

CENTER FOR ANIMAL WELFARE SCIENCE (CAWS) UPDATE

May 2015

HIGHLIGHTS FROM THE DIRECTOR

Spring 2015 ushered in many exciting developments for CAWS. The Center's strategic plan, facilitated by Dr. Rab Mukerjea is nearing completion and is soon to be published on the CAWS website. The website itself is currently undergoing changes and has a new address (<http://www.vet.purdue.edu/CAWS/>).

CAWS members and their efforts were highlighted in print, radio, television and online media. Details are outlined in the CAWS in the Media section.

Several new members have recently joined CAWS. This spring we welcomed Paul Brown, Professor of Fisheries and Aquatic Sciences in Forestry and Natural Resources; Linda Chezem, Professor of Youth Development and Agricultural Education; Susan Eicher, Research Physiologist (Animals), USDA-ARS Livestock Behavior Research Unit; Mark Hilton, Clinical Professor, Food Animal Production Medicine; Jiqin Ni, Associate Professor Agricultural & Biological Engineering; and Audrey Ruple-Czerniak, Assistant Professor of Public Health Epidemiology in Comparative Pathobiology.

The inaugural CAWS Animal Welfare Symposium takes place this month. On May 21, CAWS will welcome over 100 attendees, including students, faculty and staff from at least six different universities, as well as industry personnel affiliated with the companion, laboratory and food animal industries, along with private practice veterinarians, legislative aides, and media representatives. If you haven't registered yet, it's not too late to do so! Please visit <https://vet.purdue.edu/ce/workshops.php#CAWS>.

Read on for more details about our work!

CAWS ACTIVITIES & AWARDS

Awards: **Dr. Brianna Gaskill**, Purdue Assistant Professor of Animal Welfare, along with Dr. Joseph Garner, Stanford University Associate Professor of Comparative Medicine, received a Highly-commended prize from the National Centre for the Replacement, Refinement & Reduction of Animals in Research (NC3Rs) for their research titled "Behavior titration of mouse preference for warmth or access to a nest." The work focused on finding optimal nesting requirements for laboratory mice, which can affect their physiology, stress and overall welfare.

Dr. Maggie O'Haire, Assistant Professor of Human-Animal interaction, received a Dean's Award for Outstanding Research Higher Degree Thesis from the University of Queensland, Australia, in recognition of substantial contribution to her field of research.



Drs. Garner and Gaskill: Highly-commended NC3Rs Prize winners

Dr. Candace Croney received the Purdue Veterinary Medicine Excellence in the Scholarship of Engagement Award at the annual PVM Honors and Awards Banquet and White Coat Ceremony on April 21.

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ANIMAL WELFARE SCIENCE

Spring Symposium

Addressing Current Animal Welfare Issues: Scientific Challenges and Their Societal Context

Events: CAWS will host its first annual symposium on May 21st. This symposium will include coverage of various socially contentious animal welfare topics, while highlighting Purdue's role in scientific advancement and engagement on animal welfare science. More information on the symposium can be found at the CAWS website: <http://www.vet.purdue.edu/CAWS/>

The 2015 International Symposium on Animal Environment and Welfare will be held in Chongqing, China from October 23-26, 2015. Dr. Croney was invited to give a keynote speech on animal welfare and food production in the 21st century. **Dr. Jiqin Ni**, Associate Professor of Agricultural and Biological Engineering, is Proceedings Co-Chair for the symposium. <http://www.ircaew.org/News/Symposia/2014-12-19/1682.html>

Grants: **Drs. Janice Kritchevsky, Tim Lescun, Candace Croney and Kara Stewart** received a Competitive Equine Research Fund grant to investigate the impact of lameness of equine welfare and behavior. Entitled "Pasture Sound: The effect of lameness on behavior and other measures of welfare in horses" the grant will fund studies into investigating how horses cope with chronic lameness. Lameness is the second most common reason why horses are euthanized, and the pain from lameness represents a major welfare concern to equine industries and horse owners. The long-term goal of the project is to develop a clear, specific metric that will allow owners and veterinarians to determine when a lame horse is coping successfully with its pain and when medical or surgical intervention is required to ensure the animal's welfare.

Dr. Brianna Gaskill received a grant from the John Hopkins Center for Alternatives to Animal Testing (CAAT) for her proposal entitled "Influence of husbandry parameter on sleep in laboratory mice."

Dr. Maggie O'Haire was awarded \$19,994 from the Clifford B. Kinley Trust for her project on "Animal-assisted intervention for autism spectrum disorder in a psychiatric hospital setting". The Human-Animal Bond Research Initiative (HABRI) also awarded her a \$40,292 research grant for the project "Physiological wellness effects of animal-assisted activities in children with autism spectrum disorder in a specialized psychiatric hospital program". In addition, HABRI awarded her another \$41,948 grant for a project with service dogs and war veterans (see below). Lastly, the NIH Office of Behavioral and Social Science Research granted her a research travel award for her participation this July in the NIH's Summer Institutes on Randomized Behavioral Clinical Trials.

CAWS IN THE MEDIA

On January 3, 2015, **Dr. Alan Beck** did a podcast on the human-animal bond for the Mid-Michigan Pet Expert Talk Show. Listen at: http://1320wils.com/page.php?page_id=48099

In March 2015, Ringling Bros. and Barnum & Bailey brought the circus to Lafayette, IN. With animal groups planning to protest the circus, **Dr. Candace Croney** was asked by the *Lafayette Journal and Courier* to comment on the use of elephants in the circus. Read more:

<http://www.jconline.com/story/news/2015/03/18/circus-comes-lafayette/24958829/>

On April 27, **Dr. Candace Croney** was featured in National Geographic's program, "Everything You Didn't Know about Animals: Pigs, Wolves and Crows." <http://channel.nationalgeographic.com/wild/everything-you-didnt-know-about-animals/videos/smell-test/>

Dr. William Muir, Professor of Animal Sciences, discussed his work with Dr. Richard Howard, Professor Emeritus of Biology, on genetic traits and mate competition in goldfish and this influence on natural selection in a May 7th article with Purdue Agricultural News.

Read more: <http://www.purdue.edu/newsroom/releases/2015/Q2/evolution-in-action-mate-competition-weeds-out-gm-fish-from-population.html>

Dr. Alan Beck will be presenting the lecture of "Man's Best Friend-The Psychology and Biology of our Love of Animals" at the Big Ten 2015 Recreational Sports Conference on Wednesday, May 13, 2015. Find out more about the conference and lecture:

<https://bigtenrecreationsportscon2015.sched.org/event/5a8db6fb4236b9e3636b092ca89a6cb7#.VUzZq5Ozong>

CAWS COLLABORATIONS & PROJECTS

The Center for the Human-Animal Bond is helping War Veterans

In April, 2015, Purdue University was awarded a \$42,000 grant from the Human-Animal Bond Research Initiative (HABRI) Foundation to study how service dogs affect 9-11 war veterans with mental health issues, in particular Post-Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI). The focus of this work, with **Dr. Maggie O'Haire** as a Principal Investigator, is to advance specific research focusing on therapy dog health benefits for soldiers, a niche that the U. S. Department of Veteran Affairs feels is lacking given the multitude of studies supporting the efficacy of decreasing issues of stress and depression through companion animals. Dr. O'Haire confirmed in a *Voice of America* interview that it is necessary to collect every aspect of this research; the goal is to be able to provide a service animal to every soldier who needs one. Working with the K9s for Warriors program along with support from Bayer HealthCare Animal Health and HABRI, Purdue's Center for the Human-Animal Bond will lead the start of these studies this year.

KTPM-TV, Omaha, NE story: <http://www.fox42kptm.com/story/28843463/new-research-to-study-effects-of-service-dogs-on-post-9-11-war-veterans-with-ptsd>

Voice of America press release: <http://www.golos-ameriki.ru/content/vetarans-k9/2723941.html> (Language: Russian)

PRWeb press release: <http://www.prweb.com/releases/2015/04/prweb12653656.htm>

Animal Ordinances in Indiana

At the beginning of the spring semester, Elizabeth Lehmann, a student working with **Linda L. Chezem**, professor of Youth Development and Agricultural Education, began to compile all animal related ordinances for each county in Indiana. The aim of the project is to create an animal ordinance and law database to support student learning and research in the animal law classes. Easier said than done; in this day and age she expected the ordinances for each county to be readily available online. She quickly learned that this was not the case. While many counties did have some ordinances online, there were quite a few that did not. She emailed the auditor for each county that did not have their ordinances online. Fortunately many of the auditors responded quickly. Some auditors sent the documents she requested. However, some counties did not respond, or they did respond and required a personal visit to the county auditor's office in order to obtain the documents. Ms. Lehmann then embarked on a journey across Indiana to acquire the ordinances. In a later publication Lehmann plans to summarize, in detail, her experiences with the counties she visited, and an overall summary of the project. The project is near an end, as ordinances for only five counties remain to be collected. The database will soon to be completed.



CAWS PUBLICATIONS & PRESENTATIONS

Publications

1. Ajuwon, K., Hua, Z. 2015. **Heat Stress and LPS activate multiple signaling pathways to regulate cytokine expression in macrophages.** The FASEB Journal. 29, 756.9.
2. Dai, X.-R., Saha, C.K., Ni, J.-Q., Heber, A.J., Blanes-Vidal, V., Dunn, J.L., 2015. **Characteristics of pollutant gas releases from swine, dairy, beef, and layer manure, and municipal wastewater.** Water Research. In press.
3. Howie, A. R. 2015. **Teaming with your therapy dog.** A. M. Beck & M. E. O’Haire (Eds.) West Lafayette, IN: Purdue University Press
4. Joo, H.-S., Ndegwa, P.M., Heber, A.J., Ni, J.-Q., Bogan, B.W., Ramirez-Dorransoro, J.C., Cortus, E., 2015. **Greenhouse gas emissions from naturally ventilated freestall dairy.** Atmospheric Environment. 102, 384-392.
5. Ni, J.-Q., 2015. **Research and demonstration to improve air quality for the U.S. animal feeding operations in the 21st century - A critical review.** Environmental Pollution. 200, 105-119.
6. Page, L.H., Ni, J.-Q., Zhang, H., Heber, A.J., Mosier, N.S., Liu, X., Joo, H.-S., Ndegwa, P.M., Harrison, J.H., 2015. **Reduction of volatile fatty acids and odor offensiveness by anaerobic digestion and solid separation of dairy manure during manure storage.** Journal of Environmental Management. 152, 91-98.
7. Rodriguez, J.Y., Camp, J.W., Lenz, S.D., Kazacos, K. R. & Snowden, K.F. 2015. **Expanding distribution of *Heterobilharzia americana* in the Midwest: A canine case in Indiana.** Accepted to JAVMA

Presentations

1. O’Haire, M. E. (2015, January). **How animals can help humans heal.** Presented the Elanco Human-Animal Bond Lecture at the annual North American Veterinary Community (NAVC) Conference, Orlando, FL, USA.
2. O’Haire, M. E. (2015, February). **Animal-assisted intervention for autism spectrum disorder.** Invited speaker for the 2015 Autism Mini-Symposium hosted by the Purdue Autism Cluster, Purdue University, West Lafayette, IN, USA.
3. O’Haire, M. E. (2015, February). **The effects of interacting with animals on human health and wellbeing.** Invited speaker for the 2015 Social Psychology Speaker Series of the Department of Psychological Sciences, College of Health and Human Sciences, Purdue University, West Lafayette, IN, USA.

UPCOMING EVENTS

May 13, 2015	Scientists Center for animal Welfare IACUC Training Workshops, Cincinnati, Ohio
May 21, 2015	Center for Animal Welfare Science Spring Symposium, West Lafayette, IN
Aug 9-14, 2015	Behaviour 2015 Conference. “Virtual Reality: computer animations as a tool in animal behavior research symposium” Cairns, Australia
Oct 23-26, 2015	2015 International Symposium on Animal Environment and Welfare, Chongqing, China

For more information or to provide feedback on CAWS, please contact Dr. Candace Croney (ccroney@purdue.edu).
For membership information and forms, please visit: <http://www.vet.purdue.edu/CAWS/>.