

JESSICA L. TINGLE  
CURRICULUM VITAE  
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## EDUCATION

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- PhD University of California, Riverside** *expected 9/2021*
- Evolution, Ecology, and Organismal Biology
  - Advisor: Theodore Garland, Jr.
  - Evolution and biomechanics of specialized locomotion in snakes
- B.S. Cornell University** 5/2012
- Major in Biological Sciences, minor in Latin American Studies
  - Cum Laude and Distinction in Research

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## PEER-REVIEWED PUBLICATIONS

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- Rieser, J.M., Li, T-D., **Tingle, J.L.**, Goldman, D.I., and J.R. Mendelson III. 2021. Functional consequences of convergently-evolved microscopic skin features on snake locomotion. *Proceedings of the National Academy of Sciences*. DOI: 10.1073/pnas.2018264118
- Tingle, J.L.** and T. Garland, Jr. 2021. Morphological evolution in relationship to sidewinding, arboreality, and precipitation in snakes of the family Viperidae. *Biological Journal of the Linnean Society*. 132(2):328-345. DOI: 10.1093/biolinnean/blaa208.
- Tingle, J.L.** 2020. Facultatively sidewinding snakes and the origins of locomotor specialization. *Integrative and Comparative Biology* 60(1):202-214. DOI: 10.1093/icb/icaa011.
- Tingle, J.L.**, G.E.A. Gartner, B.C. Jayne, and T. Garland, Jr. 2017. Ecological and phylogenetic variability in the in the spinalis muscle of snakes. *Journal of Evolutionary Biology* 30(11):2031-2043. DOI: 10.1111/jeb.13173.
- Tingle, J.L.** and T. Slimani. 2017. Modern Moroccan snake charming. *Journal of North African Studies* 22(4):560-577. DOI 10.1080/13629387.2017.1296357.
- Tingle, J.L.**, S.C. Cook-Patton, and A.A. Agrawal. 2016. Spillover of a biological control agent (*Chrysolina quadrigemina*) onto native St. Johnswort (*Hypericum punctatum*). *PeerJ* 4:e1886; DOI 10.7717/peerj.1886
- Tingle, J.L.** 2012. Field observations on the behavioral ecology of the Madagascan leaf-nosed snake, *Langaha madagascariensis*. *Herpetological Conservation and Biology* 7:442-448.

## INVITED ARTICLES

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**Tingle, J.L.** 2020. Cultivating inclusive communities in taxon-focused societies. *Herpetological Review* 51(3):663-665.

**Tingle, J.L.** 2013. Developing an undergraduate herpetology club at Cornell University. *Herpetological Review* 44(2):185-187.

## FELLOWSHIPS

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<b>Dissertation Year Fellowship, \$7,200</b> University of California, Riverside	2019
<b>Graduate Research Fellowship, \$138,000</b> National Science Foundation	2015–2020
<b>Chancellor’s Distinguished Fellowship, \$25,000</b> University of California, Riverside	2015–2016
<b>Fulbright Scholarship (Morocco), \$15,220</b> U.S. Department of State	2014
<b>Critical Language Enhancement Award (Arabic), \$7,600</b> U.S. Department of State	2013–2014
<b>Hughes Scholars Program, \$2,000</b> Howard Hughes Medical Institute	2010

## RESEARCH GRANTS

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<b>Spieth Memorial Graduate Award in Biology, \$1,000</b> UC Riverside Department of Evolution, Ecology, and Organismal Biology	2019
<b>Graduate Dean’s Dissertation Research Grant, \$800</b> UC Riverside Graduate Division	2019
<b>E.E. Williams Research Grant, \$1,000</b> Herpetologists’ League	2018
<b>Vaughan H. Shoemaker Graduate Fellowship, \$750</b> UC Riverside Department of Evolution, Ecology, and Organismal Biology	2017
<b>Fellowship for Graduate Student Travel, \$1,400</b> Society for Integrative and Comparative Biology	2017

## HONORS AND AWARDS

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<b>Outstanding Teaching Assistant Award</b>	2019/2020
<ul style="list-style-type: none"><li>• Annual award given by UC Riverside Graduate Division to recognize teaching assistants who have demonstrated exceptional teaching skills</li></ul>	2017/2018
<b>James and Margaret Lesley Annual Prize, \$675</b>	1/2020
<ul style="list-style-type: none"><li>• Award for research in UCR's College of Natural and Agricultural Sciences</li></ul>	
<b>First place, Grad Slam Finalists at UCR Palm Desert, \$500</b>	4/2019
<ul style="list-style-type: none"><li>• Competition where UCR Grad Slam finalists present their research in three minutes or less to an audience at UCR's Palm Desert campus</li></ul>	
<b>Second runner up, Grad Slam Finals, \$1,000</b>	3/2019
<ul style="list-style-type: none"><li>• Competition where &gt; 50 UCR grad students in all disciplines present their research in three minutes or less to judges from outside their field</li></ul>	
<b>James Merrill and Adeline Wallace Annual Prize, \$2,000</b>	2/2019
<ul style="list-style-type: none"><li>• Award for research in UCR's College of Natural and Agricultural Sciences</li></ul>	
<b>First place, Science Slam, \$500</b>	11/2018
<ul style="list-style-type: none"><li>• Competition where graduate students in UCR's College of Natural and Agricultural Sciences present their research in five minutes or less</li></ul>	
<b>First runner up, Herpetologists' League Graduate Research Award, \$250</b>	7/2018
<ul style="list-style-type: none"><li>• Award for student research presentations at the annual Joint Meeting of Ichthyologists and Herpetologists</li></ul>	
<b>First place (tie), GradFest Student Presentation Competition, \$50</b>	3/2018
<ul style="list-style-type: none"><li>• Student presentation competition at UCR's Department of Evolution, Ecology, and Organismal Biology graduate student recruitment weekend</li></ul>	
<b>First place, Southwest Herp Fest Student Competition, \$75</b>	2/2017
<ul style="list-style-type: none"><li>• Student presentation competition at a regional herpetology conference</li></ul>	

## INVITED TALKS

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**California Academy of Sciences:** *Unravelling the sidewinder's secrets through biomechanics and evolution.* (March 2021; virtual)

**Symposium, Society for Integrative and Comparative Biology:** *Prevalence of facultative sidewinding locomotion in non-specialist snake species.* (January 2020; Austin, Texas)

**Southwestern Herpetologist's Society:** *Evolution and biomechanics of sidewinding locomotion* (April 2018; Pasadena, California)

## SELECTED CONFERENCE PRESENTATIONS

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- Oral presentation at the Society for Integrative and Comparative Biology annual meeting:** *Morphological evolution in relation to sidewinding, arboreality, and precipitation in snakes of the family Viperidae.* (January 2021; virtual conference)
- Poster presentation at the Joint Meeting of Ichthyologists and Herpetologists:** *What determines vertebral count in snakes?* (July 2019; Snowbird, Utah)
- Oral presentation at the Society for Integrative and Comparative Biology annual meeting:** *Body size and shape influence kinematics of sidewinding locomotion in the rattlesnake *Crotalus cerastes** (January 2019; Tampa, Florida)
- Oral presentation at the Southwestern Organismal Biology regional meeting:** *Scaling of morphology and locomotion in sidewinder rattlesnakes* (November 2018; San Marcos, California)
- Oral presentation at the Joint Meeting of Ichthyologists and Herpetologists:** *Scaling of morphology and locomotion in the sidewinder rattlesnake, *Crotalus cerastes** (July 2018; Rochester, New York)
- Oral presentation at the Society for Integrative and Comparative Biology annual meeting:** *Effects of body size and morphology on sidewinding kinematics in the rattlesnake *Crotalus cerastes** (January 2018; San Francisco, California)
- Oral presentation at the Joint Meeting of Ichthyologists and Herpetologists:** *Morphological correlates of locomotor specialization in vipers* (July 2017; Austin, Texas)
- Oral presentation at Southwest Herp Fest:** *Morphological correlates of locomotor specialization in vipers* (February 2017; Riverside, CA)
- Poster presentation at the Society for Integrative and Comparative Biology annual meeting:** *Morphological correlates of sidewinding locomotion in vipers* (January 2017; New Orleans, Louisiana; featured in the blog *Better Posters*)
- Oral presentation at the Southwestern Organismal Biology regional meeting:** *Morphological correlates of locomotor specialization in vipers* (November 2016; Fullerton, California)
- Oral presentation at the Society for the Study of Amphibians and Reptiles meeting:** *Moroccan snake charming* (July 2015; Lawrence, Kansas)
- Oral presentation at the Moroccan Studies Symposium:** *Relating human activities and environmental science: A case study of snake charming in Morocco* (May 2014; Rabat, Morocco)
- Oral presentation at the Fulbright MENA Regional Seminar:** *The relationship between people and reptiles in Morocco* (February 2014; Amman, Jordan)

**Poster presentation at the Joint Meeting of Ichthyologists and Herpetologists: *Behavioral ecology of the Madagascar leaf-nosed snake* (July 2011; Minneapolis, Minnesota)**

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## TEACHING AND MENTORSHIP

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### TEACHING EXPERIENCE

- Facilitator for the GradEdge/JumpStart NSF GRFP Workshop Series** summer 2020  
University of California, Riverside; Graduate Writing Center summer 2021
- Non-credit eight-week fellowship writing program for incoming graduate students; two sections per week
- TA for BIOL 005B: Introduction to Organismal Biology** spring 2020  
University of California, Riverside
- Two labs per week, online due to COVID-19
- TA for BIOL 161A & 161B: Functional Anatomy of the Vertebrates** winter 2020  
University of California, Riverside fall 2018
- Four discussion sections per week fall 2017
- TA for BIOL 163: Evolutionary Ecology of the Terrestrial Vertebrates** fall 2019  
University of California, Riverside
- One lab section and one field trip per week, including two overnight field trips
- Guest Seminar Facilitator for EEOB 210: Organismal Biology** spring 2018  
University of California, Riverside
- Graduate seminar; facilitated two separate discussions
- Guest Lecturer for BIOL 005B: Introduction to Organismal Biology** spring 2017  
University of California, Riverside
- Lecture: “Muscles and Movement Part 1: Animal Locomotion”

### TRAINING/CERTIFICATIONS

- Certified Master Tutor, Level III** 2020  
College Reading & Learning Association International Tutor Training Program
- University Teaching Certificate Program** 1–6/2019  
University of California, Riverside
- Highly selective, intensive program where participants learn student-centered techniques, design active learning exercises, and deliver presentations on evidence-based practices in pedagogy

<b>Graduate Student Diversity Certificate Program</b>	3–6/2018
University of California, Riverside	
<ul style="list-style-type: none"> <li>● Weekly three-hour workshop where participants learn and implement practices to promote equity and inclusiveness in the classroom and at the institutional level</li> </ul>	
<b>BIOL 301: Teaching Biology at the College Level</b>	9–12/2017
University of California, Riverside	
<ul style="list-style-type: none"> <li>● Graduate level course to increase TA effectiveness in life sciences</li> </ul>	
<b>Teaching Development Day</b>	5/2017
University of California, Riverside	
<ul style="list-style-type: none"> <li>● One-day series of workshops exploring various topics in pedagogy</li> </ul>	
<b>ENTOM 3350: Naturalist Outreach Practicum</b>	1–5/2012
Cornell University	
<ul style="list-style-type: none"> <li>● Upper-level undergraduate course on effective practices in informal science education, requiring at minimum seven K-12 classroom visits</li> </ul>	
 <i>MENTORSHIP AND SUPPORT ROLES</i>	
<b>STEM Coordinator, Graduate Student Mentorship Program</b>	8/2020–
University of California, Riverside	
<ul style="list-style-type: none"> <li>● Designs mentorship programming to enhance first year graduate student retention and success efforts across departments</li> </ul>	
<b>Mentor, EEB Mentor Match</b>	10/2020–
Administered by Samniqueka Halsey and Terry McGlynn	
<ul style="list-style-type: none"> <li>● Participated in a program designed to help students in marginalized groups gain admission to and fellowships for graduate school</li> </ul>	
<b>Mentor for undergraduate and high school research assistants</b>	1/2017–
University of California, Riverside	
<ul style="list-style-type: none"> <li>● Mentored several undergraduate and high school students in biomechanics research; helped some mentees apply to fellowships (e.g. the NSF GRFP) and college or graduate programs</li> </ul>	
<b>Consultant, Graduate Writing Center</b>	9/2019–
University of California, Riverside	
<b>Presenter, Graduate Writing Center Workshop: “Applying for Fellowships”</b>	5/2020
University of California, Riverside	
<b>Invited speaker, Physics Organization for Womxn and the Under-Represented</b>	3/2020
UC Riverside Physics Department	
<ul style="list-style-type: none"> <li>● Talk: “Broadening participation in STEM by reducing stereotype threat”</li> </ul>	

<b>Presenter, Graduate Writing Center Workshop: “Writing Concisely”</b> University of California, Riverside	1/2020
<b>Mentor, SICB Broadening Participation Mentorship Program</b> Society for Integrative and Comparative Biology annual meeting	1/2020
<ul style="list-style-type: none"> <li>● Mentored an undergraduate before, during, and after the conference</li> </ul>	
<b>Mentor, JMIH Mentorship Program</b> Joint Meeting of Ichthyologists and Herpetologists	7/2019
<ul style="list-style-type: none"> <li>● Helped expand the mentorship program to triple its previous size</li> <li>● Mentored a master’s student; maintained mentorship relationship after the conference to help navigate the PhD application process</li> </ul>	
<b>Invited speaker, Graduate Student Diversity Certificate Program</b> University of California, Riverside	5/2019
<ul style="list-style-type: none"> <li>● Talk: “Mitigating stereotype threat through growth mindsets”</li> </ul>	
<b>Presenter, Teaching Development Day</b> University of California, Riverside	5/2019
<ul style="list-style-type: none"> <li>● Talk: “Mitigating stereotype threat through growth mindsets”</li> </ul>	
<b>Panelist, STEM TA Roundtable</b> University of California, Riverside	4/2019
<b>Panelist, Grant Writing Workshop for EEOB 265: “Lunch Bunch”</b> University of California, Riverside	4/2016
<b>Science Surprises Part-Time Educator</b> Ithaca Science Center	2–6/2013
<ul style="list-style-type: none"> <li>● Provided an after-school enrichment program to elementary-aged children by preparing and delivering inquiry-based science activities at local schools</li> </ul>	

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**PROFESSIONAL LEADERSHIP AND SERVICE**

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<b>Co-Chair, Diversity, Equity, and Inclusion Committee</b> Society for the Study of Amphibians and Reptiles	6/2020–present
<b>Symposium organizer:</b> <b>“Diversity, Equity, and Inclusion in Ichthyology and Herpetology”</b> Joint Meeting of Ichthyologists and Herpetologists	7/2022 (postponed from 2020 due to COVID-19)
<ul style="list-style-type: none"> <li>● Co-wrote a funded NSF proposal (award #2016872) to secure additional support</li> </ul>	
<b>Website Coordinator</b> Society for the Study of Amphibians and Reptiles	7/2019–present

<b>Member, Long-Range Planning Committee</b> Society for the Study of Amphibians and Reptiles	3/2019–present
<b>Chair, Student Participation Committee</b> Society for the Study of Amphibians and Reptiles	7/2018–6/2021
<b>Graduate student representative, faculty hiring committee</b> University of California, Riverside	7/2017–2/2018
<b>Peer Reviewer</b>	
<ul style="list-style-type: none"> <li>● Behavioral Ecology</li> <li>● Bioinspiration &amp; Biomimetics</li> <li>● BMC Evolutionary Biology</li> <li>● Herpetological Review</li> </ul>	

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### PROFESSIONAL DEVELOPMENT

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<b>Evolutionary Quantitative Genetics Workshop</b> Friday Harbor Labs	June 3–9, 2018
<ul style="list-style-type: none"> <li>● Organized by Stevan Arnold and Joe Felsenstein</li> </ul>	
<b>Workshop: Natural History and Morphology – Engines of Inspiration</b> Joint Meeting of Ichthyologists and Herpetologists	July 15, 2017
<ul style="list-style-type: none"> <li>● Organized by Stephanie Crofts and Adam Summers</li> </ul>	
<b>Short course: Analysis of Diversification Rates from Phylogenies</b> Oregon State University	June 22–23, 2017
<ul style="list-style-type: none"> <li>● Organized by Dan Rabosky and Brian Sidlauskas</li> </ul>	

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### EDUCATIONAL OUTREACH

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<b>Science Ambassador Program</b> University of California, Riverside	5/2021
<ul style="list-style-type: none"> <li>● Presented research and discussed career trajectory at a meeting of UCR’s undergraduate Science Ambassador Program</li> </ul>	
<b>Success in Science and Technology: Engagement with Role Models (SISTERS)</b> University of California, Riverside	4/2021
<ul style="list-style-type: none"> <li>● Facilitated a meeting for the SISTERS program, which serves middle-school girls who will be first-generation high-school or college graduates</li> </ul>	
<b>STEAM Storytime at the Riverside Public Library</b>	2/2020
<ul style="list-style-type: none"> <li>● Taught pre-K through elementary school students about reptiles with a story, live animals, and hands-on activities</li> </ul>	
	5/2018



<b>UC Riverside science event</b>	6/2019
<ul style="list-style-type: none"> <li>Hosted a booth to teach ~90 second-graders about snake biology</li> </ul>	
<b>Science fair judging</b>	2/2019
Riverside Unified School District and St. Catherine of Alexandria, Riverside, CA	1/2019
<ul style="list-style-type: none"> <li>Scored science fair posters and project reports. Provided detailed feedback regarding ways students could improve experimental design and analysis</li> </ul>	
<b>Society for Integrative and Comparative Biology outreach event: What is a scientist?</b>	1/2019
Stewart Magnet Middle School, Tampa, FL	
<ul style="list-style-type: none"> <li>Familiarized students in two classes with general goals and specific activities of scientists, then led a miniature research project</li> </ul>	
<b>Herpetology Hotline Responder</b>	9/2017– 8/2019
<ul style="list-style-type: none"> <li>Answered 155 questions via the Society for the Study of Amphibians and Reptiles online hotline, which is accessible to the general public</li> </ul>	
<b>Animal adaptations presentation</b>	5/2018
Columbia Elementary School, Perris, CA	3/2017
<ul style="list-style-type: none"> <li>Taught elementary school students (eleven classes total on three visits) about animal adaptations using hand-on activities</li> </ul>	12/2016
<b>Reptiles outreach at after-school science club</b>	3/2018
REACH Leadership Academy, Riverside, CA	11/2016
<ul style="list-style-type: none"> <li>Used live animals to instill knowledge of and appreciation for reptiles in elementary school students</li> </ul>	
<b>Science Olympiad mentorship</b>	12/2017–
On-campus at the University of California, Riverside	2/2018
<ul style="list-style-type: none"> <li>Led workshops to prepare high school students for the Science Olympiad</li> </ul>	
<b>Upward Bound Math and Science Program</b>	4/2017
Vista del Lago High School, Moreno Valley, CA	
<ul style="list-style-type: none"> <li>Discussed academic opportunities and science careers with low-income high school students</li> </ul>	
<b>UC Riverside Science Day</b>	2/2017
<ul style="list-style-type: none"> <li>Led activities for ~200 fourth-grade students to learn about animal diversity and adaptation</li> </ul>	
<b>Video: “Reptiles: Diversity, Feeding, Defense”</b>	2012
<ul style="list-style-type: none"> <li>Developed and presented educational video with a fellow student as part of the Cornell University Naturalist Outreach Program</li> <li><a href="http://www.cornell.edu/video/naturalist-outreach-reptiles---diversity-feeding--defense">http://www.cornell.edu/video/naturalist-outreach-reptiles---diversity-feeding--defense</a></li> </ul>	

- Educational pamphlet: “Basic Biology of Reptiles & Amphibians”** 2012
- Developed educational pamphlet with a fellow student as part of the Cornell University Naturalist Outreach Program
  - <http://calscomm.cals.cornell.edu/naturalist/Naturalist-Outreach-Reptile-diversity-feeding-defense.pdf>
- Cornell Herpetological Society** 3/2009–5/2012
- Conducted dozens of educational outreach events for undergraduates, elementary school students, and community members in and around Ithaca, NY

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### LANGUAGES

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**English** – native speaker

**Spanish** – fluency in the written and spoken language

**French** – advanced level of proficiency in the written and spoken language

**Portuguese** – advanced level of proficiency in the written and spoken language

**Arabic (Moroccan Colloquial)** – conversational proficiency

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### PROFESSIONAL SOCIETY MEMBERSHIP

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Society for Integrative and Comparative Biology (SICB)

Society for the Study of Amphibians and Reptiles (SSAR)

American Society for Ichthyologists and Herpetologists (ASIH)