

SIR JAMES DUNN ANIMAL WELFARE CENTRE

at the Atlantic Veterinary College



PROMOTING ANIMAL WELFARE THROUGH RESEARCH, SERVICE, AND EDUCATION

ALSO IN THIS

ANIMAL WELFARE IN PRACTICE 2012 issue... Poultry Welfare



Wildlife rehabilitation ...p6

September 14-15, AVC, lecture theatre A

Please join us to talk about poultry welfare in September at the eighth annual "Animal Welfare in Practice" conference with keynote speaker Dr. Ian Duncan, Professor Emeritus and Emeritus Chair of Animal Welfare, University of Guelph. All are welcome to the talk on Friday night—"Commercial poultry production: Is there a welfare problem?"—which is free of charge. Topics on Saturday will include welfare of laying hens in furnished cage systems, welfare issues in broilers, challenges of alternative housing, and more. This conference will be of interest to producers, veterinarians, animal scientists, and veterinary and animal science students. Please see *upei.ca/awc* for full programme details and registration information.

The conference is co-hosted by the SJDAWC and the AVC Animal Welfare Club, with generous support from the Animal Welfare Foundation of Canada.



TLAER™ Course ...p8









FROM THE Coordinator's Desk

Welcome to the summer 2012 edition of AWC News, the newsletter of the Sir James Dunn Animal Welfare Centre (SJDAWC) at the Atlantic Veterinary College, University of Prince Edward Island. In this issue, you will find information about issues related to free-roaming cats, based on recent talks at AVC by Dr. Margaret Slater, Chief Veterinary Epidemiologist at the ASPCA. You will also find information about the upcoming 2012 Animal Welfare in Practice conference (page 1), SJDAWC-funded projects for 2012, recent graduate student activities, and a new initiative to improve companion animal welfare on PEI.

In February, Dr. Cockram (AVC Chair in Animal Welfare) travelled to Bangladesh where he gave presentations at several universities (see also page 8). Dr. Cockram continues to provide expertise in the revision of the Canadian National Farm Animal Care Council (NFACC) codes of practice (nfacc.ca/codes-of-practice), which are national guidelines for the care and handling of the different species of farm animals. Dr. Cockram represents research/ academia and the Canadian Veterinary Medical Association (CVMA) on the Equine Welfare Code Development Committee. He chairs the Sheep Welfare Code Scientists' Committee (representing the International Society for Applied Ethology - ISAE) and sits on the Sheep Welfare Code Development Committee.

Please let us know at *animalwelfare@upei.ca* if you would like to receive the newsletter by email (in full colour!) and be on our email list for upcoming events. To learn how you can support the Centre, please go to *upei.ca/awc* or write to:

The Sir James Dunn Animal Welfare Centre Atlantic Veterinary College, UPEI 550 University Avenue Charlottetown, PEI C1A 4P3

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free-roaming cats

Many more stray cats than dogs are admitted to humane societies and many fewer cats than dogs are returned to their owners, which means, ultimately, that more cats are euthanized. Dr. Margaret Slater visited AVC in March to talk about issues affecting free-roaming cats. Dr. Slater, Senior Director of Veterinary Epidemiology at the American Society for the Prevention of Cruelty to Animals (ASPCA), is internationally recognized for her work on sources, problems, and potential solutions for free-roaming cats and dogs, having authored over 85 peer-reviewed publications and two books. While at AVC, Dr. Slater gave several talks and met with graduate and undergraduate students. Her visit was sponsored by the SJDAWC, the Centre for Veterinary Epidemiological Research (CVER), the AVC Animal Welfare Club (with assistance from the Animal Welfare Foundation of Canada), and the PEI Humane Society.

Free-roaming cats: issues and new ideas for (their) survival

Below are some highlights from Dr. Slater's talk. While in PEI, she also gave a one-hour webinar of this talk which can be found at <u>upei.ca/awc</u>.

- 1. The category of "free-roaming cat" includes owned cats that spend time outdoors ("indoor/outdoor cats"), neighbourhood or community-owned cats, barn cats, strays (recently owned but now lost, missing, or abandoned), and feral cats (too unsocialized to be handled or live in a home).
- 2. Community-wide initiatives are needed to address the issues, including spay/neuter and vaccination, trap-neuter-return (TNR), education about responsible pet ownership, promotion of cat identification (collar and tag, microchip), and information about responsible sources for obtaining a cat (including promotion of adopting/fostering through a shelter). Some municipalities have ordinances or bylaws requiring owners to neuter all outdoor cats, which must have ID and will, if found as strays, receive a "free ride home."
- 3. TNR programmes are more successful than trap and euthanize (or trap and remove) at reducing feral cat populations, and more acceptable to community residents. The overall goal is fewer free-roaming cats in better health. Sterilization through TNR reduces fighting and associated injuries and disease, as well as roaming and noise.
- 4. TNR programmes include, at a minimum, humane trapping, neutering (spay or castration), vaccination against rabies, and ear tipping or tattoo for identification. Signs of success include an ongoing decline in cat numbers, especially of kittens. Colony numbers will also be reduced by adopting out young kittens, tame cats, and older cats that become more sociable over time. Colonies do best with an ongoing caretaker.
- 5. Historically, rabies control programmes have removed free-roaming animals and vaccinated owned animals. A trap and remove policy results in a constantly multiplying supply of unvaccinated animals. TNR programmes mean more free-roaming animals will be protected against rabies, which means less opportunity for an outbreak to become established, thereby protecting the health of owned animals and people.
- 6. Many people are concerned about the impact of cats on wildlife, particularly birds. Cats are only one of many pressures on wildlife, with the primary pressures generally coming from human modification of the environment. It is important to recognize that urban and suburban settings, parks and islands are NOT the same, with each location having a distinct set of challenges.

"How many DO we need to spay?"

Dr. Slater discussed different types of populations (open, closed, "in a shelter," "feral cats in a neighbourhood") and the factors that affect them—births, deaths, immigration (e.g., through abandonment), emigration (e.g., through adoption). The goal with TNR is for births/immigration to be less than deaths/emigration, which will achieve a reduction in population. Studies by Dr. Slater and others show that a decrease in cat numbers will be achieved most effectively by an emphasis on spaying juvenile females (less than one year), adopting out young kittens and socialized cats, and targeting populations where cats can be neutered at a high rate (i.e., it is more effective to neuter all the cats in small populations than to neuter a few cats from many separate populations). The resultant smaller colonies are easier to manage and less costly to maintain, which means sterilization can be kept at high levels.

Besides sterilization, another key to reducing free-roaming cat numbers is to prevent new cats from entering colonies. This requires decreasing the abandonment of cats and increasing the use of identification so that lost cats may be reunited with their owners. To achieve the former, we need to look at the reasons for abandonment (e.g., medical/behavioural, moving, household issues) and provide information on alternatives, through community education and promotion of safe shelter relinquishment. And the production of kittens must be decreased by, for example, promoting early neutering to prevent "accidental" litters.

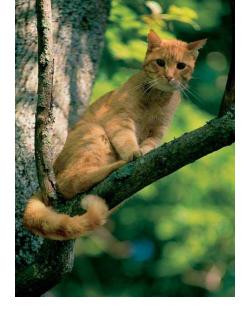
Dr. Slater and colleagues are working with shelters to collect high-quality data to identify cats most at risk of entering shelters, and of being euthanized. Dr. Slater described an exciting tool—Geographic Information Systems (GIS)—which allows for mapping, literally, the geographic location of animals coming into shelters. The results can be used to identify groups of animals most at risk in our communities, to target spay/ neuter efforts to those populations, and to assess the effectiveness of spay/neuter programmes. Dr. Slater stressed the importance of accurate, complete data on where cats come from in order to develop a correct map on which to base decisions about possible interventions, and to monitor success. (For more information, see <u>ASPCApro.org</u>.)

Ultimately, a broad spectrum of approaches is needed, including feral cat caretakers, to achieve community-wide solutions.

saving cats' lives in animal shelters through data-driven programs



In a second presentation at AVC, Dr. Slater described three studies carried out through the ASPCA. The first study evaluated whether cats will tolerate collars and whether owners will continue to keep collars on their cats. The short answer to both questions is yes, with some variation. In the second study "Feral versus frightened," Dr. Slater and colleagues developed and validated an assessment tool to help shelters differentiate between cats that are







Certified Pre-Owned Cats



A Program Designed to Create Additional Loving Homes for Cats

A creative approach by the Michigan Humane Society to increase cat adoptions

always afraid of people due to lack of socialization (i.e., feral cats, that will not be good candidates for adoption) and cats that are primarily afraid due to being in the shelter environment (i.e., cats that will likely adapt given a bit of time). A third study looked at ways of increasing cat adoptions.

More details about these studies, including citations for the relevant publications, can be found at upei.ca/awc.

Projects Funded 2012

Through the 2012 SJDAWC granting competition, funding was awarded for three new research projects and was renewed for five existing service projects. Funding was also renewed, through the Pegasus Family Foundation, for the Pegasus fund neutering programme.

RESEARCH

ENHANCING ANIMAL WELFARE BY POTENTIALLY IMPROVING EASE OF PREDICTING TRANSFUSION REACTIONS IN DOGS, CATS, AND HORSES

S Burton, R Vanderstichel, C Gilroy, D Villarnovo

Dogs, cats, and horses may require blood transfusions for many reasons, including trauma or cancer. To predict if a blood transfusion will be safe, a laboratory test called major cross-matching is done. This involves mixing red blood cells from the potential donor with serum from the potential recipient and looking for cell clumping or damage which, if seen, would indicate the match is incompatible and a transfusion from that donor would be avoided. This traditional cross-matching test is tedious and time-consuming and, as a result, many transfusions are given without cross-matching, leaving animals at risk for transfusion reactions which can cause severe illness or death.

This project will evaluate a new crossmatching kit that promises to be quicker and simpler than the traditional crossmatching test. Cross-matching by the two techniques will be compared to determine the kit's reliability in dogs, cats, and horses. This study is the research project for Dr. Villarnovo's Master of Veterinary Science programme.

IDENTIFICATION OF RISK FACTORS DURING BROILER TRANSPORTATION THAT **INFLUENCE INJURY AND MORTALITY**

M Cockram, C Revie

According to Agriculture and Agri-Food Canada, over 20 million chickens

(0.35 per cent of birds slaughtered) were condemned at federally inspected slaughter plants between 2001 and 2010 because they were dead-on-arrival. The number of DOAs in individual loads can reach very high levels during adverse weather conditions (heat in summer, cold in winter). If some mortality occurs, it is very likely that the surviving birds also experienced suffering.

The objectives of this project are to increase knowledge and understanding of the factors affecting injury and mortality when poultry are transported for slaughter; to use this knowledge to inform stakeholders (including the poultry industry) about management and other practices that are likely to reduce the prevalence of poultry injury and mortality during catching and transportation; and to improve the welfare of birds during catching and transportation by reducing suffering associated with injury and death during transportation. This project will build upon a current research project funded by the Animal Welfare Foundation of Canada and the SJDAWC (M Cockram—Transportation of animals for slaughter in Canada: current practices, welfare issues, and regulatory control).

This project, which will include a doctoral graduate student, has received matching funding from the Canadian Poultry Research Council.

THE EFFECT OF SURGICAL AND CHEMICAL STERILIZATION ON CANINE TESTOSTERONE LEVELS AND THE IMPLICATIONS ON CULTURAL ACCEPTABILITY AND WELFARE FOR FREE-ROAMING DOG POPULATIONS

R Vanderstichel, J Serpell, E Garde, M Forzan

Large populations of free-roaming dogs (FRDs) often contribute to animal welfare and public health problems. In developing countries, the effects of unchecked population growth of FRDs present serious and overwhelming human-animal conflicts that are growing in magnitude. Intact males searching and competing for females in heat are frequent victims of dogfight injuries and vehicle mortality as they roam streets unsupervised. Even though sterilization is one of the most commonly recommended population management methods worldwide, in developing regions, such as Latin America, the sterilization of male dogs is often culturally unacceptable.

To tackle this issue, additional tools are needed that fit a variety of conditions and socioeconomic regions. There is growing interest in EsterilSol™ - a chemical male sterilant that does not require removal of testicles. Although safety data for EsterilSol™ are abundant, there are no published studies on physiological changes (e.g., testosterone levels), and reproductive and roaming behaviours in FRDs following chemical sterilization. This project will investigate the changes in testosterone levels and behaviours of free-roaming male dogs in a natural "field" situation (Puerto Natales, Chile) before and after chemical or surgical sterilization. This study is one component of a large community-based project with many different funding partners, stakeholders and researchers both locally (Chile) and globally (Italy, US, and Canada).

Ultimately, dog owners who are able to make better-informed decisions, and those that are provided with options, are more likely to respond to their role as responsible guardian of their pets, and to contribute positively to the control of FRDs.



Juvenile great blue heron that received care and was released.

SERVICE

WILDLIFE REHABILITATION, CONSERVATION, AND CLINICAL RESEARCH

M Desmarchelier, H Gelens, P-Y Daoust

This project provides veterinary care for orphaned, displaced, stranded, and injured wild animals in Atlantic Canada. Through the care of these patients (now over 200 annually), veterinary students and interns receive training in good veterinary practices, enrichment, husbandry, and welfare of wildlife—this will increase the level of care provided to wildlife in the broader veterinary community. There is a great deal of public interest in these patients, creating multiple opportunities for education about wildlife welfare issues which may improve the protection of wild animals in their normal environment. Data collected through the project are useful in monitoring wildlife health, including

that of local endangered species, and affords the opportunity to react quickly when a disease outbreak occurs. Wildlife diseases are more than just a concern for wildlife welfare, as they also can affect domestic animals and human health. Dr. Desmarchelier and her team cooperate actively with Parks Canada, the Departments of Natural Resources of the various Atlantic provinces, and the Department of Fisheries and Oceans.

HEALTH MANAGEMENT SERVICES FOR HANDIBEAR HILLS EQUINE SANCTUARY INC. (2012–2014) And

HEALTH MANAGEMENT SERVICES FOR PEI EQUINE RETIREMENT SOCIETY, INC. (2012–2014)

W Duckett, G Conboy

These two service projects provide consistent basic and preventive health care to incoming and resident horses at the PEI Equine Retirement Society, Inc. (PEIERS), in O'Leary, PEI (since 1997), and Handibear Hills Equine Sanctuary, Inc. in Breadalbane, PEI (since 2004). Since fall 2009, a facility at Brookfield, PEI (sadiesplace.ca), has expanded the number of horses that can be cared for through the PEIERS, with the goal of adopting horses out to permanent homes.

The project objectives are to minimize the spread of respiratory disease and the chance of contracting neurological disease, to decrease parasite burdens for the horses at the facilities, to increase the adoptability of the horses, and to provide an educational opportunity for veterinary students. This involves parasite surveillance and strategic deworming1, vaccinations to protect against influenza, rhinopneumonitis, tetanus and Eastern and Western Equine viral encephalitis; dentistry; and regular assessment for quality of life and agerelated health issues. An annual spring health clinic at Handibear Hills provides

¹ Duckett W, Conboy G. 2009. Equine parasite control strategies: A case for targeted deworming. Annual Meeting Western Veterinary Conference. Las Vegas, NV (published in *Proceedings*)

practical information to the public about appropriate equine health care. The horses are part of the community through such programmes as PEI Student Volunteers and the Trailblazers Club, through which young people learn to care for and work around horses. Merial Canada and Intervet Canada generously provide supplies for the clinics.

The horses at the three facilities benefit from consistent basic preventative health care and monitoring and they continue to be a source of learning for community youth groups and veterinary students. Funding for these projects was renewed for 2012–14 through the 2012 SJDAWC competition.

MEDICAL AND SURGICAL CARE OF HOMELESS ANIMALS (2012-2014)

C Runyon, P Foley, D Dunn-MacLean, T Matthews

A further two years of funding was awarded for this project which, since 1994, has relieved pain and suffering for thousands of injured and sick companion animals, and has enabled many of them to find a new, permanent home with caring and loving owners. Through the project, veterinary care is provided to injured or ill animals brought to the AVC Teaching Hospital by the PEI Humane Society, good Samaritans, or, occasionally, other shelters in the Maritimes. Senior veterinary students in all small animal rotations, as well as interns and residents, are extensively involved in the care of these animals. Treatments may include physical examinations, x-rays and/or other diagnostic procedures, emergency medical care, humane euthanasia in the case of severe illness or injury, continued medical or surgical care in consultation with the shelter, and occasionally neutering. Some lost animals are returned to their owners while most, once healthy, are placed in adoptive homes through standard shelter adoption. Some animals require "special needs" adoptive homes due to their requirement for specialized care during or after recovery.

NEUTERING FERAL CATS ON PEI (2012-2014)

P Foley

This project received a further two years of funding for the successful trap, neuter, return (TNR) programme that began in 2000 at the AVC. The project is carried out in cooperation with the PEI Cat Action Team (CAT), a community group that has demonstrated a strong commitment to this programme over the past eleven years, trapping, neutering, and returning over 7,000 feral and free-roaming cats, as well as providing information and advice to members of the public.

Through this project, neuter days are carried out bi-monthly at the AVC by veterinary students under veterinary supervision, all on a voluntary basis. Individual cats benefit from vaccination, deworming, and surgical sterilization, resulting in a less stressful life with less competition for food, less fighting, and less spread of disease. The feral cat population is decreased through sterilization of whole colonies, or at least a decrease in the rate of growth of those colonies, and decreased prevalence of feline leukemia virus (FeLV) and feline immunodeficiency virus (FIV).



Veterinary student volunteers benefit through increased surgical experience and through an enhanced sense of responsibility for the welfare of feral cats. The incidence of nuisance behaviours of feral cats such as urine spraying and fighting are decreased. Research spin-offs for this programme include reporting of disease prevalence data on PEI as a whole and also within local pockets on the Island. This neuter programme has served as a template for the creation of similar programmes in other areas of Canada.

PEGASUS FUND NEUTERING PROGRAMME (2012)

A Crook, T Matthews, K Ling

Feral cats are neutered on Fridays at the AVC Veterinary Teaching Hospital by senior veterinary students of interns through this project, which is funded by the Pegasus Family Foundation through the Silicon Valley Community Foundation. Under the supervision of Community Practice veterinarian Dr. Kathy Ling, procedures are carried out as established by Dr. Peter Foley in consultation with the PEI Cat Action Team for the SJDAWC-funded project Neutering feral cats on PEI.





OTHER NEWS

VISIT TO BANGLADESH— DR. MICHAEL COCKRAM

In February, Dr. Cockram (AVC Chair in Animal Welfare) travelled to Bangladesh where he presented the Bangladesh Society for Veterinary Education and Research (BSVER) Annual Lecture, entitled "Approaches to animal welfare," to the 18th BSVER Annual Scientific Conference at Bangladesh Agricultural University, Mymensingh, Bangladesh. He also presented a seminar, "Animal welfare issues and research," to staff and students at Chittagong Veterinary and Animal Sciences University, Chittagong.

While in Bangladesh, Dr. Cockram met with senior officials, faculty, and students at three universities-Bangladesh Agricultural University, Mymensingh; Chittagong Veterinary and Animal Sciences University, Chittagong; and Sher-e-Bangla Agricultural University, Nagar, Dhaka-and discussed various opportunities for supporting animal welfare faculty, animal welfare research, potential graduate students wishing to study animal welfare, and a student animal welfare club. He also visited farms, animal facilities, markets, a slaughterhouse, and a zoo to observe local practices in relation to animal

welfare. Upon his return to AVC, Dr. Cockram gave a presentation hosted by the Animal Welfare Club on "Animal welfare in Bangladesh."

TECHNICAL LARGE ANIMAL EMERGENCY RESCUE (TLAER™) COURSE—JULY 5-7

The SJDAWC co-sponsored the TLAER $^{\text{\tiny TM}}$ course that was offered recently for the first time in Canada at AVC. The course was organized by Dr. Erica Koch (Assistant Professor, Health Management). Registration was full with 70 participants from all over Canada, including veterinarians, veterinary students, police, firefighters, racetrack workers, veterinary technicians, humane society personnel, and large animal owners. Emergency personnel were taught how to prepare for, and more safely approach, emergency incidents such as large animals in overturned or wrecked livestock trailers on the road, barn fires, large animals stuck in mud or ravines, and incidents where people may be stuck with the animals. This was an intensive three-day course with lectures in the morning, and simulated hands-on live animal situations in the afternoons. One evening featured a live search and rescue demonstration as well. Specially trained live horses were used in several demonstrations.



Bangladesh Agricultural University, Mymensingh, Bangladesh



Cattle waiting for slaughter



Dr. Jim Goltz and Lora Wylie of the Oceanographic Environmental Research Society participating in a simulated rescue during the TLAER™ course at AVC



Animal welfare assessment AND REGULATION

A new fourth-year course will be offered for the first time at AVC in September, given by Dr. Michael Cockram (course coordinator), Dr. Bryan Langlois (Medical Director, Humane League of Lancaster County, PA), and Dr. Alice Crook (coordinator, SJDAWC). The course will provide a basis for students to use ethical and scientific frameworks to conduct comprehensive animal welfare assessments by using multiple indicators of animal welfare; objectively assess the welfare implications of the management of different species of animals; and understand animal welfare regulation and veterinary involvement in the recognition, enforcement, and prosecution of welfare cases. The course will use animal welfare scenarios of contrasting management systems and provide information and practice in dealing with cases of cruelty and neglect.

EXTERNAL REPRESENTATIVE TO THE SJDAWC MANAGEMENT **COMMITTEE**



Dr. Frank Richardson, registrar of the Nova Scotia Veterinary Medical Association and a retired private practitioner, has recently

completed his third 3-year term as external representative to the SJDAWC Management Committee and Selection Sub-committee. The SJDAWC gratefully acknowledges his active and conscientious participation over the past nine years, including substantial contributions to the development of the SJDAWC.

The SJDAWC welcomes incoming external representative, Dr. Jim Goltz (pictured *left, TLAER*[™] *course*). Dr. Goltz, from Fredericton, NB, is Manager of Veterinary Laboratory and Pathology Services, NB Agriculture, Aquaculture and Fisheries. He is past president of the New Brunswick Veterinary Medical Association and is a

member of the NBVMA Animal Welfare Committee. He was a member of the University of New Brunswick Animal Care Committee for eight years and board member of the Fredericton SPCA for 12 years. Dr. Goltz received the 2011 AVC Atlantic Award of Excellence.

PEI COMPANION ANIMAL WELFARE INITIATIVE (CAWI)

CAWI was formed in January 2012 as an initiative of the PEI Department of Agriculture in collaboration with representatives of the PEI Humane Society (PEIHS), Sir James Dunn Animal Welfare Centre (SJDAWC), SpayAid PEI, PEI Cat Action Team (CAT), and the PEI Veterinary Medical Assocation (PEIVMA). Members of CAWI, including representatives of the Department of Agriculture, meet regularly and are working on a number of educational projects to raise awareness about good companion animal care practices, and to engage members of the public to think critically about animal welfare in their communities. For more information, see gov.pe.ca/agriculture/CAWI.



RECENT PUBLICATIONS

- Cockram MS, Murphy E, Ringrose S, Welmelsfelder, F, Miedema HM, Sandercock DA. 2012. Behavioural and physiological measures following treadmill exercise as potential indicators to evaluate fatigue in sheep. Animal 6: 1491-1502.
- Cockram MS. Approaches to animal welfare. P17 to 22. 18th BSVER Annual Scientific Conference, Program, Abstracts and the Annual Lecture, Bangladesh Agricultural University, Mymensingh, Bangladesh, February 2012.

GRADUATE STUDENTS



CYRIL ROY

- Oral presentations: "Welfare issues associated with transport of horses in Iceland" and "Welfare assessment of horses during and after transport" Animal Transportation Association conference, Vancouver, March 19-21, 2012.
 (See summary <u>Making Good Welfare Assessments During Equine Transport</u>.)
- Poster presentation: Welfare issues associated with the transport of horses in Iceland; Health Management Graduate Student Poster session, AVC, April 2012.



JACKIE ELLIS

- Poster presentation: Environmental enrichment preferences of shelter cats; Health Management Graduate Student Poster session, April 2012.
- Oral presentation: Environmental enrichment preferences of singly housed domestic cats; 20th Annual Graduate Studies & Research Days, AVC, May 2012; Winner of Gold Award for Animal Health Research.
- Oral presentation: Environmental enrichment for shelter cats. NS SPCA Animal Wellness Conference; Dartmouth, NS, June 2012.
- Upcoming oral presentation: Ellis JJ, Stryhn H, Spears J, Cockram MS. Evaluation
 of environmental enrichment preferences of domestic cats using a choice test.
 46th Congress of the International Society for Applied Ethology (ISAE), University
 of Veterinary Medicine in Vienna, Austria, August 4, 2012.



NIAMH CAFFREY

- Poster presentation: Methods used to identify risk factors for mortality during transport of broiler chickens for slaughter; Health Management Graduate Student Poster session, AVC, April 2012.
- Upcoming poster presentation: Caffrey NP, Cockram MS, Black V. Examples of suffering that can occur when cull dairy cows with clinical conditions are transported.

 Dairy Cattle Welfare Symposium, University of Guelph, October 24–26, 2012.



WHITNEY KELLY-CLARK

- Oral presentation: The trich to safe birdfeeding: Survival and recovery of *Trichomonas gallinae* from bird feed and water; Pathology and Microbiology Departmental seminar March 2012 and The Canadian Society of Zoologists Annual General Meeting May 2012.
- Oral: Mary Poppins: Bird killer? Atlantic Canadian Association of Parasitologists Annual General Meeting December 2011.



Snowy owl in newly renovated flight corridor, before release.



 $Animal\ Welfare\ Club\ president\ Emma\ Vaasjo,\ Dr.\ Margaret\ Slater,\ Dr.\ Alice\ Crook\ at\ AVC$

PROMOTING ANIMAL WELFARE THROUGH RESEARCH, SERVICE, AND EDUCATION UPELCA/AWC

Many thanks to our supporters!

We gratefully acknowledge the sustained financial support of The Christofor and The Sir James Dunn Foundations, without which the SJDAWC would not exist.

We also thank the following organizations and individuals who have supported the SJDAWC within the last three years (and some for much longer than that):

- The Pegasus Family Foundation, through the Silicon Valley Community Foundation (Pegasus projects)
- AVC Classes of 2011 and 2001 (Pegasus Helping Hand Fund)
- Mr. David Madren
- Mr. Glenn Loranger
- Chinook Project: Ann McCain Evans; Rathlyn Foundation; Air Labrador; Estate of WLG Hopson; Ms. Dorris Heffron; Pfizer Canada; Iams and Eukanuba (P & G Pet Care); Novartis; Boehringer-Ingelheim; the communities of Natuashish, Makkovik, Nain, and Hopedale
- Feral cat neutering projects: Pfizer Canada; Iams and Eukanuba (P & G Pet Care)
- PEI Veterinary Medical Association (Wildlife rehabilitation)
- Halifax Veterinary Hospital, Spryfield Animal Hospital, Fairview Animal Hospital, Central Nova Animal Hospital—in memory of clients' pets
- Nutrience Pet Foods
- Anonymous

We are also grateful to the many generous individuals, veterinary hospitals, and other businesses, too numerous to mention, who have made a donation to a specific project or in memory of a beloved pet.

To learn how you can support the SJDAWC go to upei.ca/awc or write to:

The Sir James Dunn Animal Welfare Centre Atlantic Veterinary College, UPEI 550 University Avenue, Charlottetown, Prince Edward Island, Canada C1A 4P3



