## **CURRICULUM VITAE**

DATE: April 29, 2019

#### VLADIMIR V. PRAVOSUDOV, PhD

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## **EMPLOYMENT:**

- 2012-current: Professor, Department of Biology, University of Nevada Reno.
- 2009-2012: Associate Professor, Department of Biology, University of Nevada Reno.
- 2005 2009: Assistant Professor, Department of Biology, University of Nevada Reno.
- 2002-2005: Assistant Research Professor, Department of Psychology, University of California, Davis.
- 2002 (Summer Session): Lecturer (Animal Behavior), Section of Neurobiology, Physiology, and Behavior, University of California, Davis.
- 2002 (Spring Quarter): Lecturer (Animal Behavior), Section of Neurobiology, Physiology, and Behavior, University of California, Davis.
- 1999-2002: NIH Postdoctoral Fellow, Section of Neurobiology, Physiology, and Behavior, University of California, Davis, CA. Supervisor: Dr. N. S. Clayton.
- 1997-1999: NSF Postdoctoral Fellow, Department of Biology, Purdue University, West Lafayette, IN. Supervisor: Dr. J. R. Lucas.
- 1996-1997: Presidential Fellow, Department of Zoology, The Ohio State University, Columbus, OH, Supervisor: Dr. T. C. Grubb, Jr.
- 1994-1996: Graduate Fellow, Department of Zoology, The Ohio State University, Columbus, OH. Supervisor: Dr. T. C. Grubb, Jr.
- 1991-1994: Teaching Associate, Department of Zoology, The Ohio State University, Columbus, OH. Supervisor: Dr. T. C. Grubb, Jr.
- 1983-1991: Researcher, Institute of Biological Problems of the North, Academy of Sciences of Russia, Magadan, Russia

## **EDUCATION:**

- Ph. D., Zoology, The Ohio State University, Columbus, OH, 1991-1997 Thesis: Energy management in wintering birds.
- M.S. Zoology, State University of Leningrad, Leningrad, Russia, 1978-1983

Thesis: Foraging and food-caching ecology of willow (*Parus montanus*) and Siberian (*P. cinctus*) tits.

## AWARDS AND GRANTS (Total Federal Funding from NSF and NIH - 4,117,405)

- 2019: PI, <u>National Science Foundation</u> (IOS1856181, Animal Behavior Cluster): "Social networks in wild resident social species in different environments: causes, function and consequences". Period of Support: 04/01/2019-03/31/2024; Total costs: \$982,335.
- 2016: <u>National Science Foundation</u> Doctoral Dissertation Improvement Grant (IOS1600845, Animal Behavior; Carrie Branch): "DISSERTATION RESEARCH: Connecting cognition, signaling, and female choice in wild birds". Period of support: 04/01/2016-03/30/2019; Total costs: \$15,596.
- 2014: PI, *National Science Foundation* (IOS1351295, Animal Behavior Cluster): "Fitness consequences of individual variation in spatial learning ability in wild food-caching animals". Period of Support: 03/15/2014-02/28/2019; Total costs: \$840,000.
- 2011: PI, <u>National Science Foundation</u> (# 1135657), Research Experience for Undergraduates Supplement (REU), ("The relationship between reliance on food caching, spatial memory and the hippocampus – an intraspecific comparison"); Total costs: \$6,000
- 2010: **Co-PI**, <u>National Science Foundation</u>, Research Experience for Undergraduates Supplement (REU) ("Causes and consequences of variation in the hippocampus of individuals utilizing different spatial strategies"); Total costs: \$6,000
- 2010: **PI**, <u>National Science Foundation</u> (# 1033004), Research Experience for Undergraduates Supplement (REU), ("The relationship between reliance on food caching, spatial memory and the hippocampus – an intraspecific comparison"); Total costs: \$6,000
- 2009: **Co-PI**, <u>National Science Foundation</u> (Award # 0918268; Animal Behavior); PIs: Lara LaDage and **Vladimir Pravosudov** (45%)(University of Nevada Reno), Barry Sinervo (UC Santa Cruz): "Causes and consequences of variation in the hippocampus of individuals utilizing different spatial strategies". Period of support: 08/01/2009-07/30/2013; Total costs: \$400,000 (All awarded to University of Nevada Reno).
- 2009: **PI**, <u>National Science Foundation</u> (# 0940245), Research Experience for Undergraduates Supplement (REU), ("The relationship between reliance on food caching, spatial memory and the hippocampus – an intraspecific comparison"); Total costs: \$6,000
- 2007: **PI**, <u>National Institutes of Health</u> (NIMH) R21 MH079892: "Hippocampal neurogenesis and memory". Period of support: 03/01/2007-02/28/2009. Total costs: \$350,417.
- 2007: **PI**, <u>National Institutes of Health</u> (NIMH) R01 MH076797: "Effect of social environment on memory, hippocampal structure and neurogenesis". Period of support: 02/01/2007-12/31/2009; Total costs: \$567,000.

- 2006: **PI**, <u>National Science Foundation</u> (IOB-0615021; Animal Behavior): "The relationship between reliance on food caching, spatial memory and the hippocampus an intraspecific comparison". Period of support: 09/01/2006-08/31/2010; Total costs: \$393,338.
- 2002: **PI**, <u>National Institutes of Health</u> (NIMH) Career Award (K01); "The effect of stress on memory and the brain"; Period of support 09/01/2002 – 08/31/2005; Total costs: \$344,635.
- 1999: PI, <u>National Institutes of Health</u> (NIDA), National Research Service Award (NRSA) for Individual Postdoctoral Fellows; "Spatial memory and the brain under demanding conditions"; Period of support 09/01/1999 – 08/31/2002. Total costs: \$120,084.
- 1999: System Neuroscience Research Training Postdoctoral Fellowship, Center for Neuroscience, University of California Davis (Declined)
- 1997: **PI**, <u>National Science Foundation</u>, Postdoctoral Research Fellowship in Biosciences Related to the Environment; Period of support 09/01/1997 – 08/31/1999; Total costs: \$80,000.
- 1997: The Darwin Award for the outstanding oral presentation by a zoology graduate student at a regional, national or international meeting, Department of Zoology, The Ohio State University
- 1996: Presidential Fellowship, The Ohio State University (12 months, \$13,200)
- 1994: Graduate Student Alumni Research Award, The Ohio State University (\$1,300)
- 1994: Pre-doctoral Fellowship from Smithsonian Institution, Migratory Bird Center (24 months)
- 1993: Roger Tory Peterson Institute Travel Award given by the Wilson Ornithological Society
- 1993: National Bird-Feeding Society Research Grant (\$700)
- 1992: National Bird-Feeding Society Research Grant (\$600)
- 1991: Guest Scholarship/Council of Europe Scholarship to study at the Department of Zoology, University of Stockholm, Sweden (Declined)
- 1990: Scholarship from the Department of Zoology, University of Oulu, Finland (2 months)
- 1989: Scholarship from the Department of Zoology, University of Oulu, Finland (1 month)

## Honors:

- 2019.University of Nevada Reno **Foundation Professor** Award (*Criteria include (1) A* record of excellence in their discipline as a teacher and scholar; (2) National prominence in their field; (3) A demonstrated record of service to the university; and (4) A record of sustained achievement which gives full promise of continued achievement during the years of the award.)
- 2018. University of Nevada Reno, Graduate Student Association Vada Trimble Outstanding Graduate Mentor award (*nominations are made by graduate*

students and the award is given to those that have shown themselves to be a true friend, advocate, and supporter of graduate students at UNR).

- 2018. Invited speaker at the Summer School: "The other minds problem: animal sentience and cognition", Montreal, Canada (June 26 – July 6, 2018). These Schools are attended by researchers and advanced graduate students across all the *pertinent disciplines all over the world.* Overview. Since Descartes, philosophers know that there is no way to know for sure what - or whether - others feel (not even if they tell you). Science, however, is not about certainty but about probability and evidence. The 7.5 billion members of the human species can tell us what they are feeling. But there are 9 million other species on the planet, from microbes to mammals, with which humans share biological and cognitive ancestry, but not one other species can speak: Which of them can feel — and what do they feel? Their human spokespersons — *the comparative* psychologists, ethologists, evolutionists, and cognitive neurobiologists who are the world's leading experts in "mind-reading" other species -- will provide a sweeping panorama of what it feels like to be an elephant, ape, whale, cow, pig, dog, chicken, mouse, fish, lizard, lobster, snail: This growing body of facts about nonhuman sentience has profound implications not only for our understanding of human cognition, but for our treatment of other sentient species.
- 2017. Elected as a **Fellow of the American Ornithological Society** (Fellows are nominated based on their exceptional and sustained contributions to ornithology and/or service to AOS).
- 2017. Elected as a **Fellow of the Animal Behavior Society** (Fellows are members who have engaged in research in animal behavior for at least ten years and who in the opinion of the elected officers and current Fellows of the society have made distinguished contributions to the field. Not more than 10% of the active membership shall be Fellows).
- 2017. **Invited symposium speaker**, Animal Behavior Society meeting, Symposium: "Cognitive Ecology". Presentation: Memory and memory flexibility: to be or not to be flexible, that is the question".
- 2016. Dr. Donald Mousel and Dr. William Feltner *Annual Award for Excellence in Research*, College of Science, University of Nevada, Reno.
- 2015. **Invited symposium speaker**, Society for Integrative and Comparative Biology meeting, Symposium: "Thinking about change: an integrative approach for examining cognition in a changing world." Topic: "Climate related variation in spatial memory and the hippocampus what are the mechanisms of population-level differences?"
- 2014. Invited symposium speaker at the International Society for Behavioral Ecology 2014 conference. Symposium: "Individual variation in cognition and consequences for life-history and fitness in natural populations". Topic: "Environment-related variation in spatial memory and the hippocampus in foodcaching chickadees – plasticity or natural selection?" The symposium and my

**talk were covered in Science** (E. Pennisi, "In the battle for fitness, being smart doesn't always pay", Science 345: 609-610).

- 2013. Recipient of the Hyung K. Shin *Award for Excellence in Research*, College of Science, University of Nevada Reno.
- 2011: *Elective Member* of the American Ornithologists' Union.
- 2009: *Invited contributor* to a new Encyclopedia of Animal Behavior (Academic Press, Elsevier; Janice Moore and Michael Breed, the Editors-in-Chief; John Wingfield, Section Editor): "Hormones, behavior and memory and learning".
- 2007: *Invited symposium speaker* at the annual Animal Behavior Society Meeting. Symposium: "Evolutionary ecology of learning, memory and information use" organized by R. Dukas and J. Ratcliffe. Topic: Development of spatial memory and the hippocampus under nutritional stress: adaptive priorities or developmental constraints in brain development? Burlington, VT
- 2004: *Invited plenary speaker* at the 10<sup>th</sup> Jubilee Congress of the International Society for Behavioral Ecology, Jyvaskyla, Finland. Topic: Spatial memory in food caching birds from natural history to mechanisms.
- 2004: *Invited symposium speaker* at VIII International Symposium on Avian Endocrinology, Scottsdale, AZ. Topic – Long-term moderately elevated corticosterone and spatial memory.

#### **MAJOR RESEARCH INTERESTS:**

Neuroecology Cognitive Ecology Animal Behavior Behavioral Ecology Evolutionary Biology

## PUBLICATIONS (112):

## h-index: 39, i10-index: 80, Total citations 3,776 (GoogleScholar)

(Publications marked with <sup>\*</sup> have been produced in collaboration with students and/or postdocs in my lab).

#### <u>2019</u>

E. S. Bridge, J. Wilhelm, M. M. Pandit, A. Moreno, C. M. Curry, T. D. Pearson, D. S. Proppe, J. M. Eadie, T. F. Stair, A. C. Olson, B. E. Lyon, C. L. Branch, A. M. Pitera, D. Kozlovsky, B. R. Sonnenberg, V. V. Pravosudov, J. E. Ruyle. SUBMITTED. An Arduino-based RFID Platform for Animal Research.

- Pravosudov, V. V. 2019. Memory, learning, hormones and behavior. In: Choe, J. C. (Ed.), Encyclopedia of Animal Behavior, (2<sup>nd</sup> ed.), v. 2, pp. 625-634. Elsevier, Academic Press.
- Branch, C.L.<sup>1</sup>, Pitera, A. M.<sup>1</sup>, Kozlovsky, D. Y, Bridge, E., **Pravosudov, V. V.\*** Smart is the new sexy: Female mountain chickadees increase reproductive investment when mated to males with better spatial cognition. <u>Ecology Letters</u>, 22: 897-903 (<sup>1</sup>first co-authors, equal contribution).
- Sonnenberg, B. R., Branch, C. L., Pitera, A. M., Bridge, E., **Pravosudov, V. V.\*** 2019. Natural selection and spatial cognition in wild food-caching mountain chickadees. <u>Current Biology</u>, 29: 670-676.
- Tello-Ramos, M. C., Branch, C. L, Pitera, A. M., Kozlovsky, D. Y., Pravosudov, V. V.\* 2018. Spatial memory and cognitive flexibility trade-offs: to be or not to be flexible, that is the question. <u>Animal Behaviour</u>, Special Issue: Cognitive Ecology, 147: 129-136.

#### <u>2018</u>

- Pitera, A.M., Branch, C.L., Bridge, E.S., **Pravosudov, V.V.\*** 2018. Daily foraging routines in food-caching mountain chickadees are associated with variation in environmental harshness. Animal Behaviour, 143: 93-104.
- Kozlovsky, D. Y., Branch, C. L., Pitera, A. M., **Pravosudov, V. V. 2018**.\* Fluctuations in annual climatic extremes are associated with reproductive variation in resident mountain chickadees. <u>Royal Society Open Science</u>, 5: 171604.
- Tello-Ramos, M. C., Branch, C. L, Pitera, A. M., Kozlovsky, D. Y., Bridge, E. S., Pravosudov,
  V. V.\* 2018. Memory in wild mountain chickadees from different elevations: comparing first year birds with older survivors. <u>Animal Behavior</u>, 137: 149-160.

#### <u>2017</u>

- Kozlovsky, D. Y., Weissgerber, E. A., Pravosudov, V. V.\* What makes specialized foodcaching mountain chickadees successful city slickers? <u>Proceedings B</u>, 284:20162613.
- Branch, C, L., Jahner, J., Kozlovsky, D. Y., Parchman, T. L., Pravosudov, V. V. \* 2017. Absence of population structure across elevational gradients despite large phenotypic variation in mountain chickadees (*Poecile gambeli*). <u>Royal Society</u> <u>Open Science</u>, 4: 170057.
- Ladage, L., Roth, T. C., Downs, C., Sinervo, B., Pravosudov, V. V. \*2017. Increased testosterone decreases medial cortical volume and neurogenesis in territorial side-blotched lizards (*Uta stansburiana*). <u>Frontiers in Neuroscience</u>, 11:97. doi: 10.3389/fnins.2017.00097.

- Croston, R., Branch, C. L., Pitera, A., Kozlovsky, D. Y., Parchman, T. L., Bridge, E. S., Pravosudov, V. V.\* 2017. Predictably harsh environment is associated with reduced cognitive flexibility in wild food-caching mountain chickadees. <u>Animal</u> <u>Behaviour</u>, 123: 139-149.
- Pravosudov, V. V. 2017. Book review: "Bird brain: an exploration of avian intelligence" by Nathan Emery. The Quarterly Review of Biology, 92: 101-102.

#### 2016

- Branch, C. L., Kozlovsky, D. Y., Croston, R., Pitera, A., Pravosudov, V.V.\*2016. Mountain chickadees return to their post-natal dispersal settlement following long-term captivity. <u>Behaviour</u>, 153: 551-567.
- Branch, C. L., **Pravosudov, V. V.\*** 2016. Do male mountain chickadees discriminate between local and nonlocal elevation intruders? <u>Ethology</u>, 122: 376-388.
- LaDage, L. D., Roth II, T. C., Sinervo, B., **Pravosudov, V. V.\*** 2016. Environmental effects on cortical volume in territorial and non-territorial side-blotched lizards (*Uta stansburiana*). <u>Animal Behavior</u>, 115: 11-18.
- Croston, R., Kozlovsky, D. Y., Branch, C. L., Parchman, T. L., Bridge, E. S., Pravosudov, V.
  V.\* 2016. Individual variation in spatial memory performance in wild mountain chickadees from different elevations. Animal Behavior, 111: 225-234.

- 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. <u>Behavioral Ecology</u>, 26: 1463-1464.
- Croston, R., Branch, C. L., Kozlovsky, D. Y., Dukas, R., **Pravosudov, V. V.\*** 2015. Heritability and the evolution of cognitive traits. <u>Behavioral Ecology</u>, 26: 1447-1459.
- Croston, R., Branch, C. L., Kozlovsky, D. Y., Roth II, T. C., LaDage, L. D., Freas, C. A., **Pravosudov, V. V.\*** 2015. Population-level variation in spatial memory and the hippocampus - what are the mechanisms driving population-level differences? <u>Integrative and Comparative Biology</u>, 55: 354-371.
- Branch, C. L., **Pravosudov, V. V.\*** 2015. Mountain chickadees from different elevations sing different songs: acoustic adaptation, temporal drift, or signal of local adaptation? Royal Society Open Science, 2:150019.
- Kozlovsky, D. Y., Branch, C. L., Pravosudov, V. V.\* 2015. Problem solving ability and response to novelty in mountain chickadees (*Poecile gambeli*) from different elevations. <u>Behavioral Ecology and Sociobiology</u>, 69: 635-643.
- Kozlovsky, D. Y., Branch, C. L., Pravosudov, V. V.\* 2015. Elevation related differences in parental risk taking behavior are associated with cognitive variation in mountain chickadees. <u>Ethology</u>, 121: 383-394.

- **Pravosudov, V. V.**, Roth II, T. C., LaDage, L. D., Freas, C. A. 2015. Environmental influences on spatial memory and the hippocampus in food-caching chickadees. Comparative Cognition and Behavior Reviews, 10: 25-43.
- Branch, C. L., Kozlovsky D. Y., Pravosudov, V. V.\* 2015. Elevation related differences in female mate preference in mountain chickadees: are 'smart' chickadees choosier? <u>Animal Behavior</u>, 99: 89-94.
- Branch, C. L., Kozlovsky D. Y., **Pravosudov, V. V.\*** 2015. Elevation related variation in aggressive response to mirror image in mountain chickadees, <u>Behaviour</u>, 152: 667-676.

#### 2014

- Kozlovsky, D. Y., Branch, C. L., Freas, C. A., Pravosudov, V. V.\* 2014. Elevation related differences in novel environment exploration and social dominance in foodcaching mountain chickadees. <u>Behavioral Ecology and Sociobiology</u>, 68: 1871-1881.
- Kozlovsky, D. Y, Brown, S. L.<sup>@</sup>, Branch, C. L., Roth II, T. C., **Pravosudov, V. V.\*** 2014. Chickadees with bigger brains have smaller digestive tracts: a multi-population comparison. <u>Brain Behavior and Evolution</u>, 84: 172-180 (<sup>@</sup>undergraduate student); Editor's Choice – free access.

- Freas, C. A., Bingman, K.<sup>@</sup>, LaDage, L. D., **Pravosudov, V. V.\*** 2013. Untangling elevationrelated differences in the hippocampus in food-caching mountain chickadees: the effect of a uniform captive environment. <u>Brain, Behavior and Evolution</u>, 82: 199-209. (<sup>@</sup>undergraduate student).
- LaDage, L. D., Maged, R. M. <sup>@</sup>, Forney, M. V. <sup>@</sup>, Roth II, T. C., Sinervo, B., **Pravosudov, V.** V.\* 2013. Interaction between territoriality, spatial environment, and hippocampal neurogenesis in male side-blotched lizards. <u>Behavioral</u> <u>Neuroscience</u>, 127: 555-565. (<sup>@</sup>undergraduate student).
- Freas, C., Roth II, T. C., LaDage, L. D., Pravosudov, V. V. \* 2013. Hippocampal neuron soma size is associated with population differences in winter climate severity in food-caching chickadees. <u>Functional Ecology</u>, 27: 1341-1349.
- Buchanan, K., Grindstaff, J., Pravosudov, V. V. 2013. Condition-dependence, developmental plasticity, and cognition. <u>Trends in Ecology and Evolution</u>, 28: 290-296.
- Roth II, T. C., LaDage, L. D., Chavalier, D.<sup>@</sup>, **Pravosudov, V. V.\*** 2013. Variation in hippocampal glial cell numbers in food-caching birds from different climates. <u>Developmental Neurobiology</u>, 73: 480-485 (<sup>@</sup>undergraduate student supported by NSF REU).
- Pravosudov, V. V. & Roth II, T. C. 2013. Cognitive ecology of food hoarding: the evolution of spatial memory and the hippocampus. <u>Annual Reviews of Ecology</u>, <u>Evolution and Systematics</u>. 44: 18.1-18.21.

**Pravosudov, V. V.**, Roth II, T. C., Forister, M., LaDage, L. D., Kramer, R., Schilkey, F., van der Linden, A. M. 2013. Differential hippocampal gene expression associated with climate-related natural variation in memory and the hippocampus in food-caching chickadees. <u>Molecular Ecology</u>, 22: 397-408.

#### 2012

- LaDage, L. D., Roth II, T. C., Cerjanic, A. M., Sinervo, B., **Pravosudov, V. V.\*** 2012. Spatial memory: are lizards really deficient? <u>Biology Letters</u>, 8: 936-938.
- Pravosudov, V. V., Roth, II, T. C., Forister, M., LaDage, L. D., Burg, T., Braun, M, Davidson, B. 2012. Population genetic structure and its implications for adaptive variation in memory and the hippocampus on a continental scale in food-caching black-capped chickadees. <u>Molecular Ecology</u>, 21: 4486-4497.
- Freas, C., LaDage, L. D., Roth II, T. C., Pravosudov, V. V.\* 2012. Elevation related differences in memory and the hippocampus in food-caching mountain chickadees. <u>Animal Behaviour</u>, 84: 121-127. (featured in New Scientist, "Chickadees get smarter as they move up mountains", 31 May 2012; selected for inclusion in Elsevier's monthly research selection, an e-newsletter for science journalists and reporters).
- Roth II, T.C., Gallagher, C.<sup>@</sup>, LaDage, L. D., and **Pravosudov, V. V.\***. 2012. Variation in brain regions associated with fear and learning in contrasting climates. <u>Brain,</u> <u>Behavior and Evolution</u>, 79: 181-190. (<sup>@</sup>undergraduate student supported by NSF REU).
- Roth II, T. C., LaDage, L. D., **Pravosudov, V. V.\*** 2012. Evidence for long-term spatial memory in a parid. <u>Animal Cognition</u>, 15: 149-154.
- Roth II, T.C., L.D. LaDage, C. Freas, and **V.V. Pravosudov\***. 2012. Variation in memory and the hippocampus across populations from different climates: a common garden approach. <u>Proceedings of the Royal Society B</u>, 279: 402-410.

- Barnea, A., **Pravosudov, V. V.** 2011. Birds as a model to study adult neurogenesis: bridging evolutionary, comparative and neuroethological approaches. <u>European</u> <u>Journal of Neuroscience</u>, 34: 884-907.
- Roth II, T. C., LaDage, L. D., **Pravosudov, V. V.** \* 2011. Variation in hippocampal morphology along an environmental gradient: controlling for the effect of day length. Proceedings of the Royal Society B, 278: 2662-2667.
- Chancellor, L. V.<sup>@</sup>, Roth II, T. C., LaDage, L. D., **Pravosudov, V. V.\*** 2011. The effect of environmental harshness on neurogenesis: a large scale comparison. <u>Developmental Neurobiology</u>, 71: 246-252. (<sup>@</sup>Undergraduate student supported by NSF REU).
- Rattenborg, N. C., Martinez-Gonzalez, D., Roth II, T. C., Pravosudov, V. V. 2011.
  Hippocampal memory consolidation during sleep: a comparison of mammals and birds. <u>Biological Reviews</u> 86: 658-691.

LaDage, L., Roth II, T. C., Pravosudov, V. V.\* 2011. Hippocampal neurogenesis is associated with migratory behavior in adult but not juvenile white-crowned sparrows (*Zonotrichia leucophrys* ssp.). Proceedings of the Royal Society B, 278: 138-143.

#### 2010

- Roth II, T. C., LaDage, L., Pravosudov, V. V.\* 2010. Learning capabilities enhanced in harsh environments: a common garden approach. <u>Proceedings of the Royal</u> <u>Society B</u>, 277: 3187-3193. (Highlighted in *Nature*: "Colder is cleverer", *Nature*, 2010, 465: 669)
- Pravosudov, V. V. 2010. Memory, learning, hormones and behavior. <u>Encyclopedia of</u> <u>Animal Behavior</u>, Breed, M. D. & Moore, J., eds. Academic Press, Oxford 2010, pp. 429-437.
- **Pravosudov, V. V**., Roth II, T. C., LaDage, L. D. 2010. Chickadees are selfish group members when it comes to food caching. <u>Animal Behaviour</u>, 80: 175-180.
- Fox, R. A., Roth II, T. C., LaDage, L. D., Pravosudov, V. V.\* 2010. No effect of social group composition or size on hippocampal morphology and neurogenesis in mountain chickadees (*Poecile gambeli*). <u>Developmental Neurobiology</u>, 70: 538-547.
- LaDage, L. D., Roth II, T. C., Fox, R. A., **Pravosudov, V. V.\*** 2010. Ecologically-relevant spatial memory use modulates hippocampal neurogenesis. <u>Proceedings of the Royal Society B</u>, 277: 1071-1079.
- **Pravosudov, V. V**., Smulders, T. V. 2010. Integrating ecology, psychology, and neurobiology within a food-hoarding paradigm, <u>Philosophical Transactions of the</u> <u>Royal Society B</u>, 365: 859-867.
- Roth, T. C. II, Rattenborg, N. and Pravosudov, V. V.\* 2010. The ecological relevance of sleep: the trade-off between sleep, memory, and energy conservation.
  Philosophical Transactions of the Royal Society B, 365: 933-943.
- Roth, T. C. II, Brodin, A., LaDage, L., Smulders, T. V., Pravosudov, V. V.\* 2010. Is bigger always better? A critical appraisal of the issue of volumetric analysis in the study of the hippocampus. <u>Philosophical Transactions of the Royal Society B</u>, 365: 915-931.

- Roth II, T. C. and **Pravosudov, V. V.\*** 2009. Tough times call for bigger brains. <u>Communicative and Integrative Biology</u>, 2(3): 1-3 (Invited paper).
- LaDage, L. D., Roth II, T. C., **Pravosudov, V. V.\*** 2009. Biases in brain measurements: the trouble with the telencephalon. <u>Brain, Behavior and Evolution</u>, 73: 253-258.
- LaDage, L. D., Riggs, B. J. Sinervo, B. & Pravosudov, V. V.\* 2009. Dorsal cortex volume in male side-blotched lizards (*Uta stansburiana*) is associated with different space use strategies. <u>Animal Behaviour</u>, 78: 91-96.

- Fox, R. A., LaDage, L. D., Roth II, T. C., Pravosudov, V. V.\* 2009. Behavioral profile predicts dominance status in mountain chickadees. <u>Animal Behaviour</u>, 77: 1441-1448.
- LaDage, L. D., Roth II, T. C., Fox, R. A., Pravosudov, V. V.\* 2009. Effects of captivity and memory-based experiences on the hippocampus in mountain chickadees. <u>Behavioral Neuroscience</u>, 123: 284-291. (Recommended by the Faculty of 1000 Biology)
- LaDage, L. D., Roth II, T. C., Fox, R. A., **Pravosudov, V. V.\*** 2009. Flexible cue use in foodcaching birds. <u>Animal Cognition</u>, 12: 419-426.
- Roth II, T. C. **Pravosudov, V. V.\*** 2009. Hippocampal volume and neuron numbers increase along a gradient of environmental harshness a large-scale comparison. <u>Proceedings of the Royal Society B</u> 276: 401-405.
- Pravosudov, V. V. 2009. Development of spatial memory and the hippocampus under nutritional stress: adaptive priorities or developmental constraints in brain development? In: <u>Cognitive Ecology II. The Evolutionary ecology of learning,</u> <u>memory and information use</u>. Reuven Dukas & John Ratcliffe, Editors, University of Chicago Press, pp. 88-110.

# 2008 and before

- Pravosudov, V. V. 2008. Mountain chickadees discriminate between potential cache pilferers and non-pilferers. <u>Proceedings of the Royal Society: Biological Sciences</u>, 275: 55-61.
- **Pravosudov, V. V.**, Sanford, K. & Hahn, T. P. 2007. On the evolution of brain size in relation to migratory behavior in birds. <u>Animal Behaviour</u>, 73: 535-539.
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- **Pravosudov, V. V.** 1983. Tits' feeding rate during winter in northern taiga. <u>Vestnik</u> <u>Leningradskogo Universiteta</u>, 21:16-22 (in Russian)

# BOOK REVIEWS (1):

**Pravosudov, V. V.** 1999. The Nuthatches (book review). <u>The Auk</u>, A Quarterly Journal of Ornithology, 116: 1165-1166.

# **SPECIAL ISSUE/BOOK EDITOR (1)**

 Pravosudov, V. V. & Smulders, T. V., Guest Editors for a theme issue: Integrating Ecology, Psychology and Neurobiology within a Food-Hoarding Paradigm.
 <u>Philosophical Transactions of the Royal Society B</u>, Proposal accepted in October 2008, the theme issue is published in 2010 (volume 365, number 1542, pages 857-997.

# PUBLISHED CONFERENCE ABSTRACTS (3):

- Sanford, K. H., Breuner, C. W., Hahn, T. P., Pravosudov, V. V.\* 2006. Age affects relative but not absolute hippocampal volume in migratory mountain white-crowned sparrows. <u>Integrative and Comparative Biology</u>, 46: E245 (Abstract, Society for Integrative and Comparative Biology).
- Sanford, K. H., Breuner, C. W., Hahn, T. P., Pravosudov, V. V.\* 2005. Relative hippocampal volume is affected by age in migratory mountain white-crowned sparrows. <u>Integrative and Comparative Biology</u>, 45: 1188 (Abstract, Society for Integrative and Comparative Biology).
- Pravosudov, V. V., Cimprich, D. A., and Grubb, T. C., Jr. 1994. Behavior, nutritional condition and survivorship in mixed-species foraging groups: an experimental approach. J. Ornithol. 135:310 (abstract, International Ornithological Congress).

#### **PROFFESIONAL PRESENTATIONS (76):**

Presentations marked with \* are by students and/or postdocs in my lab.

- 2018. Kozlovsky, D., Branch, C., Pitera, A., Pravosudov, V.\* Fluctuations in annual climatic extremes are associated with reproductive variation in resident mountain chickadees. International Society for Behavioral Ecology 2018 Conference, Minneapolis.
- 2018. Pravosudov, V. V. Spatial memory and memory flexibility in wild food-caching chickadees along an elevation gradient. August 23, 2018, 27TH INTERNATIONAL ORNITHOLOGICAL CONGRESS, VANCOUVER, BRITISH COLUMBIA, CANADA, AUGUST 19-26, 2018
- 2018. Branch, C., Pravosudov, V.\* Song dialects in mountain chickadees. International Society for Behavioral Ecology 2018 Conference, Minneapolis.
- 2018. Pitera, A., Branch, C., Bridge, E., Pravosudov, V\*. Environmental differences and social network structure in wild mountain chickadees. International Society for Behavioral Ecology 2018 Conference, Minneapolis.
- 2018. Pravosudov, V. V., Tello-Ramos, M., Branch, C. L., Pitera, A., Kozlovsky, D., Bridge, E.\* Memory in wild mountain chickadees from different elevations: comparing first-year birds with older survivors. International Society for Behavioral Ecology 2018 Conference, Minneapolis, Oral Presentation.
- 2017. Pitera, A., Croston, R., Branch, C., Kozlovsky, D., Bridge, E., **Pravosudov, V.\*** Daily foraging routines: the role of environmental harshness, food-caching, and spatial memory. Animal Behavior Society Meeting, Toronto, Oral Presentation
- 2017. Kozlovsky, D., Branch, C., Croston, R., Pitera, A., **Pravosudov, V.\*** Annual climate variation is associated with differences in reproduction in mountain chickadees. Animal Behavior Society Meeting, Toronto, Oral Presentation.
- 2017. Tello-Ramos, M., Croston, R., Branch, C., Kozlovsky, D., Pitera, A., Bridge, E., Pravosudov, V.\* Individual variation in spatial memory and fitness in foodcaching chickadees. Animal Behavior Society Meeting, Toronto, Oral Presentation.
- 2017. Branch, C. (PhD student).\* Environmental variation along an elevation gradient is associated with pre-mating mechanisms. Animal Behavior Society Meeting, Toronto, Allee Symposium for Best Student Paper.
- 2017. **Pravosudov, V. V.** Spatial memory and cognitive flexibility trade-offs: to be or not to be flexible, that is the question. Animal Behavior Society Meeting, Toronto, Invited Symposium presentation (Cognitive Ecology).
- 2016. Kozlovsky, D. Y., Weissgerber, E. A., **Pravosudov, V. V.\*** What makes specialized food-caching chickadees successful city slickers? International Society for Behavioral Ecology 2016 Conference, Exceter, UK, Oral Presentation.
- 2016. Branch, C. Jahner, J. P., Kozlovsky, D., Croston, R., Parchman, T., Pravosudov, V. V.\* Absence of population genetic structure despite limited movement in

mountain chickadees (Poecile gambeli). International Society for Behavioral Ecology 2016 Conference, Exceter, UK, Oral Presentation.

- 2016. Croston, R., Branch, C. L., Pitera, A., Kozlovsky, D., Bridge, E., Parchman, T. Pravosudov, V. V.\* Harsh environment is associated with reduced cognitive flexibility. Animal Behavior Society meeting, Columbia, Missouri.
- 2015. Branch, C., **Pravosudov, V. V.\*** Mountain chickadees from different elevations sing different songs. Animal Behavior Society meeting, Anchorage, Alaska.
- 2015. Kozlovsky, D., Weissgerber, E., **Pravosudov, V. V.\*** The relationship between urban environment, cognition and behavior in food-caching mountain chickadees. Animal Behavior Society meeting, Anchorage, Alaska.
- 2015. Croston, R., Kozlovsky, D., Branch, C., Bridge, E., Parchman, T. **Pravosudov, V. V.\*** Using RFID technology to test for variation in spatial learning and memory in mountain chickadees. Animal Behavior Society meeting, Anchorage, Alaska.
- 2015. LaDage, L., Roth, T., Sinervo, B., **Pravosudov, V. V.** \*The heritable basis of cortical volume in side-blotched lizards (*Uta stansburiana*). Animal Behavior Society meeting, Anchorage, Alaska.
- 2015. Pravosudov, Invited symposium speaker, Society for Integrative and Comparative Biology meeting, Symposium: "Thinking about change: an integrative approach for examining cognition in a changing world." Topic: "Climate related variation in spatial memory and the hippocampus – what are the mechanisms of populationlevel differences?"
- 2014. Branch, C., Kozlovsky, D., **Pravosudov, V. V.\*** Female mate preference in mountain chickadees: a potential mechanism generating reproductive isolation between elevations. International Society for Behavioral Ecology 2014 Conference, New York, NY, Poster Presentation.
- 2014. Kozlovsky, D., Branch, C., **Pravosudov, V. V.\*** Elevation related differences in parental investment are associated with variation in spatial memory in chickadees. International Society for Behavioral Ecology 2014 Conference, New York, NY, Spoken Presentation.
- 2014. **Pravosudov, V. V.** Environment-related variation in spatial memory and the hippocampus in food-caching chickadees plasticity or natural selection? International Society for Behavioral Ecology 2014 Conference, New York, NY, Invited Symposium Spoken Presentation.
- 2014. Roth II, T. C., LaDage, L. D., **Pravosudov, V. V.\*** Variation in behavioral and neurological traits associated with fear and learning in contrasting climates. Gordon Conference: Predator-Prey Interactions, January 2014, Poster.
- 2013. Freas, C. A., **Pravosudov, V. V.\*** Elevation related differences in hippocampal morphology in chickadees persist in captive environment. 50th Annual Meeting of the Animal Behavior Society, Boulder, CO, Spoken Presentation.
- 2013. Kozlovsky, D.Y., Branch, C. L., Freas, C. A., **Pravosudov, V. V.\*** Elevation related differences in exploration and social dominance in mountain chickadees. 50th Annual Meeting of the Animal Behavior Society, Boulder, CO, Spoken Presentation.

- 2013. **Pravosudov, V. V.**, Dochtermann, N. Climate-dependent variation in breeding as the mechanism affecting gene flow in food-caching birds. 50th Annual Meeting of the Animal Behavior Society, Boulder, CO, Spoken Presentation.
- 2012. Pravosudov, V. V., Roth II, T. C., Forister, M., van der Linden, A., LaDage, L. D., Burg, T., Braun, M., Davidson, B. Role of genetic differentiation and differential gene expression in naturally occurring variation in memory and the hippocampus. 14<sup>th</sup> Congress of the International Society for Behavioral Ecology, Lund University, Lund, Sweden, Spoken Presentation.
- 2012. Pravosudov, V. V., Roth II, T. C., Forister, M., van der Linden, A., LaDage, L. D., Burg, T., Braun, M., Davidson, B. Genetic basis of variation in memory and the hippocampus. 49th Annual Meeting of the Animal Behavior Society, Albuquerque, NM, Spoken Presentation.
- 2012. LaDage, L. D., Forney, M. V., Maged, R., Roth, T. C., Sinervo, B., Pravosudov, V. V.\* Differential spatial environments modulate neurogenesis in side-blotched lizards.
   49th Annual Meeting of the Animal Behavior Society, Albuquerque, NM, Spoken Presentation.
- 2012. Freas, C. A., Roth II, T. C., LaDage, L. D., **Pravosudov, V. V.\*** Climate severity and hippocampal neuron soma size in food-caching chickadees. 49th Annual Meeting of the Animal Behavior Society, Albuquerque, NM, Spoken Presentation.
- 2012. LaDage, L. D., Roth, T. C., Cerjanic, A. M., Sinervo, B., **Pravosudov, V. V.\*** Spatial memory in the side-blotched lizard, *Uta stansburiana*. SICB 2012 Meeting, Charleston, SC. Spoken presentation.
- 2012. Roth, T. C., LaDage, L. D., Freas, C., **Pravosudov, V. V.\*** Variation in memory and the hippocampus across populations from different climates: a common garden experiment. SICB 2012 Meeting, Charleston, SC. Spoken presentation.
- 2011. Roth, T. C., LaDage, L. D., Freas, C., **Pravosudov, V. V.\*** Role of experience in producing hippocampal variation in populations with differing memory demands. Joint meeting of the Animal Behavior Society & International Ethological Conference, Bloomington, IN. Spoken Presentation.
- 2011. Freas, C., LaDage, L. D., Roth, T. C., **Pravosudov, V. V.\*** Effect of elevation-related environment on memory and the hippocampus in mountain chickadees. Joint meeting of the Animal Behavior Society & International Ethological Conference, Bloomington, IN. Spoken Presentation.
- 2011. **Pravosudov, V. V.**, Roth, T. C., LaDage, L. D. Long-term associative spatial memory in a food-caching parid. Joint meeting of the Animal Behavior Society & International Ethological Conference, Bloomington, IN. Spoken Presentation.
- 2011. LaDage, L. D., Roth, T. C., Pravosudov, V. V. \* Hippocampal neurogenesis is associated with migratory behavior in adult but not juvenile sparrows (*Zonotrichia leucophrys* ssp.). Society for Integrative and Comparative Biology 2011 meeting, Salt Lake City, UT, Jan. 3-7, 2011. Spoken presentation.
- 2011. Chancellor, L. V., Roth, T. C., LaDage, L. D., Pravosudov, V. V. \*@ The effect of environmental harshness on hippocampal neurogenesis: a large scale comparison. Society for Integrative and Comparative Biology 2011 meeting, Salt Lake City, UT, Jan. 3-7, 2011. @ presenting author, Spoken presentation.

- 2011. Roth, T. C., LaDage, L. D., **Pravosudov, V. V.\*** Learning capabilities enhanced in harsh environment. Society for Integrative and Comparative Biology 2011 meeting, Salt Lake City, UT, Jan. 3-7, 2011. Spoken presentation.
- 2010. LaDage, L. D., Roth, T. C., **Pravosudov, V. V.**\* Hippocampal neurogenesis is associated with migration in adult sparrows. Spoken presentation; <u>Animal</u> <u>Behavior Society</u> meeting, College of William and Mary, VA.
- 2010. Roth, T. C., LaDage, L. D., **Pravosudov, V. V.\*** Learning capabilities enhanced in harsh environments: the role of inheritance. Spoken presentation; <u>Animal</u> <u>Behavior Society</u> meeting, College of William and Mary, VA.
- 2010. **Pravosudov, V. V**., Roth, T. C., LaDage, L. D. Chickadees are selfish group members when it comes to food caching. Spoken presentation; <u>Animal Behavior Society</u> meeting, College of William and Mary, VA.
- 2010. Fox, R. A., LaDage, L. D., Roth II, T. C., **Pravosudov, V. V.\*** Behavioral profile and aggression in mountain chickadees. <u>Society for Integrative and Comparative</u> <u>Biology</u>, 2010 Annual Meeting.
- 2009. Becker, M. E., **Pravosudov, V. V.\*** Is playing favorites a beneficial parental investment strategy in larger broods? Spoken Presentation. <u>American</u> <u>Ornithologists Union 2009</u> meeting, Philadelphia, PA.
- 2008. Fox, R. A., Roth II, T. C., LaDage, L. D., Pravosudov, V. V.\* Effects of social environment on spatial memory in mountain chickadees. Spoken Presentation. <u>Integrative Biology of Scatter Hoarding: Ecology, Psychology and Neuroscience,</u> Cornell University.
- 2008. Pravosudov, V. V., Roth II, T. C., LaDage, L. D., Fox, R. A. The relationship between the environment, spatial cognition and the hippocampus in food-caching birds. Spoken Presentation. <u>Integrative Biology of Scatter Hoarding: Ecology</u>, <u>Psychology and Neuroscience</u>, Cornell University.
- 2008. Roth II, T. C., LaDage, L. D., Fox, R. A., Pravosudov, V. V\*. Hippocampal volume in food-hoarding parids: are North American brains really smaller than Eurasian? Spoken Presentation. <u>Integrative Biology of Scatter Hoarding: Ecology</u>, <u>Psychology and Neuroscience</u>, Cornell University.
- 2008. **Pravosudov, V. V.** Mountain chickadees discriminate between potential cache pilferers and non-pilferers. Spoken presentation. <u>12<sup>th</sup> International Behavioral Ecology Congress</u>, Cornell University, Ithaca, NY.
- 2008. Fox, R. A., LaDage, L. D., Roth II, T. C., Pravosudov, V. V.\* Individual behavioral traits predict dominance status in mountain chickadees. Spoken presentation.<u>12<sup>th</sup> International Behavioral Ecology Congress</u>, Cornell University, Ithaca, NY.
- 2008. LaDage, L. D., Roth II, T. C., Fox, R. A., Pravosudov, V. V.\* Food-caching mountain chickadees preferentially respond to color over spatial cues in an associative learning test. Spoken presentation.<u>12<sup>th</sup> International Behavioral Ecology</u> <u>Congress</u>, Cornell University, Ithaca, NY.
- 2008. Roth II, T. C., Pravosudov, V. V.\* The relationship between environmental conditions and hippocampal structure in the black-capped chickadee. <u>12<sup>th</sup></u> <u>International Behavioral Ecology Congress</u>, Cornell University, Ithaca, NY (to be

presented in August 2008). Spoken presentation.12<sup>th</sup> International Behavioral Ecology Congress, Cornell University, Ithaca, NY.

- 2007. Sanford, K. H., Breuner, C. W., Hahn, T. P., Pravosudov, V. V.\* 2006. Age affects relative but not absolute hippocampal volume in migratory mountain whitecrowned sparrows. Poster. <u>Society for Integrative and Comparative Biology</u> <u>Meeting</u>, Phoenix, AZ, Jan. 3-7, 2007.
- 2006. **Pravosudov, V. V.** The relationship between migratory behavior, memory and the hippocampus an intraspecific comparison. Spoken presentation; <u>Animal</u> <u>Behavior Society</u> meeting, Snowbird, UT, 12-16 August.
- 2006. **Pravosudov, V. V.** Continental differences in avian hippocampal and brain size: myth or reality? Invited spoken presentation. <u>Winter Animal Behavior</u> Conference, Steamboat Springs, Colorado, January 14-21, 2006
- 2006. Sanford, K. H., Breuner, C. W., Hahn, T. P., & **Pravosudov, V. V.\*** Relative hippocampal volume is affected by age in migratory mountain white-crowned sparrows. Poster. <u>Society for Integrative and Comparative Biology Meeting</u>, Orlando, FL, January 4-8, 2006.
- 2005. **Pravosudov, V. V.** The relationship between environment, food caching, spatial memory, and the hippocampus in chickadees. Invited spoken presentation, <u>Parid Evolution & Behavior Workshop</u>, 11<sup>th</sup>-12<sup>th</sup> August 2005, Snowbird, UT.
- 2005. **Pravosudov, V. V.** Nutritional deficits during early development affect hippocampal structure and spatial memory later in life. Spoken presentation, <u>Animal Behavior Society</u> Meeting, Snowbird, UT.
- 2003. **Pravosudov, V. V.** Long-term moderate elevation in corticosterone facilitates avian food caching behavior and enhances spatial memory. Spoken presentation. <u>Animal Behavior Society</u> Meeting, Boise, ID.
- 2002. Pravosudov, V. V. and Clayton, N. S. The effect of social dominance on caching behavior and cache retrieval accuracy in mountain chickadees (*Poecile gambeli*). Spoken presentation. <u>Animal Behavior Society</u> Meeting, Bloomington, IN.
- 2002. Pravosudov, V. V. and Clayton, N. S. A test of the adaptive specialization hypothesis: populational differences in caching, memory and the hippocampus in black-capped chickadees (*Poecile atricapilla*). Spoken presentation. <u>9<sup>th</sup> Biennial</u> <u>Congress of the International Society for Behavioral Ecology</u>, Montreal, Canada.
- 2001. Greenberg, R., **Pravosudov, V**., Sterling, J., Kozlenko, A., and Kontorshchikov, V. The effect of the agricultural revolution on forest bird communities: the case of the chaffinch. Poster. 2001 <u>American Ornithologists' Union Meetings</u>, University of Washington, Seattle.
- 2001. Pravosudov, V. V., Kitaysky, A. S., Wingfield, J. C., and Clayton, N. S. The effect of photoperiod and long-term unpredictable food supply on baseline levels of corticosterone and on the adrenocortical stress response in mountain chickadees. Poster. 2001 <u>American Ornithologists' Union Meetings</u>, University of Washington, Seattle.
- 2001. **Pravosudov, V. V.** and Clayton, N. S. Differences in cache retrieval efficiency between northern and southern populations of black-capped chickadees (*Poecile*

*atricapillus*). Spoken presentation. <u>Animal Behavior Society</u> Meeting, Oregon State University.

- 2000. **Pravosudov, V. V.** and Clayton, N. S. Memory for food caches and unpredictable food in mountain chickadees. Spoken presentation. <u>Animal Behavior Society</u> Meeting, Morehouse College, Atlanta, Georgia.
- 1999. Lucas, J. R., **Pravosudov, V. V.**, and Zielinski, D. L. A re-evaluation of the logic of pilferage effects on energy regulation. Spoken presentation. <u>Animal Behavior</u> <u>Society</u> Meeting, Bucknell University.
- 1999. **Pravosudov, V. V.** and Lucas, J. R. Ecological trade-offs of nocturnal hypothermia in wintering small food-caching birds: a dynamic model. Spoken presentation. <u>Animal Behavior Society</u> Meeting, Bucknell University.
- 1998. **Pravosudov, V. V.** and Lucas, J. R. The effect of within and between day variance in food supply on fattening and food caching in birds: a dynamic model. Spoken presentation. <u>Foraging98</u>, University of California Santa Cruz.
- 1998. Pravosudov, V. V. and Lucas, J. R. The effect of social dominance on fattening and food caching behavior in Carolina chickadees. Spoken presentation. <u>7<sup>th</sup></u> <u>International Behavioral Ecology Congress</u>, Asilomar Conference Grounds, California.
- 1997. **Pravosudov, V. V.** and Grubb, T. C., Jr. Avian body mass and predation risk: is the evidence clear? Spoken presentation. <u>Animal Behavior Society</u> Meeting, University of Maryland, College Park, Maryland.
- 1996. **Pravosudov, V. V.** and Grubb, T. C., Jr. Avian body mass and food-caching may be independent responses to starvation risk. Spoken presentation. <u>Animal Behavior Society</u> Meeting, Flagstaff, Arizona.
- 1995. Lahti, K., Koivula, K., **Pravosudov, V.**, Rytkunen, S., and Orell, M. Tits avoid food storing in the presence of conspecifics. Birds 95. <u>The Third Congress of Finnish</u> <u>Ornithology</u>, Oulu, Finland.
- 1995. **Pravosudov, V. V.** and Grubb, T. C. Jr. Daily foraging and hoarding routines of wintering birds: a test. Poster. <u>American Ornithologists' Union 113th Stated</u> <u>meeting</u>, Cincinnati, Ohio.
- 1995. **Pravosudov, V. V.** and Grubb, T. C., Jr. Fattening and hoarding in birds when food is unpredictable: are they really alternatives? Spoken presentation. <u>Animal</u> <u>Behavior Society</u> Meeting, Lincoln, Nebraska.
- 1994. **Pravosudov, V. V.**, Cimprich, D. A., and Grubb, T. C., Jr. Behavior, nutritional condition and survivorship in mixed-species foraging groups: an experimental approach. Spoken presentation. <u>XXI International Ornithological Congress</u>, Vienna, Austria.
- 1993. **Pravosudov, V. V.** Social organization of the Eurasian Nuthatch (*Sitta europaea asiatica*). Spoken presentation. <u>Wilson Ornithological Society</u> Meeting, Guelph, Ontario, Canada.
- 1990. **Pravosudov, V. V.** Social organization in Nuthatch *Sitta europaea asiatica*. Poster. <u>Third International Conference of Behavioral Ecology</u>, Uppsala, Sweden.

- 1986. **Pravosudov, V. V.** On the relation between residency and food storage behavior in birds (with examples of Willow and Siberian tits). Spoken paper. <u>IX Congress of</u> <u>Russian Ornithologists</u>, Leningrad, Russia.
- 1983. **Pravosudov, V. V.** Feeding rate of female by male during breeding in Siberian and Willow tits. <u>XI Baltic Republics conference</u>.

#### **INVITED PROFFESIONAL PRESENTATIONS/SEMINARS:**

- 2018. University of Wyoming, Department of Zoology and Physiology and Program in Ecology, 'Cognition and winter climate: from the lab into the wild', April 4<sup>th</sup>, 2018.
- 2017. University of Massachusetts, Amherst, Neuroscience and Behavior Graduate Program, "Cognition and winter climate; from the lab into the wild". March 22, 2017.
- 2015. University of California Berkeley, The Museum of Vertebrate Zoology, "Elevationrelated adaptations in cognition and the brain in food-caching mountain chickadees". April 29, 2015.
- 2014. University of California Santa Cruz, Ecology and Evolutionary Biology Department, "Winter climate and adaptive specialization of spatial memory and the hippocampus in food-caching birds", May 7, 2014.
- 2013. University of Kentucky, Lexington, Department of Biology, "Winter climate and adaptive specialization of spatial memory and the hippocampus in food-caching birds", March 21, 2013.
- 2013. University of California Davis, Animal Behavior Graduate Group invited seminar, "Winter climate and adaptive specialization of spatial memory and the hippocampus in food-caching birds", March 8, 2013.
- 2013. Oklahoma State University, Department of Zoology Invited Seminar, "Winter climate and adaptive specialization of spatial memory and the hippocampus in food-caching birds", January 18, 2013.
- 2012. University of Southern California, Molecular and Computational Biology & Neurobiology, Molecular Biology & Neurobiology Seminar, "Winter climate and adaptive specialization of spatial memory and the hippocampus in food-caching birds" December 4, 2012.
- 2012. Indiana University, Department of Biology, Evolution, Ecology and Behavior Seminar Series, "Winter climate and adaptive specialization of spatial memory and the hippocampus in food-caching birds", November 2, 2012.
- 2011. University of Alberta, Canada, Department of Psychology and Graduate Psychology Association, International Speaker selected by graduate students, "The relationship between environment, cognition and the brain: from natural history to mechanisms", April, 2011.

- 2009. University of Nevada Reno, Annual Meeting of the Sierra Nevada Chapter of the Society for Neuroscience, Effects of the environment and memory use on hippocampus morphology and neurogenesis, November 20, 2009.
- 2008. University of Nebraska, Lincoln, NE, Ecology, Evolution and Behavior Seminar series, School of Biological Sciences. Merging behavioral ecology and neurobiology – spatial memory and the hippocampus, March 28, 2008.
- 2007. University of Southern Illinois, Carbondale, IL, Department of Zoology. Integrating behavioral ecology and neurobiology – spatial memory in birds. November 8, 2007 (speaker selected by graduate students).
- 2006. University of Kentucky, Lexington, Department of Biology and Program in Cognitive Sciences. Integrating ecology and neurobiology – spatial memory in birds. March 23, 2006.

# PROFESSIONAL SERVICE:

*Review Editor* for *Frontiers in Behavioral Neuroscience* (October 2008-current) *Editor* for *Animal Behaviour* (August 2009-August 2012)

# Served as a reviewer for the following peer-reviewed scientific journals:

American Naturalist; Proceedings of the Royal Society: Biological Sciences; Philosophical Transactions of the Royal Society: Biological Sciences; Brain Research; Behavioral Brain Research; Acta Zoologica Sinica; The Condor; Journal of Avian Biology; Animal Behavior; The Auk; Ornis Fennica; IBIS; Behavioral Ecology; Acta Biotheoretica; Journal of Comparative Psychology; Journal of Field Ornithology; The University of Chicago Press; Journal of Animal Ecology; Behavioral Ecology and Sociobiology; Behaviour; Hormones and Behavior; Ethology; General and Comparative Endocrinology; Oikos; Ecology; Proceedings of the National Academy of Sciences, USA (PNAS); Trends in Cognitive Sciences (TICS); Animal Cognition; Biology Letters; Journal of Comparative Neurology; Functional Ecology; PloS One.

# Served as a reviewer and/or panelist for the following national and international research-funding agencies and societies:

- National Science Foundation (US)
- National Institutes of Health (US)
- UK Biotechnology and Biological Sciences Research Council (UK)
- Natural Sciences and Engineering Research Council of Canada (Canada, NSERC)
- The Marsden Fund Council, New Zealand (The Marsden Fund has been set up by the New Zealand Government to fund excellent fundamental research in a wide range of fields in the sciences, engineering, the social sciences and the humanities. The Fund is administered by the Royal Society of New Zealand)
- European Research Council (ERC)
- Animal Behavior Society (US)

- The Netherlands Organization for Scientific Research (NWO)
- 2003: reviewer for Animal Behavior Society Student Research Grant Awards
- 2003- 2007: Member of the film committee, Animal Behavior Society
- 2005: Member of the Founder's Award Committee, Animal Behavior Society
- 2003-2005: Seminar Committee, Animal Behavior Graduate Group, University of California Davis
- 2005-present: member of the Sagehen Reserve Program Planning Advisory Group
- 2008: Member of the Organizing Committee for the international conference entitled: "Integrative Biology of Scatter Hoarding: Ecology, Psychology and Neuroscience", Cornell University (Ithaca, NY), 8-9 August 2008.

# **GRADUATE STUDENT ADVISING:**

## Past:

- Kirsten Sanford, PhD student, University of California Davis (graduated Fall 2006).
- Alicja Omanska, Masters student, California State University Sacramento (graduated in 2005). Currently works as Research Associate at UC Davis.
- Ruby Baxter, Masters student, Department of Biology, University of Nevada Reno (2009-2011).
- Cody Freas, Masters student, Department of Biology, University of Nevada Reno: fall 2010-2013 (moved to a PhD Program to Macquarie University, Australia).
- Dovid Kozlovsky, PhD, Fall 2012-Winter 2018; Now postdoc at University of Ottawa, Canada).
- Carrie Branch, PhD, Fall 2012 Spring 2018; Postdoc at UNR, starts Rose Postdoc Fellowship at Cornell University in Fall 2018.

# Present:

- Angela Pitera, PhD, started Fall 2015
- Ben Sonnenberg, started Fall 2017
- Lauren Benedict, starting in Fall 2018

## UNDERGRADUATE STUDENTS WORKING IN MY RESEARCH LAB:

- Jody Johnston, UNR student (Fall Semester 2007).
- Kathleen Cornfield, UNR student (Spring 2008).
- Ashley Rolfe, UNR student (Spring 2008).
- Sheena Jones, UNR student, recipient of the 2008 General Undergraduate Research Award.
- Alexandra White, UNR student.
- Geniveve Hanson, UNR student (2006-2010).

- Leia Chancellor, UNR student, Honor Thesis Student ("The effect of environmental harshness on neurogenesis: a large scale comparison"). Defended Thesis and graduated with Honors in Spring 2010; supported by NSF REU.
- Caitlin Gallagher, UNR student, supported by NSF REU (graduated Spring 2011).
- Yvette Hollett, UNR student, enrolled in Honors Thesis Program in my lab (Graduated Spring 2011 with distinction in Biology).
- Dominique Chevalier, Kenyon College student, supported by NSF REU (Summer 2011).
- Katie Hellwinkel, UNR student (2010-2011).
- Austin Koontz, UNR (2011).
- Jessica Bertrand, UNR (2011).
- Michael Forney, UNR student, enrolled in Honors Thesis Program in my lab; supported by NSF REU and UNR Honors Undergraduate Research Award (2011- 2012).
- Roxolana Maged, UNR student, enrolled in Honors Thesis Program in my lab (2011 2012).
- Kaileigh Bingham, UNR student, supported by UNR General Undergraduate Research Award (2012-2013).
- Kallie Kappes, UNR student, Honors Thesis Program, INBRE award, UNR Honors Undergraduate Research Award; 2012-2015.
- Skylar Estes, UNR student, Fall semester, 2012.
- Shelby Brown, UNR student, Honors Thesis Program, UNR Honors Undergraduate Research Award; 2012-2015.
- Kristina Pomerleau, UNR student, 2012-2013.
- Frank Gonzalez, UNR student, Honors Thesis Program, UNR Honors Undergraduate Research Award; 2012-2013.
- Emily Weissgerber, UNR student, Honors Thesis Program: 2014-2016; UNR Spring 2016 Herz Gold Medalist.
- Kari Thacker, UNR student, 2014-2015.

## POSTDOC ADVISING:

## Present:

## Past:

- Maria Tello Ramos (PhD, St. Andrews, UK): 2016-2017.
- Rebecca Croston (PhD, Hunter College, CUNY): 2014-2016 (Currently a Wildlife Biologist at the United States Geological Survey USGS).
- Timothy C. Roth II (PhD, Indiana State University): 2007- 2011 (Currently –Assistant Professor, Franklin & Marshall College).
- Rebecca Fox (PhD, University of California Davis, Animal Behavior Graduate Group): 2007 – 2010. Currently – Assistant Professor, Transylvania University, Lexington, KY.

• Lara LaDage (PhD, University of Memphis): 2007 – 2013 (currently an Assistant Professor at Penn State Altoona).

#### TEACHING:

Completed a one-semester course in Pedagogy at Leningrad State University (Russia) including teaching Zoology in high school.

<u>Teaching assistantships</u> at the Ohio State University: 1991-1992 General Biology 1992 Ornithology 1992-1994 Introductory Ethology 1992-1993 Introductory Zoology

#### Instructor

#### University of Nevada Reno:

- Principles of Animal Behavior, BIO481/681 (35-60 students, Spring 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018), 3 units. New course developed at UNR with focus on conceptual issues and writing abilities. Teaching involves Power Point Presentations, video and computer clips demonstrating conceptual issues, reading primary research literature for every class, large written assignment (students should write a review of a topic and a research proposal) and student Power Point Presentations on their written projects at the end of the class.
- Introduction to Organismal Biology, BIO191 (appr. 200 students, Fall 2006), 3 units. This is a large introductory Biology class; developed anew at UNR. Teaching involved Power Point Presentations. Average student evaluations: 60% of students recommended this class and 53% of students recommended the instructor.
- **Special Topics in Neuroecology**, graduate class, EECB 751 (8 students, Fall 2007), 2 units. In this advanced graduate course we read and discussed literature on neuroecology, a fairly new field that merges ecology and neurobiology in order to understand evolution of the brain. We specifically focused on a controversy existing between traditional psychologists/neurobiologists and neuroecologists on whether studying function may help in the study of causation. Several papers were assigned for discussion for every class and everybody was supposed to engage in critical discussion. To insure that everybody came prepared, I randomly chose a discussion leader at the beginning of each class. A chosen discussion leader job was to provide a brief introduction based on the assigned reading, and lead the discussion. Final grades were based on leadership and active participation in weekly discussions. 100% of students recommended this course and the instructor.

- Special Topics in Ecology: Integrating Endocrinology with Ecology and Conservation Biology, graduate class, EECB 751 (Fall 2008).
- *Behavioral Ecology*, BIO488/688, 3 units (appr. 40 students, Fall 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017).

Behavioral ecology is a discipline that is concerned with evolution and fitness consequences of behavior and therefore the main objective of this course is to learn about the relationships between animal behavior and its fitness consequences and how studying such relationships helps understanding the evolution of behavior. Behavioral ecology often relies on theoretical approach and modeling to produce evolutionary hypotheses and predictions. In this course, students will get a firm grip on main directions of behavioral ecology including topics on economic decisions made by animals, evolutionary arms races in predators and prey, competition for resources, living in groups, fighting, sexual conflict, mating systems, altruism and signaling. Students will read primary current research papers on each topic in addition to reading the textbook. Students will be introduced to applying theoretical modeling to solving questions in behavioral ecology. Students will also be working on a writing project including a review of a chosen topic in behavioral ecology.

## University of California Davis:

- 2002: Spring Quarter *Animal Behavior*, NPB102, (appr. 200 students). 3 units course, one-hour lecture, 3 days a week). I have fully developed this course. It covers principles of Animal Behavior and emphasizes interdisciplinary approach spanning behavioral ecology, neurobiology and physiology.
- 2002: Summer Session *Animal Behavior*, NPB102, (54 students). 3 units course, 65 min lecture, 4 days a week, six weeks.

2003: Fall Quarter - Animal Behavior Graduate Seminar

2004: Spring Quarter – Animal Behavior Graduate Seminar

2004: Fall Quarter - Animal Behavior Graduate Seminar

2005: Spring Quarter – Animal Behavior Graduate Seminar

## **PROFESSIONAL MEMBERSHIPS:**

- Society for Integrative and Comparative Biology
- International Society for Behavioral Ecology
- Animal Behavior Society
- Cooper Ornithological Society
- American Ornithologists' Union

## COVERAGE OF MY RESEARCH IN TEXTBOOKS:

Lee Alan Dugatkin, *Principles of Animal Behavior*, Third Edition, W. W. Norton and Company, 2013.

- Davies, N. B., Krebs, J. R., West, S. A. 2012. *An Introduction to Behavioural Ecology*, 4<sup>th</sup> Edition, Wiley-Blackwell.
- Judith Goodenough, Betty McGuire, Elizabeth Jacob, *Perspectives on Animal Behavior*, Wiley, 2010 (Third Edition)
- John Alcock, *Animal Behavior*, Eighth Edition, Sinauer, 2005, Ninth Edition, 2009.
- Randy J. Nelson, *An Introduction to Behavioral Endocrinology*, Third Edition, Sinauer, 2005.
- Don Bradshaw, *Vertebrate Ecophysiology*: An Introduction to Its Principles and Applications, 2003, Cambridge University Press.
- Lee Alan Dugatkin, *Principles of Animal Behavior*, Second Edition, W. W. Norton and Company, 2008.
- Sara Shettleworth, *Cognition, Evolution, and Behavior*, Oxford University Press, 2010.

# COVERAGE OF RESEARCH IN MY LAB IN POPULAR MEDIA:

- 2014: BBC included our research (filmed with Carrie Branch, my PhD student, at our field location) in their film "Talk to the Animals", which first airs on BBC One on July 16 and 17, 2014.
- 2012: "Chickadees get smarter as they move up mountains", *New Scientist*, 31 May 2012.
- 2011: *BBC* filmed my experiments for the "Super Smart Animals" (aired in UK (BBC One) in February 2012).
- 2011: "How memory power helps bird brains survive the winter", by Ferris Jabr, *New Scientist*, February 9, 2011.
- 2005. "Feed the birds. Song bird study offers new insights into how malnutrition impairs development and cognition" by Rachel Adelson, *American Psychological Association Monitor*, v. 36, No. 11 2005.
- 2005. "Finding the stash: interview with Vladimir Pravosudov", *Bay Nature*, First Person, October-December 2005.
- 2004. Interview with Vladimir Pravosudov, Interpretive Birding, vol. 5.
- 2004. "Rain, snow fails to deter clever, all-weather chickadees". By Erin Digitale, *UCDavis Dateline*, v. 18, No. 6.
- 2004. "Where'd I put that? May be it takes a bird to find car keys". By Susan Milius, *Science News*, v. 165, No. 7.
- 2003. "Stress for survival", New Scientist, v. 179, No. 2407, p. 24.
- 2002. "Food for thought", by Rachel Adelson, *American Psychological Association Monitor*, v. 33, No. 7, July/August 2002.
- 2002. "Harsh conditions make birds brainy". Trends in Cognitive Sciences, v. 6, No. 9.
- 2000. "Eat like a bird? Not Alaska's chickadees". Anchorage Daily News, Nov. 23, 2000.
- 2000. "Birds' social x-rays", The New York Times, April 18, 2000.

# Department and University Service (Department of Biology, University of Nevada Reno):

NIH INBRE Undergraduate Research Opportunity Program – reviewer (March 2006) EECB (Evolution, Ecology and Conservation Biology) graduate group, member of the curriculum evaluation committee (2005)

- Member of a Search Committee for two faculty positions in Developmental Biology (2006-2007).
- Member of a Search Committee for two faculty positions in Ecology and Conservation Biology (2007-2008).
- EECB (Evolution, Ecology and Conservation Biology) graduate group; member of the student funding committee (2006-2010).
- UNR Institutional Animal Care and Use Committee (IACUC); alternate member; July 1, 2009-June 30, 2012.
- UNR Institutional Animal Care and Use Committee (IACUC); Regular member; June 1, 2010-present.
- Member of a Search Committee for a tenure track faculty position in Ecology, Department of Biology.
- UNR, College of Science member of the College Personnel Committee (2009-2015).
- UNR, Department of Biology member of the Department Personnel Committee (2008 – present). 2011 – 2013, 2017-now: Chair of the Department of Biology Personnel Committee.