

Carrie L Branch, PhD

University of Western Ontario
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APPOINTMENTS

2022	Assistant Professor, Department of Psychology University of Western Ontario, London, Ontario, CAN
2018-2022	Edward W. Rose Postdoctoral Fellow Cornell Lab of Ornithology, Ithaca, NY
Spring 2020	Imogene P. Johnson Postdoctoral Teaching Fellow Cornell University

EDUCATION

PhD	Ecology, Evolution, and Conservation Biology, 2018 University of Nevada, Reno (UNR)
MA	Experimental Psychology, 2012 University of North Carolina Wilmington (UNCW)
BA	Psychology, <i>Summa Cum Laude</i> , 2009 University of Tennessee, Knoxville (UTK) Semester abroad: International Communications Aalborg University, Denmark

HONORS AND AWARDS

Total of \$76,950 in competitive awards; \$38,700 in competitive research grants, as well as \$38,250 in competitive meritorious scholarships and grants.

*Competitive research grants are **bolded***

2020	American Ornithological Society, Kessel Research Fellowship, \$15,000
2018	President's Postdoctoral Fellowship Finalist, University of California Berkeley
2018	International Society for Behavioral Ecology travel award, \$500
2018	Board of Regents' Scholar, Nevada System of Higher Education, \$5,000
2017	Allee Symposium Competition, Animal Behavior Society, Toronto, ON, CA
2017	Animal Behavior Society Graduate Student Travel Award, \$500
2017	UNR Outstanding Graduate Student Researcher, UNR Honor the Best, \$750
2017	UNR Graduate Dean's Merit Scholarship, \$5,000
2017	Jenkins Fellowship in Ecology, Full semester stipend, \$9,775, plus tuition

2016 International Society for Behavioral Ecology/NSF travel award, \$1000
2016-18 National Science Foundation, Doctoral Dissertation Improvement Grant, IOS-1600845 – Animal Behavior Systems, \$15,596
2015 UNR Grad Student Association (GSA) Research Grant, \$2,195.20
2015 EECB Competitive Summer Stipend, \$2,500
2014-15 Wilson Scholarship, \$4,000
2013-15 Hadley-Lynch Scholarship, \$3,000
2013 UNR GSA Research Grant, \$2,498
2013 Northwest Scientific Association Research Grant, \$1,412.50
2013 EECB Transformative Research Grant, \$2,000
2012-13 UNR College of Science, Dean’s Graduate Scholar, \$6,000
2007-Pres. Psi Chi, National Honor Society in Psychology
2012-Pres. Sigma Xi, the Scientific Research Society
2011-12 Graduate student representative of UNCW Graduate Steering Committee
2005-09 TN Lottery Hope Scholarship, \$16,000
2005-09 Dean’s List, Summa Cum Laude
2008 Wade Family Scholarship, Duke Marine Laboratory, \$2,000

PUBLICATIONS

35 articles published in peer-reviewed journals; 14 first author and 21 co-author.

Google h-index: 17 (647 citations)

*equal contribution

^undergraduate coauthor

Articles in progress:

Huang, S.^, Schaening-Lopez, D.^, Halterman, G.^, Pravosudov, V.V., **Branch, C.L.** Song output along a montane gradient: high elevation birds sing more at dawn compared to low elevation birds. In Prep.

Published peer-reviewed articles:

35). **Branch, C.L.***, Semenov, G.*, Wagner, D.N.*, Sonnenberg, B.R., Pitera, A.M., Bridge, E.S., Taylor, S.A., Pravosudov, V.V. 2022. Genetic basis of spatial cognitive abilities in food-caching birds. *Current Biology*, In Press.

34). Benedict, L.M., Pitera, A.M., **Branch, C.L.**, Sonnenberg, B.R., Heinen, V., Bridge, E., Pravosudov, V.V. 2021. Information maintenance of food sources is associated with environment, spatial cognition and age in a food-caching bird. *Animal Behaviour*, In Press.

- 33). Pitera, A.M., **Branch, C.L.**, Sonnenberg, B.R., Benedict, L.M., Kozlovsky, D.Y., Pravosudov, V.V. 2021. Reproduction is affected by individual breeding experience but not pair longevity in a socially monogamous bird. *Behavioral Ecology and Sociobiology* 75: 101.
- 32). Heinen, V., Pitera, A.M., Sonnenberg, B.R., Benedict, L.M., **Branch, C.L.**, Bridge, E., Pravosudov, V.V. 2021. Specialized spatial cognition is associated with reduced cognitive senescence in a food-caching bird. *Proceedings of the Royal Society B*. 288: 20203180.
- 31). **Branch, C.L.**, Sonnenberg, B.R., Pitera, A.M., Benedict, L., Kozlovsky, D.Y., Bridge, E., Pravosudov, V.V. 2020. Testing the greater male variability phenomenon: male mountain chickadees exhibit larger variation in reversal learning performance compared to females. *Proceedings of the Royal Society B*. 287: 20200895.
- 30). Sonnenberg, B.R., **Branch, C.L.**, Benedict, L.M., Pitera, A.M., Pravosudov, V.V. 2020. Ambient temperature, nest structure, and reproductive success in cavity nesting mountain chickadees at different elevations. *Animal Behaviour*, 165: 43-58.
- 29). Benedict, L., Pitera, A.M., **Branch, C.L.**, Sonnenberg, B.R., Pravosudov, V.V. 2020. Elevation-related differences in annual survival of adult food-caching mountain chickadees are consistent with natural selection on spatial cognition. *Behavioral Ecology and Sociobiology*, 74: 40.
- 28). **Branch, C.L.**, and Pravosudov, V.V. 2020. Variation in song structure along an elevation gradient in a resident songbird. *Behavioral Ecology and Sociobiology*, 74: 9.
- 27). **Branch, C.L.**, Pitera, A.M., Kozlovsky, D.Y., Sonnenberg, B., Benedict, L., and Pravosudov, V.V. 2019. Elevation-related differences in the age structure of breeding birds suggest stronger selection at harsher elevations. *Behavioral Ecology and Sociobiology*, 73: 143.
- 26). Bridge, E.S., Wilhelm, J., Pandit, M.M., Moreno, A., Curry, C.M., Pearson, T.D., Proppe, D.S., Eadie, J.M., Stair, T.F., Olson, A.C., Lyon, B.E., **Branch, C.L.**, Pitera, A.M., Kozlovsky, D., Sonnenberg, B.R., Pravosudov, V.V., Ruyle, J.E. 2019. An Arduino-based RFID platform for animal research. *Frontiers in Ecology and Evolution*, 7: 257.
- 25). **Branch, C.L.***, Pitera, A.M.*, Kozlovsky, D.Y., Bridge, E., Pravosudov, V.V. 2019. Smart is the new sexy: Female mountain chickadees increase reproductive investment when mated to males with better spatial cognition. *Ecology Letters*, 22, 897-903.
- 24). Sonnenberg, B., **Branch, C.L.**, Pitera, A.M., Bridge, E., Pravosudov, V.V. 2019. Natural selection and spatial cognition in wild food-caching mountain chickadees. *Current Biology*, 29, 670-676.

- 23). Tello-Ramos, M. C., **Branch, C.L.**, Kozlovsky, D.Y., Pitera, A.M., Pravosudov, V.V. 2019. Spatial memory and cognitive flexibility trade-offs: to be or not to be flexible, that is the question? *Animal Behaviour*, 147, 129-136.
- 22). Pitera, A.M., **Branch, C.L.**, Bridge, E., Pravosudov, V.V. 2018. Daily foraging routines in food-caching mountain chickadees are associated with variation in environmental harshness. *Animal Behaviour*, 143, 93-104.
- 21). Kozlovsky, D.Y., **Branch, C.L.***, Pitera, A.M.*, Croston, R., and Pravosudov, V.V. 2018. Fluctuations in annual climatic extremes are associated with reproductive variation in resident mountain chickadees. *Royal Society Open Science*, 5: 171604.
- 20). Tello-Ramos, M. C., **Branch, C.L.***, Pitera, A.M.*, Kozlovsky, D.Y., Bridge, E.S., Pravosudov, V.V. 2018. Spatial memory in wild mountain chickadees from different elevations: comparing first year birds with survivors. *Animal Behaviour*, 137, 149-160.
- 19). **Branch, C.L.**, Jahner, J.P., Kozlovsky, D.Y., Pitera, A.M., Parchman, T.L., and Pravosudov, V.V. 2017. Absence of population structure across elevations despite large phenotypic variation in mountain chickadees (*Poecile gambeli*). *Royal Society Open Science*, 4: 170057.
- 18). Croston, R., **Branch, C.L.**, Pitera, A., Kozlovsky, D.Y., Bridge, E.S., Parchman, T.L., and Pravosudov, V.V. 2017. Predictably harsh environment is associated with reduced cognitive flexibility in wild food-caching mountain chickadees. *Animal Behaviour*, 123, 139-149.
- 17). **Branch, C.L.***, Kozlovsky, D.Y.*, Croston, R., Pitera, A., and Pravosudov, V.V. 2016. Mountain chickadees successfully return to their post-natal dispersal settlements following long-term captivity. *Behaviour*, 153, 551-567.
- 16). **Branch, C.L.**, and Pravosudov, V.V. 2016. Do male mountain chickadees discriminate between local and nonlocal elevation intruders? *Ethology*, 122, 376-388.
- 15). Croston, R., Kozlovsky, D.Y., **Branch, C.L.**, Parchman, T.L., Bridge, E.S., and Pravosudov, V.V. 2016. Individual variation in spatial memory performance in wild mountain chickadees from different elevations. *Animal Behaviour*, 111, 225-234.
- 14). Croston, R., **Branch, C.L.**, Kozlovsky, D.Y., Dukas, R., Pravosudov, V.V. 2015. The importance of heritability estimates for understanding the evolution of cognition: a response to comments on Croston et al. 2015. *Behavioral Ecology*, 26, 1463-1464.
- 13). Croston, R., **Branch, C.L.**, Kozlovsky, D.Y., Dukas, R., and Pravosudov, V.V. 2015. Heritability and the evolution of cognitive traits. *Behavioral Ecology*, 26, 1447-1459.

- 12). Croston, R., **Branch, C.L.**, Kozlovsky, D.Y., Freas, C., LaDage, L. Roth II, T., and Pravosudov, V.V. 2015. Population-level variation in spatial memory and the hippocampus – what are the mechanisms driving population-level differences? *Integrative and Comparative Biology*, 55, 354-371.
- 11). **Branch, C.L.** and Pravosudov, V.V. 2015. Mountain chickadees from different elevations sing different songs: acoustic adaptation, temporal variation, or signal of local adaptation? *Royal Society Open Science*, 2: 150019.
 -This article is in the top 10% of all research outputs scored by Altmetric
- 10). Kozlovsky, D.Y, **Branch, C.L.**, and Pravosudov, V.V. 2015. Problem solving ability and response to novelty in mountain chickadees (*Poecile gambeli*) from different elevations. *Behavioral Ecology and Sociobiology*, 69, 635-643.
- 9). Kozlovsky, D.Y., **Branch, C.L.**, and Pravosudov, V.V. 2015. Elevation related variation in parental investment strategy is associated with differences in spatial memory in chickadees. *Ethology*, 4, 383-394.
- 8). **Branch, C.L.**, Kozlovsky, D.Y., and Pravosudov, V.V. 2015. Elevation related differences in female mate preferences in mountain chickadees: are smart chickadees choosier? *Animal Behaviour*, 99, 89-94.
- 7). **Branch, C.L.**, Kozlovsky, D.Y., and Pravosudov, V.V. 2015. Elevation related variation in aggressive response to mirror image in mountain chickadees. *Behaviour*, 152, 667-676.
- 6). Kozlovsky, D.Y.*, **Branch, C.L.***, Freas, C.A., and Pravosudov, V.V. 2014. Elevation related differences in exploration and social dominance in mountain chickadees (*Poecile gambeli*). *Behavioral Ecology and Sociobiology*, 68, 1871-1881.
- 5). Kozlovsky, D.Y., Brown, S., **Branch, C.L.**, Roth, T., and Pravosudov V.V. 2014. Chickadees with bigger brains have smaller stomachs: a multi-population comparison. *Brain, Behavior and Evolution*, 84, 172-182.
- 4). **Branch, C.L.**, Galizio, M., and Bruce, K. 2014. What-Where-When memory in the rodent odor span task. *Learning and Motivation*, 47, 18-29.
- 3). Freeberg, T. M. and **Branch, C. L.** 2013. Call variation in tufted titmice (*Baeolophus bicolor*) in a distress context: potential sex differences. *Ethology*, 119, 680-691.
- 2). **Branch, C.L.** and Freeberg, T. M. 2012. Distress calls in tufted titmice (*Baeolophus bicolor*): are conspecifics or predators the target? *Behavioral Ecology*, 23, 854-862.
- 1). Bartmess-LeVasseur, J., **Branch, C.L.**, Browning, S. A., Owens, J. L., and Freeberg, T.

M. 2010. Predator stimuli and calling behavior of Carolina chickadees (*Poecile carolinensis*), tufted titmice (*Baeolophus bicolor*), and white-breasted nuthatches (*Sitta carolinensis*) *Behavioral Ecology and Sociobiology*, 64, 1187-1198.

PRESENTATIONS

6 invited presentations. Contributed 13 first author and 16 co-author presentations at professional conferences (total of 34 presentations, including talks and posters).

^undergraduate coauthor

Branch, C.L., Sonnenberg, B.R., Pitera, A.M., Pravosudov, V.V. (2021). Cognitive adaptation, reduced movement, and female choice along a montane gradient in a food-caching bird. Invited talk for Symposium, *Advances in the study of reproductive isolation in birds*, virtual joint meeting of American Ornithological Society and Society of Canadian Ornithologists.

Branch, C.L., Lane, E.^, Kent, Q.^ (2021). Variation in achromatic plumage patches along an elevation gradient. Contributed talk for virtual Animal Behaviour Society.

Branch, C.L. Sexual selection, female choice, and cognitive adaptation. Invited talk for Asa Grey Biology seminar series, Utica College, February 17, 2021.

Branch, C.L. Specialized spatial cognition in a food-caching bird; It's in their genes! Invited talk for Fall Ornithology seminar series, Cornell University December 1, 2020.

Branch, C.L. Sexual selection, female choice, and cognitive adaptation. Invited talk for Integrative Biology Seminar Series, University of Texas at Austin, October 5, 2020.

Branch, C.L., Sonnenberg, B.R., Butcher, B.G., Benedict, L.M., Lovette, I.J., Webster, M.S., Pravosudov, V.V. (2020). Extra-pair paternity and conspecific brood parasitism in mountain chickadees. Contributed talk for virtual Animal Behaviour Society.

Benedict, L.M., Pitera, A.M., **Branch, C.L.**, Sonnenberg, B.R., Heinen, V.K., Bridge, E.S., Pravosudov, V.V. (2020). Individual variation in foraging sampling strategies and spatial cognition in a food-caching bird. Contributed talk for virtual Animal Behaviour Society.

Pravosudov, V.V., Pitera, A.M., **Branch, C.L.**, Sonnenberg, B.R., Benedict, L.M., Kozlovsky, D.Y. (2020). The more you know: Breeding experience effects reproductive output in a socially monogamous bird. Contributed talk for virtual Animal Behaviour Society.

Sonnenberg, B.R., **Branch, C.L.**, Benedict, L.M., Pitera, A.M., Pravosudov, V.V. (2020). Nest composition, parasite load and developmental stress at different elevations in a cavity nesting bird. Contributed talk for virtual Animal Behaviour Society.

Branch, C.L. Got stress? Get nature! Coping with stress during a global pandemic. Invited Zoom talk for Johns Hopkins Public Health course, April 15, 2020.

Branch, C.L. Sexual selection, female choice, and cognitive adaptation. Invited talk for Neurobiology and Behavior seminar series, Cornell University, September 19, 2019.

Branch, C.L. Smart is the new sexy: sexual selection, female choice, and cognitive adaptation. Invited talk for Fall Ornithology seminar series, Cornell University September 17, 2019.

Branch, C.L., Pitera, A., Kozlovsky, D., Bridge, E., Pravosudov, V.V. (2019). Smart is the new sexy: Females increase reproductive output when mated to males with better cognition. Contributed talk at the joint meeting of Animal Behaviour Society and the International Council of Ethologists, Chicago, IL, USA.

Sonnenberg, B., **Branch, C.L.**, Benedict, L., Pitera, A., Pravosudov, V.V. (2019). Ambient temperature, nest structure, and reproductive success in mountain chickadees at different elevations. Contributed talk at the joint meeting of Animal Behaviour Society and the International Council of Ethologists, Chicago, IL, USA.

Pitera, A., **Branch, C.L.**, Bridge, E., Pravosudov, V.V. (2019). Cognitive phenotype, social network position & distribution of social associations in a food-caching bird. Contributed talk at the joint meeting of Animal Behaviour Society and the International Council of Ethologists, Chicago, IL, USA.

Bendict, L., **Branch, C.L.**, Pitera, A., Kozlovsky, D., Sonnenberg, B., Pravosudov, V. (2019). Elevation-related and age-structural differences in survival of wild, food-caching mountain chickadees. Poster session at the joint meeting of Animal Behaviour Society and the International Council of Ethologists, Chicago, IL, USA.

Branch, C.L. & Pravosudov, V.V. (2018). Song dialects in mountain chickadees. Contributed talk at International Society for Behavioral Ecology, Minneapolis, MN, USA.

Pravosudov, V. V., Tello-Ramos, M., **Branch, C. L.**, Pitera, A., Kozlovsky, D., Bridge, E. (2018). Memory in wild mountain chickadees from different elevations: comparing first-year birds with older survivors. Contributed talk at International Society for Behavioral Ecology, Minneapolis, MN, USA.

Branch, C.L. (2017). Environmental variation along an elevation gradient is associated with pre-mating mechanisms. Allee Symposium for Best Student Paper, Animal Behaviour Society, Toronto, ON, CA.

Tello-Ramos, M.C., Croston, R., **Branch, C.L.**, Kozlovsky, D., Pitera, A., Bridge, E., & Pravosudov, V. (2017). Individual variation in spatial memory in food-caching chickadees. Contributed talk at Animal Behaviour Society, Toronto, ON, CA.

Pitera, A., Croston, R., **Branch, C.L.**, Kozlovsky, D., Bridge, E., Pravosudov, V. (2017). Daily foraging routines: the role of environmental harshness, food-caching, and spatial memory. Contributed talk at Animal Behaviour Society, Toronto, ON, CA.

Kozlovsky, D.Y., **Branch, C.L.**, Croston, R., Pitera, A. M., and Pravosudov, V.V. (2017). Annual climate variation is associated with differences in reproduction in mountain chickadees. Contributed talk at Animal Behaviour Society, Toronto, ON, CA.

Branch, C.L., Jahner, J.P., Kozlovsky, D.Y., Croston, R., Pitera, A.M., Parchman, T.L., and Pravosudov, V.V. (2016). Absence of genetic structure despite limited movement in mountain chickadees. Contributed talk at International Society for Behavioral Ecology, Exeter, UK.

Croston, R., **Branch, C.L.**, Pitera, A., Kozlovsky, D.Y., Bridge, E.S., Parchman, T.L., and Pravosudov, V.V. (2016). Harsh environment is associated with reduced cognitive flexibility. Contributed talk at Animal Behaviour Society conference, Columbia, MO.

Branch, C.L., and Pravosudov, V.V. (2015). Mountain chickadees from different elevations sing different songs: acoustic adaptation, temporal variation, or signal of local adaptation? Contributed talk at Animal Behavior Society conference, Anchorage, AK.

Croston, R. Kozlovsky, D.Y, **Branch, C.L.**, Bridge, E.S., Parchman, T.L., and Pravosudov, V.V. (2015). Using RFID technology to test for variation in spatial learning and memory in mountain chickadees. Contributed talk at Animal Behaviour Society conference, Anchorage, AK.

Branch, C.L., and Pravosudov, V.V. (2015). Mountain chickadees from different elevations sing different songs: acoustic adaptation, temporal variation, or signal of local adaptation? Contributed talk at Animal Behavior Graduate Group Biennial Conference, Davis, CA.

Branch, C.L., Kozlovsky, D.Y., and Pravosudov, V.V. (2014). *Female mate preference in mountain chickadees: a potential mechanism generating reproductive isolation between elevations*. Poster session presented at the International Society for Behavioral Ecology conference, New York City, NY.

Kozlovsky, D.Y., **Branch, C.L.**, and Pravosudov, V.V. (2014) Contributed talk at International Society for Behavioral Ecology, New York City, NY.

Branch, C. L., Galizio, M., & Bruce, K. (2013). Using the olfactory incrementing nonmatch-to-sample task to assess episodic-like memory in rats. Contributed talk at Animal Behavior Society, Boulder, CO.

Kozlovsky, D.Y., **Branch, C.L.**, Freas, C.A, and Pravosudov, V.V. (2013). Elevation related differences in exploration and social dominance in mountain chickadees (*Poecile gambeli*). Contributed talk at Animal Behavior Society, Boulder, CO.

Branch, C. L. (2012). Exploring episodic-like memory using the incrementing non-match-to-sample task. Talk given at UNR EECB Ecolunch, Reno, NV.

Branch, C. L., Bruce, K., & Galizio, M. (2012). *Exploring episodic-like memory using the incrementing non-match-to-sample task*. Poster session presented at the Comparative Cognition Society conference, Melbourne Beach, FL.

Branch, C. L. & Freeberg, T. M. (2011). *Testing hypothesis on distress calling in tufted titmice: support for vocal protean defense*. Communication poster session presented at the joint meeting of the Animal Behaviour Society and the International Ethological Conference, Bloomington, IN.

Branch, C. L., Nealley, C.^, Poerstel, B., Bradley, A.^, Goldstein, L.^, Mack, A.^, Galizio, M., & Bruce, K. (2011). *Exploring list learning in rats using olfactory stimuli*. Poster session presented at the Comparative Cognition Society conference, Melbourne Beach, FL.

Eure, R., **Branch, C. L.**, Lazarowski, L., Berkey, E.^, Mack, A.^, Galizio, M., & Bruce, K. (2011). *Exploring cross modal nonmatch to sample in rats*. Poster session presented at the Comparative Cognition Society conference, Melbourne Beach, FL.

Bruce, K., Pacewicz, M.^, Poerstel, B., Jordan, L.^, Eure, R., **Branch, C. L.**, Hawkey, A., Lefever, T., & Galizio, M., (2011). *Transitive inference in rats using odor stimuli*. Poster session presented at the Comparative Cognition Society conference, Melbourne Beach, FL.

Lefever, T., Pacewicz, M.^, Poerstel, B. Hawkey, A., **Branch, C. L.**, Bruce, K., & Galizio, M. (2010). *Automated olfactory matching/non-matching-to-sample in rats*. Poster session presented at the South Eastern Association for Behavior Analysis conference, Asheville, NC.

Branch, C. L. & Freeberg, T. M. (2010). *Social experience and behavioral development of male house sparrows*. Communication poster session presented at the Animal Behaviour Society conference, Williamsburg, VA.

PRESS, SERVICE, and OUTREACH

Press

Birds and Blooms Magazine, "*Field Guide: Birds and Memory*", by Kelsey Roseth

The Nevada Wildlife Society, Invited contribution, "*Spatial Memory and Survival in Mountain Chickadees*" by Carrie Branch, April 2017

Scientific American, "*Chickadees sing different songs depending where they're from*" by Dr. Felicity Muth, Blog series: Women in Animal Behavior, December 20 2016
<https://blogs.scientificamerican.com/not-bad-science/chickadees-sing-different-songs-depending-where-theyre-from/>

Moonshine Ink, "*Johnny Chickadee Cache: the resourceful winter bird*", by Eve Quesnel, November 9 2016 <http://www.moonshineink.com/mountain-life/johnny-chickadee-cache>

Science Magazine, "*Bird 'accents' change with elevation*" by Sid Perkins. April 28 2015 <https://www.sciencemag.org/news/2015/04/bird-accents-change-elevation>

British Broadcasting Corporation One: *Talk to the Animals, Episode 2, Chickadees*. Aired: July 17 2014 <http://www.bbc.co.uk/programmes/articles/18vIkzzcC4T9qBjxx7BqknL/meet-the-experts-from-episode-2>

Service

Professional Affiliations

American Ornithological Society (Elective Member, 2020), Animal Behavior Society (ca. 2010), Association of Field Ornithologists, International Society for Behavioral Ecology (ca. 2014)

Professional Service

Journal Referee for The American Naturalist, Animal Behaviour, Animal Behavior and Cognition, Avian Biology Research, Animal Cognition, Behavioral Brain Research, Behavioral Ecology and Sociobiology, Biology Letters, Ecology and Evolution, Frontiers in Ecology and Evolution, IBIS, Northeastern Naturalist, Ornithology (The Auk), Proceedings of the Royal Society B

Cornell University:

Postdoctoral research distillation roundtable, Fall 2019
Rose Fellowship selection committee, Fall 2019
Sigma Xi Graduate Student Grant referee, March 2019
Diversity Interview Preview weekend, March 2019

Ecology, Evolution, and Conservation Biology Graduate Program service (UNR):

Political outreach committee (1 year)
Colloquium seminar organizer (2 years)
Graduate student representative to the faculty (3 years)
Graduate student weekly seminar organizer (3 years)
Social committee (2 years)

Professional Development

Fall 2019 Organized Postdoctoral Research Distillation Roundtable, mini chalk talks given

- Fall 2019 Teaching and Learning in the Diverse Classroom, Cornell Center for Teaching Innovation (5-week online course)
- Fall 2019 Mock interviewer for Diversity Preview Weekend, Cornell University

Community Outreach

- 2021 *Science Olympiad, Springhouse Middle School, Allentown, PA*
Created test for Ornithology category, ~450 students participating
- 2019 *Migration Celebration, Cornell Lab of Ornithology*
Led birding walk for community members
- 2019 *Expanding Your Horizons, Cornell University*
"Motivating young women in science and mathematics"
Discussed research with groups of young women and demonstrated mistnetting and banding of passerines
- 2017,18 *Senior Picnic in the Park, UNR Medical School, Sanford Center for Aging*
Led nature walks in local arboretum to celebrate Older American's Month
- 2017,18 *Women in Science (WiSE) Panel Discussion*
Spoke with undergraduate women in STEM programs about how to be successful in graduate school
- 2013-18 *Big Brothers Big Sisters*
Annual event where UNR EECB graduate students engage community members in science
Nevada Bugs and Butterflies, Educational Non-profit, est. 2013
Volunteer and fund-raiser
- 2016,17 *Nevada Museum of Natural History*
Taught science lessons to local students and hosted Annual Day at the Museum
- 2016 *Data Nuggets, Featured Data Nugget: "Finding Mr. Right"*
<http://datanuggets.org/2016/11/finding-mr-right/> posted 11/2/2016
Sagehen Outdoor Education Program, Truckee, CA
Led lesson for Truckee 5th graders entitled, "Are you smarter than a chickadee?"
Artown Summer Bioblitz, Reno, NV
Volunteer, teaching local community members about avian ecology

TEACHING EXPERIENCE

Instructor of Record

- Spring 2020 Ornithology Lab, BIOG 4751; Cornell University
- Spring 2019 Behavior Reading Group, BIOG 2990/4990; Cornell University

Teaching Assistantships

- Spring 2017, 18 Graduate Teaching Assistant, Evolution 415/615; UNR
- Spring 2016 Scholarly Teaching for Graduate Students, Biol 792; UNR
- Aug 2012 - 2016 Graduate Teaching Assistant, General Biol Lab 192; UNR
- May - June 2012 Graduate Teaching Assistant, Cognitive Psych 410; UNCW

May - June 2011 Graduate Teaching Assistant, Experimental Psych 355; UNCW
Fall 2007 Undergraduate Teaching Assistant, Psych 110; UTK

Guest Lectures

Feb 23rd 2021 Upper Level Cognitive Ecology course, "Selection on spatial memory in a food-caching bird," McGill University
April 29th 2020 BIOG 4752, Birds of the World, "Family Paridae," Cornell University
March 11th 2019 BIOG 1250, "How to get research experience," Cornell University
November 9th 2017 Graduate Neuroscience Journal Club, "A Guide to Presentations," UNR
October 15th 2015 BIOL 688 Behavioral Ecology, "Living in Groups," UNR
March 25th 2014 BIOL 481 Principles of Animal Behavior, "Stress and Behavior," UNR
April 4th 2014 BIOL 125 How Science Works, "The Biological Study of Behavior: Elevation- related differences in mountain chickadees," UNR
Summer 2011 PSYCH 355 Experimental Psychology, "Methods of Behavioral Analysis," UNCW

UNDERGRADUATE MENTORSHIP

- I have involved a total of 15 undergraduates in my research across the three universities I have attended (post-bachelors), 13 of these individuals come from underrepresented groups in science based on gender and/or ethnicity.
- Five of these students received research grants, six presented their research at local and professional conferences, and three won travel awards to present their work at professional conferences.

Cornell Undergraduates:

Yuting (Hermione) Deng, Environmental Science and Sustainability

Received inaugural Ivy Scholar Research Grant: "Connecting signaling, cognition, and female choice"

Ginny Halterman, Ecology and Evolutionary Biology

Received Experiential Learning Grant: "Song production in mountain chickadees"

Samantha Huang, Environmental Science and Sustainability

Honor thesis title: "Mountain chickadee (*Poecile gambeli*) song propensity over an elevation gradient"

Qwahn Kent, Ecology and Evolutionary Biology

Ethan Lane, Ecology and Evolutionary Biology

Kevin Macias, Ecology and Evolutionary Biology

Daniella Schaening-Lopez, Ecology and Evolutionary Biology

Received Experiential Learning Grant: "Song production in mountain chickadees"

UNR Undergraduates:

Marc Kleyman, Biology

Patrick Thompson, Biology

Emily Weissgerber, Biology

Herz Gold Medal Awardee
Frank Gonzalez, Biology
Shelby Brown, Biology
Kallie Kappes, Biology

Received Honors Undergraduate Research Award: "Female preference for locally adapted male mountain chickadees"

UNCW Undergraduates:

Caty Nealley, Psychology
Marybeth Pacewicz, Psychology
Aly Mack, Psychology

RESEARCH INTERESTS AND RELATED SKILLS

Evolution of signaling, sexual signaling, vocal communication, geographic variation, local adaptation, cognition and survival

SIGNAL Software for Sound Analysis (Engineering Design)
Raven Pro (Bioacoustic Research Program, Cornell Lab of Ornithology)
Cool Edit Pro 2.0 (sound analysis software)
ImageJ (NIH image processing program)
Automated Recording via Swift Recorders (Cornell Lab of Ornithology)
R programming
8 years of experience mist-netting, banding, and bleeding juvenile and adult birds
Extensive use of Marantz digital recorders to record vocalizations and create playbacks for field studies
DNA extraction and sex identification using microsatellite analyses
ddRAD genome sequencing and parentage analysis
Analysis of plumage reflectance using spectrophotometer in the field and in lab settings
Use of Passive Integrated Transponder (PIT) tags and Radio Frequency Identification (RFID) readers to track and assess cognition in wild birds

RELATED PROFESSIONAL EXPERIENCE and ASSISTANTSHIPS

Fall semesters 2014 - 2016	Graduate Research Assistant, UNR
Aug 2011 - May 2012	Psychology Research Administrator Assistant; UNCW
Aug 2010 - 2011	Graduate Coordinator's Assistant; UNCW
Aug 2010 - 2011	Head of on call Teaching Assistants; UNCW

PROFESSIONAL REFERENCES

1. Vladimir Pravosudov
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2. Mike Webster

Professor

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607-254-2493

3. Irby Lovette

Professor

Postdoctoral Advisor

Cornell University

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