

SARAH BENSON-AMRAM

ASSISTANT PROFESSOR
DEPARTMENT OF FOREST AND CONSERVATION SCIENCES
DEPARTMENT OF ZOOLOGY
BIODIVERSITY RESEARCH CENTRE
URBAN FORESTS RESEARCH HUB
UNIVERSITY OF BRITISH COLUMBIA
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EDUCATION

Dual Ph.D. in Zoology and Ecology, Evolutionary Biology and Behavior, Michigan State University. 2011.

B.A. Cornell University, College of Arts and Sciences. Biology Major with a Neurobiology and Animal Behavior Concentration. 2001.

ACADEMIC POSITIONS

Assistant Professor, joint appointment between Zoology and Forest and Conservation Sciences, University of British Columbia. 2021 - present

Adjunct Professor, Zoology and Physiology, University of Wyoming. 2019 - present

Assistant Professor, Zoology and Physiology, University of Wyoming. 2014 – 2019

Research Fellow, School of Biology, University of St. Andrews. 2012 - 2013

Postdoctoral Scientist, Department of Zoology, Michigan State University. 2012

PUBLICATIONS

1. Stanton, L., Bridge, E., Huizinga, J., and **S. Benson-Amram**. *In review*. How environmental, individual, and social traits of free-ranging raccoons (*Procyon lotor*) influence participation and performance in cognitive testing. *Animal Behaviour*
2. Barrett, L., Marsh, J., Boogert, N., Templeton, C., and **S. Benson-Amram**. *In revision*. Links between personality traits and problem-solving performance in zebra finches (*Taeniopygia guttata*). *Royal Society Open Science*.
3. Jacob, J., Kent, M., **Benson-Amram, S.**, Herculano-Houzel, S., Raghanti, M.A., Ploppert, E., Drake, J., Miller, A., Hindi, B., Natale, N., Daniels, S.,

- Fanelli, R., Landis, T., Gilbert, A., Johnson, S., Lai, A., Hyer, M., Rzucidlo, A., Anchor, C., Gehrt, S. and K. Lambert. 2021. Cytoarchitectural Characteristics Associated with Cognitive Flexibility in Raccoons. *Journal of Comparative Neurology*.
4. Barrett, L. and **S. Benson-Amram**. 2021. Multiple assessments of personality and problem-solving performance in captive Asian and African bush elephants. *Journal of Comparative Psychology*.
 5. Stanton, L., Bridge, E., Huizinga, J., Johnson, S., Young, J., and **S. Benson-Amram**. 2020. Variation in reversal learning by three generalist mesocarnivores. *Animal Cognition*.
 6. Barrett, L. and **S. Benson-Amram**. 2020. Expanding the floating object task to Asian elephants. *Animal Behavior and Cognition*, 7(3), 310-326.
 7. Johnson-Ulrich, L., **Benson-Amram, S.**, and K. Holekamp. 2019. Fitness consequences of innovation in spotted hyenas. *An invited submission for a research topic entitled "Links between cognition and fitness: mechanisms and constraints in the wild" in Frontiers in Ecology and Evolution*
 8. Daniels, S., Fanelli, R., Gilbert, A., and **S. Benson-Amram**. 2019. Behavioural flexibility in a generalist carnivore. *Animal Cognition*, doi.org/10.1007/s10071-019-01252-7
 9. Barrett, L.P., Stanton, L., and **S. Benson-Amram**. 2018. The cognition of 'nuisance' species. *Animal Behaviour*, 147, 167-177
 10. **Benson-Amram S.**, Gilfillan, G., and K. McComb. 2018. Numerical Assessment in the Wild: Insights from Social Carnivores and Other Mammals. *Philosophical Transactions of the Royal Society B*, 373(1740): 20160508
 11. Stanton, L., Davis, E., Johnson, S. Gilbert, A., and **S. Benson-Amram**. 2017. Adaptation of the Aesop's Fable paradigm for use with raccoons (*Procyon lotor*): considerations for future application in non-avian and non-primate species. *Animal Cognition*, 20:1147.
 12. Holekamp, KE and **S. Benson-Amram**. 2017. The evolution of intelligence in mammalian carnivores. *The Royal Society's Interface Focus*, 7(3): 20160108.
 13. Templeton, CN, Philp, KR, Guillette, L, Laland, KN, and **S. Benson-Amram**. 2017. Sex and pairing status impact how zebra finches use social information in foraging. *Behavioural Processes*, 139: 38-42.
 14. **Benson-Amram S.**, Dantzer B, Stricker G, Swanson, EM and KE Holekamp. 2016. Brain size predicts problem-solving ability in mammalian carnivores.

Proceedings of the National Academy of Sciences, 113 (9), 2532-2537.

15. Holekamp KE, Dantzer B, Stricker GM, Shaw Yoshida KC and **S. Benson-Amram**. 2015. Brains, brawn and sociality: a hyena's tale. *Animal Behaviour*, 103, 237-248.
16. **Benson-Amram S.**, Heinen VK, Gessner, A, Weldele ML and KE Holekamp. 2014. Limited social learning of a novel technical problem by spotted hyenas. *Behavioural Processes*, 109, 111-120.
17. **Benson-Amram S.**, Weldele ML and KE Holekamp. 2013. A comparison of problem-solving abilities between wild and captive spotted hyenas. *Animal Behaviour*, 85, 349-356.
18. **Benson-Amram S.** and KE Holekamp. 2012. Innovative problem solving by wild spotted hyenas. *Proceedings of the Royal Society B*, 279, 4087-4095.
19. **Benson-Amram S.**, Heinen VK, Dryer SL and KE Holekamp. 2011. Numerical assessment and individual call discrimination by wild spotted hyenas (*Crocuta crocuta*). *Animal Behaviour*, 82, 743-752.
20. Theis KR, Greene KM, **Benson-Amram S.R.** and KE Holekamp. 2007. Sources of variation in the long-distance vocalizations of spotted hyenas. *Behaviour*, 144, 557-584.
21. Hoogland, J. L., Davis, S., **Benson-Amram, S.**, Labruna, D., Goossens, B. & Hoogland, M. A. 2004. Pyreperm kills fleas and halts plague among Utah prairie dogs. *Southwestern Naturalist*, 49, 376-383.

GRANTS, FELLOWSHIPS, AND AWARDS - \$235,962 TOTAL

- 2020: Microsoft Azure Compute Grant, **\$15,000**
- 2019: USDA Application of Machine Learning to Support Cattle Tick Fever Program, awarded **\$78,653** as PI, Project Lead: Mikey Tabak
- 2019: Microsoft Azure Compute Grant, **\$15,000**
- 2018: NSF Framework: Software: Harnessing the Data Revolution: Building the Twenty-first Century Citizen Science Framework to Enable Scientific Discovery Across Disciplines, awarded **\$85,284 as PI of UW**
- 2018: Private sponsorship of my research by a UW alumni: **\$6000**
- 2017: Private sponsorship of my research by a UW alumni: **\$6000**
- 2016: NSF BIO IOS: How pair bonds increase problem-solving success (Preliminary proposal invited, Full proposal declined)
- 2015: UW Center for Global Studies Supplemental Research Grant: Personality and Problem-Solving in Asian elephants, **\$2,500**
- 2010: Ecology, Evolutionary Biology and Behavior Graduate Program Summer Fellowship, Michigan State University, **\$1,800**

- 2010: Council of Graduate Students Conference Grant, Michigan State University, **\$300**
- 2009: Dissertation Completion Fellowship, College of Natural Science, Michigan State University, **\$6,000**
- 2009: Summer Support Fellowship, The Graduate School, Michigan State University, **\$1,800**
- 2009: National Science Foundation, Travel Award to attend 46th Animal Behavior Meeting, Pirenopolis, Brazil, **\$1,000**
- 2006: Sigma Xi Grants-In-Aid of Research, **\$400**
- 2006: Student Research Award, Animal Behavior Society, **\$500**
- 2006: Dr. Marvin Hensley Endowed Fellowship in Science, College of Natural Science, Michigan State University, **\$6,000**
- 2006: Dr. Marvin Hensley Endowed Scholarship in Zoology, Department of Zoology, Michigan State University, **\$9,725**

GRANTS AND FELLOWSHIPS AWARDED TO STUDENTS - \$518,694

- 2020-2024: Internal Tuition award (H. Griebing, **\$3,200**)
- 2020-2024: Faculty of Forestry Doctoral Fellowship (H. Griebing, **\$100,000**)
- 2020: President's Academic Excellence Initiative Ph.D. award (H. Griebing, **\$651.92**)
- 2021: Second place award for Forestry graduate student research competition (H. Griebing, **\$250**)
- 2019: NSF Graduate Research Fellowship Program (C. Sluka, **\$138,000**)
- 2018: Barkhurst Dissertation Fellowship (L. Barrett, **\$11,257**)
- 2018: Wyoming NASA Space Grant Undergraduate Research Fellowship (C. Cooley, **\$2,500**)
- 2018: INBRE Research Fellowship (Joy Watkins, **\$4,500**)
- 2018: Animal Behavior Society Student Research Grant (L. Barrett, **\$2,000**)
- 2018: Fautin Scholarship (Stephanie Hart, **\$500**)
- 2018: Tierman Scholarship (L. Barrett, **\$6,000**)
- 2018: Partial Menkens Fellowship (L. Barrett, **\$1,000**)
- 2018: Menkens Fellowship (L. Stanton, **\$25,000**)
- 2018: Biodiversity Grant (L. Stanton, **\$5,000**)
- 2017: Wyoming NASA Space Grant Undergraduate Research Fellowship (J. Sanchez, **\$5,000**)
- 2017: Wyoming NASA Space Grant Undergraduate Research Fellowship (C. Cooley, **\$5,000**)
- 2017: Wyoming NASA Space Grant Graduate Research Fellowship (L. Stanton, **\$20,000**)
- 2017: Haub School of Environment and Natural Resources Student Research and Creative Activities Grant (L. Stanton, **\$1,000**)
- 2017: Reed W. Fautin Memorial Scholarship, UW Dept. of Zoology & Physiology (L. Barrett, **\$1,000**)
- 2017: Graduate Student Travel Funding, UW College of Arts & Sciences (L.

- Barrett)
- 2017: Paul Stock Foundation Scholarship, UW College of Arts & Sciences (L. Barrett, **\$400**)
 - 2016: WWiSE Travel Grant Award, EPSCoR Wyoming Women in Science and Engineering Program (L. Stanton, **\$750**)
 - 2016: Laramie Audubon Society Small Grant Award (L. Stanton and R. Fanelli, **\$500**)
 - 2016: Women in Conservation Biology Award, UW Dept. of Zoology & Physiology and Botany Dept. (L. Barrett, **\$1,000**)
 - 2016: Walter Scott Memorial Travel Grant, UW Dept. of Zoology & Physiology (L. Barrett)
 - 2016: Wyoming Women in Science and Engineering Travel Grant, UW NSF EPSCoR (L. Barrett, **\$500**)
 - 2016: UW Program in Ecology Travel Grant (L. Barrett, **\$500**)
 - 2016: Dick Cheney Scholarship for International Study, UW Center for Global Studies (L. Barrett, **\$600**)
 - 2016: Wyoming EPSCoR Research Fellowship Grant (E. Davis, **\$4,500**)
 - 2016: Wyoming NASA Space Travel Grant (R. Fanelli)
 - 2016: Wyoming EPSCoR Research Fellowship Grant (E. Davis, **\$1,600**)
 - 2016: Wyoming EPSCoR Research Fellowship Grant (J. Marsh, **\$4,500**)
 - 2016: Wyoming EPSCoR Research Fellowship Grant (H. Barton, **\$4,500**)
 - 2016: Wyoming NASA Space Grant Undergraduate Research Fellowship (E. Davis, **\$5,000**)
 - 2016: Wyoming NASA Space Grant Undergraduate Research Fellowship (A. Wimberley, **\$5,000**)
 - 2016: NIH INBRE Transition Fellowship (J. Marsh)
 - 2015: Reed E. Fautin Memorial Scholarship, Department of Zoology and Physiology, University of Wyoming (E. Davis, **\$500**)
 - 2015: UW Biodiversity Institute Research Grant (L. Barrett, **\$9,385**)
 - 2015: UW Center for Global Studies Research Excellence Award (L. Barrett, **\$2,500**)
 - 2015: Wyoming EPSCoR Research Fellowship Grant (R. Fanelli, **\$1,600**)
 - 2015: Program in Ecology Summer Research Funding (L. Barrett, **\$3,000**)
 - 2014: L. Floyd Clarke Graduate Scholar Award, University of Wyoming (L. Stanton, **\$1,500**)
 - 2014: Reed W. Fautin Memorial Scholarship, UW Zoology & Physiology (L. Barrett, **\$1,000**)
 - 2014: NSF Graduate Research Fellowship Program (L. Barrett, **\$126,000**)
 - 2014: Program in Ecology Signing Bonus (L. Barrett, **\$5,000**)
 - 2014: Wyoming EPSCoR Research Fellowship Grant (R. Fanelli, **\$3,500**)
 - 2014: Wyoming EPSCoR Research Fellowship Grant (A. Overstreet, **\$3,500**)

INVITED SEMINARS

- 2021: Arizona State University, Behavioral Neuroscience Seminar

- 2021: University of Potsdam, Animal Ecology Seminar
- 2021: University of British Columbia, Behavioral Neuroscience Seminar
- 2020: University of Washington, Animal Behavior Seminar
- 2019: University of California Davis, Animal Behavior Seminar
- 2019: University of British Columbia, Forest and Conservation Sciences Seminar
- 2019: University of British Columbia, Zoology Department Seminar
- 2019: University of Oregon, Department of Psychology Seminar
- 2019: Ohio University, Graduate Student Invited Speaker, Biological Sciences Seminar
- 2018: University of California Los Angeles, Behavior, Evolution, and Culture Seminar
- 2018: University of San Francisco, Department of Biology
- 2018: University of California at Berkeley, Museum of Vertebrate Zoology Seminar
- 2018: University of California at Berkeley, Fisheries and Wildlife Seminar
- 2018: Utah State University, Department of Wildland Resources.
- 2017: San Francisco State University, Biology Department
- 2015. University of Wyoming, AMK Ranch, Grand Teton National Park
- 2014. Colorado State University, Department of Fish, Wildlife, and Conservation Biology Seminar
- 2014. University of California at Berkeley, Psychology Department
- 2013. University of Cambridge, Behavioural Ecology and Large Animal Research Groups
- 2013. University of St. Andrews, Behavioural Discussion Group
- 2013. University of Vienna, Cognitive Biology Seminar
- 2012. University of St. Andrews, Behavioural Discussion Group
- 2012. University of Wyoming, Department of Zoology and Physiology
- 2011. University of California at Berkeley, Psychology Department
- 2011. University of Pennsylvania, Animal Behavior Graduate Seminar,
- 2010. Cornell University, Department of Neurobiology and Behavior, Research Design in the Study of Animal Social Behavior
- 2008. Michigan State University, Behavioral Biology Group

INVITED PRESENTATIONS AT PROFESSIONAL MEETINGS

- 2021. The Animal Behavior Society. Online. From Conflict to Coexistence: The Role of Animal Behavior in Conservation and Human-Animal Interactions Symposium.
- 2019. Plenary Speaker for the Quebec Behavioral Biology Society 44th Annual Meeting at McGill University
- 2017. The Animal Behavior Society. Toronto, CA. Cognitive Ecology 3 Symposium.
- 2017. The Royal Society, London U.K. Meeting on the Origin of Numerical Abilities

CONTRIBUTED PRESENTATIONS AT PROFESSIONAL MEETINGS

1. Griebeling, H. and **S. Benson-Amram**. 2021. Exploration-Exploitation Tradeoffs in Problem Solving in Captive Raccoons (*Procyon lotor*), Oral Presentation, Animal Behavior Society, Online
2. Stanton, L. and **S. Benson-Amram**. 2021. Investigations of the Cognitive Buffer Hypothesis in Wild Raccoons, Oral Presentation in the Allee Competition for Best Student Paper, Animal Behavior Society, Online
3. Griebeling, H. and **S. Benson-Amram**. 2021. Exploration-Exploitation Tradeoffs in Problem Solving in Captive Raccoons (*Procyon lotor*), Oral Presentation, International Urban Wildlife Conference, Online
4. Barrett, L. and **S. Benson-Amram**. 2020. How does personality affect problem-solving ability in Asian elephants. Oral Presentation, Animal Behavior Society, Online.
5. Barrett, L. and **S. Benson-Amram**. 2020. Multiple assessments of personality and cognition in zoo elephants. Oral Presentation, Elephant Managers Association Conference, Online.
6. **Benson-Amram, S.**, Kent, M., Daniels, S.**, Drake, J.*, Fanelli, R.*, Gilbert, A., Johnson, S., Lai, A.*, Miller, A.*, Natale, N.*, Herculano-Houzel, S., and Lambert, K. 2019. Neurobiological correlates of problem-solving abilities in raccoons. Oral Presentation. Behaviour, Chicago, Illinois
7. Barrett, L.P., ** Marsh, J.,* Boogert, N., Templeton, C., and **Benson-Amram, S.** 2019. Personality and Pair Bonds: Individual differences in zebra finch personality and cognition. Oral Presentation, Allee Competition. Behaviour, Chicago, Illinois
8. Johnson-Ulrich, Z.**, **Benson-Amram, S.**, and Holekamp, K. 2019. Innovation and fitness in wild spotted hyenas. Oral Presentation. Behaviour, Chicago, Illinois
9. Stanton, L.**, Bridge, E., Huizinga, J., Johnson, S., Young, J., and **Benson-Amram, S.** 2019. Evaluating the Behavioral Plasticity of Urban Carnivores. Oral Presentation. Behaviour, Chicago, Illinois
10. Barrett, L.** and **S. Benson-Amram**. 2019. Social learning and problem solving in Asian elephants. Oral Presentation, Best Student Paper competition. Comparative Cognition Conference. Melbourne, Florida.

11. Sanchez, J.*, **Benson-Amram, S.** 2018. "Locating Raccoon (*Procyon lotor*) Hotspots in Laramie, WY, using Trail Cameras". Laramie, WY. Oral Presentation.
12. Tjepkes, B.*, Stanton, L.**, Fanelli, R.E.*, **Benson-Amram, S.** 2018. "Comparing home ranges, habitat-use, and spatial patterns of raccoons (*Procyon lotor*) in Laramie, Wyoming". Oral Presentation. Stevens Point, WI.
13. Stanton, L.** Bridge, E., Huizinga, J., Johnson, S., Young, J., and **Benson-Amram, S.** 2018. Discrimination and reversal learning in raccoons, skunks, and coyotes. International Society for Behavioral Ecology, Minneapolis, Minnesota
14. Barrett, L.P., ** Marsh, J.,* Boogert, N., Templeton, C., and **Benson-Amram, S.** 2018. Personality and problem solving in zebra finches. International Society for Behavioral Ecology, Minneapolis, Minnesota
15. Barrett, L.P.** and **Benson-Amram, S.** 2018. Primate problem-solving paradigms for captive Asian elephants. Animal Behavior Society, Milwaukee, Wisconsin
16. Stanton, L.** and **Benson-Amram, S.** 2017. Testing the cognitive buffer hypothesis with raccoons (*Procyon lotor*) and skunks (*Mephitis mephitis*). Animal Behavior Society, Toronto, Canada
17. Fanelli, R.E, Stanton, L., McDonald, D.B., **Benson-Amram, S.** "Raccoon Association Patterns and the Potential for Information Transmission". The Wildlife Society- Wyoming Chapter Annual Conference. Oral Presentation. December 7, 2017. Jackson, WY.
18. Stanton, L.** and **Benson-Amram, S.** 2017. An investigation of learning, problem-solving, and behavioral flexibility in raccoons (*Procyon lotor*) and striped skunks (*Mephitis mephitis*). International Urban Wildlife Conference, San Diego, California.
19. Barrett, L.P.** and **Benson-Amram, S.** 2017. Personality and problem solving in captive Asian elephants. Animal Behavior Society Conference, Toronto, Canada.
20. Fanelli, R.E.*, Stanton, L.A.**, McDonald, D.B., and **Benson-Amram, S.** 2017. Raccoon social networks and information transmission. Animal Behavioral Society. Toronto, Canada. *Poster Presentation.*
21. Daniels, S.E.**, Fanelli, R.*, Gilbert, A., and **Benson-Amram, S.** 2016. Behavioral flexibility in *Procyon lotor*. Animal Behavior Society, Columbia, MO.
22. Stanton, L.**, Davis, E.*, Johnson, S. Gilbert, A., and **Benson-Amram, S.** 2016. Investigation of causal understanding in raccoons using the Aesop's fable paradigm. Animal Behavior Society, Columbia, MO.
23. Barrett, L.P.**, Marsh, J.*, and **Benson-Amram, S.** 2016. Personality and problem solving in zebra finches. Animal Behavior Society Conference, Columbia, MO.
24. Fanelli, R.E.* Stanton, L.A.**, and **Benson-Amram, S.** 2016. Community outreach with the University of Wyoming Raccoon Project. Laramie Audubon Society Conference. Laramie, WY.
25. Fanelli, R.E.* and **Benson-Amram, S.** 2016. Learning about a local wildlife species with the University of Wyoming Raccoon Project. Wyoming Citizen Science Conference. Lander, WY. *Poster Presentation.*
26. Fanelli, R.E.*, Daniels, S.E.**, Gilbert, A. and **Benson-Amram, S.** 2016.

- Neophobic responses and problem-solving abilities of raccoons (*Procyon lotor*) in captivity. Animal Behavior Society, Genesis Poster Competition. Columbia, MO. *Poster Presentation*.
27. Davis, E.* , Wimberley, A.* , Stanton, L.** , and **Benson-Amram, S.** 2016. The effect of sex and seasonal variation on raccoon home ranges in Laramie, Wyoming. Animal Behavior Society, Columbia, MO.
 28. Davis, E.* , Wimberley, A.* , Stanton, L.** , and **Benson-Amram, S.** 2016. The effect of sex and seasonal variation on raccoon home ranges in Laramie, Wyoming. The Wildlife Society, Raleigh, NC.
 29. **Benson-Amram, S.**, Boogert, N., Morgan, T., Laland, K.N. 2015. The benefits of pair bonds extend to joint problem solving. Animal Behavior Society, Anchorage, Alaska.
 30. Templeton, C.N., Philp, K.* , Guillette, L., Laland, K.N., and **Benson-Amram, S.** 2015. Chivalrous birds? Male zebra finches avoid competing for their mate's food. Animal Behavior Society, Anchorage, Alaska.
 31. **Benson-Amram, S.** Swanson, E.M., Stricker, G., Holekamp, K.E. 2013. The evolution of problem-solving abilities in carnivores. Animal Behavior Society, Boulder, Colorado.
 32. **Benson-Amram, S.**, Weldele, M., Holekamp, K.E. 2012. Innovative problem solving and social learning in spotted hyenas. Association for the Study of Animal Behaviour Winter Conference. Zoological Society of London, England.
 33. **Benson-Amram, S.** 2011. Experimental studies of cognitive abilities in wild spotted hyenas. **Finalist in the 2011 Warder Clyde Allee student competition** at the joint meeting of the Animal Behavior Society and the International Ethological Conference, Bloomington, Indiana.
 34. **Benson-Amram, S.**, Bond, A.B., Holekamp, K.E. 2011. Social effects on neophobia and object exploration in captive and wild spotted hyenas confronted with a novel problem-solving task. Conference on Comparative Cognition, Melbourne, Florida.
 35. **Benson-Amram, S.**, Heinen, V.K.* , Dryer, S.L.* , Holekamp, K.E. 2010. Numerical assessment in wild spotted hyenas (*Crocuta crocuta*). Animal Behavior Society, Williamsburg, Virginia.
 36. **Benson-Amram, S.R.**, Heinen, V.K.* , Holekamp, K.E. 2010. Wild spotted hyenas show spontaneous numerical assessment when played calls from unfamiliar conspecifics. Conference on Comparative Cognition, Melbourne, Florida.
 37. **Benson-Amram, S.R.**, Bond, A.B., Holekamp, K.E. 2009. Comparing problem solving between captive and wild spotted hyenas. Animal Behavior Society, Pirenopolis, Brazil.
 38. **Benson-Amram, S.R.**, Bond, A.B., Holekamp, K.E. 2009. Problem solving in captive and wild spotted hyenas. Conference on Comparative Cognition, Melbourne, Florida. *Poster Presentation*.
 39. **Benson-Amram, S.R.**, Bond, A.B., Holekamp, K.E. 2008. Innovation in free-ranging spotted hyenas measured by problem solving in a novel puzzle box task. International Behavioral Ecology Congress, Ithaca, New York.
- *= Undergraduate Student, ** = Graduate Student

TEACHING EXPERIENCE

University of British Columbia

- **Introduction to Animal Behavior (Biology 310) (starting January 2022)**
- **Biodiversity in Urban Areas (UFOR 495) (starting January 2022)**

Department of Zoology and Physiology, University of Wyoming

- **Principles of Animal Behavior (ZOL 3600)**
- **Writing in the Biological Sciences (ZOL 4100)**

Department of Zoology, Michigan State University

- **Behavioral Ecology of African Mammals (ZOL 490)**
Lead Instructor Summer 2009, Co-Instructor Summer 2007

TEACHING ASSISTANTSHIPS

Department of Zoology, Michigan State University (2004 to 2009)

- **Animal Behavior (ZOL 313)**
- **Ecology (ZOL 355)**
- **Ecology Lab (ZOL 355L)**
- **Introductory Organismal Biology for Science Majors (BS 110)**

MENTORING

▪ **Graduate Students**

- Hannah Griebing, B.S. Ohio University, M.S. Ohio University, Ph.D. at the University of British Columbia, Fall 2019 - present
- Jaylen Bastos, B.S. University of British Columbia, M.S. University of British Columbia, Spring 2021- present
- Christina Sluka, B.S. Indiana University, NSF GRFP Fellow, Ph.D. at the University of Wyoming, Fall 2019 - present
- Lauren Stanton, B.S. University of Maryland, M.S. Manchester Metropolitan University, Ph.D. in Ecology, University of Wyoming, 2020 (now a postdoctoral scientist with Dr. Chris Schell at the University of California at Berkeley)

- Lisa Barrett, B.S. University of Michigan, NSF GRFP Fellow, Ph.D. in Ecology, University of Wyoming, 2020 (now a postdoctoral fellow at the Oklahoma City Zoo).
- Sarah Daniels, M.S. in Zoology and Physiology, University of Wyoming (2016), now a Family Therapist
- **Undergraduate Students**
 - Mya Baptiste, Sichen Zhou
- **Committee Member, University of California at Berkeley**
 - Lawrence Wang
- **Committee Member, University of California at Davis**
 - Josephine Hubbard
- **Committee Member, University of Wyoming**
 - Eric Quallen, NSF GRFP Fellow
- **Previous Students**
 - **Undergraduate and High-School Students (42):**
 - Livia Marchese (high school student), Kelsea Anthony, Hailey Barton, Kristina Bartz, Tyler Berry, Shannon Bowles, Dianna Brutsman, Kendall Burnside, Brooke Byelich, Carissa Cooley, Emily Davis, Holly Renee Fair, Rachel Fanelli, Haley Gordon, Rachel Graham, Sara Griffith, Jackelynn Gutierrez, Stephanie Hart, Jennifer Hayward, Karen Hendrick, Michele Kaufman, Kody Knighten, Jessica Marsh, Leah Mucciarone, Cheyenne Ogden, Adam Overstreet, Frederic Reuter, Jahsh Sanchez, Ben Tjepkes, Ariel Vichi, Alix Wimberley, Rachel Ziejka, Harley Steege, Ivy Engle, Saybin Corra, Makala Knox, Theresa Higgins, Joy Watkins, Ashlyn Ballard, Hannah Linde, Abby Dreibelbis, Erica Steyding
 - **Committees**
 - Grady Harris, M.S. in Zoology and Physiology 2017
 - **Co-supervisor of two undergraduate honors research dissertations**, School of Biology, University of St. Andrews, United Kingdom

SELECTED PRESS COVERAGE

NPR Science Friday:

Video feature and live interview about my lab's research:

<https://www.sciencefriday.com/videos/raccoons/>

NY Times by Natalie Angier:

www.nytimes.com/2018/02/05/science/animals-count-numbers.html

- Also featured as one of the stories in the **SigmaXi Smart Brief**

Science News: www.sciencenews.org/article/animals-nerve-cells-neurons-brain-

[comparison](#)

The Atlantic: www.theatlantic.com/science/archive/2018/08/cities-animal-intelligence-fishing-cats/567538/

The Smithsonian: www.smithsonianmag.com/science-nature/when-it-comes-humans-and-wildlife-whos-bothering-whom-180969567/

National Geographic: news.nationalgeographic.com/2017/11/dog-cat-brains-neurons-intelligence-study-spd/

National Geographic: www.nationalgeographic.com/magazine/2018/02/bird-brains-crows-cockatoos-songbirds-corvids/

Selective Press Coverage Of Our *Animal Cognition* paper (October 2017):

BBC: www.bbc.co.uk/programmes/p05ht7kx

Le Monde:

animalcognitionlab.org/sites/default/files/LE%20MONDE%20SCIENCE%20ET%20TECHNO_aesops.pdf

National Geographic: news.nationalgeographic.com/2017/10/animals-intelligence-raccoons-birds-aesops/

IFLS: www.iflscience.com/plants-and-animals/rebel-raccoon-solves-ancient-greek-uzzle-entirely-unexpected-way/

Wyoming Public Media: wyomingpublicmedia.org/post/new-study-pits-laramie-raccoons-against-ancient-greek-fable

Daily Mail:

animalcognitionlab.org/sites/default/files/dailymail_aesops_raccoons.pdf

LiveScience: www.livescience.com/60784-raccoons-cheat-to-ace-cognition-test.html

- Also featured as one of the stories in the **SigmaXi Smart Brief**

Science Daily: www.sciencedaily.com/releases/2017/09/170929125101.htm

Selective Press Coverage Of Our *Proceedings of the National Academy of Sciences* paper (January 2016):

New York Times: www.nytimes.com/2016/01/26/science/some-carnivores-are-better-than-others-at-unlocking-dinner.html

New Scientist: www.newscientist.com/article/2075151-watch-brainy-zoo-

[animals-figure-out-a-box-puzzle-to-get-at-food/](#)

Scientific American: blogs.scientificamerican.com/observations/animals-with-big-brains-are-better-at-problem-solving-video/

IFL Science: www.iflscience.com/plants-and-animals/animals-larger-relative-brain-sizes-are-better-problem

Wired: www.wired.co.uk/news/archive/2016-01/26/wired-awake-26-january

Fox News: www.fox47news.com/we-are-spartans/larger-relative-brains-higher-ig

Daily Mail: www.dailymail.co.uk/sciencetech/article-3415820/Animals-a.html

Wyoming National Public Radio, September 2016, A story on the University of Wyoming Raccoon Project

BBC, “Talking to the Animals” television program, July 2014 on BBC channel 1.

National Public Radio, Academic Minute, March 2013:

<http://wamc.org/post/dr-sarah-benson-amram-university-st-andrews-measuring-intelligence-wild-animals>

NBC News, January 2013:

http://www.msnbc.msn.com/id/50389118/ns/technology_and_science-science/#.UPeZZaE314F

Popular Science, January 2013:

<http://www.popsci.com/science/article/2013-01/watch-captive-hyena-eagerly-figure-out-meat-puzzle-faster-its-wild-cousin>

Nature, Research Highlights, 15 August 2012:

<http://www.nature.com/nature/journal/v488/n7411/full/488256a.html>

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SERVICE

- Journal Reviewer:
 - *Animal Behaviour, Animal Cognition, Behavioral Ecology, Current Biology, Ecological Applications, Ethology, Evolution, Frontiers in Psychology, International Journal of Comparative Psychology, Philosophical Transactions of the Royal Society: B, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society: B, Wildlife Biology*
- Grant Reviewer:
 - National Science Foundation
- Outreach Events by the University of Wyoming Raccoon Project:
 - 27 outreach events with over 927 attendees since June 2015, including events for teens and children at the Albany County Public Library, informational booths at the Laramie Farmer’s Market, presentations at local elementary schools, programs for local girl scout troops, educational outreach events promoting STEM to high-school students in Wyoming and women in science, and presentations at the Wyoming Science Fair and for the Laramie Audubon Society.
- Presenter, Science Café, Albany County Public Library, 2014
- Presenter, Skirts in Science, Denver Museum of Nature and Science, 2014