

Richard K Simpson, PhD

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ACADEMIC POSITIONS

2020-Present **Sessional Instructor**; *Department of Integrative Biology, University of Windsor, Windsor, ON, Canada*

2018-Present **Post-doctoral Fellow**; *Department of Integrative Biology, University of Windsor, Windsor, ON, Canada*

EDUCATION

2018 **PhD, Animal Behavior**; *Arizona State University, Tempe, AZ, USA*
Advisor: Dr. Kevin McGraw

2012 **BSc, Biology with honors**; *Trinity University, San Antonio, TX, USA*
Advisor: Dr. Troy Murphy

SUMMARY

18 peer-reviewed publications; *h*-index = **6**; **150** citations since 2015
5 invited presentations; **27** conference presentations
21 students mentored: **1** MSc, **20** undergraduate (**18** from underrepresented groups)
2 courses taught as instructor; **4** workshops led; **15** courses taught at teaching assistant

Research Interests:

I am an evolutionary and behavioral ecologist that uses a combination of field work, museum studies, and microscopy to study the diversity and evolution of animal communication by exploring interactions between animal signals, the environment, and natural history traits.

PEER-REVIEWED PUBLICATIONS

* indicates student mentee coauthors

Published

18. **Simpson RK**, Wilson DR, Mistakidis AF, Mennill DJ, Doucet SM. (2021) Sympatry drives sexual signal divergence in wood-warblers (Parulidae). *In Press at Proceedings of the Royal Society, B*.

17. Gayk ZG, **Simpson RK**, Mennill DJ. (2021) The evolution of wood warbler flight calls: species with similar migrations produce acoustically similar calls. *In Press at Evolution*
16. Sepp T, Webb E, **Simpson RK**, Giraudeau M, McGraw KJ, Hutton P. (2021) Light at night reduced digestive efficiency of developing birds: an experiment with king quail. *In Press at The Science of Nature*.
15. Reed S*, **Simpson RK**, McGraw KJ. (2020) Feather morphological predictors of angle-dependent color changes in parrot plumage. *Avian Biology Research*, 13: 108-117. <https://doi.org/10.1177/1758155920963198>
14. McGraw KJ, Chou K*, Bridge A*, McGraw HC*, McGraw PR*, **Simpson RK**. (2020) Body condition and poxvirus infection predict circulating glucose levels in a colorful songbird that inhabits urban and rural environments. *Journal of Experimental Zoology, A*, 333: 561-568. <https://doi.org/10.1002/jez.2391>
13. Demko AD, Sosa-Lopez JR, **Simpson RK**, Doucet, SM Mennill, DJ. (2020) Divergence in plumage, voice, and morphology indicates speciation in Rufous-capped Warblers (*Basileuterus rufifrons*). *Auk*, 137: 1-20. <https://doi.org/10.1093/auk/ukaa029>
12. **Simpson RK**, Mistakidis AF, Doucet SM. (2020) Natural and sexual selection shape the evolution of color and conspicuousness in North American wood-warblers (Parulidae). *Biological Journal of the Linnean Society*, 130: 89-100. <https://doi.org/10.1093/biolinnean/blaa015>
11. **Simpson RK** & McGraw KJ. (2019) Interspecific covariation in courtship displays, iridescent plumage, solar orientation, and their interactions in hummingbirds. *The American Naturalist*, 184: 441-454. <https://doi.org/10.1086/704774>
Media Coverage: [ASU Now](#)
10. **Saini C***, Hutton P, Gao S, **Simpson RK**, Giraudeau M, Sepp T, Webb E, McGraw KJ. (2019). Exposure to artificial light at night increases innate immunity during development in a precocial bird. *Journal of Comparative Biochemistry and Physiology A*. 233: 84-88. <https://doi.org/10.1016/j.cbpa.2019.04.002>
9. **Simpson RK** & McGraw KJ. (2019) Experimental trait mis-matches uncover specificity of evolutionary links between multiple signaling traits and their interactions in hummingbirds. *Evolution*, 73: 436-451. <https://doi.org/10.1111/evo.13662>
Media Coverage: [Evolution Digest](#)
8. **Simpson RK** & McGraw KJ. (2018) It's not just what you have but how you use it: solar-positional and behavioral effects on hummingbird color appearance during courtship. *Ecology Letters*, 21: 1413-1422. <https://doi.org/10.1111/ele.13125>
Media Coverage: [Science](#) ([Science video](#)), [Forbes](#)

7. **Simpson RK** & McGraw KJ. (2018) Multiple signaling in a variable environment: expression of song and color traits as a function of ambient sound and light. *Biotropica*, 50: 531-540. <https://doi.org/10.1111/btp.12528>
6. **Simpson RK** & McGraw KJ. (2018) Two ways to display: male broad-tailed hummingbirds exhibit different dynamic color tactics based on sun orientation. *Behavioral Ecology*, 29: 637-648. <https://doi.org/10.1093/beheco/ary016>
Media Coverage: [Oxford University Press Tumblr](#)
5. **Simpson RK**. (2017) Courtship and territorial behaviors of three hummingbird species in Arizona. *Arizona Birds 2017: 1-7*. [Link](#).
4. Ligon RA, **Simpson RK**, Mason NA, Hill GE, McGraw KJ. (2016) Evolutionary innovation and diversification of carotenoid-based pigmentation in finches. *Evolution*, 70: 2839-2852. <https://doi.org/10.1111/evo.13093>
3. Hutton P†, Seymoure BM, Ligon RA, McGraw KJ, **Simpson RK**. (2015) Dynamic color communication. *Current Opinion in Behavioral Sciences*, 6: 41-49. <https://doi.org/10.1016/j.cobeha.2015.08.007>
†All authors contributed equally
2. **Simpson RK**, Johnson MA, Murphy TG. (2015) Migration and the evolution of sexual dichromatism: evolutionary loss of female coloration with migration among wood-warblers. *Proceedings of the Royal Society B*, 282: 2015375. <https://doi.org/10.1098/rspb.2015.0375>
Media Coverage: [Science](#), [Nature](#), [IFL Science](#), [Phys.org](#), [Nature World News](#), [Richard Dawkins Foundation](#)
1. Murphy TG, West JA, Pham TT, Cevallos LM, **Simpson RK**, Tarvin KA. (2014) Same trait, different signals: unlike females, male goldfinches do not signal status with bill color. *Animal Behaviour*, 93: 121-127. <https://doi.org/10.1016/j.anbehav.2014.04.034>

AWARDS & GRANTS

ASU = Arizona State University; Amounts in USD

Research Awards, Grants, & Fellowships

2017	US Agency for International Development Research Fellowship	\$8,995
	NSF Doctoral Dissertation Improvement Grant (IOS-1702016)	\$20,085
	ASU Graduate College Completion Fellowship	\$13,000
2017-2014	ASU College of Liberal Arts and Sciences Graduate Excellence Award (x3)	\$650
2017-2013	ASU School of Life Sciences Summer Fellowship (x4)	\$6800
2016	ASU School of Life Sciences Animal Behavior Summer Fellowship	\$6082
	ASU Research and Training Initiative Graduate Training Award	\$2,000
	American Museum of Natural History Frank M Chapman Memorial Fund	\$1,000
	ASU Research and Training Initiative Fieldwork Grant	\$1,500

2015	T and E Inc. Grants for Conservation Biology Research	\$2,573
	ASU Graduate and Professional Student Association Jumpstart Grant	\$500
	ASU Research and Training Initiative Facilities Grant	\$1,500
	Arizona Field Ornithologist Gale Monson Research Grant	\$1,000
2014	ASU Graduate and Professional Student Association Research Grant	\$1,600
	ASU Research and Training Initiative Fieldwork Grant	\$1,500
	Animal Behavior Society Student Research Grant	\$1,100
	Society for Integrative & Comparative Biology Grants in Aid of Research	\$1,000
	Sigma Xi: Arizona State University Chapter Grants-In-Aid of Research	\$400
2013	Society for the Study of Evolution: Rosemary Grant Award	\$2,250
	Sigma Xi: Arizona State University Chapter Grants-In-Aid of Research	\$300
2012	ASU/Smithsonian Tropical Research Institute Fellowship	\$9,988

Travel Awards

2018, 2016	International Society for Behavioral Ecology Travel Grant (x2)	\$2,300
2017	Animal Behavior Society Travel Grant	\$500
2017-2014	ASU Graduate and Professional Student Association Travel Grant (x3)	\$2,748
2017-2013	ASU School of Life Sciences Travel Award (x4)	\$1,600
2014	International Ornithological Conference Travel Grant	\$800

Service Awards

2017	ASU Graduate & Professional Student Association Service Award	\$500
2015	ASU Graduate & Professional Student Association New Initiatives Fund	\$15,000

CURRENT RESEARCH PROJECTS

The evolution of hummingbird coloration and color production mechanisms

- **Collaborators:** Dr. Kevin McGraw, Dr. Stephanie Doucet, Dr. Russell Ligon
- **Ongoing work:** Transmission and scanning electron microscopy of hummingbird feathers; photographic color analysis across all hummingbirds; analysis of Peruvian hummingbird field-data; manuscript preparation (4 intended)
- **Products in progress:** **Simpson RK**, McGraw KJ, Doucet SM. Hummingbird feather photonic structures co-evolve with courtship displays and signal interactions. *In Revision for Proceedings of the Royal Society, B.*

Avian perception and predation of wine grapes at Southern Ontario vineyards

- **Collaborators:** Dr. Stephanie Doucet, Dr. Dan Mennill, Grace Bastien (MSc student)
- **Ongoing work:** Color and sugar analyses of grapes; experimentally testing bird deterrent methods at vineyards; assessing avian predation damage at vineyards; manuscript preparation (2 intended)

Urban environmental effects on development and physiology of color

- **Collaborators:** Dr. Kevin McGraw, Dr. Tuul Sepp, Dr. Mathieu Giraudeau, Pierce Hutton (PhD student), and Emily Webb (PhD student)
- **Ongoing work:** High-performance liquid chromatography; photographic color analysis; hormone assays; manuscript preparation (5 intended; 2 published)

Understanding color variation in male and female peafowl

- **Collaborators:** Dr. Jessica Yorzinski, Alexis Earl (PhD student)
- **Ongoing work:** Male tail feather size measurements; plumage color analysis; manuscript preparation (2 intended)
- **Products in progress:** Earl AD, Kimmitt AA, **Simpson RK**, Yorzinski, JL. Female ornamentation in a lekking bird: bright females dominate. *In Revision for Behavioral Ecology and Sociobiology*

MENTORSHIP

*From underrepresented group

Undergraduate Thesis Committees:

2015-2018 **Steven Reed**; School of Life Sciences, Arizona State University
Now PhD student in Applied Mathematics at Arizona State University

Independent Project Advisor:

2018 **Liliana Yisela Quispe Flores***; Universidad Nacional Agraria La Molina (Peru)
Now works for environmental consulting company in Peru

2013-2017 **Jessica Givens***; School of Life Sciences, Arizona State University
Now MSc student in Science and Technology Policy at Arizona State University

Informal Graduate Advisor:

2018-2020 **Grace Bastien***; Master's Student; University of Windsor

Undergraduate Volunteers (lab or field assistants)

University of Windsor (2): Joshua Minos, Alanna Olteanu*

Arizona State University (13): Sayah Bogor*; Christina Piarowski*; Alysia Apple*; Avery Underwood*; Ashley Agolo*; Jade Gates*; Allison Hayes*; Rachel Wuest*; Bailey Ash; Nishel Sargent*; Savanna Soldevere*; Stephanie Tkacik*; Savannah Westerfield*

University of California – Davis (1): Ushrayinee Sarker*

Universidad Nacional de San Agustín de Arequipa (1): Carla Maria Llerena Quiroz*

TEACHING

Courses taught (instructor on record)

- 2021 **Invertebrate Zoology** (BIOL 3291); University of Windsor – *included lecture and lab, which I designed and taught virtually during COVID-19. Lecture portion primarily involved seminar-style class discussions on the text and selected scientific papers, which focused on the major invertebrate phyla and the evolutionary changes throughout invertebrate lineages (e.g. body plan, sensory systems, locomotion). The lab combined virtual dissections, science writing assignments, and individual projects involving iNaturalist.*
- 2020 **Ornithology** (BIOL 3261); University of Windsor – *included lecture and lab, which I designed and taught virtually during COVID-19. The lecture focused on the fundamentals of bird biology, including segments covering all modern bird orders and local birding tips. The lab combined independent birding assignments with assignments focused on improving student abilities in scientific writing, data interpretation, and developing conservation plans.*

Workshops (developed & led)

- 2020 **Multispectral color analyses using cameras**; University of Toronto – St. George
- 2018-2019 **Statistical analyses in R**; University of Windsor (met weekly)
- 2017 **Phylogenetic analyses in R**; University of Florida
- 2017 **An introduction to using R**; Arizona State University

Co-taught Graduate Seminars (I prepared the syllabus and co-ran these courses)

- 2015 **Evolution of insect mating systems**; Arizona State University
- 2014 **Evolution of avian breeding systems**; Arizona State University

Teaching Assistantships

Smithsonian Tropical Research Institute

- 2017 **Fundamentals of Tropical Biology** - *assisted with lectures & student projects*

Arizona State University

- 2016 **Conservation of Biodiversity** (BIO 322) - *graded class material*
- 2016 **Animal Behavior** (BIO 331) - *assisted with lectures & graded class material*
- 2015 **Ornithology** (BIO 471) - *taught & graded laboratory section and bird hikes*
- 2014-2017 **Biometry** (BIO 415/614) - *taught & graded two laboratory sections teaching R*
- 2013-2017 **Animal Behavior** (online; BIO 331) – *mentored & graded student projects*
- 2012, 2014 **Vertebrate Zoology** (BIO 370) - *taught & graded dissection laboratory sections*

Trinity University

- 2011-2012 **Integrated Biology 2** (BIO 1312) - *laboratory & lecture assistant*

2010-2011 **Integrated Biology 1** (BIO 1311) - *laboratory & lecture assistant*

Guest Lectures

University of Windsor

2018 **The evolution of courtship signals and signal interactions** (*Animal communication; upper level undergraduate; ~100 students*)

Smithsonian Tropical Research Institute

2017 **Neotropical bird biology** (*Fundamentals of Tropical Biology; undergraduate study abroad; ~15 students*)

2017 **Diversity and communication: project ideas talk** (*Fundamentals of Tropical Biology– undergraduate study abroad; ~15 students*)

Arizona State University

2016 **Mating behavior and intra-sexual selection** (*Animal Behavior; upper level undergraduate; ~100 students*)

2015 **One-factor ANOVA: confidence intervals, post hoc-tests** (*Biometry; upper level undergraduate/graduate; ~60 students*)

2015 **Analysis of variance** (*Biometry; upper level undergraduate/graduate; ~60 students*)

2015 **Avian social behavior** (*Ornithology; upper level undergraduate; ~15 students*)

2014 **Avian natural history** (*Vertebrate Zoology; upper level undergraduate; ~100 students*)

PEDAGOGICAL TRAINING

University of Windsor

2020 **Science Training Sessions for an Online Fall** - *Covered tools for online student engagement and best practices for online teaching*

Arizona State University

2012 **Scientific Teaching course** - *Covered creating active learning lessons, course design, student mentorship*

2012 **Graduate K-12 STEM Education course** - *Covered 5E teaching methods, course core concepts, and learning objectives*

EDUCATIONAL OUTREACH

Public Presentations

2018 **Mini-talk: Complex color communication** (Windsor, ON, Canada)
Science on Tap: Birds and Beers II at Walkerville Brewery with University of Windsor

- 2017 **Evolution of hummingbird visual signals** (Elgin, AZ, USA)
Audubon Appleton-Whittell Research Ranch Potluck and Presentations
- 2017 **The evolution of hummingbird coloration and courtship displays.** (Scottsdale, AZ, USA); *Maricopa Audubon Society Meeting*
- 2016 **Presenter at pollinator-themed PLANeT Celebration at the Phoenix Desert Botanical Garden** (Phoenix, AZ, USA) - *presented information on hummingbirds*
- 2011 **Queens University Biological Station Public Science Fair** (Elgin, ON, Canada)
Showcased our research on bird communication to public at field station

Nature Documentaries

- 2020 **America** (Wildstar Films, *in production for National Geographic*)
- 2019 **Attenborough's Life in Colour** (Humble Bee Pictures, *in production for BBC*)
- 2018 **The Mating Game** (Silverback Films, *in production for BBC*)
- 2017 **How animals can change colors** (Science Insider video; [link](#))
- 2016 **Super Hummingbirds** (Coneflower Studios; PBS Nature, [link](#))

Popular Articles Written

- 2018 **How do male hummingbird dance moves alter their appearance?** (*Oxford University Press Blog guest-post; [link](#)*)
- 2014 **Ask A Biologist Top Question: Why do leaves change color?** (Arizona State University; [link](#))
- 2014 **Ask A Biologist Biology Bits: Feathers.** (Arizona State University; [link](#))

Events (led or volunteered)

- 2018 **London Bug Day Volunteer in the London Children's Museum** (London ON)
Helped show off neat bugs and run bug-themed activities for children.
- 2015 **Bird Olympics Instructor** (Phoenix, AZ)
Organized undergraduate student volunteers for children activities at the Maricopa County Audubon Center
- 2013-2014 **Bug-Theater Volunteer** (Phoenix, AZ)
Showcased local insect diversity to children using black lights and hands-on live insect collections at Regional Parks in Phoenix
- 2012-2014 **Graduate Partners in Science Education Mentor** (Phoenix, AZ)
Guided 7th & 8th grade students at low-income schools on after-school projects for the Phoenix Science Fair
- 2012-Present **Ask a Biologist Question Volunteer** (<http://askabiologist.asu.edu>; Phoenix, AZ)
Answered biology questions posted online by K-12 students
- 2011-2012 **Outreach booth Organizer** (San Antonio, TX)

Ran booth with biology-themed children activities at the Michelle Lake Audubon Fall Festival

SERVICE

Journal referee

Acta Ethologica	Animal Behaviour
Behavioral Ecology	Behavioral Ecology and Sociobiology
Behaviour	BioEssays
Biological Journal of the Linnaen Society	Biology Letters
Biology Open	Canadian Journal of Zoology
Ecology and Evolution	Ethology Ecology and Evolution
Evolution	Integrative Zoology
Journal of Avian Biology	Journal of Ornithology
Nature Communications	PLoS One
Proceedings of the Royal Society B	Science of Nature
The American Naturalist	Wilson Journal of Ornithology

Grant Reviewing

Arizona State University

- 2014-2016 **School of Life Sciences faculty and graduate student research grants**
- 2014 **School of Life Science Undergraduate Research program applications**
- 2012-2014 **Graduate and Professional Student Association travel and research grants**

Trinity University

- 2011-2012 **Mind Science Foundation research grants**

Societal Service

- 2011 **Film Festival Committee Member;** Animal Behavior Society
Judged amateur and professional films submitted to society competition

University Service

Arizona State University

- 2017-2018 **Graduate and Professional Student Association Supreme Court Justice**
Reviewed cases of graduate student code violations
- 2017 **School of Life Sciences Ambassador to Alumni Coach**
Taught new students in program how to contact alumni successfully
- 2016-2017 **School of Life Sciences Ambassador to Alumni**
Contacted biology MSc/PhD alumni to reconnect them to our school
- 2016-2017 **Graduate and Professional Student Association Assembly Member**

- Promoted graduate student wellbeing; represented graduate students to the university; oversaw distribution of internal grants to graduate students*
- 2015 **Graduate and Professional Student Association Assistant Director of New Initiatives;** *Created new graduate student grant to aid with interview travel*
- 2014-2016 **School of Life Sciences Research and Training Initiative Student Representative;** *Represented graduate students within department and helped students seek out funding sources*
- Trinity University**
- 2011-2012 **Biology Club President**
Organized student-faculty social event; promoted student needs
- 2010-2011 **Biology Club Executive Leader**
Organized student-faculty social and outreach events

INVITED TALKS

- 2020 **Simpson RK.** It's not just what you have, but how you use it: dynamic coloration and courtship dances in hummingbirds. *Trinity University, San Antonio, TX, USA* (Virtual talk).
- 2018 **Simpson RK.** The evolution of complex courtship traits: covariation and interactions between hummingbird displays, plumage, and color appearance. *University of Western Ontario, London, ON, Canada.*
- Simpson RK.** The evolution of complex visual courtship signals and signal interactions in hummingbirds. *University of Windsor, Windsor, ON, Canada.*
- Simpson RK.** Evolución de la coloración y cortejos de apareamiento in colibríes (The evolution of hummingbird coloration and courtship displays) *Universidad Nacional de San Agustín de Arequipa, Arequipa, Peru.*
- 2017 **Simpson RK.** The evolution of hummingbird coloration and courtship displays. *University of Florida, Gainesville, FL, USA.*

CONFERENCE PRESENTATIONS

Mentee authors underlined

- 2020 **Simpson RK**, Wilson DR, Mistakidis AF, Mennill DJ, Doucet SM. Sympatry influences colour and song divergence in wood warblers (Parulidae) (talk). *Animal Behavior Society Virtual Conference.*
- 2019 Earl AD, Kimmitt AA, **Simpson RK**, Yorzinski JL. The function and mechanisms of female ornamentation in a lekking bird (talk). *Joint Meeting of the Animal Behavior Society & International Ethological Conference, Chicago, IL, USA.*
- Lietzenmayer LB, **Simpson RK**, Taylor LA. It helps to be red: A comparative study of male coloration, sexual size dimorphism, and male size in salticids (talk). *International Congress of Arachnology, Canterbury, New Zealand.*

- Simpson RK**, McGraw KJ, Doucet SM. The evolution of complex courtship traits: covariation and interactions between hummingbird displays, feather structure, and color appearance (poster). *Society for Integrative and Comparative Biology, Tampa, FL, USA.*
- 2018 **Simpson RK** & McGraw KJ. Evolution of signaling interactions between plumage coloration and courtship displays in hummingbirds (talk). *International Society for Behavioral Ecology, Minneapolis, MN, USA.*
- 2017 **Simpson RK** & McGraw KJ. The co-evolution of hummingbird coloration and courtship displays (talk). *Animal Behavior Society Meeting, Toronto, ON, Canada.*
- Givens JL, **Simpson RK**, McGraw, KJ. Male Anna's hummingbirds (*Calypte anna*) orient their shuttle display towards the sun (poster). *School of Life Sciences Undergraduate Research Program Symposium, Arizona State University, Tempe, AZ, USA.*
- Reed S, **Simpson RK**, McGraw KJ. Peculiar plumage produces angle-dependence across parrot phylogeny (poster). *School of Life Sciences Undergraduate Research Program Symposium, Arizona State University, Tempe, AZ, USA.*
- 2016 **Simpson RK**, Givens JL, McGraw KJ. Evolutionary patterns of hummingbird coloration (talk). *Society for Integrative and Comparative Biology Meeting, Portland, OR, USA.*
- Simpson RK**, McGraw KJ. The evolution of hummingbird coloration and courtship displays (poster). *International Society for Behavioral Ecology, Exeter, United Kingdom.*
- Simpson RK**, Seymoure BM, Moeller KT. Conspicuousness of the venomous Gila monster as a function of age (talk). *International Society for Behavioral Ecology post-conference symposium on Anti-predator Coloration, Penryn, United Kingdom.*
- Simpson RK** & McGraw KJ. Evolution of hummingbird coloration and courtship displays (talk). *Arizona Field Ornithologist Meeting, Yuma, AZ, USA.*
- Givens JL, **Simpson RK**, McGraw KJ. Relationships between courtship behavior, morphology, and structurally based plumage coloration in Anna's hummingbirds (*Calypte anna*) (poster). *School of Life Sciences Undergraduate Research Program Symposium, Arizona State University, Tempe, AZ, USA.*
- 2015 **Simpson RK**. Speed talk on hummingbird color and courtship evolution (talk). *School of Life Sciences Graduate Seminar, Arizona State University, Tempe, AZ, USA*
- Simpson RK**. The evolution of hummingbird visual signals (talk). *Science on the Sonoita Plain, Elgin, AZ, USA*
- Givens JL, **Simpson RK**, McGraw KJ. Does insect availability affect nectar feeder visitation rates in Anna's hummingbirds (*Calypte anna*)? (poster) *School of Life Sciences Undergraduate Research Program Symposium, Arizona State University, Tempe, AZ, USA.*

- 2014 **Simpson RK.** Migration distance and sexual dichromatism: a new hypothesis (talk). *School of Life Sciences Graduate Seminar, Arizona State University, Tempe, AZ, USA.*
- Simpson RK & McGraw KJ.** The role of a fluctuating environment on multimodal signals (talk). *Society for Integrative and Comparative Biology Meeting, Austin, TX, USA.*
- Simpson RK, Johnson MA, Murphy TG.** The evolution of sexual dichromatism: wood-warblers exhibit increased dichromatism with greater migration distance (talk). *International Society of Behavioral Ecology, New York, NY, USA.*
- Simpson RK & McGraw KJ.** The role of a fluctuating environment on multimodal signals (talk). *International Ornithological Congress, Tokyo, Japan.*
- 2013 **Simpson RK.** Dynamic environments, multi-modal signaling, and the role of receiver preferences (talk). *Gamboa Seminar Series, Gamboa, Panama.*
- Simpson RK.** Dynamic environments, multi-modal signaling, and the role of receiver preferences (talk). *Tupper Behavior Seminar Series, Panama City, Panama.*
- Simpson RK & McGraw KJ.** The role of a fluctuating environment on multimodal signals (talk). *Animal Behavior Society Meeting, Boulder, CO, USA.*
- 2011 Keller S*, **Simpson RK***, Ribble D, Elaydi S, Hasfura R. Niche modeling using mathematical models (poster). *Joint Mathematics Meeting, New Orleans, LA, USA.*
*Co-presented
- Keller S*, **Simpson RK***, Hasfura R, Elaydi S, Ribble R. Modeling mammalian geographic ranges using georeferenced environmental data and mathematical models (poster). *Texas Mammologist Society, Junction, TX, USA.* *Co-presented
- Simpson RK, Johnson MA, Murphy TG.** The loss of female ornamentation: does the cost of migration favor sexual dichromatism in wood-warblers? (poster) *Joint Meeting of the Animal Behavior Society & International Ethological Conference, Bloomington, IA USA*
- 2010 **Simpson RK & Ribble D.** Changing geographic distributions of mammals around Bexar County, Texas (poster). *Southwestern Association of Naturalists, Junction, TX, USA.*

PROFESSIONAL SOCIETY MEMBERSHIPS

Animal Behavior Society
 Canadian Society of Zoologists
 Society of American Naturalists

Canadian Society of Evolution and Ecology
 International Society for Behavioral Ecology
 Society for Integrative and Comparative Biology