

## WELCOME

Welcome to the 16<sup>th</sup> annual meeting of the International Society for Anthrozoology held in Tokyo on the 4<sup>th</sup> and 5<sup>th</sup> of October, 2007. I am honored to host the very first ISAZ meeting in Asia and hoping that many of you enjoy a new and different atmosphere at this year's meeting in the metropolitan big city, Tokyo.

The topic of this year's meeting is "The Power of Animals: Approaches to Identifying New Roles for Animals in Society". Today, people are relying on animals to serve increasingly more varied and complex roles, and these new dependencies both broaden and complicate our conception of human-animal relationships. Increased social integration, intimacy, and dependence upon animals raise unique issues that have no precedent.

Despite the modern trend toward decreased contact with nature, humans and animals are still vulnerable to natural and manmade disasters and, despite incredible advances in the field of medicine, people continue to suffer from intractable diseases. Working animals are called upon to assist in disasters, diagnose disease, locate bombs and narcotics, and to help people with disabilities to lead more productive and satisfying lives. In light of the incredibly important roles played by these animals, and those yet to be discovered, better understanding of the potential abilities of animals is needed.

In this conference, the changes in the role and perception of animals in society will be addressed especially through the two plenary talks on the first day. Professor Kasey Grier will talk about the importance of historical approaches to understand the modern human-animal relationships, whereas Professor Mitsuaki Ohta, the current president of the Society for the Study of Human Animal Relations in Japan will talk on his unique scientific research on animals' ability to anticipate earthquakes.

ISAZ 2007 is a satellite meeting to the 2007 world conference of the International Association of Human-Animal Interaction Organizations and I am grateful to IAHAIO and its Tokyo Organizing Committee for their support.

Here I would like to thank all those involved in the preparation process for this meeting, especially Lynette Hart, Kathy Kruger and James Serpell for their generous support all the time. I would also like to thank the local organizing committee members for their advice on selecting the topic and especially Yuji Mori for his continued help. Finally I sincerely appreciate dedication and enthusiasm of the organizing staff at Department of Animal Sciences at Teikyo University of Science & Technology. Without their contribution, this meeting could never be realized.

Yoshie Kakuma BSc, MSc, PhD  
Teikyo University of Science & Technology  
ISAZ 2007 Organizer

# ISAZ 2007 Tokyo

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# TABLE OF CONTENTS



- Welcome . . . . . 1
- Table of contents . . . . . 3
- Time Schedule . . . . . 5
- Access & Campus Map . . . . . 8
- Plenary . . . . . 11
  - Kasey Grier
  - Mitsuaki Ohta
- Oral Presentations
  - Thursday 4<sup>th</sup> October . . . . . 15
  - Friday 5<sup>th</sup> October . . . . . 27
- Poster Presentations . . . . . 35

# ISAZ 2007 Tokyo

## The Power of Animals: Approaches to Identifying New Roles for Animals in Society

DAY 1: October 4, 2007

8:15-9:00 Registration with coffee

9:00-9:15 Introduction and welcome

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### EVOLVING RELATIONSHIPS WITH ANIMALS

9:15-10:00 **Kasey Grier**—Plenary

The History of Pets in America: Past Practices and Why They Matter for Present-day Research

10:05-10:25 **Yu-Ju Chien**

How Does the Dog Market Shape Roles and Values of Dogs?—A Case Study of the Commodification of Dogs in Taiwan after the 1950s

10:25-10:45 **Tetsuji Iseda**

The multiple factors that influenced the establishment of the first Society for the Prevention of Cruelty to Animals in Japan

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**BREAK 10:45-11:15**

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11:15-11:35 **Elmer Veldkamp**

“Pets as Family” and the Socio-historical Development of Pet Funerals in Japan

11:35-11:55 **Lynette Hart, B.L. Hart, J. M. Harris, and C.B. Arnason**

Intimacy and Spirituality Expressed in Pet Grave Markers

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**LUNCH 12:00—1:00**

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## EMERGING ROLES OF ANIMALS

**1:10-1:55 Mitsuaki Ohta**-Plenary

The ability of animals to anticipate coming earthquakes—the facts and the hypotheses—

**2:00-2:20 Kazumi Takeuchi, Rie Takahashi, Rieko Tada, Yasuka Yokokura, Yoshitaka Hiyama, Yoshie Kakuma**

Behavioral problems in Japanese dogs and their association with owners' attachment to pets levels

**2:20-2:40 Forkman B, Meyer I, Svartberg K, Temrin H**

The effect of breeding goals on dog mentality

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**BREAK 2:45-3:15**

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**3:15-3:35 Yoshie Kakuma, Nodoka Onodera, Yumi Murakoshi, Yasuka Yokokura, Kazumi Takeuchi, Rie Takahashi, Yoshitaka Hiyama**

A survey of the behavior of Japanese household cats

**3:35-3:55 Anneli Muser Leyvraz, Anne Mc Bride, Felicity Bishop**

Influence of Management on the Behaviour of Pet Rabbits in Switzerland

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## POWERFUL EFFECTS OF ANIMALS ON HUMANS

**4:00-4:20 Jacqueline R. Gately, Francesca E. Collins, Felicity E.L. Allen**

Health enhancing effects of companion animals: Does dissociation reveal two underlying mechanisms?

**4:20-4:40 Naoko Ogawa, Miyoko Matoba, Mika Takashiba, Yuji Katayama, Yuriko Nakayama, Masami Nishimura**

A New Prospect of Companion Animals as Learning Aids for Primary School Education

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**POSTER SESSION**                      **4:45-6:00**

**RECEPTION**                      **6:30-9:00**

## DAY 2: October 5, 2007

8:30 Coffee

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### POWER OF PERCEPTIONS OF ANIMALS

9:00-9:20 **Frank Ascione**

Animal abuse and domestic violence: An overview of research

9:20-9:40 **Beth Daly, L.L. Morton**

Witnessing the Killing of Animals Correlates with Attitude and Empathy Differences

9:40-10:00 **Noriko Niijima**

Conflicting views on dead companion animals in contemporary Japan: a sociological analysis

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**BREAK 10:00-10:30**

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10:30-10:50 **Anne Alden**

Volunteer motivations for becoming involved in animal rescue organizations

10:50-11:10 **Elizabeth Ann Walsh, Anne Mc Bride, Felicity Bishop, Anneli Muser Leyvraz**

Influence of breed, handler appearance and people's experience of dogs on their perception of the temperament of a breed of dog in Ireland

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**ANNUAL GENERAL MEETING 11:10-12:00**

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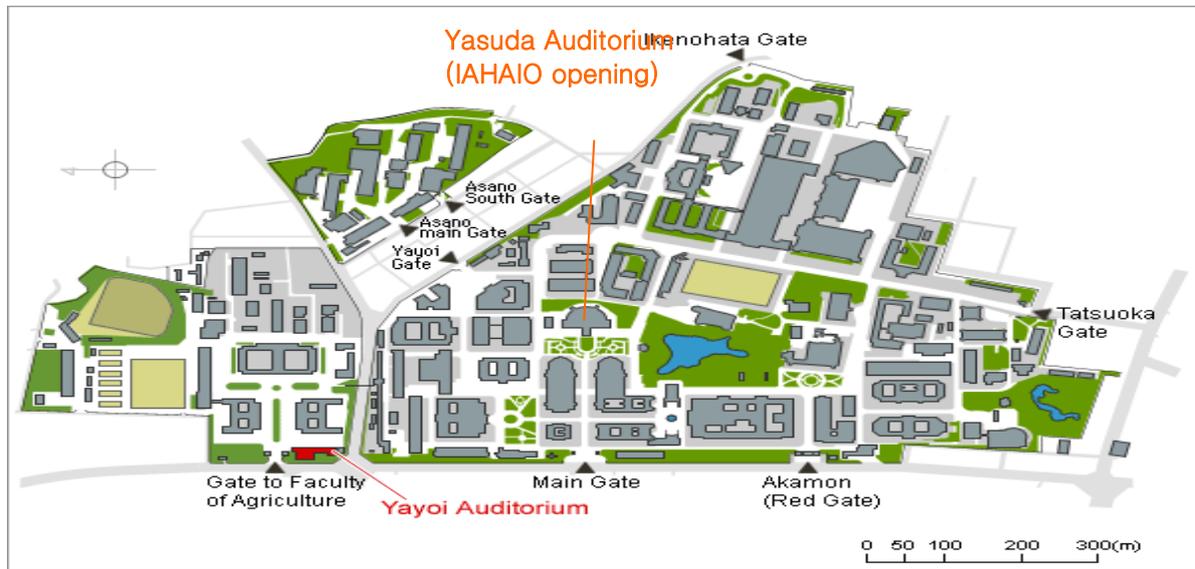
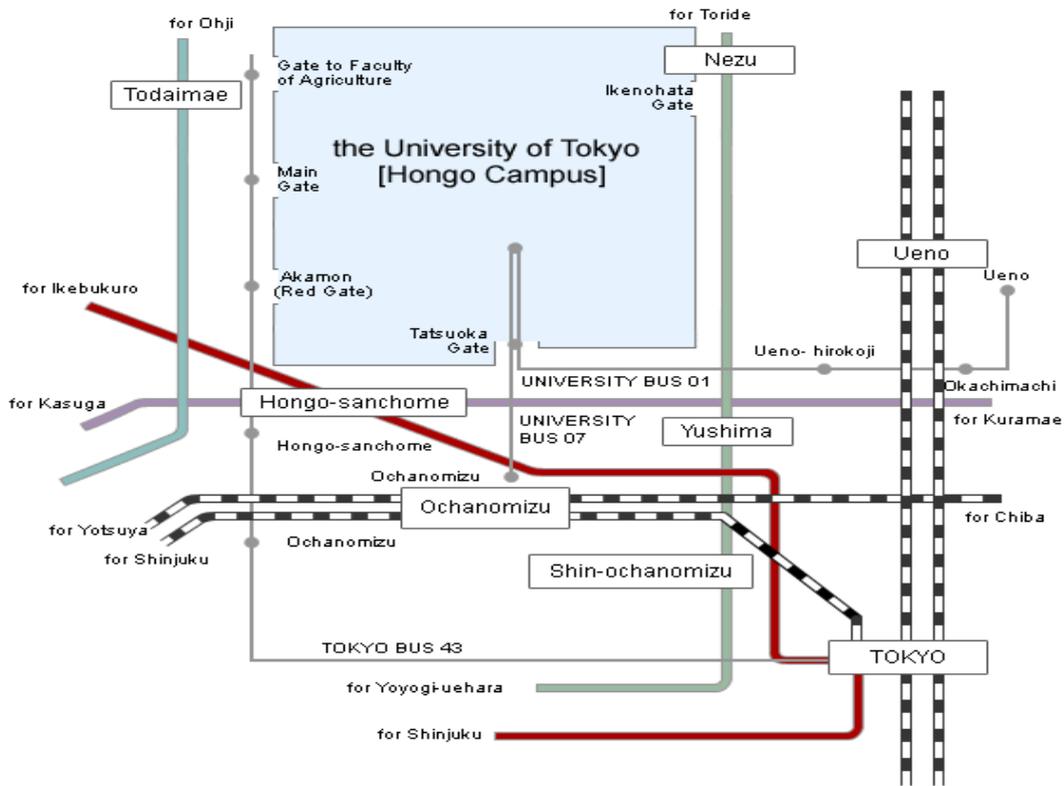
**Concluding remarks and Farewell**

# Poster Presentations, ISAZ, Tokyo

Poster Session: 4:45-6 pm, October 4, 2007

TITLE
<b><u>Anne Alden</u></b> Dogs in the media: A critical review of visual culture and popular press.
<b><u>Nina Bondarenko</u></b> Diabetic detection and emergency response dogs.
<b><u>Stine B. Christiansen &amp; Peter Sandøe</u></b> Animal sexuality and zoophilia – a taboo within the taboo?
<b><u>Haverbeke A., Diederich C., Laporte B., Giffroy J.M.</u></b> Handlers' behaviour influences dogs' behaviour during training sessions
<b><u>Naoko Koda &amp; Junkichi Yanai</u></b> Interactions between nursing home residents and dogs during animal assisted activity
<b><u>Naoko Koda &amp; Hiroaki Furuhashi</u></b> Behavioral assessment in a guide dog raising program
<b><u>Angelo Gazzano, Chiara Mariti, Alessandro Cozzi, Francesca Papi, Claudio Sighieri, E. Anne McBride</u></b> Effect of the presence of a dog on pre-adolescent children's learning of canine anatomy and physiology
<b><u>Janelle Nimer, Jan Yorke, Elizabeth Strand</u></b> Animals and People: A Model for Healing in Veterinary Social Work
<b><u>Yasuhiro Oue, Takashi Narihiro, Ayako Kamisato, Hideaki Shiroyama, Ayako Uchikoshi</u></b> Questionnaire analysis about the consciousness for animal experiment among biomedical researchers in Japan
<b><u>Hiroshi Yamada</u></b> Changes on the impression of school children by contacting with livestock
<b><u>Ayumi Yamaki, Yoshie Kakuma</u></b> Preferences and ownership of dogs influence the attitudes toward canine behavioral problems

● Access & Campus Map



**Nearest Stations**

Todaimae Sta. (Subway Namboku Line)  
Nezu Sta. (Subway Chiyoda Line)

**Distance from Sta.**

1 min. walk  
8 min. walk

< **From Ochanomizu Sta.** >

Subway: Take subway Chiyoda Line for Toride and get off at Nezu Sta. 8 min. by walk

Bus : Take Toei Bus 43 for Arakawadote-soushajyomae and get off at Todai Nougakubumae

< **From Tokyo Sta.** >

Bus: Toei Bus 43 for Arakawadote-soushajyomae and get off at Todai Nougakubumae

< **From Tochomae Sta** (From Keio Plaza Hotel in Shinjuku) >

Subway: • Take subway Toei Oedo Line for Hikarigaoka and transfer Tokyo Metro Namboku Line for Urawamisono at Iidabashi Sta Get off at Todaimae Sta.





*The power of animals:  
Approaches to Identifying New Roles  
for Animals in Society*

## **Plenary**

PLENARY

**The History of Pets in America: Past Practices and  
Why They Matter for Present-day Research**

Katherine C. Grier

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Histories of the interactions and relationships between people and animals suggest the complexity and fluidity of everyday thinking about the natures, capacities, and appropriate places of animals in human societies. Attitudes are embodied in practice and material culture as much as written texts; many ordinary routines are almost completely absent from the written historical record but can be traced through images and artifacts. Past behaviors cannot be counted or evaluated using statistical models. For the historian, the result is a necessarily “historical-ethnographic” approach. Thoughtful examination of all the types of evidence available from past practice, however, can suggest new, or more nuanced, questions for contemporary social-science research on the animal-human bond. The resulting historical narratives also remind us that complexity, contingency, and apparent contradiction are invariably part of the story of people and animals living together.

## PLENARY

### **The ability of animals to anticipate coming earthquakes —the facts and the hypotheses—**

Mitsuaki Ohta

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The unusual animal behavior before earthquakes has long been studied in Asia, especially China, but rarely believed by geophysicists in the world (Ikeya, 1998). A large number of reports on unusual animal behavior before the Great Hanshin (Kobe) Earthquake on January 17 in 1995, Japan, were collected retrospectively (Wadatsumi, 1995): Some of birds were said to have disappeared from the neighborhood a few days before the earthquake; crows were singing all the night just before the earthquake; cats disappeared before several days of the coming earthquake; dogs that seldom barked and were always gentle howled and bit their owners suddenly; dogs showed no appetite; dogs were severely frightened; dogs were eager to go out their homes, etc.

The causes to elicit the unusual behavior of animals are thought to be the electromagnetic waves, charged aerosol, and unknown physical and chemical substances as the results of stress response. The unusual animal behavior was earlier attempted to be explained by a hypothesis of serotonin syndrome caused by charged aerosol emanated from the epicenter (Tributsch, 1982). Reports on orientation of fish and silkworm before the Kobe earthquake suggested that unusual behavior might be responses to pulsed electromagnetic (EM) waves: they aligned perpendicular to pulse electric field in a simulation experiment. We have done a preliminary study of unusual behavior during the rock compression using compression machines in the construction engineering (Ikeya et al., 2000). However, all animals didn't show the unusual behavior, for example, only 20 % of dogs behaved abnormally, which might mean the genetic difference of dogs in the response to stressors. In fact we have never observed the unusual behavior of experimental animals such as rats, mice, and beagles in any simulation experiments, suggesting they may have lost biological abilities to anticipate coming earthquakes.

In this conference I will talk about my hypotheses concerning the unusual animal behavior before earthquakes, focusing on the animal responses to electromagnetic waves and genetic difference in dogs showing the unusual behavior and the usual. At first I hypothesized that the unusual behavior might be a kind of stress response, and thus examined the allele frequency distribution of canine corticotropin releasing hormone (CRH) gene, which makes the upper hormone to be released in the stress response, using 37 dogs in 33 breeds. The result showed no allele frequency distribution of canine CRH, suggesting the CRH gene might be not related with the unusual behavior of dogs before coming earthquakes. I will introduce the newest studies including our investigation in China on August 29 to September 4, 2007.

Ikeya, M., Yamanaka, C., Mattuda, T., Sasaoka, H., Ochiai, H., Huang, Q., Ohtani, N., Komuranani, T., Ohno, Y., Nakagawa, T., Ohta, M. (2000) Electromagnetic pulses generated by compression of granitic rocks and animal behavior. *Episodes* 23: 262-265.

Ikeya, M. (1998) Why do animals behave unusually before earthquakes? NHK Publisher, Tokyo (in Japanese).

Tributsch, H. (1982) When the snakes awake. *Animals and earthquake prediction*. MIT Press, New York.

Wadatsumi, K. (1995) 1591 witness prior to earthquake. Tokyo Publisher, Tokyo (in Japanese).





*The power of animals:  
Approaches to Identifying New Roles  
for Animals in Society*

**Thursday 4<sup>th</sup> October**

## PODIUM PRESENTATION

### **How Does the Dog Market Shape Roles and Values of Dogs? —A Case Study of the Commodification of Dogs in Taiwan after the 1950s—**

Yu-Ju Chien

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This paper examines how roles and exchange values of dogs on the market were shaped by market activities. Previous literature has addressed how human-dog relationship is culturally constructed and has changed through history. However, little work has explored the indispensable role of the dog market in shaping roles and values of dogs. Built on insights of economic sociology, my research investigates the historical constructive process of the dog market and the relationship between market forces and roles of dog in Taiwan after the 1950s.

My research is based on historical archival data and interviews. Historical data include articles in magazines and newspapers, publications and pamphlets of kennel clubs, pet advertisements etc. In addition, I conducted interviews with well-known pet retailers, breeders and shop owners who have actively participated in developing the pet market.

My qualitative analysis has found that the dog market has profoundly shaped the values of “dog products” and public acceptance of these products in society over time. The market strategically emphasizes particular roles of dogs in different historical stages. Roles of dogs have shifted several times, from useful instruments to show dogs to companions over the 50 years. In the beginning stage, traders emphasized the economic profit of owning a purebred dog, for example, winning in dog shows and selling its offspring. After late 1970s, dogs were attributed to more personified sentimental values. Roles of dogs have changed coincide with emphases of the market. However, evidence also shows that the commodification of pets has brought about irrational market and social outcomes, such as the objectification of living animals in society. My research illustrates how the prevailing role of dogs is influenced by the dog market. It brings in sociological perspective in exploring the constructive process of roles of dogs in society.

## PODIUM PRESENTATION

### **The multiple factors that influenced the establishment of the first Society for the Prevention of Cruelty to Animals in Japan**

Tetsuji Iseda

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How was the ethical concern for animals introduced into modern Japan? This presentation is a historiographical analysis which discusses some of the factors that enabled the establishment of the first Society for the Prevention of Cruelty to Animals in Japan (henceforth Tokyo SPCA) and shows that it was a complicated process rather than a straightforward adoption of English version of SPCA. The method used for this paper is the textual analysis of publications of the society and articles in newspapers (in Japanese and English) and magazines of the era.

Tokyo SPCA was established in 1902, by Tatsutaro Hiroi and others. Previous studies of this society generally emphasizes the role played by a couple of essays by Hiroi on animal suffering in 1899 and cooperation of a wide range of intellectuals who became aware of animal suffering through those essays. However, a closer look at the contemporary sources reveals different aspects of the process.

First, before Hiroi's papers there were articles on cruelty to animals in English newspapers published in Yokohama, and there is evidence that the Japanese intellectuals were very well aware of such newspaper articles. In the context of international relationships of Japan of that time, such opinions easily functioned as a political pressure to Japan.

Second, analyzing background of people at the center of the Tokyo SPCA, we find a commitment to a particular kind of religious movement that emphasized the integration of Christianity and Buddhism. Cruelty to animals was a convenient issue for such a movement.

Thus, it seems that the establishment of the Tokyo SPCA was a result of complicated religious, social, political factors. This kind of study is important in understanding the process of transformation of the human-animal relationship in the global setting.

## PODIUM PRESENTATION

### **“Pets as Family” and the Socio-historical Development of Pet Funerals in Japan**

Elmer VELDKAMP

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The present study is aimed at providing a socio-historical context for the frequent reference to pets as “family members” within the context of Japan from a folkloristic perspective. Japan has a history of posthumous prayer for animals that were killed during hunting and fishing activities. Current research on pet funerals tends to either overemphasize this long tradition, or completely ignore it. The present study attempts to provide much needed nuance for this field of study.

Research was conducted in two pet cemeteries in Tokyo, Japan, with a relatively long history (80-100 years) in the business. Methodology consists of analysis of gravestone inscriptions and historical change of the form in which the remains are handled (burial, cremation, tomb forms). The achieved insights have then been compared to traditional animal death related customs in Japan. The main task here was research on the relationship and continuative aspects between traditional customs and modern pet funerals.

Individual tombstones for pet animals have been reported sporadically from about the 18<sup>th</sup> century on. Specialized pet cemeteries appear to have emerged first in Buddhist temples during the late 19<sup>th</sup> and early 20<sup>th</sup> century. During this period, the emergence of animal protection groups and the utilization of animals (dogs, horses) in the army have helped to strengthen the position of animals as individual entities. This can be seen from individual tombstones for pets in that period, which represent acknowledgement of their social status, in contrast to traditional customs, where the main goal was appeasing and sending off of the animal spirit.

The term “pet as family” is an often treated as a new phenomenon when pets in modern society are discussed. The current study shows that, at least for the Japanese context, the concept of “pets as family” fits into a wider socio-cultural framework of non-human family members.

## PODIUM PRESENTATION

### **Intimacy and Spirituality Expressed in Pet Grave Markers**

Lynette Hart, B.L. Hart, J. M. Harris, and C.B. Arnason

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For some people, the connection with companion animals assumes a compelling role in their lives, sometimes even exceeding their connections to other people. Experiences with animals introduce people to the accelerated lifespan of animals from birth to death, reminding us of the end of life, and raising spiritual questions concerning mortality and afterlife. These issues are poignantly revealed in grave markers that humans prepare for their companion animals. Comparing grave inscriptions in human and pet cemeteries that are virtually side by side provides an opportunity for linguistic comparisons of human grieving for animals and humans, including children.

We have visited pet and human cemeteries in three different countries to gain a cultural perspective in comparing the preparation of graves for pets and humans, including children. Specifically, we visited cemeteries of humans and pets in Colma, California; Berlin, Germany; and Tasmania. We have gathered a large collection of photographs of human and pet graves for linguistic analysis of the texts inscribed on the grave markers, plus noted photographic, artistic, and floral decorations of the graves.

Grave markers of pets in the three countries reflect a deep intimacy in which family members commonly address the pet directly and provide a personal message or letter in the inscription, sometimes referring to seeing the pet again in an afterlife. References with terms of endearment are common, or referring to the pet as a child or best mate. These captions sharply contrast with the more formal traditions expressed on adult human gravestones, where the grave text typically announces the good character and fine qualities of the person. Graves of children, though less extremely expressive than those of pets, are somewhat intermediate in the extent of direct personal messages and expressions of affection.

Graves of animals in some situations were less expensively appointed. One cemetery used markers constructed of wood. Human cemeteries included some graves that were marked very decoratively but with fairly temporary materials such as a wooden cross and picket fence plus plastic flowers, but these were in the minority. Evidence of tending graves by the presence of recent flowers was common even for human graves dating from over fifty years ago, whereas this would be unlikely with a grave for a pet.

While most people do not choose to bury their animals in formal pet cemeteries, thus precluding extrapolation to pet owners in general, examining such grave markers, and comparing them with their counterparts in human cemeteries, offers a window for understanding the special intimate relationship that some people have with their dogs and cats.

## PODIUM PRESENTATION

### **Behavioral problems in Japanese dogs and their association with owners' attachment to pets levels**

Kazumi Takeuchi<sup>1</sup>, Rie Takahashi<sup>1</sup>, Rieko Tada<sup>1</sup>, Yasuka Yokokura<sup>1</sup>, Yoshitaka Hiyama<sup>2</sup>,  
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To investigate potential behavioral problems in Japanese house dogs and their relationships with the attachment levels of owners of these dogs, a questionnaire survey was carried out on the Web for dog owners (20-59 year-old women). The questionnaire was composed of owner's and dog's profiles, and a checksheet for quantitative grading according to five ranks for 112 possible behaviors of dogs. In addition, owner's attachment to the dog was measured using Lexington Attachment to Pets Scale (LAPS).

Mean age of the dogs was 5.7 years old (range; 0-18 years), and about half of the dogs were males (54.5%) and 31.2% of males and 39.2% of females were neutered (N=869). All of the 112 items from the behavior checksheet were analyzed by a factor analysis and 11 factors were extracted. Aggression was separated into two factors, aggression to dogs and people, while fear was divided into three factors, fear of dogs, people, and car-ride. Five clusters were generated by a cluster analysis based on the average factor scores for each of 15 most popular dog breeds. Barking, aggression, inappropriate elimination were most common behavioral problems claimed by owners irrespective of dog breeds. According to a multiple regression analysis, seven factors including aggression toward other dogs, barking, inappropriate elimination/ separation anxiety, friendliness, fear of people ( $p<0.01$ , respectively), and indifference ( $p<0.05$ ) significantly explained the LAPS score.

The factors extracted for the behavior of dogs in this study highly agreed with those from previous questionnaire surveys done in other countries such as in the US (Serpell and Hsu, 2005). Perception among Japanese dog owners for behavioral traits of different breeds of dogs relatively agreed with that among Japanese veterinarians (Takeuchi and Mori, 2006). It was also shown that the owners' attachment to pets degrees significantly related to the occurrences of behavioral problems in dogs. This strongly suggests that it is necessary to consider the owner's perception of their dogs and their behavior to the dogs when treating behavioral problems.

## PODIUM PRESENTATION

### **The effect of breeding goals on dog mentality**

Forkman B.<sup>1</sup>, Meyer I .<sup>1</sup>, Svartberg K.<sup>2</sup>, Temrin H.<sup>3</sup>

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In today's society dogs are used in three very different contexts, as working dogs, as pets/family dogs and for dog shows. In the present study we have sent out questionnaires to breeders of several different breeds asking them how important each of these aspects is for their breeding programs. The mentality of the dogs was assessed in the Swedish Dog Mentality Assessment. Previous studies have shown that the results from this can be condensed into five narrow factors, three of which are relevant to everyday life: play, curiosity/fearlessness, and sociality. The data presented here are for German shepherds (N=203), boxers (N=54) and collies (N=62).

For the German shepherds a multiple regression showed that the importance of the different contexts as reported by the breeder affected the factor play to a large extent (R-Sq=28% P=0.000), the factor curiosity/fearlessness somewhat less (R-Sq=17% P=0.000) and the factor sociality least (R-Sq=7% P=0.002). In all cases it was the importance assigned to dog shows which was the most important contributor, an interest in dog shows resulted in dogs with less play behaviour, more fearfulness and less sociality.

For boxers there was no significant effect on play (R-Sq=4% P=0.6) or sociality (R-Sq=4% P=0.6). Curiosity/fearlessness was however significantly affected (R-Sq=16% P=0.04), the most important predictor being an interest in breeding working dogs, more interest resulting in less fearful dogs. There was no overall significant effect of the breeders assessment of the different areas of interest for collies (play: R-Sq=10% P=0.16; sociality: R-Sq=7% P=0.3; curiosity/fearlessness: R-Sq=4% P=0.6).

The interest in breeding for different tasks thus seems to affect different breeds to very different extents – probably partly depending on the baseline values for the specific breeds. At least for German shepherds a interest in breeding for dog shows seems to result in dogs with an overall undesirable mentality.

## PODIUM PRESENTATION

### **A survey of the behavior of Japanese household cats**

Yoshie Kakuma<sup>1</sup>, Nodoka Onodera<sup>1</sup>, Yumi Murakoshi<sup>1</sup>, Yasukua Yokokura<sup>1</sup>, Kazumi Takeuchi<sup>1</sup>, Rie Takahashi<sup>1</sup>, Yoshitaka Hiyama<sup>2</sup>

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The behavior of cats at home is often observed in detail and many anecdotal stories are spoken by cat owners. However, it is hard to know the actual behavioral patterns of household cats objectively and even harder than those of dogs since cats are more vulnerable to unknown observers. We therefore investigated prevalence of the behavior of Japanese household cats using a questionnaire set on the Web for cat owners from the nationwide (n=623, women only, 20-59 years old). The questionnaire was composed of owner's and cat's profiles, Lexington Attachment to Pets Scale (LAPS), and a check sheet for quantitative ratings based on the frequency of each behavior item by five ranks for 107 possible behaviors of cats.

Slightly more cats were female (57.1%) and 70-80% of all cats were neutered, mongrel, and kept only indoors. Behaviors most frequently observed were instinctive behaviors such as purring, rubbing, and covering excretions. Nine factors were extracted by a factor analysis. Aggression was divided into four factors; aggression toward owners, strangers, other cats, and stroke-induced. Fear was separated into three factors; fear of other people and cats, particular places, and car-ride. Other two factors were pica and activity, and friendliness.

More than half of the owners (51.4%) had experience of consulting on behavioral problems of their cats and the most common behaviors they asked for advice were inappropriate elimination, spraying, and biting. One hundred and eight owners (17.3%) still sought for advice and the most common problems included inappropriate elimination, destructiveness while they were away, and biting.

This was a first collective information on behavioral patterns of household cats and this can be used as a basis for further research on the cat behavior and treatment of feline behavioral problems. It was also shown that many cat owners were also aware of behavioral problems of their cats and actively sought for advice.

## PODIUM PRESENTATION

### **Influence of Management on the Behaviour of Pet Rabbits in Switzerland.**

Anneli Muser Leyvraz Dr MSc, Anne Mc Bride PhD, Felicity Bishop PhD

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Introduction: Pet rabbits are reported as being kept in housing systems that neither offer adequate space, nor appropriate environmental or social stimuli. The incapacity to cope with these environments would lead to physical and psychological changes, resulting in increased aggression, destruction, or repetitive behaviours. In industrially kept rabbits, a causal connection between inadequate management conditions and physical or psychological changes has been proven. The purpose of this study was to investigate the husbandry and the behaviour of pet rabbits in Switzerland, and to examine, how factors like housing conditions, social environment or activities. relate to the behaviour of pet rabbits.

Methodology: A questionnaire survey was used to collect data about pet rabbit owners and the husbandry, management and behaviour of their rabbits. 280 questionnaires were distributed to pet owners mainly in veterinary practices/clinics and to privately recruited owners in Switzerland. Questionnaire data was analysed using the Statistical Package for Social Sciences (SPSS).

Results: 80 questionnaires were suitable for analysis. 98.8% of the pet rabbits were provided with hay, 96% with objects to gnaw. Most housing systems contained enrichment objects besides the basic furniture of water or food bowls. 45% of the pet rabbits were kept inside the house or apartment, 55% outside. House rabbits were kept more frequently as single animals and had less stimulation from the company of other household pets. The mean size of housing systems was smaller for inside rabbits, but was compensated by free runs inside or stays outside. Interactions for inside rabbits were longer and consisted of more play and caress. All respondents of the study rated rabbit behaviour equally. Rabbit attachment behaviours scored rather high (mean=3.1918, std.deviation=1.070) and were highly positively correlated with owner attachment. Owner attachment did not vary with the different factors. Aggressive behaviours during manipulations by the owners scored low (mean=1.6315, std. deviation= 0.46795), these behaviours were not predicted by husbandry or housing conditions. Destructive behaviours (mean=1.7817, std. deviation= 0.73428) showed weak positive correlations with the rabbits' social environment.

Conclusions: Concerns regarding inadequate management and housing conditions of pet rabbits in Switzerland have not been confirmed. However, behaviour was rated by a self-selecting group of generally highly attached owners, thus the husbandry conditions of this sample may not give a true picture of the husbandry and care of pet rabbits in Switzerland in general. The scores for behaviour were not the result of scientific observations under defined and reproducible conditions. Further studies are necessary to evaluate management and housing conditions of pet rabbits in Switzerland and in other countries.

## PODIUM PRESENTATION

### **Health enhancing effects of companion animals: Does dissociation reveal two underlying mechanisms?**

Ms Jacqueline R. Gately, Dr Francesca E. Collins, Associate Professor Felicity E.L. Allen.

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This study investigated whether a relationship between dissociation and human-companion animal bonding previously observed in a sample of highly dissociative and highly pet attached veterinary technician students (Brown & Katcher, 2001) could be replicated in a more representative sample, and when assessed using statistical procedures better suited to the non-parametric variables under investigation.

A sample of 2038 male and female participants covering a wide range of ages ( $M = 29.2$  years,  $SD = 10.6$  years, range 18-77 years), professions, levels of education and species of companion animal completed the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986) and the Lexington Attachment to Pets Scale (LAPS; Johnson, Garrity & Stallones, 1992) via an Internet-based questionnaire. Maximum likelihood common factor analyses with oblique rotation were conducted with the DES and the LAPS. A bivariate Spearman Rank Order correlation of the DES and LAPS full scale scores and factor scores was conducted. A chi-square analysis for independence was conducted.

Factor analysis of the LAPS obtained a two-factor solution with two new, meaningful factors, named "Loyal Understanding Friend" and "Joyful Companion". The DES and LAPS full-scale scores displayed a small but significant positive correlation ( $r = .159$ ,  $p < .001$ ). The pattern of correlations between the DES and LAPS factors and full scales offered support for Brown and Katcher's (2001) two proposed dissociative pathways. More participants with high levels of human-companion animal bonding had extremely high levels of dissociation compared to participants with lower levels of human-companion animal bonding, (chi-square = 29.24,  $p < .001$ ,  $df = 1$ ).

The results provided support for a relationship between dissociation and human-companion animal bonding in the general population, and proffered confidence in further investigation of a two-pathway dissociative model proposed to explain the link between human-companion animal bonding and enhanced health.

## PODIUM PRESENTATION

### **A New Prospect of Companion Animals as Learning Aids for Primary School Education**

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IAHAIO in its 2001 Rio Declaration set guidelines for pet programs for schools. We developed an Animal Assisted Education (AAE) program for Japanese primary school curriculum. The total of 7 AAE lessons were given over the period of one year with two dogs and two volunteers at a primary school in Tokyo. Each lesson was video-taped, reviewed and evaluated.

The program is specifically designed for 1<sup>st</sup> grade Japanese lesson and 2<sup>nd</sup> grade arithmetic lesson, with the average of 25 children, both boys and girls. Each class had one child with Learning Disability. Using Barlow and Hersen's Single Case Experimental Designs, we examined the results of our program with the precise learning objectives following the Rio Declaration guidelines. Each lesson was 45-minute long and held in classrooms, the gymnasium, or the open-space, an area in the school building for multiple purposes. At the first lesson, children observed dogs playing each other and then interacted with them. Then, children made rules for lessons with dogs such as no loud voice nor shouting, no running, and no touching without permissions. Each lesson was evaluated by teachers based on the children's behavior and attitude during the lesson and the lesson-goal attainment tests.

We observed the three objectives in the Rio Declaration on AAE programs attained. The increase of the enhancement of knowledge and learning motivation was observed in the high average scores such as in multiplication test of 2<sup>nd</sup> grade arithmetic tests. Through this program, the children's affinity for dogs increased, and so did their respect for the dogs. The satisfaction with the good relationship with the dogs while abiding rules made by themselves led to further motivation for learning, resulting in increased academic achievement.

Our AAE program has shed light on problems at Japanese schools such as scholastic ability declines and classroom break-downs.

Notes:





*The power of animals:  
Approaches to Identifying New Roles  
for Animals in Society*

**Friday 5<sup>th</sup> October**

## PODIUM PRESENTATION

### **Animal abuse and domestic violence: An overview of research**

Frank R. Ascione

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I provide a review of the research literature on this topic that has emerged over the past decade, literature that focuses on the direct examination of the incidence of animal abuse in the context of intimate partner violence. (A more general treatment of animal abuse may be found in Ascione, 2005b, and Ascione, 2007). Collectively, the studies I review confirm that pet abuse by intimate partners is a common experience for women who are battered. If children are present, they are often exposed to pet abuse—an experience that may compromise their physical and mental health. Family pets may become pawns in a sometimes deadly form of coercion and terrorizing used by some batterers. And women’s concerns about the welfare of their pets may be an obstacle to fleeing violent partners and may affect women’s decision making about staying with, leaving, and/or returning to batterers. Women’s welfare, children’s welfare, and animal welfare are, therefore, intertwined.

## PODIUM PRESENTATION

### **Witnessing the Killing of Animals Correlates with Attitude and Empathy Differences**

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Empathy and attitudes toward animals were examined in adults who reported witnessing the inhumane killing of animals, as assessed by the Boat (1999) Inventory of Animal-Related Experiences. Measurement scales were derived from the Davis (1980) Interpersonal Reactivity Index (IRI), the Empathy Quotient (EQ) (Lawrence et al., 2004), the Animal Attitude Scale (AAS) (Herzog, Betchart, & Pittman, 1991), and the Attitude Toward the Treatment of Animals Scale (ATTAS) (Henry, 2004).

Of 427 adults, 75 (m = 37, f = 38) reported having witnessed at least one animal being killed in an inhumane manner. Multivariate analyses of variance (MANOVAs) with eight dependent variables showed two clear findings. First, there was a main effect,  $F(3, 380) = 2.1, p < .05$  for those who witnessed the killing of an animal. Univariate tests showed this group had depressed scores on the AAS and the Personal Distress subscale of the IRI. Second, there was a main effect,  $F(16, 750) = 2.95, p < .001$ , for the number of times (Never, Once, Multiple) that individuals witnessed the killing of an animal. Univariate tests revealed differences on the AAS (depressed for the Multiple group), as well as the Perspective-Taking (enhanced for the Multiple group) and the Personal Distress (depressed for the Multiple group) subscales of the IRI. Interestingly, the witnessed Once group had lower scores than both the Never and Multiple groups ( $p < .01$ ) on the Perspective-Taking subscale.

Results show that witnessing the killing of an animal does correlate with aspects of empathy and attitude, with dramatic effects linked to multiple incidents. Implications extend to the need for (1) refined research on these evident and intriguing effects, and (2) policies for including violence to animals as a component of classroom education programs, civic venues, and human-animal literacy publications.

## PODIUM PRESENTATION

### **Conflicting views on dead companion animals in contemporary Japan: a sociological analysis**

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Given the continual booming of pet keeping in Japan, where many caretakers mention their companion animals as their “families”, there is a scarcity of social scientific studies on other people’s views toward such “families”. This study qualitatively compares views of caretakers, and of the people engaged in funerals, towards companion animals after death, which allows assessment of both how the animals could be seen by the people besides their caretakers and whether the fact that most caretakers owners regard their companion animals as their “families” blur the boundary between animals and humans in Japan.

The study consists of interviews conducted by the presenter in Kanto area from 2006 to 2007, which targeted to companion animals’ caretakers who had lost their *companions* somewhere from one half to 9 years before (=X), monks of temples in Kanto area (=Y), and mortuary workers for animals (=Z). The interviewees were adults from 20’s to 70’s, living and/or working locally and snow-ball sampled (e.g., local acquaintances, users of animal cemeteries). The interviews included demographic/historical data on the person, attitude questions and a question on their views towards companion animals when alive and after death. Data were coded and analyzed using KJ Method, a way of re-composition of information by Kawakita Jiro to determine direction when appropriate.

As a results, X(=caretakers) change their views into either deific or more anthropomorphic one comparing to the ones before death; Z(=workers) stage a funeral which would help produce and further Z’s views with so many products and “rituals”; Y(=monks) hesitate to do so because of the idea of “pollution”. This way their views on companion animals contradict to each other, and consequently, the boundary between companion animals and humans in contemporary Japan is no longer seen simply blurring but confusing and discrepant.

## PODIUM PRESENTATION

### **Volunteer motivations for becoming involved in animal rescue organizations.**

Anne Alden, Ph.D.

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Across the United States, many animal rescue organizations are assisted by hundreds of trained volunteers who play a vital role in rescue efforts. A greater understanding of the role and meaning that rescuing animals plays in the lives of volunteers could provide useful information for screening, training and retention of volunteers. It may also provide additional insight into the role of animals in society and may help volunteers to better understand and assess their own motivations for volunteering. This study examined 100 responses to the question "Why do you want to be a volunteer?" from volunteer application forms of the Cape Cod Stranding Network (CCSN), a marine mammal rescue organization located in Buzzard's Bay, Massachusetts. CCSN volunteers ranged in age from 20-78, with a median age of 42, with 64% females and 36% males. The data comprised qualitative responses, which were grouped into 6 categories. The largest category represented a stated emotional connection to animals (e.g., "I love animals") which occurred in 21% of responses. The next largest category (16%) represented statements of caring deeply about both animals and the environment. The third largest category (15%) contained phrases indicating a lifelong desire to do this work. Other categories were career-related reasons (13%) and the desire to learn more (11%). The smallest category (5%) contained statements of wanting to help the environment with no mention of animals. In summary, most volunteers stated deeply emotional and personally meaningful reasons for volunteering. This emotional component is discussed in relation to the average length of time volunteers stay active in the organization and their level of involvement over time. Implications of this study point to the need to address issues in training and retention such as the emotional intensity of the volunteer experience and the potential for volunteer burnout.

## PODIUM PRESENTATION

### **Influence of breed, handler appearance and people's experience of dogs on their perception of the temperament of a breed of dog in Ireland.**

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Introduction: Human attitudes to and perception of dogs vary both between and within societies and cultures and are influenced by many factors including factors unrelated to the dog such as its environment. These include cultural factors, personal knowledge, the function of the animal, the perceived intelligence and the appearance of the dog. It is known that the presence of a dog can influence perceptions of the handler but it has not been established whether the characteristics of the handler can influence the perception of the dog. This is especially pertinent to the area of working dogs. German shepherd dogs tend to have a negative image and may be under utilized in assistance dog work due to concerns regarding the public perception of this breed.

Methodology: The research was by a questionnaire survey of students at Cork Institute of Technology. Respondents were asked to rate photographs of three breeds of dog alone and to then rate the same dogs with three of fifteen possible categories of "owner", prior to completing the questionnaire. 463 questionnaires were completed.

Results: There was a difference in mean rating for temperament for a dog alone and for the same dog with a handler, and there were between breed differences. Different dog breeds were rated significantly differently (Wilkes Lambda = 0.187,  $F(13,374) = 125.053$   $P = .000$ ). There was a significant effect of handler on the perception of the Labrador (LR)( $F(14,462) = 8.589$   $P = .000$ ), of the German shepherd (GSD)( $F(14,462) = 6.513$   $P = .000$ ) and of the Airedale terrier (AT)( $F(14,461) = 7.587$   $P = .000$ ) The handler categories, which appeared to influence perception most, were the Garda (Police)(male(m) and female(f)); rough male; wheel chair user (m and f); blind person (m and f). Pearson's correlations revealed consistency in ratings throughout the questionnaire, with or without a visual representation for the LR and for the GSD but not for the AT. The LR has a positive image. The GSD while perceived as having a negative image, appears to have an altered image when seen in a working context, where people described it inferring intelligence and admirable character. The AT is uncommon in Ireland and without media association. This may explain the inconsistencies in ratings when presented either with or without a visual image.

Conclusions: People's perception of the temperament of a breed of dog may be influenced by the breed, by the appearance of the handler and by their experience and knowledge of dogs. The results appear consistent, that is, respondents perceived that the three breeds of dog were either more friendly or less friendly, when presented with certain differing categories of handler.

Notes:







*The power of animals:  
Approaches to Identifying New Roles  
for Animals in Society*

**Poster**

## POSTER PRESENTATION

### **Dogs in the media: A critical review of visual culture and popular press.**

Anne Alden, Ph.D.

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The past few decades have been characterized by the changing role of dogs in American society. Both lay and scholarly analyses have noted this dramatic shift in people's attitudes towards dogs, concurring that dogs have come to assume a more prominent role in the lives of people and are often regarded as personal companions and family members (Alden, 2007; Gardyn, 2002; Katz, 2003; Serpell, 2003). Like many sociocultural trends, the changing role of dogs has been reflected in the popular press and the visual media. In an effort to better understand the new role of dogs, this study reviewed and analyzed current media depictions of dogs as anthropomorphized pets: doted on and adorned with human-like accoutrements and provided with daycare, spa treatments, and lavish hotel accommodations. Also reviewed are theoretical commentaries on the current anthropomorphization of dogs (Albert & Bulcroft, 1988; Cain, 1983, 1985; Katcher, 1981) and the positive and negative implications of this phenomenon (Serpell, 2003, 2005). This review serves as a foundation for discussion of the meaning of the changing role of dogs and possible implications for the future. The impact of several influential issues are considered, including the increasing alienation and isolation of our technologically driven society, cultural changes in both family structure and women's expectations and roles, and people living longer with disposable income to spend. Finally, the impact of a renewed awareness and concern for nature and the environment are considered (as evidenced by current media and cinematic discussion of global warming and the popularity of The Nature Channel and the Discovery Channel television series "Planet Earth." In conclusion, it is posited that the possibility of an emerging new sensibility and appreciation for animals may serve to improve our relationships with them and broaden our acceptance of a variety of roles for animals in society.

## POSTER PRESENTATION

### **DIABETIC DETECTION AND EMERGENCY RESPONSE DOGS**

Nina Bondarenko B.A. S.A.C. (IAABC)

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Over 2 million people in the UK develop impaired vision as a consequence of Diabetes, and a high proportion of these apply for Guide Dogs to assist in their general mobility. However, it is possible to train dogs to assist Diabetics, firstly by indicating a lowering blood sugar level (Detect) and secondly to assist with a trained emergency response to help the person self-medicate (Response).

In the United States, Mark Ruefenacht, a forensic metrologist who works with crime lab began testing the hypothesis that a dog could smell a chemical imbalance on a diabetic resulting from hypoglycemia (low blood sugar). Following five years of tests and trials, he'd identified a scent common to insulin-dependent (Type 1) diabetics experiencing low blood sugar. (SFGate Chronicle, Nov 5 2006 <http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2006/11/05/CMGE9LDTK31.DTL> ) He set up a not for profit organisation to train and place dogs trained to detect this scent, with Type 1 diabetics. Several other organisations training and placing dogs to alert diabetics, were established in the United States, despite the lack of clinical trials to substantiate the claims.

By working together with Diabetes UK and / or The Juvenile Diabetes Research Foundation (JDRA) , it is possible to broaden the scope of the original American research in order to clinically trial currently used substances in order to develop synthetic surrogates suitable for use in a training situation.. Programmes could then be developed for training a range of dogs to reliably alert to rising or lowering blood sugar levels, and in some cases offer an emergency response. The dogs could be additionally trained to respond by bringing the emergency medication or sugar source to the person, once he or she has acknowledged the dog's indication.

Papers published by researchers for the University of Pennsylvania (Roger Mugford, David Moulton et al) have identified the smallest particle of residue of Alpha ionone differential that can be detected by the canine nose; and my experience of having trained dogs to respond and alert to Firearms Residue, Industrial contaminants, as well as Absent and Tonic-clonic seizures, Migraines, and other impending medical conditions has demonstrated the capacity of the canine olfactory sense to identify extremely specific and minute traces of scent. Clinical trials in conjunction with practical training programmes could be used as the basis for a range of "Medical Emergency Response" canines, which would reduce human dependency upon expensive technology or waking up in time to self-medicate.

IAABC – International Association of Animal Behaviour Consultants.

SAC – Service Animal Consultant.

B.A. Bachelor of Arts Degree.

## POSTER PRESENTATION

### **Animal sexuality and zoophilia – a taboo within the taboo?**

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Sex between humans and animals is a taboo which raises concern. Indeed, animals may be harmed by such actions. However, some people engage in apparently non-violent sexual relations with animals (e.g. zoophiles) and claim that the animals too appreciate the activities. To many, this seems unlikely and simply wishful thinking. However, considering current knowledge about animal sexuality, it is evident that in discussions about zoophilia an awareness about animals as sexual beings is often lacking – an aspect which outside the fields of animal behaviour and reproduction seems to be a taboo in itself.

The anatomy and physiology of mammalian animals' and humans' reproductive organs are quite similar. Animals are used as models to gain insight into human sexuality. This reflects an underlying assumption that animals – generally speaking - show sexual responses similar to humans. Such analogies are generally accepted in relation to animal research. In the context of zoophilia the analogy-argument is used to support the concern that, as humans suffer when sexually abused, so will animals. But this reasoning could also go the other way: when humans associate sexual stimulation and climaxing with a positive experience, animals probably do too. An overview of current scientific knowledge and anecdotal information on animal sexuality will be presented. The information supports the assumption that sexual stimulation *can* be positive for animals.

The taboo may be observed not only in relation to zoophilia but also in general perceptions of animals. And acknowledging animals as sexual beings may have far reaching implications. First, it may shape the concerns to be addressed over zoophile activities. Secondly, it may affect the perception of zoophiles in both societal and legal terms. And third, it may influence the acceptability of certain common aspects of animal keeping, e.g. measures to control animal breeding.

## POSTER PRESENTATION

### **Handlers' behaviour influences dogs' behaviour during training sessions**

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Rare studies analyse training methods on working dogs. A survey on 303 Belgian military handlers reveals the use of harsh training methods on military working dogs (MWD). This survey analyses those training methods in view to objectify the potential welfare problems of the animals.

The 33 dog-handler teams conduct twice a standardised training session including obedience and protection work. The sessions, recorded on videotape, are analysed with Wilcoxon and Kruskal-Wallis signed rank tests.

Handlers reward (57%) or punish (22%) their dog intermittently. The main rewards observed are caresses (42%), congratulations (24%) and strokes (13%) while aversive stimuli are pulling on the leash (48%) and hanging dogs by their collar (36%).

The training method and the dog's concentration influence its performance: low performance dogs receive more aversive stimuli than high performance dogs ( $W:z=3.32$ ,  $df=1$ ,  $p<0.001$ ). Distracted dogs perform less than the others ( $KW:\chi^2 = 7.01$ ,  $df = 2$ ,  $p<0.05$ ).

Interestingly handlers punish more ( $W:z=1.91$ ,  $df=1$ ,  $p<0.05$ ) and reward less ( $W:z=2.10$ ,  $df=1$ ,  $p<0.05$ ) during the second evaluation. Handlers seem to modify their usual behaviour at the first evaluation as to present themselves positively. During the second evaluation dogs react to this higher frequency of punishments in exhibiting a lower posture after punishment ( $W:z=2.91$ ,  $df=1$ ,  $p<0.01$ ). The authors can not prove whether the welfare of these dogs is hampered, but there is an indication that it is under threat.

Finally low obedience (65%) and protection work performances (39%) suggest that handlers and dogs should train more regularly and motivate the setting of a new training method. Suggestions to improve actual training methods in the Belgian Army form the basis of a training system relying on positive training methods, an increase of the training frequency, the elaboration of a course on training principles, and an improvement of the dog-handler relationship.

## POSTER PRESENTATION

### **Interactions between nursing home residents and dogs during animal assisted activity**

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We observed the interactions between nursing home residents and dogs during an animal assisted activity (AAA) and examined the relations between the symptoms of these residents and the quality of human-dog interactions. Seven handlers and 7 dogs were divided in two groups and each group visited a nursing home on either of 2 activity days each month. AAA was conducted for an hour per day in the lobby. Five to 12, among a total of 31 senior residents (9 males and 22 females, 16 normal/mildly and 15 moderately/severely disabled in ADL (activities of daily living), 16 normal/mildly and 15 moderately/severely disabled with dementia) participated each day. The participants, handlers and dogs freely interacted with each other. The observer (KN) randomly focused on each dog for 5 minutes per session and recorded the behaviors of the dogs and residents, as well as the names of initiators and recipients of behaviors. A total of 184 sessions over 29 activity days were analyzed.

The levels of ADL ( $t_{(6)} = 0.58$ ,  $p > 0.05$ ) and dementia ( $t_{(6)} = 0.12$ ,  $p > 0.05$ ) did not significantly affect the frequency of dogs' behaviors toward residents as one-way behaviors. However, the frequency of residents' behaviors toward dogs as one-way behaviors ( $t_{(6)} = 4.71$ ,  $p < 0.01$ ) and reciprocal behaviors between dogs and residents ( $t_{(6)} = 4.01$ ,  $p < 0.01$ ) was greater in the normal/mild group than in the moderate/severe group. Dementia level did not significantly affect the frequency of residents' behaviors toward dogs as one-way behaviors ( $t_{(6)} = 2.09$ ,  $p > 0.05$ ) and reciprocal behaviors between dogs and residents ( $t_{(6)} = 2.31$ ,  $p > 0.05$ ). Thus, the dogs did not discriminate the symptoms of residents, but the residents who were normal/mildly disabled in ADL more actively tried to interact with the dogs. The ADL level of the residents strongly influenced the features of human-dog interactions in AAA.

## POSTER PRESENTATION

### **Behavioral assessment in a guide dog raising program**

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We developed a method of behavioral assessment for potential guide dogs, and examined the mechanism for the conveyance of traits from parents to offspring. A total of 212 male and 291 female dogs were evaluated regarding 7 required behavioral traits (Amicability, Willingness, Obedience, Self-possession, Quietness, Boldness, and Concentration) using a 5-point rating scale in periodic behavioral tests and daily life. Average scores from multiple evaluators were analyzed. Higher scores indicated suitability as guide dogs.

As a whole, scores of Amicability and Willingness were high, and those of Concentration and Boldness were low. In Self-possession, the sire's score was lower than that of the dam ( $t_{(79)} = 3.58$ ,  $p < 0.001$ ); however, the sires conveyed the traits to the offspring more easily than the dams ( $z = 4.14$ ,  $p < 0.001$ ). The dams more easily conveyed the traits of Amicability ( $z = 3.77$ ,  $p < 0.001$ ), Willingness ( $z = 3.61$ ,  $p < 0.001$ ), and Quietness ( $z = 2.14$ ,  $p < 0.05$ ) to the offspring than the sires. The dams more easily conveyed low scores of Amicability (Fisher's exact probability test,  $p < 0.01$ ) and Concentration (Chi-square<sub>(1)</sub> = 10.96,  $p < 0.001$ ) to the offspring. In Concentration, the dams conveyed a low score to the offspring more easily than the sires (Chi-square<sub>(1)</sub> = 7.43,  $p < 0.01$ ).

As a whole, Concentration and Boldness should be improved. It is expected that we can improve the quality of guide dogs and the training efficiency by improving selection methods for breeding dogs. The dams more easily conveyed their traits, including undesirable ones than the sires, so we must be careful in dam selection. Different from sires, which convey only genes to their offspring, dams' behavior might affect the behavioral development of offspring during pregnancy and rearing.

## POSTER PRESENTATION

### **Effect of the presence of a dog on pre-adolescent children's learning of canine anatomy and physiology.**

Angelo Gazzano\*, Chiara Mariti\*, Alessandro Cozzi\*, Francesca Papi\*, Claudio Sighieri\*, E. Anne McBride<sup>°</sup>

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#### INTRODUCTION

Children are interested in animals and this focus may increase attention for and, thus, retention of related information. The research hypothesis was that a dog in the classroom would aid learning of given knowledge about canine anatomy and physiology in pre-adolescent children.

#### METHODOLOGY

A class of fifteen 8 year old children in Pisa (Italy) was randomly divided in 2 groups: A (5 girls and 2 boys) and B (6 girls and 2 boys). Each group attended 6 lessons matched for topic (with audio-visual aids) and teacher. For every lecture, one group attended in the presence of a 2 year old female dog and the other without the animal; condition was reversed for the following lesson.

Therefore, both groups attended 3 lectures with the dog and 3 lectures without. At the end of each lesson, children filled out a 10-item questionnaire on the lesson topic; these were completed again 3 months later.

Numbers of correct answers for the dog or no-dog condition by lesson were compared using Chi-square test ( $p < 0.05$ ).

#### RESULTS

Results showed that children performed significantly better when the dog was present. This was true for all lectures except the first: 2nd ( $X^2=5.293$ ;  $p=0.007$ ), 3rd ( $X^2=7.904$ ;  $p=0.000$ ), 4th ( $X^2=5.029$ ;  $p=0.025$ ), 5th ( $X^2=4.373$ ;  $p=0.008$ ) and 6th ( $X^2=5.167$ ;  $p=0.023$ ) lesson.

At the follow-up, a decline in knowledge retention was observed in both conditions, but more evident in the dog-present (mean±standard deviation:  $7.89 \pm 0.27$  to  $5.59 \pm 0.29$ ) than in the no-dog condition ( $6.18 \pm 0.90$  to  $5.83 \pm 0.54$ ). No differences persisted between the two conditions.

#### CONCLUSIONS

The presence of a dog in the classroom seems to increase children's short-term learning of a related topic. This may be due to the dog acting as a focus for attention for related information. However, findings suggest this increased attentiveness in the dog's presence does not influence long-term retention.

## POSTER PRESENTATION

### **Animals and People: A Model for Healing in Veterinary Social Work**

Janelle Nimer, PhD Fellow, Jan Yorke, PhD Fellow, Elizabeth Strand, PhD

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Veterinary Social Work (VSW) is a partnership between The University of Tennessee (UT) Colleges of Veterinary Medicine (CVM) and Social Work that seeks to expand understanding regarding services needed at the intersection of veterinary medicine and social work practice. From a strengths perspective and using evidence-based practice, VSW provides education and training to UT veterinary students, faculty, staff, and clients as well as other public health professionals.

Over the last twenty years, social work literature has addressed issues of pet loss (Margolies, 1999) animal-assisted therapy (Reichert, 1998), companion animals and well-being (Sable, 1995), benefits of pets for the elderly (Netting & Wilson, 1988), the link between interpersonal violence and animal abuse (Faver & Strand, 2003a, 2003b), and social work in veterinary clinic settings (Netting, Wilson & New, 1987).

Program evaluation results represent work completed during the fiscal year. In 2003 and 2004 the surveys were sent by e-mail and collected via an internet link (range of  $N = 135$  to 139, response rate of 21.7% to 22%). In 2005, 2006, and 2007 the surveys were distributed by random sample (range of 82 to 124, response rate of 25% to 58%). VSW survey responses have also consistently indicated that a majority of UTCVM members feel that the VSW program is beneficial (range of 92.6% to 100%).

The VSW program has been well accepted by the academic veterinary environment at the UT as evidenced by regular program evaluation results. The mission of VSW is to both support the UTCVM as well as develop a model of VSW practice for public animal-related settings such as veterinary clinics and animal shelters.

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## POSTER PRESENTATION

### **Questionnaire analysis about the consciousness for animal experiment among biomedical researchers in Japan**

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The purpose of this study is to explore the consciousness of laboratory researchers for animal experiments in Japan.

Two forms of questionnaires were prepared. One is to know the consciousness for animal experiments and the other is to know the details of memorial ceremony for experimental animals. Four thousands questionnaires were distributed to research institutes, and 1,006 collected.

For the question “What kind of experimental animals should be regulated by law?”, the most frequently observed answer is “all kinds of life”. It is a interesting result because present regulation in Japan covers only reptiles, birds, and mammals and researchers are thought to dislike more strict regulation. One possible interpretation is that Japanese researchers have their traditional concept of life which contains the notion “equality of life”. This is a contrasting attitude when compared with that of westerners, who regard abilities of suffering as standards of regulation.

Sixty-eight % of answers for the question “Which is more effective mean for the realization of animal welfare, education or memorial ceremony?” is “education”. However their answers with explanation indicate that each mean has different role. They consider that education is effective for mastering techniques to reduce animal suffering, while memorial ceremony is essential to keep their ethical attitude for experimental animals. Then, both approaches are needed to realize the animal welfare in Japanese research environment.

Ninety % of research institutes hold a memorial ceremony for experimental animals. Largest numbers of institutes have started memorial ceremony at 1975 and 1980. It means that a memorial ceremony for experimental animals is not an old traditional custom. In 1970s and 80s, animal welfare were seriously considered in western countries. Then, Japanese researchers might have adjusted their ways of research activities to that of westerners in order that their achievements were to be accepted in western countries.

## POSTER PRESENTATION

### Changes on the impression of school children by contacting with livestock

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Caring for animals are considered to have positive emotional and educational effects on children. The effects are referred to as animal assisted education, and attract interest from the health science. Our research interest is that how contact with animal affects emotional states of school children and their attitudes to animal, and whether the instruction of animal welfare would change the attitudes.

Participants were one hundred twenty-two sixth grade junior school. They were asked to contact with and to feed pigs, sheep and goats. Before and after the contact, their impressions on these animals, attitudes to livestock, and mood states were questioned to be compared. Additionally, home environment, experience to care for dogs, cats, and livestock were asked before the contact. For a half of participants, short instruction about animal welfare was provided before the contact, and for the rest at the end of the experiment.

Participants' mood changed less "anxious" ( $F(1, 129) = 5.12, p = .02$ ), "nervous" ( $F(1, 129) = 4.58, p = .03$ ), and more "cheerful" ( $F(1, 129) = 6.90, p = .01$ ) by the contact.

Dog owners had more "gentle" ( $F(2, 117) = 4.82, p = .01$ ) and "warm" ( $F(2, 116) = 3.10, p = .04$ ) impression for pigs, and were likely to positive thinking about "livestock ownership" ( $F(2, 116) = 4.40, p = .01$ ). Impression of pigs became more "hustle" ( $F(1, 119) = 46.82, p = .00$ ), "hard" ( $F(1, 120) = 61.12, p = .00$ ), "big" ( $F(1, 119) = 244.79, p = .00$ ), "strong" ( $F(1, 118) = 32.67, p = .00$ ), and that of sheep became more "hustle" ( $F(1, 119) = 7.03, p = .01$ ), "neat" ( $F(1, 120) = 18.73, p = .00$ ), and "strong" ( $F(1, 119) = 5.25, p = .02$ ). Compared with girls' participants, boys' impression of sheep was more "gentle" after the contact ( $F(1, 119) = 15.00, p = .00$ ), and that of pigs was more "gentle" ( $F(1, 119) = 5.07, p = .03$ ) and "weak" ( $F(1, 117) = 7.04, p = .00$ ). Participants who received prior instruction regarded pigs as more "clean" ( $F(1, 118) = 13.345, p = .00$ ) and "slow" ( $F(1, 118) = 11.57, p = .00$ ). In general, the experience to care for companion animals and livestock would lead to positive attitudes toward livestock.

## POSTER PRESENTATION

### **Preferences and ownership of dogs influence the attitudes toward canine behavioral problems**

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As the number of pet dogs increased, chances to see dogs on the street have increased for the general public. Many studies have pointed out positive influences through these interactions between dog owners and non-owners, whereas it is also possible that they may cause negative effects for non-owners or people who do not like dogs especially when dogs show behavioral problems. In this study we did a series of questionnaire survey to investigate how preferences and ownership of dogs influenced the attitudes toward canine behavioral problems. The first questionnaire asked high school students about their preferences for dogs and their attitudes toward behavioral problems in dogs. In this questionnaire we also asked the age when and reason why they became so if they disliked dogs. The second questionnaire asked dog owners about their attitudes toward canine behavioral problems.

Among 434 high school students 10.4% disliked dogs and the most common ages when they became to dislike dogs were 4-6 years old. The reasons included that they were chased, bitten, barked, growled by dogs in this period. Students who disliked dogs considered it significantly more important to keep dogs away from other people as a manner of dog owners as compared to those who liked dogs ( $P < 0.05$  by chi-squared test). Both owners and non-owners regarded barking and growling as the most serious behavioral problems in dogs, while non-owners also claimed biting, scratching, pounce as problems and proportion of people who regarded these as problematic was different from that of owners ( $P < 0.05$  by chi-squared tests).

These results demonstrated that aggressive behaviors of dogs seen by people when they were small children led to dog phobia in them as suggested by other studies. Dog owners should be aware of the long-term effects of interactions with dogs especially for small children. They should also understand what others feel with dogs and try to reduce and control the behavioral problems of their dogs.

Notes:



