

Emily N. Taylor, Ph.D.

Department of Biological Sciences
California Polytechnic State University
San Luis Obispo, CA 93407-0401
Phone: (805) 756-2616 Fax: (805) 756-1419

Email: etaylor@calpoly.edu
Webpage: <http://perl.calpoly.edu>

EDUCATION

Ph.D. (Biology)	2005	Arizona State University
B.A. (English)	1998	University of California, Berkeley

PROFESSIONAL EXPERIENCE

2016-present Professor, Biological Sciences, California Polytechnic State University
2010-present Co-author, *Biological Science* (Introductory Biology Majors Textbook), 5th and 6th editions, Pearson
2011-2016 Associate Professor, Biological Sciences, California Polytechnic State University
2005-2011 Assistant Professor, Biological Sciences, California Polytechnic State University
2004 Adjunct Professor, Phoenix College
2004 Human Anatomy and Physiology Laboratory Coordinator, Arizona State University
1999-2005 Teaching Assistant, Human Anatomy and Physiology and Animal Physiology, Arizona State University

HONORS AND AWARDS

2016 Meritorious Teaching Award in Herpetology, American Society of Ichthyologists and Herpetologists, Herpetologists League, Society for the Study of Amphibians and Reptiles
2012 Distinguished Teaching Award, California Polytechnic State University
2010 Distinguished Educator Award, California Faculty Association
2008 Professor of the Year, California Polytechnic State University Delta Delta Delta and Chi Omega
2004 Storer Award, American Society of Ichthyologists and Herpetologists (ASIH)
2004 Doctoral Candidate Distinguished Achievement Award, Faculty Women's Association, Arizona State University
2000 Graduate Research Fellowship, National Science Foundation

Emily N. Taylor, Ph.D.

GRANTS AND CONTRACTS

2016	Research, Scholarly, and Creative Activity Grant, California Polytechnic State University: \$11,134
2014	Bridges to the Baccalaureate Grant, National Institutes of Health: \$996K over 5 years
2013	United States Air Force: \$9K
2012	United States Air Force: \$10K
2008	Bridges to the Baccalaureate Grant, National Institutes of Health: \$950K over 5 years
2007, 08	Honors Program Research Grant, California Polytechnic State Univ.: \$4K each
2006, 08	State Faculty Support Grant, California Polytechnic State Univ.: \$5K each

PUBLICATIONS

1. **Taylor, E. N.**, and W. Booth. In press. Arizona rattlesnakes as model organisms for studies of reproductive physiology. In “Rattlesnakes of Arizona” (G.K. Schuett, R.S. Reiserer, C.F. Smith, eds.).
2. Heiken, K. H., G. A. Bruschi IV, S. Gartland, C. Escallón, I. T. Moore, **E. N. Taylor**. 2016. Effects of long distance translocation on corticosterone and testosterone levels in male rattlesnakes. *General and Comparative Endocrinology* 237:27-33.
3. Capehart, G. D., C. Escallón, B. J. Vernasco, I. T. Moore, **E. N. Taylor**. 2016. No drought about it: Effects of supplemental hydration on the ecology, behavior, and physiology of free-ranging rattlesnakes. *Journal of Arid Environments* 134:79e86.
4. Shea, T. K., P. M. Dubois, N. M. Claunch, N. E. Murphey, K. A. Rucker, R. A. Brewster, **E. N. Taylor**. 2016. Oxygen concentration affects upper thermal tolerance in a terrestrial vertebrate. *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 199:87-94.
5. Bruschi G. A. IV, **E. N. Taylor**, and S. M. Whitfield. 2016. Turn up the heat: thermal tolerances of lizards at La Selva, Costa Rica. *Oecologia* 180:325-334.
6. Pollock, N. B., E. Gawne, and **E. N. Taylor**. 2015. Effects of temperature on feeding duration, success, and efficiency of larval western black-legged ticks (Acari: Ixodidae) on western fence lizards. *Experimental and Applied Acarology* 66. DOI 10.1007/s10493-015-9950-z
7. Sparks, A., C. M. Lind, and **E. N. Taylor**. 2015. Diet of the Northern Pacific Rattlesnake (*Crotalus o. oreganus*) in California. *Herpetological Review* 46:161-165.
8. Holding, M. L., D. A. S. Owen, and **E. N. Taylor**. 2014. Evaluating the thermal effects of translocation in a large-bodied pitviper. *Journal of Experimental Zoology* 321:442-449.

Emily N. Taylor, Ph.D.

9. Holding, M. L., J. A. Frazier, S. W. Dorr, S. N. Henningsen, I. T. Moore, and **E. N. Taylor**. 2014. Physiological and behavioral effects of repeated handling and short-distance translocations on free-ranging Northern Pacific Rattlesnakes (*Crotalus oreganus oreganus*). *Journal of Herpetology* 48:233-239.
10. Holding, M. L., J. A. Frazier, S. W. Dorr, N. B. Pollock, P. J. Muelleman, A. Branske, S. N. Henningsen, C. Eikenaar, C. Escallón, C. E. Montgomery, I. T. Moore, and **E. N. Taylor**. 2014. Wet- and dry-season steroid hormone profiles and stress reactivity of an insular dwarf snake, the Hog Island Boa (*Boa constrictor imperator*). *Physiological and Biochemical Zoology* 87:363-373.
11. Putman, B. J., C. M. Lind, and **E. N. Taylor**. 2013. Does size matter? Testing the effects of body size and sex on spatial ecology parameters of Northern Pacific Rattlesnakes (*Crotalus oreganus oreganus*) in Central California. *Copeia* 2013:485-492.
12. Pittman, W., N. B. Pollock, and **E. N. Taylor**. 2013. Effect of host anemia on host choice and feeding rate of larval western black-legged ticks (*Ixodes pacificus*). *Experimental and Applied Acarology* 61:471-479.
13. Pollock, N. B., L. K. Vredevoe, and **E. N. Taylor**. 2012. The effect of exogenous testosterone on ectoparasite loads in free-ranging Western Fence Lizards. *Journal of Experimental Zoology* 317:447-454.
14. Pollock, N. B., L. K. Vredevoe, and **E. N. Taylor**. 2012. How do host sex and reproductive state affect host preference and feeding duration of ticks? *Parasitology Research* 111:897-907.
15. Holding, M. L., J. A. Frazier, **E. N. Taylor**, and C. Strand. 2012. Experimentally-altered navigational demands induce changes in the cortical forebrain of free-ranging Northern Pacific Rattlesnakes (*Crotalus o. oreganus*). *Brain, Behavior, and Evolution* 79:144-154.
16. Lumbad, A. S., L. K. Vredevoe, and **E. N. Taylor**. 2011. Season and sex of host affect intensities of ectoparasites in Western fence lizards (*Sceloporus occidentalis*) on the Central Coast of California. *Southwestern Naturalist* 56:369-377.
17. DeNardo, D. F. and **E. N. Taylor**. 2011. Hormones and reproduction in free-ranging snakes. In "Reproductive Biology and Phylogeny of Snakes" (D. M. Sever and R. D. Aldridge, eds.). Science Publishers, Inc. Pp. 265-287.
18. **Taylor, E. N.** and D. F. DeNardo. 2010. Hormones and reproductive cycles in snakes. In "Hormones and Reproduction of Vertebrates," Vol. 3 (D. O. Norris and K. H. Lopez, eds.). San Diego, Elsevier. Pp. 355-372.
19. Amarello, M., E. M. Nowak, **E. N. Taylor**, G. W. Schuett, R. A. Repp, P. C. Rosen, D. L. Hardy, Sr. 2010. Potential environmental influences on variation in body size and sexual size dimorphism among Arizona populations of the western diamond-backed rattlesnake (*Crotalus atrox*). *Journal of Arid Environments* 74:1443-1449.

Emily N. Taylor, Ph.D.

20. Lind, C. M., J. F. Husak, C. Eikenaar, I. Moore, and **E. N. Taylor**. 2010. The relationship between plasma steroid hormone concentrations and the reproductive cycle in the Northern Pacific rattlesnake, *Crotalus oreganus*. *General and Comparative Endocrinology* 166:590–599.
21. **Taylor, E. N.** and D. F. DeNardo. 2008. Proximate determinants of sexual size dimorphism in the Western Diamond-backed Rattlesnake (*Crotalus atrox*). *In*: W. K. Hayes, K. R. Beaman, M. D. Cardwell, and S. P. Bush (eds.) *Biology of Rattlesnakes*. Loma Linda Press, Loma Linda, California. Pp. 91–100.
22. Davis, J., **E. N. Taylor**, and D. F. DeNardo. 2008. An automated temperature-based option for estimating surface activity and refuge use patterns in free-ranging animals. *Journal of Arid Environments* 72:1414–1422.
23. John-Alder, H. B., R. M. Cox, and **E. N. Taylor**. 2007. Proximate developmental mediators of sexual dimorphism in size: case studies from squamate reptiles. *Integrative and Comparative Biology* 47:258–271.
24. Schuett, G. W., R. A. Repp, **E. N. Taylor**, D. F. DeNardo, R. L. Earley, E. A. Van Kirk, and W. J. Murdoch. 2006. Winter profile of plasma sex steroid levels in free-living male western diamond-backed rattlesnakes, *Crotalus atrox* (Serpentes: Viperidae). *General and Comparative Endocrinology* 149:72–80.
25. **Taylor, E. N.**, M. A. Malawy, D. M. Browning, S. V. Lemar, and D. F. DeNardo. 2005. Effects of food supplementation on the physiological ecology of female western diamond-backed rattlesnakes (*Crotalus atrox*). *Oecologia* 144:206–213.
26. **Taylor, E. N.** and D. F. DeNardo. 2005. Sexual size dimorphism and growth plasticity in snakes: an experiment on the Western Diamond-backed Rattlesnake (*Crotalus atrox*). *Journal of Experimental Zoology* 303A:598–607.
27. **Taylor, E. N.** and D. F. DeNardo. 2005. Reproductive ecology of Western Diamond-backed Rattlesnakes (*Crotalus atrox*) in the Sonoran Desert. *Copeia* 2005:152–158.
28. Schuett, G. W., **E. N. Taylor**, E. A. Van Kirk, and W. J. Murdoch. 2004. Handling stress and plasma corticosterone levels in captive male Western Diamond-backed Rattlesnakes (*Crotalus atrox*). *Herpetological Review* 35:229–233.
29. **Taylor, E. N.**, D. F. DeNardo, and D. H. Jennings. 2004. Seasonal steroid hormone levels and their relation to reproduction in the Western Diamond-backed Rattlesnake, *Crotalus atrox* (Serpentes: Viperidae). *General and Comparative Endocrinology* 136:328–337.
30. **Taylor, E. N.**, D. F. DeNardo, and M. A. Malawy. 2004. A comparison between point- and semi-continuous sampling for assessing body temperature in a free-ranging ectotherm. *Journal of Thermal Biology* 29:91–96.
31. **Taylor, E. N.** and G. W. Schuett. 2004. Effects of temperature and storage duration on the stability of steroid hormones in blood samples from Western Diamond-backed Rattlesnakes. *Herpetological Review* 35:14–17.

Emily N. Taylor, Ph.D.

32. Lourdais, O., X. Bonnet, R. Shine and **E. N. Taylor**. 2003. When does a reproducing female viper (*Vipera aspis*) "decide" on her litter size? *Journal of Zoology London* 259:123–129.
33. **Taylor, E. N.** 2001. Diet of the Baja California rattlesnake, *Crotalus enyo* (Viperidae). *Copeia* 2001:552–554.

PRESENTATIONS AT SCIENTIFIC MEETINGS

- 2016 What's behind the critical thermal maximum? Joint Meeting of Ichthyologists and Herpetologists, New Orleans, Louisiana.
- 2014 Lizard vs. spirochete smackdown: fat females take the bactericidal title. Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, Tennessee
- 2014 Is translocation stressful to rattlesnakes? Biology of the Pitvipers, Tulsa, Oklahoma.
- 2014 Is translocation stressful to nuisance rattlesnakes? The Wildlife Society Western Regional Conference, Reno, Nevada.
- 2013 Is translocation stressful to nuisance rattlesnakes? 6th Snake Ecology Group Meeting, Okinawa, Japan.
- 2012 Tracking rattlesnakes on Vandenberg Air Force Base: What do the snakes do, and what should we do about them? The Wildlife Society, Portland, Oregon.
- 2012 Snakes on the juice: Effects of testosterone on the spatial ecology of rattlesnakes. 7th World Congress of Herpetology, Vancouver, British Columbia.
- 2011 Sex differences in rattlesnake spatial ecology: it's all in the mind. Biology of the Rattlesnakes Symposium, Tucson, Arizona.
- 2010 Effect of testosterone on the bactericidal properties of lizard blood. Joint Meeting of Ichthyologists and Herpetologists, Providence, Rhode Island.
- 2009 Hormones and reproduction in free-living snakes. Invited talk in Reproductive Biology of the Ophidia Symposium. Joint Meeting of Ichthyologists and Herpetologists, Portland, Oregon.
- 2008 Annual body temperature profiles of free-ranging male Northern Pacific rattlesnakes (*Crotalus o. oreganus*). Joint Meeting of Ichthyologists and Herpetologists, Montreal, Canada.
- 2007 Testosterone is responsible for sexual size dimorphism in *Sceloporus* lizards. Joint Meeting of Ichthyologists and Herpetologists, St. Louis, Missouri.
- 2006 Effects of castration on body fat, growth rate, and home range size in free-ranging male rattlesnakes. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, Louisiana.

Emily N. Taylor, Ph.D.

- 2005 Effects of testosterone on growth, body composition, and home range size in male Western Diamond-backed Rattlesnakes (*Crotalus atrox*). Current Research on the Herpetofauna of the Sonoran Desert III, Phoenix, Arizona.
- 2005 Why are male rattlesnakes larger than females? Biology of the Rattlesnakes Symposium, Loma Linda, California.
- 2005 Why are male rattlesnakes larger than females? Society for Integrative and Comparative Biology, San Diego, California.
- 2004 Why are male rattlesnakes larger than females? Joint Meeting of Ichthyologists and Herpetologists, Norman, Oklahoma.
- 2004 Reproductive ecology of the Western Diamond-backed Rattlesnake in the Sonoran Desert. Joint Meeting of Ichthyologists and Herpetologists, Norman, Oklahoma.
- 2004 Effects of food supplementation on the reproductive ecology of female Western Diamond-backed Rattlesnakes. Society for Integrative and Comparative Biology, New Orleans, Louisiana.
- 2004 A comparison between point- and semi-continuous sampling for assessing body temperature in a free-ranging ectotherm. Society for Integrative and Comparative Biology, New Orleans, Louisiana.
- 2003 Effects of food supplementation on the physiology and behavior of female Western Diamond-backed Rattlesnakes (*Crotalus atrox*). Joint Meeting of Ichthyologists and Herpetologists, Manaus, Brazil.
- 2003 Is testosterone involved in the sexual size dimorphism of the Western Diamond-backed Rattlesnake (*Crotalus atrox*)? Joint Meeting of Ichthyologists and Herpetologists, Manaus, Brazil.
- 2002 Seasonal steroid hormone profiles of wild female Western Diamond-backed Rattlesnakes (*Crotalus atrox*). Joint Meeting of Ichthyologists and Herpetologists, Kansas City, Missouri.
- 2002 Growth plasticity of juvenile Western Diamond-backed Rattlesnakes (*Crotalus atrox*). Joint Meeting of Ichthyologists and Herpetologists, Kansas City, Missouri.
- 2002 Seasonal steroid hormone profiles of wild female Western Diamond-backed Rattlesnakes (*Crotalus atrox*). Current Research on the Herpetofauna of the Sonoran Desert II, Tucson, Arizona.
- 2002 Growth plasticity of juvenile Western Diamond-backed Rattlesnakes (*Crotalus atrox*). Current Research on the Herpetofauna of the Sonoran Desert II, Tucson, Arizona.
- 2002 Growth of juvenile Western Diamond-backed Rattlesnakes (*Crotalus atrox*) raised on different diets. Society for Integrative and Comparative Biology, Anaheim, California.
- 2001 Effects of storage time and temperature on the stability of steroid hormones in blood samples from a reptile. Society for Behavioral Neuroendocrinology, Scottsdale, Arizona.

Emily N. Taylor, Ph.D.

- 2000 Diet of the Baja California rattlesnake, *Crotalus enyo*. Biology of the Vipers, Uppsala, Sweden.
- 1999 Diet and reproductive biology of the Baja California rattlesnake, *Crotalus enyo*. Joint Meeting of Ichthyologists and Herpetologists, State College, Pennsylvania.

INVITED SEMINARS

- 2016 San Diego State University
- 2015 The Ohio State University (undergraduate Ecology and Evolution Club)
- 2014 University of Texas, Tyler
- 2013 University of Tulsa, Oklahoma
- 2013 Southeastern Louisiana University, Hammond, Louisiana
- 2012 RAMs (Retired Active Men), San Luis Obispo, California
- 2011, 12 Cal Poly Pride Week, San Luis Obispo, California
- 2011 Desert Tortoise Council, Las Vegas, Nevada
- 2010 Central Coast Biological Society, San Luis Obispo, California
- 2010 20th Western Regional LGBTQIA College Conference, Cal Poly, San Luis Obispo, California
- 2009 California State University, Fresno
- 2009 Morro Coast Audubon Society, San Luis Obispo, California
- 2008 Truman State University, Kirksville, Missouri
- 2007 California State University, Long Beach
- 2006, 08 Southwestern Herpetologists Society. Van Nuys, California
- 2006 California State University, Northridge
- 2005 Chicago Herpetological Society. Chicago, Illinois
- 2004 Arizona State University West Capstone seminar, Phoenix, Arizona
- 2004 Tucson Herpetological Society, Arizona
- 2004 National Association of Graduate and Professional Students Western Regional Conference, Tempe, Arizona.
- 2003 National Conference on Graduate Student Leadership, St. Louis, Missouri.

Emily N. Taylor, Ph.D.

UNIVERSITY SERVICE

- 2014-15 Learn by Doing Award Committee, Cal Poly
- 2011-present Graduate Coordinator, Biological Sciences, Cal Poly
- 2006-present Curator of Herpetology Collections, Cal Poly
- 2005-present Health Professions Resource Committee, Cal Poly
- 2005-2016 Faculty Advisor, American Medical Student Association, Cal Poly Chapter
- 2009-2014 College Representative, Commencement Committee, Cal Poly
- 2008-2011 Graduate Program Committee, Biological Sciences, Cal Poly
- 2008-09 Institutional Animal Care and Use Committee (IACUC), Cal Poly

PROFESSIONAL SERVICE

- 2015-18 Johnson Award Committee, American Society of Ichthyologists and Herpetologists
- 2014-19 Governor, Society for the Study of Amphibians and Reptiles
- 2014 Chair, Stoye and Storer Award Committee, American Society of Ichthyologists and Herpetologists
- 2012, 2016 Chair, Resolutions Committee, American Society of Ichthyologists and Herpetologists
- 2011-2013, 2016 Co-organizer and Instructor, Southwestern Research Station Herpetology Course, Portal, Arizona
- 2011-2012 Nominating Committee, American Society of Ichthyologists and Herpetologists
- 2009-2014 Governor, American Society of Ichthyologists and Herpetologists
- 2009-2011 Gaige Award Committee, American Society of Ichthyologists and Herpetologists
- 2009 Unit Advisor for Unit 8 of *Biological Sciences* by S. Freeman, published by Pearson/Benjamin Cummings
- 2009, 2016 Judge, Seibert Student Award, Society for the Study of Amphibians and Reptiles
- 2008, 2012, 2015, 2016 Judge, Stoye/Storer Award Committee, American Society of Ichthyologists and Herpetologists
- 2007-2012 Associate Editor, Herpetological Review, published by the Society for the Study of Amphibians and Reptiles
- 2005 Program Co-chair, 3rd Current Research on the Herpetofauna of the Sonoran Desert Conference (CRHSDIII)

Emily N. Taylor, Ph.D.

GRADUATE STUDENTS

1. Luis Burgos: M.S. expected 2018
2. Hayley Crowell: M.S. expected 2018
3. Michael DeLea: M.S. expected 2016 “Rattlesnakes use chemoreception for navigation and orientation.”
4. Natalie Claunch, M.S. 2016 “Stress ecology of rattlesnakes”
5. Griffin Capehart, M.S. 2015 “Effect of hydration on the biology of rattlesnakes.”
6. Kyle Weichert: M.S. 2015 “Effects of physiological condition on the borreliacidal capacity of the blood of Western Fence Lizards (*Sceloporus occidentalis*).”
7. Michael Maples: M.S. 2015 “Pesticides inhibit adaptive plasticity in treefrogs.”
8. Kory Heiken: M.S. 2013 “Effects of long-distance translocation on stress reactivity in the Northern Pacific Rattlesnake (*Crotalus o. oreganus*).”
9. Julius A. Frazier: M.S. 2012 “Effects of testosterone on the spatial ecology and neuroanatomy of Northern Pacific Rattlesnakes (*Crotalus o. oreganus*).”
10. Matthew L. Holding: M.S. 2011 “Short-distance translocation of the Northern Pacific Rattlesnake (*Crotalus o. oreganus*): Effects on volume and neurogenesis in the cortical forebrain, steroid hormone concentrations, and behaviors.”
11. Nicholas B. Pollock: M.S. 2011 “Factors influencing ectoparasitism on Western Fence Lizards (*Sceloporus occidentalis*): Host sex, testosterone, reproductive condition, and behavior.”
12. Craig M. Lind: M.S. 2009 “The relationship between seasonal steroid hormone concentrations and the reproductive cycle in the Northern Pacific Rattlesnake, *Crotalus oreganus*.”