



SJDAWC

SIR JAMES DUNN ANIMAL WELFARE CENTRE *at the Atlantic Veterinary College*



PROMOTING ANIMAL WELFARE THROUGH RESEARCH, SERVICE, AND EDUCATION

2024 ANNUAL REPORT

ATLANTIC VETERINARY COLLEGE
UNIVERSITY OF PRINCE EDWARD ISLAND
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SIR JAMES DUNN ANIMAL WELFARE CENTRE 2024 ANNUAL REPORT

Sir James Dunn Animal Welfare Centre, Atlantic Veterinary College, University of Prince Edward Island

MANDATE

The Sir James Dunn Animal Welfare Centre (SJDAWC) exists to promote animal welfare by generating and disseminating impartial and evidence-based knowledge and understanding of animal welfare issues. Our vision is “to be nationally and internationally recognized as a centre dedicated to advancing animal welfare through research, service, and education”.

STRUCTURE

The SJDAWC is governed by a management board that reports to the dean of the Atlantic Veterinary College (AVC) at UPEI.

MANAGEMENT BOARD

- » DR. DOMINIQUE GRIFFON, Dean, AVC, Management Board Chair (ex-officio), replaced Dr. John VanLeeuwen in January 2024
- » DR. KATY PROUDFOOT, Director, SJDAWC (ex-officio)
- » DR. MICHAEL COCKRAM, Chair in Animal Welfare (ex-officio)
- » MS. APRYL MUNRO, AVC External Engagement Officer (ex-officio)
- » MS. SHERRI PINEAU, Administrative Assistant, SJDAWC (ex-officio)
- » DEPARTMENTAL REPRESENTATIVES
 - » DR. GLENDA WRIGHT, Department of Biomedical Sciences
 - » DR. SONJA SAKSIDA, Department of Health Management
 - » DR. CATE CREIGHTON, Department of Companion Animals
 - » DR. RUSSELL FRASER, Department of Pathology and Microbiology
- » DR. BEVERLY DAWE, Chief Veterinary Officer and Divisional Director, Government of Newfoundland and Labrador, external veterinarian representative, replaced Dr. Carolyn Sanford in June 2024
- » MR. RON MAYNARD, external community representative
- » MS. LAURA GROVES, student representative, replaced Ms. Tessa McBurney in June 2024.

SJDAWC ACTIVITIES IN 2024

AVC Webinar Series (March)

The SJDAWC hosted a three-part webinar series focusing on topics related to post-pandemic issues in veterinary behavioural medicine. The webinar featured Dr. Karen Overall, professor of behavioural medicine at AVC, who described research on the effects of the COVID-19 pandemic on dogs and their owners as well as the impacts of the pandemic on cats. The series ended with a review of new and exciting research in veterinary behaviour medicine.

These webinars were made available on our YouTube channel in September 2024: <https://upei.ca/youtube/awc>

Animal Welfare in Practice Symposium (September)

The 19th annual Animal Welfare in Practice symposium was presented on September 13 and 14, 2024, which highlighted the human dimension of animal welfare: the intersection between animal care and the community.

Drs. Michelle Lem, Founder, Community Veterinary Outreach and Paul Robb, veterinarian with the Dartmouth Veterinary Hospital, launched the symposium on Friday with a presentation on “A conversation about social change and animal welfare”.

Dr. Michelle Lem was the first speaker to present at the symposium on Saturday, focusing on “The human experience in animal welfare: Perspectives from veterinary social work”. The symposium continued with the following speakers and topics:

- » Dr. Quinn Rausch, postdoctoral fellow, Ontario Veterinary College, presented “Using Canadian data and community partnership to understand and improved animal healthcare in underserved communities”.
- » Dr. John VanLeeuwen, professor in the Department of Health Management at AVC, presented “How veterinarians can enhance animal care for better communities in Kenya and Northern Canada”.

» Dr. Marti Hopson, adjunct faculty in Companion Animals at AVC, presented on “The Chinook Project: A multidisciplinary approach to veterinary care in Northern Communities”.



The symposium was co-hosted by the SJDAWC and the AVC Animal Welfare Club, with support from the Animal

Welfare Foundation of Canada and the PEI Department of Agriculture. Information about the speakers may be found at awc.upei.ca/2024-symposium-speaker-information/

GRANTS AWARDED

Through an annual competition and other sources, the SJDAWC provides funding for research, integrated, and service projects.

RESEARCH

Research grants awarded in 2024

CRANE B, PROUDFOOT K, MCKENNA S. The Behavioural evaluation of bulls during semen collection using electroejaculation and alternative techniques (2024–2026)

MELLISH M, RITTER C, VANLEEUEWEN J. Improving the welfare of working donkey harnesses in Meru County, Kenya, through participatory action research (2024–2026)

Ongoing or recently completed research projects

BERNARD P, SPEARS J, BIGELOW L. Identifying optimal experimenter handling and familiarization protocols that can be universally implemented to improve lab animal welfare

BERNARD P, SPEARS J. The effects of rearing in a shelved environment on behavioural and physiological markers of welfare

BERNARD P, SPEARS J, BIGELOW L. The effect of common laboratory ultrasounds on rat behaviour and physiology

OVERALL K, PROUDFOOT K, MARTIN C, MONTELPARE W, VERNICK J. Effects of early life experiences on later problematic behaviours in homeless, rescue shelter kittens

OVERALL K, MONTELPARE W, PROUDFOOT K, SQUAIR C. Effects of veterinary handling on canine behaviour and physiology: Must we scare dogs?

RITTER C, PROUDFOOT K, MACMILLAN K, ELISOHABY I, MCKENNA S. Assessment and improvement of horse welfare on Prince Edward Island through benchmarking and a better understanding of horse caretakers’ decision-making

SAKSIDA S, FAST M, WHYTE S, REYNOLDS K. Environmental enrichment for stress reduction in land-based salmonid aquaculture

STOUGHTON WB, BRESSAN N. Development of an equine nasogastric intubation simulator as an aid or alternative to the use of animals in teaching

VANLEEUEWEN J, HEIDER L, KEEFE G, MCKENNA S, MUCKLE A, GITAU G, KARIUKI E. Prevention of bovine mastitis through a combination of cow comfort mastitis intervention on smallholder dairy farms in Kenya

VANLEEUEWEN J, HALL D, RITTER C, RAO J, MUUNDA E, ALONSO S. Motivations and cost-effectiveness of improved cow comfort on smallholder dairy production systems in Kenya

Please visit <https://awc.upei.ca/research-projects/> for more information about these and other service projects.

INTEGRATED

Ongoing or recently completed integrated projects

CUSACK L, PROUDFOOT K, VANLEEUEWEN C. The impact of volunteering with a wildlife service on empathy in veterinary students

Please visit <https://awc.upei.ca/research-projects/> for more information about this integrated project.

SERVICE

Service grants awarded in 2024

OGILVIE A, FOLEY P, ELLIS L, MACLEAN R, MACLEAN M. Medical and surgical care of homeless small animals (2024–2025), with the PEI Humane Society (PEIHS)

Ongoing or recently completed service projects

CARR M, FOLEY P. Neutering feral cats on PEI

CARR M, MACDONALD K. Pegasus feral cat neuter program

FALCONBRIDGE O, MACLEAN R. Pegasus Helping Hand Fund

HOPSON M, LANDRY S, GILROY C. Chinook Project (funded independently since 2011)

MUIRHEAD T, MACMILLAN K. Health management services for Handibear Hills Equine Sanctuary, Inc. (funded independently since 2023)

OGILVIE A, FOLEY P, ELLIS L, MACLEAN R, MACLEAN M. Medical and surgical care of homeless small animals (2023–2024), with the PEI Humane Society (PEIHS)

Please visit <https://awc.upei.ca/service-projects/> for more information about these and other service projects.

GRADUATE STUDENTS FUNDED OR PARTIALLY FUNDED BY THE SJDAWC

Current students

GUSTAVO DIAS, Doctor of Philosophy (PhD) student. Factors that affect sleep in dairy calves (with Dr. Katy Proudfoot).

JENNIFER VERNICK, Master of Science (MSc) student. Effects of early life experiences on later problematic behaviours in homeless, rescue shelter kittens (with Dr. Karen Overall).

LOGAN BIGELOW, PhD student. Ultrasonic vocalizations analysis: A non-invasive ethologically relevant tool to assess home cage welfare in rats (with Dr. Paul Bernard).

MEGAN ROSS, PhD student. Assessment and improvement of horse welfare on Prince Edward Island through benchmarking and a better understanding of horse

caretakers' decision-making (with Drs. Caroline Ritter and Katy Proudfoot).

MOLLY MILLS, MSc student and resident. Improving horse welfare on Prince Edward Island through assessment and benchmarking (with Drs. Kathleen MacMillan and Katy Proudfoot). *Thesis successfully defended in August 2024.*

OBIANUJU JOY EZE, MSc student. Identification of potential welfare issues in Nigeria and approaches to enhance animal welfare in Nigeria (with Dr. Michael Cockram).

SHERRY KHODDAMI, MSc student. Exploring the relationship between veterinary student well-being and their perception of teaching animals' quality of life (with Drs. Caroline Ritter and Katy Proudfoot). *Thesis successfully defended in December 2024.*

WENXUAN MA, MSc student. The effect of sleep disruption on cognition in dairy calves (with Dr. Katy Proudfoot).

PUBLICATIONS

CHENG T, RENAUD D, PROUDFOOT K, PEMPEK J, HABING G. 2024. Dairy producers' colostrum practices, marketing, and attitudes toward male dairy calves. *Journal of Dairy Science*, 107:3885-3898. <https://doi.org/10.3168/jds.2023-24149>

COCKRAM M. 2024. Cattle handling, stress and transportation. In *Encyclopedia of Meat Sciences*, 3rd Edition. Edited by M. Dikeman. Elsevier Ltd. P666-674. <https://dx.doi.org/10.1016/B978-0-323-85125-1.00033-8>

COCKRAM M, STRYHN H, ABDALLAH A, BUCZINSKI S. 2024. Relative merits of offering a milk replacer, glucose-electrolyte, or whey-based diet on the blood composition and health of unweaned calves after transport. *Journal of Dairy Science*, 107:9735-9751. <https://doi.org/10.3168/jds.2024-24769>

MAGGARD H, HABING G, RENAUD D, PROUDFOOT K, ENGLAND Z, CHENG T, WILSON D, MORAN M, PEMPEK J. 2024.

Condition of surplus dairy calves during marketing: A cross-sectional study. *Journal of Dairy Science*, 107:2444-2453. <https://doi.org/10.3168/jds.2023-23625>

PROUDFOOT K, TERNMAN E. 2024. Methods used for estimating sleep in dairy cattle. *Journal of Dairy Science Communications*, 5:374-378. <https://doi.org/10.3168/jdsc.2023-0474>

ROBBINS J, PROUDFOOT K, STRAND E, HEMSWORTH L, COLEMAN G, HEMSWORTH P, SKUSE J, KRAWCZEL P, VAN OS J. 2024. Perceptions of dairy cattle handling situations: A comparison of public and industry samples. *Journal of Dairy Science*, 107:540-554. <https://doi.org/10.3168/jds.2023-23496>

ROSS M, PROUDFOOT K, NISHIMURA E, MORABITO E, MERKIES K, MITCHELL J, RITTER C. 2024. It's more emotionally based: Owner perspectives of horse weight management. *Animal Welfare*, 33:e14. <https://doi.org/10.1017/awf.2024.9>

SPITZER H, MEAGHER R, O'SULLIVAN L, MONTELPARE W, GORDON M, MCKENNA S, PROUDFOOT K. 2024. The effect of a hiding space on the behaviour and heart rate variability of dairy calves during temporary separation from the dam. *Animal Welfare*, 33:e2. <https://doi.org/10.1017/awf.2023.100>

SQUAIR C, PROUDFOOT K, MONTELPARE W, DOUCETTE T, OVERALL K. 2024. Effects of changing veterinary handling techniques on canine behaviour and physiology Part 2: Behavioural measurements. *Animal Welfare*, 33:e43. <https://doi.org/10.1017/awf.2024.37>

VENTURA B, PROUDFOOT K. 2024. AWECOP has made my teaching experience so much better! Creating community and improving teaching practice through an Animal Welfare Education Community of Practice (AWECOP). *Animal Welfare*, 33:e35. <https://doi.org/10.1017/awf.2024.34>

WILSON D, SARACENI J, ROCHE S, PEMPEK J, HABING G, PROUDFOOT K, RENAUD D. 2024. How can better calf care be realized on dairy farms? A qualitative interview study of veterinarians and farmers. *Journal of Dairy Science*, 107 (3):1694-1706. <https://doi.org/10.3168/jds.2023-23703>

PRESENTATIONS

BERNARD P, BIGELOW L. 2024. Environmental factors influence behavior and physiology in *Rattus norvegicus*. Karolinska Institutet Webinar Series, Stockholm, Sweden. Oral presentation.

BERNARD P. 2024. Environmental factors influence behaviour and physiology in *Rattus norvegicus*. ESLAV-ECLAM-AAALAC 2024 Annual Conference, Amsterdam, Netherlands. Oral presentation.

CHENG T, PEMPEK J, RENAUD D, PROUDFOOT K, ENGLAND Z, WILSON D, BELLO N, HABING G. 2024. Effect of benchmarking reports on the transfer of passive immunity, navel health, and hydration in surplus dairy calves. Proceedings of the Conference of Research Workers in Animal Diseases, Chicago, USA. Oral presentation.

CUSACK L, DE BIE F. 2024. Welfare implications of glue traps. PEI Legislative Assembly, Charlottetown, PEI. Oral presentation.

DIONNE N. 2024. Observing Behaviour of Atlantic Salmon (*Salmo salar*) Infected with Sea Lice (*Lepeophtheirus salmonis*). Atlantic Veterinary College Summer Research and Leadership Program Poster Presentations, Charlottetown, Canada. Poster presentation.

DOIRON G, RITTER C, PROUDFOOT K, ROSS M. 2024. Does he not understand?: Horse behaviour during dressage training and responses from coaches and riders. National Veterinary Scholars Symposium, Minneapolis, USA. Poster presentation.

DOIRON G, RITTER C, PROUDFOOT K, ROSS M. 2024. Does he not understand?: Horse behaviour during dressage training and responses from coaches and riders. Atlantic Veterinary College Summer Research and Leadership Program Poster Presentations, Charlottetown, Canada. Poster presentation.

KELLY B, PROUDFOOT K, COSTA J, VENTURA B. 2024. U.S. public perceptions toward precision dairy technology. 9th International Conference on the Welfare Assessment of Animals at Farm Level (WAFL), Florence, Italy. Oral presentation.

KELLY B, PROUDFOOT K, COSTA J, VENTURA B. 2024. Effects of information framing on public perception of precision dairy technologies. Proceedings of the 57th Congress of the International Society of Applied Ethology Annual Meeting, Curitiba, Brazil. Oral presentation.

KHODDAMI S, RITTER C, VENTURA B, PROUDFOOT K. 2024. The quality of life of animals used in veterinary education: perspectives of 4th year veterinary students. Proceedings of the 57th Congress of the International Society of Applied Ethology Annual Meeting, Curitiba, Brazil. Poster presentation.

KHODDAMI S, RITTER C, BRUNT M, VENTURA B, RENAUD D, PROUDFOOT K. 2024. Veterinary student perceptions of the relationship between their well-being and the welfare of animals used for teaching. Proceedings of the 33rd International Society for Anthrozoology Conference, Hartbury, UK. Oral presentation.

KHODDAMI S, RITTER C, BRUNT M, VENTURA B, RENAUD D, PROUDFOOT K. 2024. Veterinary students' perspectives on animals used for veterinary education. Humane Canada Summit for Animals, Halifax, NS. Oral presentation.

MCCABE K, PROUDFOOT K, STYRHN H, BURNS J, VANLEEUEWEN C, MACMILLAN K. 2024. Assessing the effectiveness of a welfare assessment template for generating reports of equine investigations. National Veterinary Scholars Symposium, Minneapolis, USA. Poster presentation.

MCCABE K, PROUDFOOT K, STYRHN H, BURNS J, VANLEEUEWEN C, MACMILLAN K. 2024. Assessing the effectiveness of a welfare assessment template for generating reports of equine investigations. Atlantic Veterinary College Summer Research and Leadership Program Poster Presentations, Charlottetown, Canada. Poster presentation.

NG'ANG'A E, VANLEEUEWEN J, GITAU G, MCKENNA S, HEIDER L, KEEFE G. 2024. Investigating compliance with cow comfort and mastitis control recommendations and their subclinical mastitis outcomes on smallholder dairy farms in central Kenya. Proceedings for the 17th International Symposium on Veterinary Epidemiology and Economics, Sydney, Australia. Poster presentation.

PROUDFOOT K, VENTURA B. 2024. Member experiences from an Animal Welfare Education Community of Practice (AWECOP). Proceedings of the 57th Congress of the International Society of Applied Ethology Annual Meeting, Curitiba, Brazil. Oral presentation. (International)

PROUDFOOT K. 2024. Advancing animal welfare through research, service, and education at the Atlantic Veterinary College. Humane Canada Summit for Animals, Halifax, NS. Oral presentation.

PROUDFOOT K. 2024. Enrichment and handling for dairy cows. Atlantic Veterinary College Bovine Club and Enrichment Club, Charlottetown. Oral presentation.

PROUDFOOT K. 2024. Dairy cow welfare assessments. University of Prince Edward Island Pre-Veterinary Society, Charlottetown. Oral presentation.

PROUDFOOT K. 2024. Using behavior to understand the welfare of dairy cattle. Cornell American Association of Bovine Practitioners and Animal Behavior Clubs, Virtual. Oral presentation.

PROUDFOOT K. 2024. The welfare of dairy cattle. Atlantic Veterinary College Bovine Club, Charlottetown. Oral presentation.

PROUDFOOT K, VENTURA V. 2024. Experiences in Teaching Animal Welfare. Animal Welfare Educators Network, China, Virtual. Oral presentation.

PROUDFOOT K, KHODDAMI S. 2024. Navigating a healthy supervisor-student relationship. Research Seminar Series. Atlantic Veterinary College, Charlottetown, Canada. Oral presentation.

PROUDFOOT K. 2024. Animal Welfare. SHAD, University of Prince Edward Island. Oral presentation.

PROUDFOOT K. 2024. The role of research in veterinary medicine. Panelist on Canadian Pre-Veterinary Society Annual Symposium, Virtual. Oral presentation.

PURCELL S, POPE E, BERNARD P, PROUDFOOT K. 2024. Identifying and describing sources of ultrasonic noise on dairy farms. Atlantic Veterinary College Summer Research and Leadership Program Poster Presentations, Charlottetown, Canada. Poster presentation.

PURCELL S, POPE E, BERNARD P, PROUDFOOT K. 2024. Identifying and describing sources of ultrasonic noise on dairy farms. National Veterinary Scholars Symposium, Minneapolis, USA. Poster presentation.

ROSS M, LUNDGREN C, PROUDFOOT K, MERKIES K, RITTER C. 2024. Elucidating the equestrian feel: Canadian coach and rider perspectives of horse behaviour during dressage lessons. Proceedings of the 33rd International Society for Anthrozoology Conference, Hartbury, UK. Oral presentation.

ROSS M, PROUDFOOT K, MERKIES K, MILLS M, ELSOHABY E, MITCHELL J, MACMILLAN K, MCKENNA S, RITTER C. 2024. It's more emotionally based: Prince Edward Island horse owner perspectives of horse weight management. Humane Canada Summit for Animals, Halifax, NS. Oral presentation.

ROUSSAC A, MEAGHER R, SPITZER H, PROUDFOOT K. 2024. Hiding behaviour of dairy calves kept with their dams for the first week of life. Proceedings of the American Dairy Science Association Annual Meeting, West Palm Beach, USA. Poster presentation.

STOUGHTON W. 2024. Development of an equine nasogastric intubation simulator as an aid or alternative to the use of animals in teaching. Dean's Tour of SJDAWC. Oral presentation and demo of this model. <https://www.youtube.com/watch?v=Qj91xP9KaFs>

VERNICK J. 2024. The effects of early life stress on kitten behaviour. Humane Canada Summit for Animals, Halifax, NS. Oral presentation.

VERNICK J, SALGIRLI Y, DOUCETTE T, OVERALL K. 2024. The effect of early maternal separation on hair cortisol concentration and relative telomere length in shelter kittens. American College of Veterinary Behaviourists Veterinary Behavior Symposium, Minneapolis, MN. Oral presentation.

EDUCATION

PROUDFOOT K. Coach for the AVC student teams in the veterinary division of the 2024 annual Animal Welfare Assessment Contest, University of Wisconsin River Falls, River Falls, WI. November 2024.

COCKRAM M. VHM 890 and VHM 990, course organizer, Department of Health Management student oral and poster seminar sessions.

COCKRAM M. VHM 8470: Animal Welfare, course for graduate students.

PROUDFOOT K. VHM 1030: Animal Behaviour and Welfare, course for first-year veterinary students at the AVC.

PROUDFOOT K. VHM 4230: Food Animal Health Management, one day teaching animal welfare to fourth-year veterinary students during a two-week clinical rotation.

COMMITTEE/BOARD MEMBERSHIPS

DR. MICHAEL COCKRAM

» Section Editor: Welfare and Behaviour, *Animal: The International Journal of Animal Bioscience*

DR. KATY PROUDFOOT

» Member of the Animal Welfare Committee, American Veterinary Medical Association (AVMA), representative for the American Association of Veterinary Medical Colleges (AAVMC)

» Member, CAST Animal Working Group, representative for the American Dairy Science Association (ADSA)

» Member, The Foundation Scholar Awards Committee, American Dairy Science Association

» Section Editor: Health, Welfare and Behavior, *Journal of Dairy Science*

AWARDS

- » 2024 Sir James Dunn Animal Welfare Summer Research Award
 - » Hannah Kennedy, AVC Class of 2026
- » 2024 Christofor Award in Animal Welfare
 - » Alyssa McGee, AVC Class of 2025
- » 2024 Dr. Tom A. W. Taylor Scholarship
 - » Carissa Grove, AVC Class of 2025

FUNDING

- » Sir James Dunn and Christofor Foundations: founding and sustaining funding
- » Multi-year donors: Mr. Glenn Loranger, Ms. Katharine E. Gordon, Ms. Rosemary O'Malley-Keyes, Drs. Stephen and Tina McCarthy
- » Project funding:
 - » Pegasus feral cat neuter program: Dr. Eric Butler and Ms. Suzanne Rocca-Butler
 - » Pegasus Helping Hand Fund: Dr. Eric Butler and Ms. Suzanne Rocca-Butler, SAVMA - AVC Chapter, Dr. Les and Ms. Holly Burridge
 - » Handibear Hills Equine Sanctuary, Inc. project: Mr. Derek Mathers
 - » SJDAWC Grant Competition Fund: Fairview Animal Hospital, Ms. Julie Waddell, Andrew MacLeod Veterinary Professional Corporation,
 - » Chinook Project: Victoria City Kennel Club, Rathlyn Foundation, Ms. Kathy Morrissey, Mission Kitty
- » Universities Federation of Animal Welfare
- » American Veterinary Medical Association through funding from Charles River Laboratories
- » Animal Welfare Foundation of Canada
- » PEI Department of Agriculture
- » Many other generous individual supporters *in memoriam*

CONTACT INFORMATION

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