
KRISTINA M. HORBACK

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EDUCATION

- 2012 **PhD Experimental Psychology**
University of Southern Mississippi, Hattiesburg, MS
Dissertation: Temporal consistency of personality assessment in African elephants
- 2010 **MA Experimental Psychology**
University of Southern Mississippi, Hattiesburg, MS
Thesis: Variation in tactile behavior throughout the estrous cycle of a killer whale
- 2007 **BA Psychology**
University of California: San Diego, La Jolla, CA
Minor in Biology

PROFESSIONAL POSITIONS

- 2016-present **Assistant Professor, Applied Ethology**
Department of Animal Science
University of California, Davis, CA, USA
- 2012-2016 **Postdoctoral Researcher**
Swine Teaching and Research Center
Department of Clinical Studies, University of Pennsylvania, Philadelphia, PA, USA
- 2009-2012 **Laboratory Manager**
Marine Mammal Behavior and Cognition Laboratory
Department of Psychology, University of Southern Mississippi, Hattiesburg, MS, USA

PUBLICATIONS

Journals

1. Creamer, M. & **Horback, K.** (2021). Researching human-cattle interaction on rangelands: Challenges and potential solutions. *Animals*, 11(3), 725.
2. Olson, M. J., Creamer, M., & **Horback, K.** (2020). Identification of specific call types produced by pre-weaning gilts in response to isolation. *Applied Animal Behaviour Science*, 105203.
3. McVey, C., Hsieh, F., Manriquez, D., Pinedo, P., & **Horback, K.** (2020). Mind the Queue: A Case Study in Visualizing Heterogeneous Behavioral Patterns in Livestock Sensor Data Using Unsupervised Machine Learning Techniques. *Frontiers in Veterinary Science*, 7: 523.
4. Schiller, K., McVey, C., Doyle, S., & **Horback, K.** (2020). Chute scoring as a potential method for assessing individual differences in arousal among ewes. *Applied Animal Behaviour Science*, 105073.
5. Creamer, M. L., Roche, L. M., **Horback, K.**, & Saitone, T. L. (2019). Optimizing cattle grazing distribution on rangeland: a systematic review and network analysis. *The Rangeland Journal*, 41(5), 441-455.

6. Sirovica, L., Creamer, M., & **Horback, K.** (2019). Preference for and behavioral response to environmental enrichment in a small population of sexually-mature, commercial boars. *Animal Welfare*, 28, 271-278.
7. **Horback, K.** (2019). Applied cognition research to improve sheep welfare. *Animal Sentience* 25(18)
8. **Horback, K.** & Parsons, T. (2019). Judgement bias testing in group-housed gestating sows. *Behavioural processes*. 159, 86-92.
9. **Horback, K.** & Parsons, T. (2018). The ontogeny of behavioral traits in commercial sows. *animal*, 1-8.
10. **Horback, K.**, Pierdon, M., & Parsons, T. (2016). Behavioral preference for enrichment type in group housed gestating sows. *Applied Animal Behavior Science*, 184, 7-15.
11. **Horback, K.** & Parsons, T. (2016). Temporal stability of personality traits in group-housed gestating sows. *animal*, 10, 1351-1359
12. Hacker, C., **Horback, K.**, & Miller, L. (2015). GPS technology as a proxy tool for determining relationships in social animals: An example with African elephants. *Applied Animal Behavior Science*, 163, 175-182.
13. **Horback, K.**, Miller, L., Andrews, J., & Kuczaj, S. (2014). Daytime versus nighttime activity budgets of zoo African elephants. *Zoo Biology*, 33, 403-410.
14. **Horback, K.** (2014). Nosing around: Play in pigs. *Animal Behavior & Cognition*, 1, 186-196.
15. **Horback, K.**, Miller, L., & Kuczaj, S. (2013). Personality assessment in African elephants: Consistency over time. *Applied Animal Behavior Science*, 149, 55-62.
16. **Horback, K.**, Muraco, H., & Kuczaj, S. (2012). Variations in interspecific social behavior throughout the estrous cycle of a killer whale. *Aquatic Mammals*, 38, 428-434.
17. **Horback, K.**, Miller, L., Andrews, J., Kuczaj, S., & Anderson, M. (2012). The effects of GPS collars on African elephant behavior. *Applied Animal Behavior Science*, 142, 76-81.
18. **Horback, K.**, Friedman, W., & Johnson, C. (2010). Occurrence and context of S-postures in beluga whales. *International Journal of Comparative Psychology*, 23, 689-700.

Journals in Review

1. **Horback, K.** & Pierdon, M. Social network analysis of a dynamic group pen with multiparous gestating sows. *Applied Animal Behavior Science* (In review).
2. **Horback, K.** & Parsons, T. Judgement bias of group housed gestating sows predicted by personality traits, but not physical measures of welfare. *PLOS ONE* (In review).

Journals in Preparation

1. Jones, C., Pullin, A., Blatchford, R., Makagon, M., & **Horback, K.** Effect of rearing environment on the development of spatial cognition in egg-laying hens. *Applied Animal Behavior Science*.
2. Kranz, V., **Horback, K.**, & Pierdon, M. Impact of familiarity and method of introduction on behavior sows in a large dynamic group. *Applied Animal Behavior Science*.
3. Schiller, K., Monk, J., Lee, C. & **Horback, K.** Consistency of behavioral coping styles in sheep. *Applied Animal Behavior Science*.

Book Chapters

1. **Horback, K.** (2019). Emotional lives of animals. In R. Fischer (Ed.), *Routledge Handbook of Animal Ethics*. Routledge, New York.
2. **Horback, K.** & Parsons, T. (2019). Swine life history. In J. Vonk and T. Shakelford (Eds.), *Encyclopedia of Animal Cognition and Behavior*. Springer, Cham. *In press*.

3. **Horback, K.** (2017). Personality in swine. In J. Vonk, S. Kuczaj and A. Weiss (Eds.), *Personality in non-human animals* (185-204). Springer.
4. Kuczaj, S., & **Horback, K.** (2013). Play and emotions. In S. Watanabe and S. Kuczaj (Eds.), *Comparative perspectives on human and animal emotions* (pp. 87-112). Springer.

CONFERENCE PRESENTATIONS

presentations I have delivered

Jones, C., Pullin, A., Blatchford, R., Makagon, M., & **Horback, K.** (2021, Aug). Effect of rearing environment on the development of spatial cognition in egg-laying hens. Presented at the 28th International Conference on Comparative Cognition (virtual).

McVey, C., Hsieh, F., Manriquez, D., Pinedo, P., & **Horback, K.** (2021, Aug). Livestock Informatics Toolkit: Data science tools for characterizing complex behavioral patterns across multiple sensor platforms. Presented at the 54th International Society of Applied Ethology Congress (virtual).

Jones, C., Pullin, A., Blatchford, R., Makagon, M., & **Horback, K.** (2021, June). Effect of rearing environment on the development of spatial cognition in egg-laying hens. Presented at the 54th International Society of Applied Ethology Congress (virtual).

Schiller, K. & **Horback, K.**# (2019, Aug). Using chute score to measure stress in ewes. Presented at the 159th Annual Meeting of the California Wool Growers Association, Minden, NV.

Schiller, K. & **Horback, K.** (2019, Aug). Familiarity to a human handler alter maternal attention orientation in rangeland ewes. Presented at the 159th Annual Meeting of the California Wool Growers Association, Minden, NV.

Sirovica, L., Creamer, M., & **Horback, K.** (2019, Aug). Preference for and behavioral response to environmental enrichment in a small population of sexually mature, commercial boars. Presented at the 53rd International Society of Applied Ethology Congress, Bergen, Norway.

Schiller, K., McVey, C., Doyle, S., & **Horback, K.** (2019, Aug). Chute scoring as a potential method for assessing individual differences in arousal among ewes. Presented at the 53rd International Society of Applied Ethology Congress, Bergen, Norway.

Olson, M., Creamer, M., & **Horback, K.**# (2019, Aug). Identification of seven call types produced by pre-weaning gilts during isolation. Presented at the 53rd International Society of Applied Ethology Congress, Bergen, Norway.

Horback, K.# & Parsons, T. (2019, Aug). Judgement bias of group housed gestating sows predicted by personality traits, but not physical measures of welfare. Presented at the 53rd International Society of Applied Ethology Congress, Bergen, Norway.

Horback, K. & Parsons, T. (2017, Aug). Exploratory behavior in commercial and heritage breed swine. Proceedings of the 51st Congress of International Society of Applied Ethology, Aarhus, Denmark.

Horback, K.#, Yablonovich, I., & Parsons, T. (2017, Nov). Consistency over time of individual activity budgets by gestating sows housed in ESF pens. Presented at the 13th North American Regional Meeting of the International Society for Applied Ethology, Ames, IA, USA.

Horback, K.#, Pierdon, M., & Parsons, T. (2017, Nov). Social network analysis of group-housed gestating sows. Presented at the 13th North American Regional Meeting of the International Society for Applied Ethology, Ames, IA, USA.

Horback, K.#, Martin, A., & Parsons, T. (2017, Nov). Novel behavioral indicators of pain in castrated piglets. Presented at the 1st annual Pig Welfare Symposium, Des Moines, IA, USA.

Horback, K.# & Parsons, T. (2017, April). The relationship between personality and cognitive bias in swine. Presented at the 24th International Conference on Comparative Cognition, Melbourne, FL, USA.

Martin, A., **Horback, K.**, & Parsons, T. (2017, Feb). Observations of sleep-related behaviors in piglets pre- and post-castration. Proceedings of the 2017 American Association of Swine Veterinarians, Denver, CO, USA.

Pruett, K., **Horback, K.** & Parsons, T. (2017, Feb). Individual differences in social behavior and affective state in group-housed gestating sows. Proceedings of the 2017 American Association of Swine Veterinarians, Denver, CO, USA.

Horback, K.#, & Parsons, T. (2016, July). Ontogeny of coping behaviors in sows. Presented at the 50th International Society of Applied Ethology Congress, Edinburgh, Scotland, UK.

Manoharan, S., **Horback, K.** & Parsons, T. (2016, Feb). Correlation between aggression and cognitive bias in gestating sows. Proceedings of the 2016 American Association of Swine Veterinarians, New Orleans, LA, USA.

Wensil-Strow, H., **Horback, K.**, Pierdon, M. & Parsons, T. Patterns of resting position in group housed gestating sows. Proceedings of the 2016 American Association of Swine Veterinarians, New Orleans, LA, USA.

Sopronyi, J., **Horback, K.** & Parsons, T. (2015, Feb). Visual evaluation of sleep behavior in crated gestating sows. Proceedings of the 2015 American Association of Swine Veterinarians, Orlando, FL, USA.

Bernatowicz, B., **Horback, K.** & Parsons, T. (2015, Feb). Elucidating positive states of sow welfare. Proceedings of the 2015 American Association of Swine Veterinarians, Orlando, FL, USA.

Horback, K.#, Murray, M., & Parsons, T. (2014, July). Cognitive bias in gestating sows. Presented at the 48th International Society of Applied Ethology Congress, Vitoria-Gasteiz, Spain.

Horback, K.#, & Parsons, T. (2014, April). Cognitive bias in gestating sows. Presented at Mahoney Institute for Neurosciences 30th Annual Retreat, University of Pennsylvania, Philadelphia, PA, USA.

Cook, M., **Horback, K.**, & Parsons, T. (2014, Aug). Variation in sow vocalizations during restraint. Proceedings of the 2014 American Association of Swine Veterinarians, Dallas, TX, USA.

Glowzinski, L., Dunipace, S., **Horback, K.**, Pierdon, M. & Parsons, T. (2014, Feb). Oral-fluid collection from gestating sows housed in large static pens. Proceedings of the 2014 American Association of Swine Veterinarians, Dallas, TX, USA.

Murray, M., **Horback, K.** & Parsons, T. Cognitive bias in gestating sows: A new window on sow welfare? Proceedings of the 2014 American Association of Swine Veterinarians, Dallas, TX, USA.

Pavlovic, L., Dunipace, S., **Horback, K.** & Parsons, T. (2014, Feb). Behavioral assessment of gestating sows via ear-mounted accelerometers. Proceedings of the 2014 American Association of Swine Veterinarians, Dallas, TX, USA.

Horback, K.#, & Parsons, T. (2013, July). Personality assessment of group housed sows. Presented at the 50th Anniversary Meeting of the Animal Behavior Society, Boulder, CO, USA.

Blaustein, A., **Horback, K.** & Parsons, T. (2013, Feb). Correlation of individual behavioral responses to different environmental stressors by group housed sows. Proceedings of the 2013 American Association of Swine Veterinarians, San Diego, CA, USA.

Katz, J., **Horback, K.** & Parsons, T. (2013, Feb). Use of daily feeding order at an electronic sow feeder (ESF) to improve the individual animal care of group housed sows. Proceedings of the 2013 American Association of Swine Veterinarians, San Diego, CA, USA.

Horback, K.#, Muraco, H., & Kuczaj, S. (2011, April). Variations in Social Behavior Throughout the Estrous Cycle of a Captive Killer Whale. Presented at the 2011 Graduate Student Research Symposium, University of Southern Mississippi, Hattiesburg, MS, USA.

Horback, K.#, Friedman, W., & Johnson, C. (2009, October). The influence of cohabitant harbor seals on S-posture display in captive beluga whales. Presented at the 18th Biennial Conference of Marine Mammals, Quebec City, QC, Canada.

Friedman, W., **Horback, K.**, & Johnson, C. (2007, March). The occurrence and context of S-postures in beluga whales. Presented at the 1st International Workshop on Beluga Whales, L'Oceanografic, Valencia, Spain.

INVITED SYMPOSIUM PRESENTATIONS AND SEMINARS

2021 *Prop 12 and its implications for future on-farm animal welfare in the United States*
Behavior, Health, and Well-Being Symposium, Midwest Meeting of American Association of Animal Science (virtual).

2021 *Cattle personality and grazing patterns*
Cal Poly College of Agriculture, Food and Environmental Sciences CAFES Research Seminar Series (virtual).

2020 *Animal experiences, emotions, and welfare*
Animal Behavior and Well-being Symposium, American Dairy Science Association Annual Meeting (virtual).

2020 *Understanding the individual: Impact of personality on animal welfare*
The Future of Youngstock Management, The University of Sydney and the University of British Columbia (virtual).

2020 *CA Proposition 12: Impact on swine production*
Law 285C Food Law & The Environment, UC Davis School of Law, Davis, CA, USA

- 2020, *Swine behavior and welfare*
2019 One Health Conference, Hosted by Nanjing Agricultural University & UC Davis Western Institute for Food Safety & Security, UC Davis, CA, USA
- 2019 *Animal training – efficacy and welfare*
53rd Congress of the International Society of Applied Ethology, Bergen, Norway
- 2019 *Swine Behavior and welfare*
NightLife at the California Academy of Sciences, San Francisco, CA, USA
- 2019 *Animal personality and animal welfare*
Lighting talk, Dean’s Advisory Council (DAC), College of Agricultural and Environmental Sciences, UC Davis, CA, USA
- 2019 *Stress and health in swine*
Yolo County 4-H Leader Training Workshop, Woodland, CA
- 2018 *Social network analysis of group-housed sows*
Animal Welfare Science Club, UC Davis, CA, USA
- 2018 *Cognitive measures of animal welfare*
Behavior Medicine and Welfare Club, UC Davis Veterinary School, CA, USA
- 2017 *Relationship between personality traits and animal welfare in domestic swine*
World Agricultural Expo, Tulare, CA, USA
- 2017 *The ontogeny of behavioral traits in domestic swine*
Department of Psychology, UC Davis, CA, USA
- 2015 *Swine hormone and behavior*
Department of Biology, Bryn Mawr College, PA, USA

RESEARCH FUNDING

Active Grants

- | | |
|----------------------------|--|
| 01/01/2020
12/31/2022 | \$110,950, Lead Principal Investigator, <i>Influence of beef cattle behavior on rangeland distribution for improved productivity and profitability</i> , Rustici Rangeland and Cattle Research Endowment |
| 01/01/2020 -
08/31/2022 | \$20,000, Lead Principal Investigator, <i>The 14th North American Regional Meeting of the International Society of Applied Ethology</i> , USDA NIFA |
| 09/01/2019 -
08/31/2021 | \$462,968, Co-Principal Investigator, <i>Reduction of androgens by gene editing for the genetic containment of livestock</i> , (Lead PI: Elizabeth Maga), USDA NIFA BRAG |
| 12/15/2018 -
12/14/2021 | \$100,000, Co-Principal Investigator, <i>Boar Meat without Boar Taint: A Model</i> , (Lead PI: Trish Berger), USDA NIFA |

03/01/2018 - \$431,999, Co-Principal Investigator, *Impacts of the rearing environment on keel bone integrity, spatial awareness abilities of laying hens*, (Lead PI: Maja Makagon), Foundation for Food and Agriculture Research
02/28/2022

Completed Grants

06/20/2019 \$3,800, Lead Principal Investigator, *Investigating the relationship between beef cattle personality and grazing distribution on rangelands*, CA&ES Programmatic Initiatives program

02/01/2018 - \$104,308, Co-Principal Investigator, *Optimizing cattle grazing distribution: Enhancing profit and the environment*, (Lead PI: Tina Saitone), Russell L. Rustici Rangeland and Cattle Research Endowment
03/01/2020

09/01/2015 - \$75,000, Co-Principal Investigator, *Improving farm animal welfare: Understanding positive affective states*, (Lead PI: Thomas Parsons), Wiederhold Foundation
06/01/2016

06/01/2014 - \$59,680, Co-Principal Investigator, *New Tools for Measuring Welfare: Cognitive Bias and Sleep Patterns in Swine*, (Lead PI: Thomas Parsons), Kraft Foods: Oscar Mayer
07/01/2016

AWARDS AND HONORS

2020 *Chancellor's Award for Excellence in Mentoring of Undergraduate Research*
For faculty's contribution to the excellence in mentoring and advocacy for undergraduate research, UC Davis

2018 *Educational Opportunity Program's Appreciation Celebration*
For actively working to promote educational equity for first-generation and low-income students, UC Davis

2017 *Academic Enrichment Fund*
Undergraduate Education, UC Davis

2016 *Humane Society International, Travel Award*
50th International Society of Applied Ethology Congress, Edinburgh, Scotland, UK

2014 *Humane Society International, Travel Award*
48th International Society of Applied Ethology Congress, Vitoria-Gasteiz, Spain

TEACHING EXPERIENCE

Department of Animal Science, UC Davis

Undergraduate courses

ANS 104: Domestic Animal Behavior
ANS 170: Ethics of Animal Use
ANS 160: Stress and Male Reproduction
FRS 003: Sheep Cognition

Graduate courses

ABG 401: Ethics and Professionalism in Animal Biology

Quarter	Course	Enrollment	Mean Evaluation of Teaching Effectiveness*
Spring 2017	FRS 003	8	4.8
Fall 2017	ABG 401	15	4.9
Winter 2018	ANS 160	5	4.3
Spring 2018	ANS 104	124	4.7
Winter 2019	ANS 160	18	4.2
Fall 2019	ANS 170	125	4.7
Fall 2019	ABG 401	19	4.7
Winter 2020	ANS 160	17	4.5
Spring 2020	ANS 104	170	4.6
Fall 2020	ANS 170	177	4.7
Spring 2021	ANS 104	133	4.7

*Scores based on a scale of 1 -5 (5 = Excellent, 1 = poor)

Note: In accordance with the UC Davis maternity leave policies, I did not have assigned teaching for Fall 2018, Winter 2019, and Spring 2019.

Additional Institutions

- 2015 **Course designer/instructor**
University of Pennsylvania, School of Veterinary Medicine, Philadelphia, PA, USA
Animal Welfare: Assessment and Ethics (Spring 2015, Fall 2015)
- 2015 **Course designer**
Chicago Zoological Society, Brookfield, IL, USA
Methodology of animal behavioral data collection and analysis (online course)
- 2012-2015 **Guest lecturer**
University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA, USA
Animal Welfare and Ethics, Animal Production Systems Course (Fall 2012-2015)
Animal Welfare, Swine Husbandry Course (Fall 2012-2015)
- 2009-2012 **Course instructor**
Department of Psychology, University of Southern Mississippi, Hattiesburg, MS, USA
Behavioral Neuroscience (Fall 2009, Spring 2012)

Graduate Students Supervised

Student	Program	Start	Finish
Kaleiah Schiller	Ph.D., Animal Biology	2018	In Progress
Maggie Creamer	Ph.D., Animal Behavior	2019	In Progress
Catherine McVey	Ph.D., Animal Biology	2019	In Progress
Claire Jones	M.S., Animal Biology	2019	2021

Undergraduate Students Supervised

Student	Years	Role
Mariah Olson	2017-2018	Research intern (5 quarters). Studied the variation in vocalization call types among isolated pre-weaning gilts. She gave an oral presentation of her research at 2018 Undergraduate Research Conference (URC).
Lara Sirovica	2017-2018	Research intern/honors student (6 quarters). Studied enrichment preference among single housed mature boars. She presented her work at the 2018 URC and was the recipient of the 2018 Dean's Circle Award. Currently a master's student at UBC.
Gaurav Aulakh	2017-2018	Research intern (5 quarters). Assisted in data collection on-site at UC Davis Swine Facility as well as in the video coding lab.
Shayna Doyle	2017-2018	Honors student (3 quarters). Shayna conducted study of using chute scores to evaluate relative arousal level among breeding ewes at the UC Davis Sheep Facility. She presented her research at the 2018 URC. Currently a veterinary student at UCD.
Diana Carrillo-Valle	2017-2018	Research intern (3 quarters). Diana conducted a study investigating whether using olfactory cues (boar scent) could reduce aggression among newly weaned piglets.
Alexandra Martinez	2017-2018	Research intern (5 quarters). Alex conducted her own study of the relationship between social behavior and teat rank in piglets.
Joshua Liu	2017-2019	Honors student (6 quarters). Josh conducted his own study evaluating dominance ranking among group-housed gestating sows. He presented his work at the 2019 and 2020 URC. Currently a veterinary student at UCD.
Ashley Shuen	2018-2019	Honors student (3 quarters). Ashley investigated whether coping styles among pre-weaning piglets impacted post-stress social behavior. She presented her work at the 2019 URC. Currently a veterinary student at UCD.
Ariel Escalante	2018-2019	Honors Student (3 quarters). Ariel researched and designed the most appropriate zoo enclosure and landscaping for captive, group-housed giraffes. She presented her work at the 2019 URC.

Katherina Thiesen	2018-2019	Research intern (3 quarters). Kathy conducted her own research project at the Cat Haven sanctuary in Dunlap, CA to investigate scent preference in enrichment items among individually housed jaguars. She presented her work at the 2019 URC.
Patrick Cogo	2018-2019	Research intern (3 quarters). Patrick conducted his own study of the impact of familiarity of handler on ewe behavior during lamb processing. He presented his research at the 2019 URC. Patrick joined the Animal Biology Graduate Group as a master's student in 2020.
Rebecca Shaffer	2018-2019	Honors Student (3 quarters). Rebecca conducted a study of evaluating depth perception among floor-reared laying hens using a visual cliff experiment. Rebecca joined the UCD Vet School in Fall 2019. Currently a veterinary student at UCD.
Elizabeth Zamora	2019-2020	Research intern (3 quarters). Liz completed an independent project looking at the differences in head angle movement among laying hens which show different jumping quality during a perch task.
Angelica Martinez	2019-2021	Honors student (4 quarters). Angelica worked with me and a graduate student in my lab in the development, analysis and presentation (at URC) of the impact of rearing environment on perch jump quality in laying hens. Currently a veterinary student at UCD.
Quentin Thouvenot	2020-2021	Honors student (4 quarters). Through weekly zoom meetings with me, Quentin completed an independent research project and a literature review project on the welfare of breeding sows in farrowing crates. Quentin will be attending UCD Veterinary School in the Fall 2021.
Donna Li	2020-2021	Research intern (3 quarters). Donna is investigating subtle differences in facial expression of sows when exposed to positive and negative experiences.

Graduate Student Committees

Student	Role	Program		Status
Sarah Adcock	Member	Ph.D.	Animal Behavior	Awarded
Simin Tang	Member	Masters	Animal Biology	Awarded
Kaleiah Schiller	Chair	Ph.D.	Animal Biology	In Progress
Brittany Wood	Member	Masters	Animal Biology	In Progress
Alycia Drwencke	Member	Masters	Animal Biology	Awarded
Maggie Creamer	Chair	Ph.D.	Animal Behavior	In Progress
Catherine McVey	Chair	Ph.D.	Animal Biology	In Progress
Elisha Graham	Member	Masters	Animal Biology	In Progress
Celina Tu	Member	Masters	Animal Biology	In Progress
Hanna Hagler	Member	Masters	Animal Biology	In Progress

PROFESSIONAL SERVICE

Departmental

- 2017 Volunteer - Transfer Student Orientations, ANS/ANM/AEE majors, UC Davis.
2017-2018 Member - Federation Merit Review Committee.
2017-2019 Member - Picnic Day Committee, ANS Dept.
2017-2019 Volunteer - Decision Day, ANS/ANM/AEE majors, UC Davis.
2018-2021 Member - Executive committee, Department of Animal Science.
2018-2021 Member - Animal Science Department Graduate Student Support committee (Fellowships and TA application review).
2020 Member - Preliminary Exam Committee (6 students), Animal Biology Graduate Group

College

- 2018-2019 Member - Colloquium Organizing Committee (Depts of Human Ecology and Animal Science).
2019-2021 Faculty sponsor - Diversity and Inclusion Committee, Animal Behavior Graduate Group, UC Davis.
2020 Co-Chair - Recruitment Advisory Committee, Animal Biology Graduate Group.
2020-2021 Member - Admissions Committee, Animal Biology Graduate Group.
2020-2021 Member - Executive Committee, Animal Biology Graduate Group.
2020-2025 Master Advisor - Animal Biology Graduate Group.

University

- 2016-2019 Member - Center for Animal Welfare, UC Davis.
2017-2021 Member - Jastro Shields Scholarship Review Committee.
2017-2021 Member - Qualifying Exam Committee (5 students), Animal Behavior and Animal Biology Graduate Groups
2019-2021 Judge - Enrichment Design Competition, UC Davis Vet Behavior Medicine and Animal Welfare Club.
2019-2021 Moderator and Judge - Undergraduate Research Conference (Animal & Veterinary Sciences), UC Davis.
2019-2021 Member - Committee on Undergraduate Scholarships, Honors and Prizes (CUSHP).
2019 PhD thesis examiner, University of New England, Armidale, NSW, Australia.
2020 Member - Search committee, Herd Manager Position (Sierra Foothill Research and Extension Center).
2021 Moderator - 2nd Annual Working Anthrozoology Group (WAG) Lecture - Professor Donald Broom (Emeritus Professor of Animal Welfare, University of Cambridge).

Professional

- 2017 Session moderator - Session: Health & Pain, at the North American Regional Meeting of International Society of Applied Ethology (Ames, IA).
2018 Document reviewer - 4-H Science Publications (Animal Welfare Edition), University of California Cooperative Extension.
2018-2019 Grant reviewer - BBSRC (Biotechnology and Biological Sciences Research Council).
2018-2022 Chair - Organizing Committee, 14th North American Regional Meeting of International Society of Applied Ethology.
2019 Co-Chair - Animal Learning and Training Workshop, 53rd Congress of International Society of Applied Ethology, Bergen, Norway.
2019 Grant reviewer - Leverhulme Trust, UK.
2020-2021 Regional Secretary - US Region, International Society of Applied Ethology.

Editorial and Advisory Boards

2020-2023 Editorial Board Member, Section 4. Welfare, Behaviour and Health Management, Animal (International Journal of Animal Biosciences).

Ad-Hoc Reviewer

Animal (2) Animals (4) Animal Behavior and Cognition (4) Animal Cognition (2) Animal Welfare (3) Applied Animal Behavior Science (6) Behavioral Processes (4) Behavioral Sciences (1) International Journal of Comparative Psychology (4) Journal of Applied Animal Welfare Science (1) Journal of Comparative Psychology (1) Journal of Swine Health and Production (2) Journal of Visualized Experiments (1) PeerJ (1) PLOS ONE (3) Rangeland Ecology & Management (1) Small Ruminant Research (2) Translational Animal Science (1).

BROADCAST, PRINT OR ELECTRONIC MEDIA

Elephants are aggressive, but fish just bite?, Magazine Article, December 5, 2013, The Scientist.

Pigheaded: How smart are swine?, Magazine Article, March 10, 2014, The Modern Farmer.

The quest to build a better pig that's easier to raise humanely, Magazine Article, February 17, 2015, Fast Company.

Penn scientists have the chops to assess porkers' psychological well-being, Newspaper Article, August 7, 2016, The Philadelphia Inquirer.

Weighing pig personality: Is one sow better than another in group housing?, Newspaper Article, June 13, 2017, UC Davis News.

What they don't tell us: the complexities of pig behavior, Newspaper Article, July 17, 2017, The California Aggie.

The quest for animal welfare - on the large scale, Newspaper Article, August 13, 2017, The San Francisco Chronicle.

Featured Research: Identifying Pig Personality Traits in Group-Housed Sows, Blog Post, September 22, 2017, The New Standard Group.

Pigs and fish: Personality in animals #471, Podcast, April 27, 2018, Science for the people.

Tools for Optimizing Cattle Grazing Distribution, Leaflets, February 23, 2019, UC Rangelands, Chico Beef Symposium.

Pet pigs can communicate with humans-especially when food is involved, Magazine Article, July 11, 2019, National Geographic.

Goats can perceive each other's emotions from their voices, Magazine Article, July 15, 2019, National Geographic.

Understanding cattle personality may help keep rangeland productive & sustainable, Magazine Article, June 26, 2020, College of Agricultural and Environmental Sciences, UC Davis Outlook Magazine.