



CAWS UPDATE



DR. MARISA ERASMUS

Dr. Erasmus received two awards this summer, one was the Universities Federation for Animal Welfare 2019 Young Animal Welfare Scientist of the Year Award and the other was the Poultry Science Association Early Career Extension Award. Congratulations!



Request for Proposals

The Purdue Center for Animal Welfare Science (CAWS) requests Purdue faculty teams to submit proposals for internal seed grants directed at innovative approaches for addressing animal welfare issues. These seed grants are to foster cross-disciplinary collaboration by faculty using or developing novel approaches for addressing key challenges that affect agricultural, laboratory and companion animal welfare. Funding will be prioritized by the level of cross-disciplinary strength. To be considered, the primary focus of proposed projects must be on evaluating/improving animal welfare. Please visit the CAWS website for complete information.

Proposals are requested that pertain to the CAWS areas of focus. These include:

- Food animal well-being
- Non-food animal well-being
- Public interest/social/ethical economic issues relative to animal welfare
- Interface between human animal bond and animal welfare

Priority will be given to applications that are cross-disciplinary in nature.

Deadline: 5:00 pm on October 21, 2019





Welcome New CAWS Faculty



Dr. Esteban Fernandez-Juricic
Professor
Department of Biological Sciences

**CAWS Focus Area: Non-food animal well-being
(e.g., lab, companion, wildlife animal)**

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How does my research align with the center?

My research is focused on how animals (mostly birds) perceive their world visually. We used a combination of visual physiology and anatomy tools, perceptual modelling, and behavioral experiments to answer the overarching question: how does visual perception affect behavior? One of the reasons behind addressing this question in birds is because avian vision is fundamentally different from human vision. We have applied this integrative approach to tackle different basic and applied problems. However, animal welfare is an area that has yet to embrace the understanding of how animals perceive visually their environment in order to develop strategies that could improve their welfare (e.g., making objects/conspicuous more or less salient to facilitate their interactions with their surroundings). I would be very interested in exploring research along these lines with the faculty and grad students at the Purdue Center for Animal Welfare Science.



Dr. Jayson Lusk
Distinguished Professor and Head
Department of Agricultural Economics

**CAWS Focus Area: Public interest/social/ethical/economic
issues relative to animal welfare**

Email: jlusk@purdue.edu
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jaysonlusk.com

How does my research align with the center?

I primarily study food demand, with emphasis on animal agriculture. I published a book in 2011 with Oxford University Press on the Economics of Farm Animal Welfare and have published numerous articles in peer reviewed journals on these topics. My most recent research on these topics relates to impacts of state and retailer regulation related to animal welfare on consumer prices and producer profits, in addition to costs and benefits of emerging animal welfare issues such as slow growth broilers.



CAWS Membership

CAWS membership is comprised of faculty who seek to identify the best animal care and management practices using sound science and ethics. Members currently represent the Purdue University Colleges of Agriculture and Veterinary Medicine, Department of Biological Sciences, the USDA ARS Livestock Behavior Research Unit, and the Purdue University School of Nursing.

Members must be Purdue faculty (including adjunct appointments) and either have a primary research, teaching or engagement focus on enhancing animal welfare and/or advancing animal welfare science; or possess an interest in collaborating in those disciplines.

Membership benefits include:

- increased visibility and impact of scholarly work
- ability to influence regional and national policies on animal care and welfare
- eligibility for student scholarships
- opportunities for seed funding
- access to faculty travel funding
- center-facilitated collaborations with key partners
- access to special seminars/webinars/targeted working groups
- targeted professional development opportunities

Members are strongly encouraged to collaborate with other CAWS investigators and to participate in CAWS sponsored events.



CAWS Leadership Team

Candace Croney

CAWS Director and Professor, Animal Behavior and Well-being

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Kolapo Ajuwon

Associate Professor of Animal Sciences

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Alan Beck

Director, Center for the Human-Animal Bond

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Nancy Edwards

Associate Professor of Nursing and Director, AGNP Program

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Janice Kritchevsky

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Allan Schinckel

Professor of Animal Sciences

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Nicole Widmar

Professor, Associate Head, and Graduate Chair of Agricultural Economics

nwidmar@purdue.edu



New Group Members

Masters Students

Grace Boone

Advisor: Dr. Candace Croney
Research interests: Animal behavior and welfare
Email: gcboone@purdue.edu

Yuechi Fu

Advisor: Dr. Heng-wei Cheng
Research interests: Animal behavior and well-being
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Lucy Markland

Advisor: Dr. Don Lay
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Leanne Nieforth

Advisor: Dr. Marguerite O'Haire
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Joanna Rogowski

Advisor: Dr. Candace Croney
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Aynsley Romaniuk

Advisor: Dr. Candace Croney
Research interests: Dog behavior and welfare
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Postdoctoral Researchers

Dr. Aitor Arrazola

Lab: Dr. Candace Croney
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Dr. Shanis Barnard

Lab: Dr. Candace Croney
Research interests: Dog behavior, cognition and welfare and human-animal relationship
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Dr. Hannah Flint

Lab: Dr. Candace Croney
Research interests: Animal behavior and welfare
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Administrative Support

Wendy Madore

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Publications*

Bir, C., **Widmar, N. O.**, & Clifford, M. (2019). The Intersection of "Natural" Edutainment and Perceptions of Natural Resource Uses. *Environmental Communication*, 1–16. doi: 10.1080/17524032.2019.1601634

Croney, C. C. (2019). Turning up the Volume on Man's Best Friend: Ethical Issues Associated with Commercial Dog Breeding. *Journal of Applied Animal Ethics Research*, 1(2), 230–252. doi: 10.1163/25889567-12340011

Ding, T., Fang, L., **Ni, J.-Q.**, Shi, Z., Li, B., & Zhao, Y. (2019). Optimization Design of Agricultural Fans Based on Skewed-Swept Blade Technology. *Applied Engineering in Agriculture*, 35(2), 249–258. doi: 10.13031/aea.12905



Publications Continued*

**This is only a partial list of publications.*

Kline, J. A., Fisher, M. A., Pettit, K. L., Linville, C. T., & **Beck, A. M.** (2019). Controlled clinical trial of canine therapy versus usual care to reduce patient anxiety in the emergency department. *Plos One*, 14(1). doi: 10.1371/journal.pone.0209232

Gupta, O. T., Wiebe, D. J., Pyatak, E. A., & **Beck, A. M.** (2018). Improving medication adherence in the pediatric population using integrated care of companion animals. *Patient Education and Counseling*, 101(10), 1876–1878. doi: 10.1016/j.pec.2018.05.015

LaFollette, M. R., Cloutier, S., **Brady, C.**, **Gaskill, B. N.**, & **O’Haire, M. E.** (2019). Laboratory animal welfare and human attitudes: A cross-sectional survey on heterospecific play or “rat tickling”. *PloS one*, 14(8), e0220580.

LaFollette, M. R., Swan, M. P., Smith, R. K., Hickman, D. L., & **Gaskill, B. N.** (2019). The effects of cage color and light intensity on rat affect during heterospecific play. *Applied Animal Behaviour Science*, 104834.

Ni, J.-Q., Shi, C., Liu, S., Richert, B. T., Vonderohe, C. E., & Radcliffe, J. S. (2019). Effects of antibiotic-free pig rearing on ammonia emissions from five pairs of swine rooms in a wean-to-finish experiment. *Environment International*, 131, 104931. doi: 10.1016/j.envint.2019.104931

Stella, J., & **Crony, C.** (2019). Coping Styles in the Domestic Cat (*Felis silvestris catus*) and Implications for Cat Welfare. *Animals*, 9(6), 370. doi: 10.3390/ani9060370

Stella, J., Hurt, M., Bauer, A., Gomes, P., Ruple, A., **Beck, A.**, & **Crony, C.** (2018). Does Flooring Substrate Impact Kennel and Dog Cleanliness in Commercial Breeding Facilities? *Animals*, 8(4), 59. doi: 10.3390/ani8040059

Xie, Q., **Ni, J.-Q.**, Bao, J., & Su, Z. (2019). A thermal environmental model for indoor air temperature prediction and energy consumption in pig building. *Building and Environment*, 161, 106238. doi: 10.1016/j.buildenv.2019.106238

Yakimicki, M. L., **Edwards, N. E.**, Richards, E., & **Beck, A. M.** (2018). Animal-Assisted Intervention and Dementia: A Systematic Review. *Clinical Nursing Research*, 28(1), 9–29. doi: 10.1177/1054773818756987

Yang, Y., **Ni, J.-Q.**, Zhu, W., & Xie, G. (2019). Life Cycle Assessment of Large-scale Compressed Bio-natural Gas Production in China: A Case Study on Manure Co-digestion with Corn Stover. *Energies*, 12(3), 429. doi: 10.3390/en12030429



Shell Egg Academy

The Shell Egg Academy (SEA) is a new program driven by the responses to the Shell Egg National Needs Assessment and developed by Purdue Extension. The SEA goal is to deliver information on timely topics to individuals dealing with or producing table eggs from the perspective of egg quality and food safety. The SEA is divided into Course 1 (Days 1-2) Live hen production and Course 2 (Days 2-4) Egg Processing and Food Safety. The academy was recently held September 23-26, 2019 at the Crowne Plaza Downtown, Indianapolis, IN.



*Dr. Darrin Karcher
Assistant Professor of Animal
Sciences, Poultry Extension
Specialist*



4th Annual Center for Animal Welfare Science Symposium

Building Capacity to Ensure Innovative Solutions to Emerging Animal Welfare Challenges

Recently, Dr. Croney partnered with colleagues at three universities to co-author a USDA-NIFA funded grant proposal for a conference to increase access to the field of animal welfare science, with the aim of increasing diversity and inclusiveness to improve our collective problem solving. The conference, which was held this May attracted over 100 participants, of which almost one third were students and faculty at minority serving institutions. (See Purdue –NIFA 2019 Center for Animal Welfare Science Conference. <https://www.purdue.edu/vet/ce/NIFA2019.php>). They reached out through direct connections and professional networks to MSIs, trial colleges, land grant and private institutions without established animal welfare programs of study and offered scholarships to faculty and high performing students from different knowledge, experiential, socio-economic, regional, gender, race and ethnic backgrounds. Every participant was tasked to work in a group to help collaboratively problem-solve around one of five key challenges prioritized in the 2018 CAST taskforce report on animal welfare. Groups included speakers selected for their international reputation as scientists in the discipline, leaders of global corporations, such as Tyson Foods and Merck Pharmaceuticals, farmers and members of governmental and non-governmental organizations. Although the number of animal welfare scientists who elected to attend was disappointing, the quality of work of the students (those traditionally represented and those new to the field) was so impressive to the corporate, academic and other participants that every student left with a verbal commitment of mentorship and direct contact information of every high ranking professional who attended. Further, fruitful discussions and collaborations have been planned with several MSIs to continue the conversations and explore novel approaches to curriculum development and shared access.



Symposium organizers from Purdue University, Tuskegee University, North Carolina A&T State University, and the University of North Carolina at Chapel Hill, gather with PVM Dean Willie Reed and Dean Ruby Pery of the Tuskegee University College of Veterinary Medicine (center), for a photo with students who received travel awards to attend the conference.



Seminar Announcement

CHALLENGES AND ADVANCES IN **POULTRY WELFARE**

Presented by

Dr. Marisa Erasmus, Assistant Professor *

Department of Animal Sciences, Purdue University

Worldwide, the production and industrialization of poultry meat and eggs are increasing to meet the continually growing global demand for food. Concurrently, there is increased focus on agricultural sustainability and increasing public interest in animal welfare. Public interest has, in part, led to changes in poultry housing and management, which impact agricultural sustainability and animal welfare. The resulting changes in housing and management lead to both poultry welfare challenges and opportunities. Some of these challenges, such as heat stress and disease are not new, but are becoming increasingly problematic as world production and climate change, while other challenges related to evolving housing systems, such as parasites and abnormal behavior, present new management challenges. Recent advances in technology and animal welfare science show great promise for monitoring and identifying poultry welfare challenges. In this presentation, the main welfare issues of poultry will be discussed as well as examples of how current research is addressing these issues using various technological approaches. Implications for the future of poultry welfare will also be discussed.

Tuesday, October 29, 2019

4:00 pm - 5:00 pm

1042 CRTN

*** 2018 CAWS RFP AWARDEE**



CAWS Social Hour

Are you looking for an opportunity to interact with the CAWS faculty, students and staff?

Join the faculty, graduate students and postdoctoral researchers for an hour of conversation and food prior to our first seminar of the semester. You're encouraged to bring a colleague that may have an interest in learning more about CAWS. Everyone is welcome!

Tuesday, October 29, 2019

3:00 pm - 4:00 pm

1042 CRTN



LOOKING AHEAD

National Institute of Neurological Disorders and Stroke (NINDS) workshop:

2019 Pain in Animals Workshop: Cross-species measurement of acute pain

October 2-3, 2019

Bethesda, Maryland

<https://meetings.ninds.nih.gov/Home/Index/23586>

North American animal care and handling conference

Oct 16, 2019

Kansas City, MO

<https://www.meatinstitute.org/index.php?ht=d/sp/i/101361/pid/101361>

International Canine Science Conference

Oct 18-20, 2019

Phoenix, AZ

<https://clivewynne.wixsite.com/caninescience2019>

One Welfare Conference

October 14-16, 2019

Sydney, Australia

<https://www.cve.edu.au/conference/one-welfare-conference-ii>

CAWS SOCIAL & SEMINAR

Challenges and Advances in Poultry Welfare

Presented by Dr. Marisa Erasmus

October 29, 2019

3:00 pm - 5:00 pm

CRTN 1042

Pig Welfare Symposium

November 13-15, 2019

Minneapolis, MN

<https://www.pork.org/events/pig-welfare-symposium/>

National Council on Pet Population 2019 Research Symposium

November 18, 2019

Houston, TX

<https://theaawa.org/event/research19>

19th Annual Animal Welfare Assessment Contest®

November 22-24, 2019

Fort Collins, Colorado

<https://awjac.org/>



2020 Planning Committee

Faculty and Graduate Students

Are you interested in helping shape the program for the 5th Annual Center for Animal Welfare Science Symposium? This event typically is held the third week in May each year. Anyone interested in serving on the Planning Committee should contact CAWS@purdue.edu by October 21.