightly colored tail in lizards: implications for the evolution of color signals. (with C. Buttermore* & C. Cox)

- Evolution 2014. Raleigh NC. **June 2014**

Notes on the remarkable physiology of the Ground Skink, Scincella lateralis.

- Texas Herpetological Society Fall Symposium. Wichita Falls, TX. **October 2013**

Avian Predators and the Fitness Benefits of the Autotomous Blue Tail in Lizards.

- 1st Joint Congress on Evolutionary Biology. Ottawa, Ontario, Canada. **July 2012.**

Avian Predators and the convergent evolution of lizard phenotypes.

- Louisiana Academy of Sciences 86th Annual Meeting. LSU-Alexandria. **March 2012.**

A Geographic and climatic assessment of reproductive mode in lizards. (with R. Makowsky)

- Evolution 2011. Norman OK. **June 2011**

Ecological Physiology and Biogeography: incorporating spatial physiological measures.

- 3rd Annual Joint Vertebrate Eco-Physiology Workshop, Denton TX. **May 2011**

Association of reproductive mode and abiotic factors among North and Meso-American Lizards of the genera Phrynosoma, Plestiodon, and Sceloporus. (with R. Makowsky)

- 2nd Annual Joint Vertebrate Eco-Physiology Workshop, Valle de Bravo, Mexico. **February 2010.**

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.**

Thermal Physiology and Field Observations Support Microhabitat Diversification and Spatial Resource Partitioning Among Plestiodon. (with W. W. Burggren)

- Joint Meeting of Ichthyologists and Herpetologists. Montreal, Quebec, Canada, **July 2008.**

Comparative thermal biology of three morphologically similar syntopic lizards of the genus Plestiodon. (with L. Gough)

- Evolution 2008. Minneapolis, MN, **June 2008**

Recovery of leaf litter macroinvertebrate fauna following prescribed burning (with M.L. Nicholson)

- Southeastern Ecology and Evolution Conference. Tuscaloosa, AL. **March 2006.**

Aren't we all enthusiasts? Finding common ground for cooperation across herpetological borders.

- Texas Herpetological Society Fall Symposium, Austin, TX, **November 2005**

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**

PANEL PRESENTATIONS:

Academic Career Panel (with Dr. Erica Diaz-Almeyda).

(Moderator: Shannon Collins) University of North Texas. Virtual. **April 2022**

What fueled me to be first? Stories from MSU's first-generation faculty and administrators.

(Moderator: M. Brown-Marsden) MSU Texas Faculty Forum. Wichita Falls TX. **September 2019**

From Campus to Community: (Re)valuing the Liberal Arts and Sciences in the 21st Century.

(Moderator: T. Giles) Midwestern State University Faculty Forum. Wichita Falls TX. **September 2015**

SERVED AS REVIEWER:

<i>Amphibia-Reptilia</i>	<i>Herpetol. Conserv. & Biol.</i>	<i>Journal of Zoology</i>
<i>African Journal of Herpetology</i>	<i>Herpetological Journal</i>	<i>Journal of Experimental Zoology</i>
<i>Biological Journal of the Linnean Society</i>	<i>Herpetological Review</i>	<i>Journal of Natural History</i>
<i>Comparative Biochemistry and Physiology</i>	<i>Herpetologica</i>	<i>Oecologica</i>
<i>Current Zoology</i>	<i>Journal of Comparative Physiology B</i>	<i>PLoS ONE</i>
<i>Global Ecology and Biogeography</i>	<i>Journal of Herpetology</i>	<i>Scientific Research and Essays</i>
	<i>Journal of Thermal Biology</i>	<i>Southwestern Naturalist</i>
		<i>Zoology</i>

PROFESSIONAL AFFILIATIONS AND ORGANIZATIONS

American Association for the Advancement of Science	Member
American Society of Naturalists	Member
Horned Lizard Conservation Society	Member
International Biogeography Society	Member
Phi Sigma Society	Member, 2007 Chapter President
Society for the Study of Evolution	Member
Society for Integrative and Comp Biology	Member
Southwestern Association of Naturalists	Member, Coordinator SWAN 2013
Texas Herpetological Society	Member, 2012/13 President
Alliance for Inclusion, Diversity, and Equity @MSU	Founding Member

PROFESSIONAL TRAINING AND WORKSHOPS

Texas A&M University – San Antonio Institutional Animal Care and Use Committee Training

2022 Conducting Investigations

2021-23 Annual Training, Attendee and Instructor

2021 Chair Training

20th Summer Institute in Statistical Genetics, University of Washington, Seattle, WA

2015 Introduction to R

McNeese State University Faculty Development Workshops

2012 Incorporating Critical, Creative, and Systematic Thinking in Classroom Teaching and Evaluation, Instructor: Darrel J. Kesler Ph.D.

Grant Angstrom Partners / MSU Office of Research Services
 2012 Strategic Grant Development, Certificate
 Texas Science Faculty Collaborative for Team-Based Learning (TBL)
 2011 Strategies for Teaching Undergraduate Science Classes with TBL, Marble Falls TX
 2011 TBL Content Writing Retreat, Galveston TX
 American Zoo and Aquarium Association Professional Training Program, Wheeling WV
 2002 Managing for Success: Career Development, Certificate
 2003 Managing for Success: Organizational Development, Certificate
 2004 Population Management I, Certificate

SERVICE

Texas A&M University – San Antonio

2023-Present Biology **Program Coordinator**
 2022-Present Institutional Animal Care and Use Committee **Chair**
 2023-Present Graduate Council **Chair**
 2023-Present Faculty Senator
 2023-Present Post-Tenure Review Policy Committee
 2023-Present College Tenure and Promotion Committee
 2023-2024 Assistant Professor in Biology Search Committee
 2023 Administrative Assistant Search Committee
 2021-Present Department Tenure and Promotion Committee
 2022-Present Faculty Evaluation Committee – **Member** (2022), **Chair** (2023)
 2022-2023 Biology Program Review Committee
 2022-Present College of Arts and Sciences Strategic Planning Committee
 2022-Present Proyecto Éxito Steering Committee (DOE Funding for Graduate Studies)
 2022-2023 Biology Graduate Program – **Program Coordinator Mentor (2022)**
 2021-2022 Institutional Animal Care and Use Committee – **Vice Chair**
 2021-2022 Institutional Biosafety Committee
 2021 Committee to Establish Pre-Professional Degree Concentration - **Chair**

Midwestern State University

2019-2020 University Taskforce on Faculty Workload – **Committee Chair**
 2018-2021 Biology Graduate Admissions Committee
 2016-2021 Dalquest Desert Research Station Advisory Committee
 2014-2020 Institutional Animal Care and Use Committee
 2018, 2021 Lecturer in Biology Search Committee
 2016 College of Science and Mathematics Tenure Review Committee
 2015-2019 Faculty Senate
 2015-2018 Provost’s Task Force for Advancing the Liberal Arts
 2015-2016 First Year Experience Task Force

McNeese State University

2012-2013 **Coordinator** of Undergraduate Research: MSU LS-LAMP
 2012-2013 Health Professions Committee
 2012-2013 Graduate Faculty
 2012-2013 SWAN 2013 Planning Committee: **Chair**
 2011-2013 Tuten Park Biological Inventory Committee: **Chair**
 2011-13 Human Anatomy and Physiology Committee
 2011-12 Retention Committee

The University of Texas at Arlington

2008-11 Teacher Education Council: **Biology Representative**
 2009-11 Biology Teacher Certification Advisor

Community

2023	Food Bank of San Antonio: Wild Game Meat Processing
2023	Regeneron International Science and Engineering Fair: Judge
2019-20	Texas Science and Engineering Fair: Judge, Division Captain
2012-13	Friends of Tuten Park Board of Directors: Charter President
2012	Louisiana Academy of Science: Poster Competition Judge
2010-13, 15-20	Dallas Area Regional Science Fair: Judge, Grand Prize Judge

Profession:

2022-Present	<i>Amphibia-Reptilia</i> : Associate Editor
2012-Present	<i>The Southwestern Naturalist</i> : Associate Editor : Herpetology
2015, 17-20, 2023	Society for Integrative and Comparative Biology Meeting (SICB): Session Chair
2024	SICB: Student Award Judge
2014-16	Evolution: Session Chair
2014	Integrative Biology Workshop: 2014 Meeting Coordinator
2012-13	Texas Herpetological Society: 2012-2013 President , 2013 Meeting Coord.
2012-13	Southwestern Assn. of Naturalists: Local Rep. / 2013 Meeting Coordinator
2012	1 st Joint Congress on Evolutionary Biology: Session Chair

PROFESSIONAL MEETING ORGANIZATION

2014 Organizer / Host	Integrative Biology Workshop V Midwestern State University (40 attendees)
2013 Organizer / Society President:	Texas Herpetological Society Fall Symposium Midwestern State University (27 attendees)
2013 Organizer / Society President:	Texas Herpetological Society Spring Field Meet Lake Caddo Wildlife Management Area (30 attendees)
2013 Host / Committee Chair:	Southwestern Association of Naturalists 60 th Annual Meeting McNeese State University (400+ attendees)

GRADUATE MENTORSHIP

Committee Chair

2023-Present	Infinity Alvarez	M.S. Student in Biology <i>Metabolic Physiotyping of Lizards: Standardization and Practice</i>
2023-Present	Bridgett Battaglia	M.S. Student in Biology <i>Metabolic and energetic Trade-off in Mantis Reproduction</i>
2023-Present	Victoria Garcia	M.S. Student in Biology <i>Uterine histology and physiology of live bearing snakes under hypoxia and normoxia</i>
2022-Present	Alec John	M.S. Student in Biology <i>Chitinase characterization in the digestive system of <u>Hemidactylus turcicus</u>.</i>
2021-Present	Ian Rockel	M.S. Candidate in Biology <i>Thermal Physiology of <u>Sceloporus olivaceous</u> and <u>Sceloporus variabilis</u> in South Texas</i>
2019-2021	Doyinsola Ojo, M.S.	Biology <i>Is male coloration a true signal of quality in <u>Sceloporus olivaceous</u>?</i>
2019-2021	Sadie Gent, M.S.	Biology <i>Ectoparasites and Sexual Signals in <u>Sceloporus merriami</u>.</i>
2016-2021	Paige Cannedy, M.S.	Biology <i>Effects of nicotine concentration on the physiology of the Tobacco Hornworm.</i>
2018-2020	Stephanie Fonville Taylor, M.S.	Biology <i>Thermal Physiology of the Gulf Fritillary Butterfly Caterpillar</i>

2018-2019	David Pérez Guerra, M.S.	Biology	<i>The Effects of Hypoxia on Embryonic Physiology and Egg Morphology in Lizards</i>
2016-2018	Hannah Richards, M.S.	Biology	<i>Prey Diversity and Digestive Physiology of the Texas Horned Lizard in North Texas.</i>
2016-2018	Tricia Neptune, M.S.	Biology	<i>Metabolic Physiology of <u>Anolis oculatus</u> in Dominica.</i>
2016-2018	Jeanel Georges, M.S.	Biology	<i>Comparative Thermal Physiology of <u>Anolis oculatus</u> and <u>Anolis cristatellus</u> in Dominica.</i>
2014-2016	Marcus Thibodeau, M.S.	Biology	<i>The Effect of Northern Bobwhite Quail (<u>Colinus virginianus</u>) Management on Horned Lizards</i>
2014-2016	Christopher Buttermore, M.S.	Biology	<i>Comparison of General Health Indicators Between Captive and Wild <u>Crotalus atrox</u></i>
2014-2016	William Krogman, M.S.	Biology	<i>Adaptive advantage of an ontogenetic color shift in <u>Plestiodon</u></i>
2014-2015	Jaydeep Kolape, M.S.	Biology	<i>Digestive Physiology and Gut Morphology of the Ground Skink, <u>Scincella lateralis</u></i>

Committee Member

2022-present	Gabriella Vaughn	M.S. Student (TAMUSA)
2022-present	Ariel Robles	M.S. Student (TAMUSA)
2019-present	Christian Mitchell	M.S. Candidate (MWSU)
2018-present	Paul Rollins	M.S. Candidate (MWSU)
2017-2022	Sara Wilmsen, Ph.D.	Biology (University of North Texas)
2018-2022	Andrew Skinner, M.S.	Biology (MWSU)
2020-2021	Timothy Torres, M.S.	Biology (MWSU)
2017-2019	Stephen Mirkin, M.S.	Biology (Texas Christian University)
2016-2018	Rachel Alenius, M.S.	Biology (Texas Christian University)
2015-2017	Erika Mitchell, M.S.	Biology (MWSU)
2014-2017	Khyati Chauhan, M.S.	Biology (MWSU)
2014-2016	Matthew Fox, M.S.	Biology (MWSU)
2015-2016	Gisela Knightstep, M.S.	Biology (MWSU)
2015-2016	Sarah McBride, M.S.	Biology (MWSU)
2014-2016	William Stewart, M.S.	Biology (MWSU)
2011-2012	Christopher Brown, M.S.	Chemical and Environmental Science (McNeese State)
2011-2012	Jonathan Smith, M.S.	Chemical and Environmental Science (McNeese State)

UNDERGRADUATE MENTORSHIP

Over 40 undergraduate students have spent significant time performing research in my laboratory. The majority have presented at national or international meetings and the rest have presented at local research events. I have published with undergraduate co-authors (see above) and currently have manuscripts in preparation with others. Undergraduate Research is a major component of The Watson Laboratory's vision and mission.

COURSES TAUGHT**Texas A&M-San Antonio**

*Animal Physiology + Lab***
Ecology Seminar
*Herpetology + Lab***
Invertebrate Zoology
Zoology Seminar

*Population and Community Ecology
(Graduate)**
*Vertebrate Zoology + Lab***
General Biology II

Midwestern State University

*Human Anatomy and Physiology I & II
Ecology + Lab ***
History of the Life Sciences (Graduate)
*Life II (Freshman Biology) + Lab**
Special Topic-Physiological Ecology (Grad)

*Biostatistics (Graduate)**
Seminar in Biology (Capstone)
Principles of Biology II
*Desert Ecology **
*Field Zoology***

McNeese State University

Human Anatomy and Physiology + Lab†
Comparative Anatomy of the Vertebrates

Introductory Biology
*Animal Physiology***

Texas A&M-Commerce

*Biogeography and Biodiversity (Graduate)**

*Geospatial Mapping (GIS)***

The University of Texas at Arlington

Cellular & Molecular Biology
Structure & Function of Organisms
*Biology of Texas***
Introduction to Biology Non-Majors
Biostatistics
Cellular & Molecular Biology Lab†

Structure & Function of Organisms Lab†
Introduction to Biology Lab†
Comparative Vertebrate Anatomy Lab
Plant Science Lab
Human Anatomy and Physiology I Lab

The University of North Texas

Comparative Vertebrate Anatomy Lab

Richland College

Introductory Biology + Lab

** Developed Course ** Revised Course †Coordinator*

Current to 14 January 2024