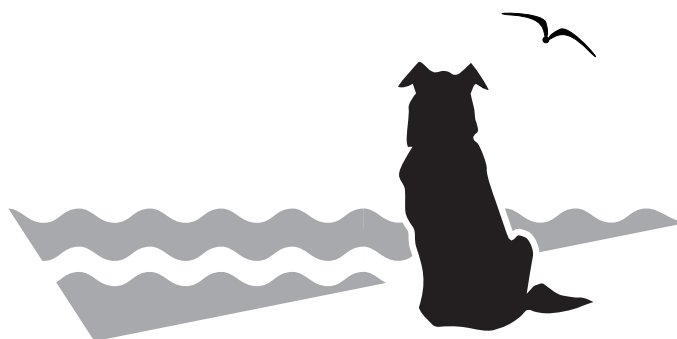


awc news

NUMBER 11 • SUMMER 2003



Sir James Dunn Animal Welfare Centre
ATLANTIC VETERINARY COLLEGE • UNIVERSITY OF PRINCE EDWARD ISLAND

From the Coordinator's Desk



Welcome to the 2003 summer edition of *AWC News*, the newsletter of the Sir James Dunn Animal Welfare Centre (AWC) at the Atlantic Veterinary College, University of Prince Edward Island. In **New Projects** you will find descriptions of the 6 projects funded through the Centre in 2003. In **Conference News**, there is information about recent international conferences at which Dr. Hewson and her graduate students presented their work, about animal welfare sessions at the 2003 convention of the Student Chapter of the Canadian Veterinary Medical Association, and about the Centre's upcoming 2003 Invited Lecture in Animal Welfare. In **Other News**, there is an update on Bill C-10B, federal legislation to improve protection for animals. Despite wide support across Canada, the Bill continues to be delayed in the Senate.

Since the fall 2003 edition of *AWC News*, Dr. Hewson has begun a bi-monthly series of animal welfare columns in the *Canadian Veterinary Journal*. In her editorial (below), she provides some thoughts on the European Union's new animal welfare directives.

We are pleased to feature on page 5 an article by Dr. Norma Guy (AVC Clinical Behaviour Service) on feline elimination disorders. Such disorders continue to be the number one behaviour problem reported by cat owners, and the main reason that many cats are relinquished to shelters.

On page 4 you will find information about our public education leaflets, which may now be ordered, or they may be downloaded on our web site. For further information on the projects funded through the Centre, and for regular updates, please visit our web site at www.upei.ca/awc

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Message from the Research Chair



Since our last newsletter in November, I attended an animal welfare symposium in Edinburgh. Some of the presentations examined the welfare benefits of the UK's Freedom Foods scheme and of the European Union (EU)'s directive that barren cages for laying hens be phased out in member countries by 2012. In both cases, concerns were raised and solutions were debated.

In Canada, some farmers have voiced concern that the EU's new welfare directives are driven solely by public outcry and that any changes in Canada should be science-based. It is true that facts must inform any change; the EU consulted extensively with its Scientific Veterinary Committee before issuing its welfare directives. It is also true that research findings can conflict, because welfare is complex, as are the management systems in which animals are kept. Scientific disagreement can cause confusion. This was noted in Edinburgh where it was suggested that scientists' focus on areas of disagreement can distract the public and others from areas of agreement and raise doubts about the utility of science. These distractions and doubts might be diminished if scientists did more to convey their research results to the public, in context. Yet, even then, science cannot be the sole ground for legal change; in the case of animal welfare, ethical concern for animals is the basis for change at all levels.

It was noted in Edinburgh that public concern is a legitimate impulse for legislative change. Democracy involves the election of representatives who will serve the public and legislate on their behalf. Animal welfare is a public good and, in many European countries, this is being recognised by changes in the law so that animals bear fewer costs and obtain more benefits from being under our care. Similar recognition for animals is slower to arrive in Canada. Until Canadian society recognises welfare as a public good, we are likely to remain both reluctant to improve safeguards for animals, and divided over how to make improvements. Reluctance and division are evident in the delays to passage of Bill C-10B (Cruelty to Animals; see page 4). The delays also suggest that other laws to protect animals, that are being adopted elsewhere (e.g., in Australia and Europe - bans on cosmetic surgery in dogs and/or cats; in the EU - requirement for increased space for laying hens), may be a long time coming here.

NEW PROJECTS - 2003

Improving our understanding of glaucoma in dogs and cats - COX-1, -2, and -3

Drs. C. Cullen and D. Sims

Glaucoma is a painful eye condition that is one of the most frequent causes of permanent blindness in dogs and cats. Both medical and surgical therapies are used to treat this disease, which develops as a result of increased fluid pressure in the eye. [Please see *AWC News* summer 2001 for information about another project funded by the Centre, through which Dr. Cullen is investigating a new surgical treatment for glaucoma].

Medical therapies used to treat glaucoma are confusing and even contradictory. Often combinations of several medications are required, as eye drops, with two to four treatments per day. Not only is this costly, but it can be stressful both for the animal receiving the treatment and the person providing medical care. One difficulty is that all anti-glaucoma medications used in dogs and cats are those intended for use in people, and there is often little information about their specific effects in dogs and cats.

Prostaglandins play a part in both the occurrence and the treatment of glaucoma. Recently the role of two prostaglandin isoenzymes (COX-1 and -2) in the human eye has been investigated. As well, a new isoenzyme (COX -3) has been described in the dog brain, among other tissues. In this study, Drs. Cullen and Sims will look at the occurrence of these three enzymes in both normal and glaucomatous eyes in dogs and cats. The aim is to better understand glaucoma and its medical management, with the long-term goal of improving therapy so as to prevent the pain and blindness associated with this condition in dogs and cats.



Dr. Cheryl Cullen and Bear

Comparing two treatments for epilepsy in dogs

Dr. C. Gaskill

Epilepsy is a fairly common condition in dogs. Most dogs can not be cured, but with appropriate therapy, seizures can be satisfactorily controlled in 70 to 80 per cent of epileptic dogs.

Phenobarbital and potassium bromide are the anticonvulsant drugs most commonly used, either alone or in combination. Until recently, phenobarbital was considered the drug of choice. However the use of this drug sometimes causes serious liver damage. To avoid this, potassium bromide is being recommended

more and more as the first line of treatment for epilepsy. This increased usage of potassium bromide is occurring despite a lack of studies to determine its safety and effectiveness.

In this clinical study, Dr. Gaskill will monitor epileptic dogs being treated with phenobarbital or potassium bromide. She will compare the safety and effectiveness of these two drugs, in order to develop more appropriate recommendations for treatment of epilepsy in dogs.

Improving care of cats with seizures: understanding side effects of potassium bromide

Dr. C. Gaskill

Seizure disorders affect about one per cent of cats. The three main drugs used to control seizures in cats are phenobarbital, diazepam, and potassium bromide. Unfortunately all have potentially serious side effects. Potassium bromide is being used more and more commonly, although no controlled studies have been done to demonstrate the safety and effectiveness of this drug in cats. Recently, development of difficult-to-treat coughing and breathing problems have been reported in some cats who received the drug. Because potassium bromide may be safer for some cats than either of the other two anticonvulsants currently used, it is important to learn more about the airway disease that appears to be associated with its use.

In this laboratory study Dr. Gaskill will look at the effects of potassium bromide on feline lungs, by using lung tissue from cats that have died from non-respiratory conditions. Understanding how this drug affects cat lungs may help with strategies to prevent or minimize respiratory side effects, and to better treat them when they occur.

A new diagnostic test for joint disease in horses

Drs. C. Riley, M. Vijarnson, R.A. Shaw, R.C. Billingham, and A. Cruz

Joint injury and disease are the most common orthopedic conditions of horses, dogs, and people. In horses, this is most frequently due to trauma, and often results in osteoarthritis (progressive deterioration of the joint). Osteoarthritis is the end result of most severe injuries, repetitive strain activities, and inadequately treated injuries. Whatever the initial cause, osteoarthritis causes long term pain and disability, and requires medication, sometimes for life.

Early and aggressive treatment of joint injury may prevent or minimize osteoarthritis. Currently there is no objective method for determining effective dosages or medications, and for monitoring the response to treatment. Infrared (IR) spectroscopy may be a useful tool.

IR spectroscopy is revolutionizing the evaluation of biological fluids, such as the fluid in joints. Recently, IR spectroscopy is being used to assess human arthritis. The goal of this project is to develop a new spectroscopic technique for early diagnosis, and for monitoring the stages and severity, of equine joint disease. This has the potential to provide rapid and inexpensive diagnosis of joint disease in the horse, so that effective treatment can occur before the development of the irreversible and painful changes associated with osteoarthritis.

AVC humane dog training programme

Dr. N. Guy

This ongoing project (funded since 2001) was designed to provide a variety of benefits. Primarily conceived as a way to reduce the stress and improve the adoption rate of dogs at the PEI Humane Society, it has also altered the attitudes of shelter staff, veterinary students, and the general public.

The project this year will employ one veterinary student full-time to carry out this programme at the PEI Humane Society in the summer, and two students part-time in the fall and winter. In order to continue to maximise AVC student experience at the shelter, a student chapter of the American Veterinary Society of Animal Behavior (AVSAB) will be formed. These students will participate in training of the dogs (under supervision) and in workshops, fundraising, and other events organized through the project or the AVSAB chapter.

The benefits of this programme are many. Dogs receive positive social interaction while at the shelter. After adoption, their new owners receive follow-up support from veterinary students, with the intent of helping keep the dogs in their new homes. An indirect benefit is that greater awareness of the effectiveness of non-coercive methods of behaviour modification on the part of shelter staff, veterinary students, and owners, will have a positive impact on many animals and their owners down the road. Finally, veterinary students will have increased knowledge of shelter issues, laying the foundation for continued interaction with shelters during their professional careers.

A peaceful death for all creatures great and small

Ms. B. Murrell-Liland

Veterinarians are commonly called upon to euthanize animals. To provide the best death possible for the animal, and support for the people involved, it is important that vets be well-informed and well-prepared with the necessary technical skills and an understanding of the emotional issues surrounding euthanasia.

Senior veterinary student Blakeley Murrell-Liland organized this one-day workshop to educate fellow students about specific euthanasia techniques for different species, and to provide information and an opportunity for discussion of the many issues relating to pet loss, and emotional support for clients, staff and veterinarians. Workshop speakers included faculty, staff and students at the Atlantic Veterinary College. The morning session covered euthanasia techniques for small animals, horses, food animals, exotic pets, wildlife, and wild birds. Afternoon speakers talked about the human-animal bond, grief, support for the client and veterinary team, and pet loss hotlines.

Attendees included veterinary students, and technicians, support staff and veterinarians from seven different Island veterinary clinics. The workshop was sponsored through the Student Project Fund of the Sir James Dunn Animal Welfare Centre.

CONFERENCE NEWS

Animal welfare at the 2003 SCVMA Convention

In January, students at the Atlantic Veterinary College hosted the annual meeting of the Student Chapter of the Canadian Veterinary Medical Association (SCVMA). More than 400 veterinary student delegates attended the Convention, from all four Canadian veterinary colleges. This provided a unique opportunity to present animal welfare to a large number of veterinary students. The Animal Welfare Centre was pleased to sponsor a guest speaker, Dr. Suzanne Millman, Assistant Professor in farm animal welfare at the Ontario Veterinary College.

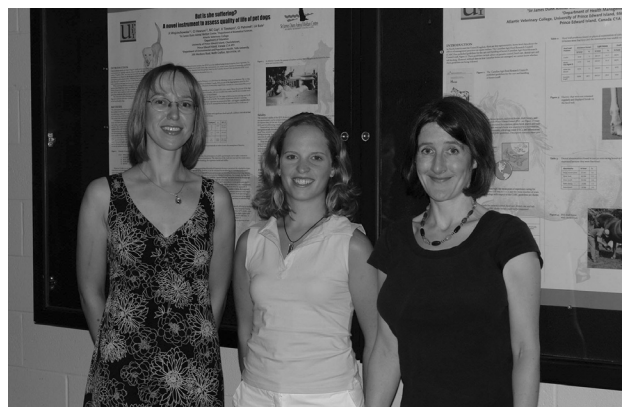
The afternoon session began with guided group discussions. To initiate discussion, Dr. Hewson had developed two video recordings with accompanying notes for the moderators. Using student and faculty "actors" from the Atlantic Veterinary College, the videos depicted situations in small animal and farm practice that new graduates are likely to encounter and that present challenges in animal welfare. The videos were well-received, and other veterinary teaching institutions have expressed interest in using them.

Following these discussions, Dr. Suzanne Millman gave the plenary lecture on the topic *Animal welfare as a 'public good': Challenges and opportunities for the veterinary profession*. During her visit to the College, Dr. Millman also gave a lunchtime talk for PEI producers entitled *Opportunities to use animal welfare to the advantage of PEI producers*. Her talk generated considerable interest and was covered by CBC local television; she was also interviewed on local radio. Dr. Millman was invited back to the Island to give two presentations at the annual meeting of PEI beef producers in February.

During the SCVMA meeting, the Centre contributed two books on animal welfare for a student draw. Both books were won by Mylène Lafleur, a first year student from the Faculté de médecine vétérinaire in Quebec.

News from recent conferences

Dr. Caroline Hewson, Ms. Julie Christie and Dr. Nina Wojciechowska have attended two conferences this year, to present data on their research on canine quality of life and equine welfare. This is the first year in which research from the Animal Welfare Centre has been presented at animal welfare science meetings.



Dr. Nina Wojciechowska, Ms. Julie Christie, and Dr. Caroline Hewson with conference posters

The first meeting was the Universities Federation for Animal Welfare international symposium *Science in the Service of Animal Welfare*, held in Edinburgh, April 2-4. There were presentations of original research and of expert opinion, with a focus on farm animals. Topics included the successful use of string as a substrate for chickens to peck, thus preventing the problem of feather-pecking; pain perception in teleost fish; and the management of scientific uncertainty when giving scientific advice about animal welfare.

The second meeting was the 37th International Congress of the International Society for Applied Ethology, held in Abano Terme, Italy, June 24-28. A highlight of the meeting was a workshop on equine welfare, designed to establish the chief research needs in the field. There were presentations by leading experts (Dr. Frank Ödberg, University of Ghent; Andrew MacLean, Australian Equine Behaviour Centre, Melbourne; and Dr. Natalie Waran, University of Edinburgh) about riding styles, riding aids, and training methods. Group discussions indicated that accepted approaches to those areas, both in competitions and leisure riding, appear to reduce welfare severely, and that scientific research on them is particularly needed. Another important area for research was equine welfare assessment. There was agreement that surveys were an underused means of identifying welfare issues, and that the results of research must be transmitted to horse owners, riders and trainers. The Animal Welfare Centre's survey on factors affecting the welfare of non-racing horses met these criteria, with an educational leaflet now available.

Upcoming 2003 Invited Lecture in Animal Welfare

On November 1 2003, Dr. Joe Stookey, Professor and researcher in farm animal behaviour and welfare at the University of Saskatchewan, will give the Centre's third annual Invited Lecture in Animal Welfare, *Analgesia for surgical procedures: Why is it okay to castrate piglets without anesthetic, but not dogs? What about tail docking in puppies?*

Dr. Stookey will review current knowledge of pain perception, and examine why there are differences in the attitudes towards and the methods used in routine painful procedures conducted on farm animals and companion animals.

Dr. Stookey's presentation will be part of the Atlantic Veterinary College's annual Fall Conference. For more information, please see www.upei.ca/avc/conted.htm

OTHER NEWS

Update on Federal Cruelty to Animals Bill

Bill C-10B contains important amendments to the Canadian Criminal Code to improve protection of animals against cruelty. The Bill has been scrutinized intensely since it was introduced in December 1999. The House of Commons approved the Bill and sent it to the Senate last fall, after making amendments to strengthen it. The Senate proposed four amendments. The House accepted only one of these, and sent the Bill back to the Senate. The Senate has returned the Bill to the House as first amended, and both have recessed for the summer. The House will resume September 15, and it is not clear how they will proceed in this unusual situation.

In a joint letter with Dr. Denna Benn (CVMA Animal Welfare Committee Chair) and Dr. Ian Duncan (Chair in Animal Welfare, University of Guelph), we expressed our concerns in April to Senators about the slow progress of Bill C-10B, and about the Senate's proposed amendments. Information about Bill C-10B can be found on the AWC web site (www.upei/awc). The Bill will replace sections 444 - 447 of the Criminal Code which are largely unchanged since they were enacted in 1892.

Leaflets

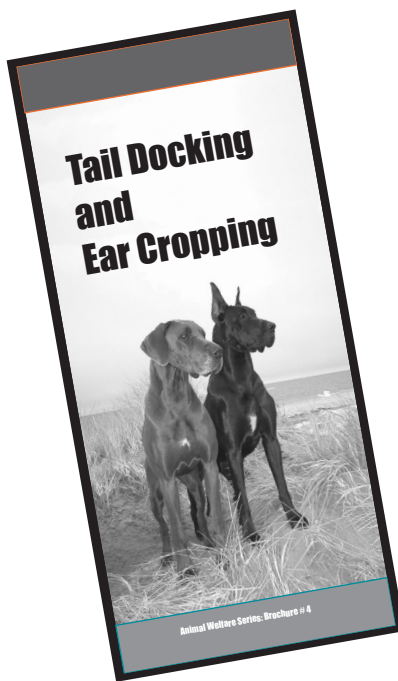
The Centre's public education leaflets are ready and will be distributed to veterinary clinics in the region, and suitable outlets locally and nationally. Their titles are: *So You Want to Buy an Exotic Animal.....*, *Tail Docking and Ear Cropping*, *Feral Cats*, *Declawing*, and *Caring for Your Horse*. The equine leaflet was developed by graduate student Julie Christie based on the results of her research project *Factors affecting the welfare of non-racing horses in Prince Edward Island*. All five leaflets will be available on the Centre's website (www.upei.ca/awc), or they may be

obtained by contacting Dr. Alice Crook (902-628-4360; e-mail acrook@upei.ca). Leaflets are in progress on other welfare topics such as the purchase of various companion animals.

Dr. Alice Crook receives Queen's Golden Jubilee Medal

Following her receipt of the Canadian Veterinary Medical Association's Humane Award last year, Dr. Crook recently received a Queen's Golden Jubilee Medal. The medal is awarded to Canadians who have made a significant contribution to their fellow citizens, community and Canada. Earlier this year, the PEI Humane Society nominated Dr. Crook and five other individuals because of their dedication to the service and well-being of animals. In addition to her activities at the Animal Welfare Centre and her membership on the CVMA's Animal Welfare Committee, Dr. Crook has been on the PEI Humane Society's Board for almost six years and contributed greatly to the development of many of their animal welfare policies.

Congratulations to Dr. Crook on this recognition for her work in the community. She was presented with the Medal at PEI's Government House on June 4.



Thinking outside the box

Dr. Norma Guy, AVC Clinical Behaviour Service

In spite of all the “new and improved” brands of litter, our better ability to prevent and treat urinary tract disorders, and the interest of owners in providing the best for their cats, inappropriate elimination continues to be the number one behaviour problem of cats and the main reason many cats are relinquished to shelters. Up until about 40 years ago, it was rare for a cat to be kept entirely indoors. Fast forward to the current situation, where owners are encouraged to keep their cats indoors, and often keep a number of cats within the same apartment. Under these circumstances, things can rapidly go wrong, especially when we ignore instinctive behaviour.

The next time the neighbour's cat wanders into your vegetable garden to take advantage of the freshly tilled soil, stop and watch its behaviour before you chase it away. It won't hide, but will choose a nice open spot so that it can't be ambushed while it is temporarily indisposed. It won't use the same spot twice, and it will dig with long reaching motions. When finished, the cat will use its sense of smell to determine whether it has covered the urine or feces. Given a similar task, you and I would use our vision, but a cat will carefully and repeatedly sniff the area to make sure everything is covered. No wonder they like a fresh spot with lots of soft soil.

The first litterboxes were likely small plastic washtubs or recycled roasting pans. Commercially available litterboxes have since evolved to suit the desires of cat owners, with little regard for the natural behaviour of cats. Compact, often with a cover, they are designed to be wedged conveniently between the toilet and the bathtub, or under the basement stairs. Most cats are highly tolerant of our erroneous ways, but there are also a great many who simply cannot cope with this tiny space allotment. In addition, covers on litterboxes serve no behavioural need of cats; they only hide the fact that you haven't cleaned the litterbox in the past five days.

The most common reason for a cat to miss the litterbox is that it is simply not clean enough. I had one client proudly tell me that he cleaned the single covered litterbox he provided for his three cats every 7 days, “whether it needed it or not”. He was lucky that only one of his cats was urinating on the sofa! It is also clear that many cats feel overwhelmed by the number of other cats using a box, or the behaviour of other cats, dogs, or people in the home. Some cats just do not cope well with too many stressors. A dirty or inadequate litterbox may be the last straw.



This under-bed storage box is a good choice for a litterbox. The commercially available covered litterbox inside it is too small to allow a cat to express normal elimination behaviours.

We can't actually teach cats to use a litterbox reliably. The best approach is to provide an ideal set-up and let the cat express its natural behaviour. Physical disorders should be ruled out, but a careful history can usually take care of that, often without a urinalysis. If a cat has demonstrated that it has control of elimination, is producing what appears to be a normal volume and quality of urine or feces, and is deliberately selecting particular locations to eliminate, it is highly unlikely that there is any physical abnormality. The next step is to look at the size and location of the litterbox, and the litter itself. For any cat with an elimination problem, try an uncovered box(es) at least twice the size of a standard large litterbox. The rectangular plastic storage boxes that are about 10 cm deep (designed to slide under a bed) are excellent for this purpose, and are very inexpensive. Because these boxes are a metre long, cats can freely engage in normal digging and burying behaviours. Place this new box in as open a location as possible, without putting it in a high traffic area. Do not put it in a small room like a bathroom, but instead choose a spot next to a long wall in a large room or hallway, close to where the cat likes to sleep. Cats should feel that they can see everything coming at a distance and that they have a choice of escape routes. This is important, even for cats that have no apparent reason to fear being startled while in the litterbox. It is especially true for more timid cats in multi-animal households. Generally speaking, clumping litter is the substrate of choice. Its texture appeals to most cats, and it is the easiest to keep clean. The box should be filled to a depth of about 7 cm and should be scooped any time the owner notices it has been used, which will often be more than once a day. Because the box is now uncovered and in a more obvious area of the home, I find owners are inspired to keep it immaculately clean! Clumping litter that is scooped this frequently will stay clean and odor-free for months, making it an economical choice too.

And finally, stop punishing cats for eliminating outside the box. They don't do it out of spite, they do it because they're trying to make the best of a bad situation that is entirely our doing.

Acknowledgements

The continued growth of the Centre would not be possible without the hard work of other people at the University. We would particularly like to thank Michelle Gauthier and Glenda Clements of the Computer Services department. Michelle produces the newsletter, and Glenda designed our logo and assisted us with the brochures in our series for public education. Thanks also to Mary-Beth McDonald who designed our website and helps us to keep it updated.

MANDATE

The Sir James Dunn Animal Welfare Centre (AWC) exists to promote animal health and well-being in the broadest sense.

Objectives:

- 1) The AWC promotes research projects and service activities where there is a clear potential for tangible benefits to animals.
- 2) The AWC serves as a resource centre to compile, generate, and disseminate information relevant to the well-being of animals.
- 3) The AWC strives to raise the awareness of the public and the veterinary profession on broad questions of animal welfare and animal use, and to provide accurate, scientifically based information on these questions.

The Sir James Dunn Animal Welfare Centre gratefully acknowledges the continued support of the Friends of the Christofo Foundation.



Support the Animal Welfare Centre

We welcome the generosity of animal welfare supporters and friends of the Atlantic Veterinary College. For example, planned gifts established in the name of a donor, friend, or family member can be a fitting and lasting tribute. If you are interested in learning about ways you can support the work of the Centre, please contact: Heather Jordan, AVC External Relations Officer, at 902-566-0533 or hjordan@upeu.ca

