

ISAE

www.applied-ethology.org

newsletter

Issue 28 • June 2006

Contents

<i>President's Piece</i>	2
<i>Bug in the system</i>	3
<i>ISAE Council News</i>	4
<i>Openings on ISAE Council</i>	5
<i>ISAE Regional News</i>	6
<i>Applied Ethology Course Review</i>	7
<i>Meeting Reviews</i>	8
<i>ISAE Members on the Move</i>	12
<i>New Reading in Ethology</i>	13
<i>AABS News from Elsevier</i>	13
<i>Legal Scene</i>	15
<i>Members-only Discussion Forum</i>	16
<i>Online Membership Renewal</i>	16
<i>Employment Opportunities</i>	16
<i>ISAE Congress bids for 2010-1012</i>	17
<i>Future ISAE Meetings, and others</i>	17
<i>ISAE Council Members</i>	21
<i>ISAE Regional Secretaries</i>	23



President's Piece

The nearby highlight for ISAE is its 40th annual Congress in Bristol, UK. The 40th anniversary is very significant not only for ISAE but for the whole field of applied ethology. In December 1965, a committee chaired by Professor F. W. Rogers Brambell reported to the British authorities on the welfare of intensively kept farm animals in Britain. The report (the full text of which is surprisingly difficult to get) is based on three types of evidence. First, the committee members with expertise in zoology (Prof. Brambell), in animal science (Prof. T.K. Ewer from the Bristol University) and ethology (Dr. W. H. Thorpe) brought together state-of-the-art scientific knowledge, thus starting a strong tradition of multidisciplinary in applied ethology. Second, the committee visited almost sixty farms to collect direct evidence of the factual situation of the animals. Third, written and oral evidence was received from over 70 institutions and persons, ranging from farmers' associations through academicians to animal protection organizations. Based on this extensive evidence, the committee wrote a very thorough report that tackled all the facets of the problem that animal welfare science is dealing with until today: the basic question of animal sentience or consciousness, their needs and feelings; the most urgent specific threats to welfare in the specific farm species; and the implications for herd management and housing, for legislation and for education.

With this 40-years old piece of work in mind, I am curious to hear the talks and discuss the posters at the congress in Bristol. Doubts have been expressed during the last decades whether applied ethology and animal welfare science have made any real progress. And indeed, in this year's Wood-Gush Lecture, Alistair Lawrence will ask the question "Is there a future for applied ethology?" Certainly, we are asking many of the same questions as Professor Brambell and his colleagues were posing four decades ago. However, I am convinced that through examining them, our understanding of behaviour and welfare of captive animals has become much deeper, richer and better interconnected; thereby pointing us to more useful tools how to practically enhance the quality of life for the animals in our care.

Let us see the evidence for this claim at the congress in Bristol!

With best wishes,

Marek Špinka
ISAE President

Bug in the system

News from the December 2005 Council e-meeting – from Dr. Anna Valros

The Bug is back again to give you a report on what your ISAE Council has been up to during the last six months or so. And yet again, there is quite a lot to report: actually we have not had only one Council meeting since August, as usual – but three!! Firstly, the normal December meeting and then two extra meetings in January and March. So I'll try to pick up the most essential and not to bore you too many details.

All meetings were held on the web, and in December, Council tried out a web-based discussion forum, the same as the ISAE members' discussion forum, for the meeting. This worked surprisingly well and certainly makes it easier for the Secretary to track and following compared to the volume of messages generated by an e-mail-based meeting. Modern technology can be wonderful!

The most important discussion at the December meeting was probably on **membership criteria** and **expulsion of members in arrears**. Currently, and for some time, there has been a 2-year grace period if you did not pay your yearly fees. This has caused some problems, both for members in arrears, and for the Council, so we felt a change was needed. Council decided on a pay-every-year system (simple enough: if you don't pay, you're out). As this is a constitutional issue, it will be taken up at the AGM 2006 in Bristol. A proposed amendment on this matter was accepted by the Council at a meeting in March and information on this suggestion will be sent out to our membership before the AGM. Thus you should all be well informed before your vote in August!

Another important membership issue concerns **free membership**. Until now there has been no set process for reviewing the status of free members, who cannot afford to pay the membership fees. Council decided that all current and future free members will have to reapply annually for free membership each year and include an explanation of why they need the free membership and some information on their current activities in applied ethology.

In March, we had a discussion on **who should be allowed membership in the Society**. It was agreed that undergraduates and technicians should continue to be allowed to become members and to join ISAE. A majority of Council felt that by applying for membership, they are showing genuine motivation to learn about applied ethology and contribute to the ISAE aims and goals, so they shall be welcome in our society. Both full-time undergraduate and full-time graduate students are entitled to the reduced membership fee, while technicians shall pay the full fee.

In addition to these membership issues, Council discussed topics related to **congress organisation** and the need for certain changes as congresses grow bigger. For example, the Council felt we should not be too strict on rejecting good abstracts due to lack of time and space, but instead we should continue to allow a reasonable number of posters and to give these an even higher profile. This should be considered by future congress organisers when deciding on congress venues and programming. At the March meeting, we concluded that there is a clear need for Council to continue the ongoing discussion regarding making congress organisation smoother for the local organisers. Congresses are getting too big to be handled very easily by already-busy academics on top of their regular job responsibilities!

In January, the Council met briefly over the web to discuss the Bristol congress. Due to the situation with the spread of bird flu, the local organisers what potential consequences it could have on attendance. The Council certainly did not want to cancel the congress, but decided on certain precautions instead – such as a stricter non-refund policy. However, luckily it seems the worry was unnecessary: there appears to be a good crowd going to Bristol: 265 abstracts were received for review by the month of March.

Well, that should cover the most important issues for this time. As you can see, council has been busy again, continuing to keep our Society dynamic and up-to-date!

It is not long until Council will meet again at the yearly congress, in Bristol this year. I am sure it will be a great 40th anniversary congress and I hope to see many of you there!

ISAE Council News

ISAE Editor – Dr. Vicky Sandilands

The Special Issue of papers from the 2004 (Helsinki) ISAE meeting was published in March 2006. Papers from the 2005 (Tokyo) meeting are coming in and should be ready for publication later this year.

Thank you to everyone who contributed, both with submitting manuscripts and with refereeing work.

I look forward to some exciting papers coming out of the Bristol 2006 meeting!

Membership Secretary – Dr. Moira Harris

I'm happy to be able to report that applications for ISAE membership are on the increase. Since December, we've welcomed the following 64 new members (and a couple of familiar faces, former members returning to the Society):

Gina Alvino	USA	Sarah Lambton	UK
Lucy Asher	UK	Fiona Lang	UK
Johannes Baumgartner	Austria	Daniel Laws	UK
Linda Bjorklund	Sweden	YeunShin Lee	USA
Richard Blatchford	USA	Maria Diez Leon	Canada
Sam Bremner-Harrison	USA	Akihiro Matsuura	Japan
April Burton	USA	Alexis Miller	USA
Marine Cassoret	USA	Maarit Mohaibes	Finland
Greg Cronin	Australia	Lily Murray	USA
Robert DeFranco	USA	Hirofumi Naekawa	Japan
Bertrand Deputte	France	Marianna Norring	Finland
Michelle Drissler	Canada	Keelin O'Driscoll	Ireland
Joanne Edgar	UK	Paul Petersan	USA
Gry Faerevik	Norway	Eranda Rajapaksha	USA

Gena Fagerberg	USA	Chris Reed	UK
Brianna Gaskill	USA	Alba Salvarey-Strati	USA
Katrina Gregory	Australia	Erin Schenck	USA
Vanessa Guesdon	Canada	Claudia Schmied	Austria
Elke Hartmann	UK	Catherine Schuppli	Canada
Margaret Hawkins	Australia	Kamara Scott	UK
Susan Hawkins	USA	Lauren Sellick	UK
Richard Holroyd	Australia	Yuko Shingu	Japan
Anne Lene Hovland	Norway	Lesley Smith	UK
Christopher Howerton	USA	Brandy Street	Canada
Juliana Huzzey	Canada	Collette Thogerson	USA
Andrew Janczak	Norway	Sarah Trickett	UK
Megan Jones	South Africa	David Val-Laillet	Canada
Grete Jorgensen	Norway	Aurelie van Dycke	France
Mark Kennedy	UK	Anja Wasilewski	Germany
Jenna Kiddie	UK	Deborah Wells	UK
Tarja Koistinen	Finland	Heike Schulze Westerath	Germany
Nelly Lakestani	UK	Jessica Wilson	USA

I look forward to meeting many of you at the upcoming 40th International Congress in sunny Bristol. And as always, if you have any queries about your membership, don't hesitate to contact me!

Openings on ISAE Council

Positions to be filled at the 2006 Annual General Meeting – Dr. Anna Olsson

Now is the chance for those of you who want to be more active within the ISAE! Run for a position on Council and you can have the chance to become a member with decision power!

There are 4 positions to fill this year, two of these (Junior Editor and Education Office) are particularly suitable for first-time council candidates, while some experience with councils generally may be advantageous for the positions of Ethics Committee Chairperson, and the Procedural Adviser should preferably have been a member of Council before.

Junior Editor (2006-2007) – to continue on as Senior Editor (2007-2010)

The Junior Editor assists the Senior Editor with the publication of an annual special issue of Applied Animal Behaviour Science from each congress and helps to ensure that appropriate use is made of the annual 6-page allocation in Applied Animal Behaviour Science for non-peer reviewed articles related to the ISAE.

Present officer Victoria Sandilands: vicky.sandilands@sac.ac.uk

Education Officer (06-10)

The Education Officer collates and coordinates information on teaching material for the use of members of the ISAE and responds to queries addressed to the Society regarding matters related to education in applied animal behaviour.

Present officer Toby Carter: t.carter@apu.ac.uk

Chairperson of the Ethics Committee (06-10)

The Chairperson of the Ethics Committee serves as a consultant and advisor to Council during meetings, report on the issues raised in the Ethics Committee, discuss issues raised in Council with the Ethics Committee, and report back to Council.

Present officer Chris Sherwin chris.sherwin@bristol.ac.uk

Procedural Advisor (06-10)

The Procedural Advisor serves at all meetings of Council and the annual general meeting, to ensure that these meetings are conducted according to the Constitution and guidelines of the ISAE. The Advisor is responsible for reviewing the guidelines annually and recommending any changes for consideration by the Council, and to advise on amendments to the Constitution.

Present officer Carol Petherick: carol.petherick@dpi.qld.gov.au

If you are interested in standing for one of the positions, please contact Anna Valros anna.valros@helsinki.fi (secretary) or Anna Olsson olsson@ibmc.up.pt (assistant secretary). For more information about specific positions, please contact the present officer in question.

ISAE Regional News

Canada – from Derek Haley

The 18th Nordic Symposium of the ISAE was held 18th-19th June 2006 at the University of British Columbia in Vancouver, BC, Canada. Seventy-eight people participated. A full review of this meeting is provided later in this Newsletter

Nordic – from Margit Bak Jensen

The 18th Nordic Symposium of the ISAE was held 18th-19th January 2006 at the in Espoo, Finland. Forty-three people participated. A full review of this meeting is provided later in this Newsletter.

Professor Irene Tobler of the Institute of Pharmacology University of Zurich gave the plenary talk on "The diversity of sleep manifestations among mammalian species". The remaining programme included 16 spoken presentations on topics including behaviour, health and welfare of a range of species including cattle, swine, horse, poultry, fur animals, as well as whales. Twelve of the 16 presentations were student presentations, and the Klaus Vestergaard prize for the best student presentation was awarded to Louise Holm, The Royal Veterinary and Agricultural University of Denmark for her presentation entitled 'Measuring animals' preferences by double demand curves: The importance of a food feedback in rooting materials for pigs'.

The next Nordic Symposium of the ISAE will be held in Sweden in January 2007, and this meeting will be announced in spring 2006. The frequency and form of the Nordic symposia were discussed and great support for yearly symposia was expressed. Further, it was agreed to suggest to future organizers to keep the length of Nordic Symposia to a maximum of two days.

Applied Ethology Course Review: Norway

Ontogeny of Behaviour Course, 15-19 November 2005 at the Sørmarka Conference Centre, Norway – reviewed by Matti Heikkilä

A graduate student course entitled “Ontogeny of Behaviour” was held 15-19 November 2005 at the Sørmarka Conference Centre, just outside Oslo, Norway. This course was organized by the Department of Animal and Aquacultural Sciences at the Norwegian University of Life Sciences (UMB), in collaboration with NOVA University Network. NOVA is the network of Nordic agricultural and veterinary universities. The course leader was UMB Professor Bjarne Braastad.

Course was built around four fascinating topics that were connected into each other using ethological power of deduction. Topics were presented by professors from around the world:

- 1) Dr. Per Jensen (University of Linköping, Sweden): Behavioural genetics, gene expression and ontogeny
- 2) Dr. Jerry A. Hogan (University of Toronto, Canada): The development of a behavioural system
- 3) Dr. Stefania Maccari (University of Lille, France): The effects of pre- and postnatal stress on early development
- 4) Dr. Bjarne Braastad (UMB, Norway): The impact of early stress on production animals

During the last day of the course, UMB post-doctoral researcher Andrew Janczak condensed the key messages of the course and also talked about future research possibilities on ontogeny of behaviour.

I became interested in taking his course when I first read that the aim was “to give insight into the developmental processes of behaviour, from expression of the genotype through prenatal and postnatal experience to later developmental changes.”, and what a great insight we got! First it felt a bit provocative for an ethology student to listen about different animal models used in pharmacological studies, but I soon found out that it was all in favour of the wholeness. Sometimes it's just good to have a bit wider knowledge from behavioural studies. Like Per Jensen said, it was like going “from behaviour to genes and back again”! What I found most fascinating during the course was the story about the development of a bird song described by Jerry A. Hogan.

Every morning we had a 3-hour lecture session followed by student presentations related to that day's lecture topic. Nearly half of the students were asked beforehand to prepare a short presentation of their own research topic. Afternoons were dedicated to group work, where students discussed the day's presentations and tried to answer some tricky questions raised by the course instructors. One afternoon, we had an excursion to UMB where the university's ethology group presented their research and we also toured the facilities and ethological research labs there.

The strengths of this course were definitely the experienced lecturers and the relaxed atmosphere. It was so easy to interact with the teachers both during and between the lectures (although Dr. Jensen didn't have so much time to stay there to defend his theories). Who knows

what will come out of all those discussions later in life! The only weakness I noticed was the reporting of the group-work, which was supposed to be done in a very limited amount of time, meaning that, in the beginning, we only had time to write the report instead of discussing. But that was changed, thanks to our demands, into a more social kind of feedback session.

We were treated like royalty during the course! Sørmarka Conference Centre is located in a scenic area near Oslo, way beyond all urban temptations. Every evening we enjoyed a pleasant dinner together and the tables groaned under the weight of delicious food as they did during the lunch hour (delicious, if you enjoy eating fish... ..we were in Norway after all!). One special social activity was arranged as a surprise, since they managed to show the crucial World Cup qualifying game between Norway and the Czech Republic on-screen at a cellar bar.

In total, there were 20 students (most of them were doing their PhD in ethology), representing a total of 9 countries. Most of the students came from Norway (8), but Swedish, Danish and Lithuanian universities had more than one student abroad too. Belgium, Canada, Finland, Netherlands and Northern Ireland were each represented as well.

There was quite a lot of literature to read beforehand, but it was all helpful and used mostly during the group work, where we analysed the papers and had the possibilities to criticise the methods and analyses used... I bet some of the authors had more difficulties squeaking through our comments than they had with the original reviewers. One of the group sessions was spent to analyse a few posters and trying to find the strengths and weaknesses of those.

There was no exam at the end of the course, we were graded after following the lectures and actively participating the group work. Course was organised very well and I bet Bjarne Braastad used a lot of his time to make this course as successful as it was.

Number of this kind of NOVA-supported ethology courses has decreased dramatically during the last years, but I hope this course was a sort of trend-setter and that we'd see more of these in a near future. NOVA gives some financial support for the courses to cover teachers' expenses and some of the costs of NOVA PhD-students. Priority in participation is always given to students coming from NOVA-universities and Baltic co-operating universities, but there is usually space for students coming from other universities too.

(ISAE member Matti Heikkilä is currently undertaking a PhD studying the development of perching behaviour in chicks with Dr. Anna Valros (University of Helsinki, Finland) and Dr. Stefan Gunnarsson (Swedish University of Agricultural Sciences). –Derek)

Meeting Reviews

The ISAE Newsletter welcomes reviews from all meetings of potential interest to ISAE members.

The 18th ISAE Nordic Regional Meeting – reviewed by Dr. Andy Butterworth

The 18th ISAE Nordic Regional Meeting was hosted by the Finnish Society for Applied Ethology and held in Espoo Finland on 18th and 19th January.

As the plane landed on the slick and windswept Helsinki runway I felt the icy chill of winds from Russia. The outside world was frigid (with -22°C at night) which for me, a soft creature from cloudy England was ‘serious’ cold - but the meeting was warm, and the major topic of the meeting (sleep) was somehow soothing!

The meeting was held in the Pellervo-Instituutti, a building belonging to the Finnish Agricultural Union and built in the 1950’s with lovely brick floors and a welcoming atmosphere.

The meeting kicked off with an introduction by Dr. Jaako Mononen and a plenary talk by Prof Irene Tobler of the Institute of Pharmacology University of Zurich, past president of the European Sleep Research Society. Prof Tobler’s talk started gently with a description of sleep patterns in farm and wild animals, with some (lovely) videos of elephants, giraffes and other animals showing patterns of sleep activity. Prof Tobler then expanded her talk to areas of sleep requirement (sloths sleep up to 20 hours, and some herbivores seem to be able to cope with only 4 hours a day!) and Prof Tobler probed the difficult area of why ‘sleep’ is such a deeply essential part of the life of all animals. Why do animals put themselves at risk from predation by becoming oblivious to the outside world for part of each day? And how does sleep interact with circadian rhythms. Prof Tobler gave some examples of animals whose behaviours (monkeys hanging by a ‘hand’, asleep, from a cliff face to avoid predation) or physiological adaptations (birds and cetacea, who sleep with one brain hemisphere at a time) enable them to maintain function or to avoid predation during sleep. As the snow drifted down outside, Prof Tobler’s talk informed and entertained us – and she (bravely, I thought) indicated that ‘nodding off’ during talks was (perhaps) essential behaviour for humans whose sleep patterns are shaped by the demands of work and society into forms that may not reflect the real human ‘need’ for sleep (some during the day) – we all felt we had an excuse for a quiet siesta – since Prof Tobler said that this would reflect our real sleep ‘need’!

The remaining first session included a talk by Laura Hänninen on the effect of milk feeding on calf sleep, which included some very good video clips illustrating Laura’s descriptions of ‘behavioural sleep’. She found that calves sleep overall a total of nearly 13 hours a day regardless of the feeding method, but that there were significant differences in the timing of events following bucket or teat feeding, and suckling from the dam. The last talk in this session by Lena Lidfors detailed a study on young dairy bulls housed in pens at Svensk Avel, a semen collection centre in Sweden. Time budgets for these bulls showed that they spent 24% of their time standing, 23% eating, 9% lying, 4% walking, and smaller percentages of time engaged in ‘abnormal’ behaviours – tongue rolling & bar biting (0.4%) and wall rubbing (0.06%) and that a small number of aggressive interactions - head pressing, hard pushing & butting, occurred at a low frequency in older bulls (0.06 events per animal / hour) but more commonly in younger animals (0.42 events per animal / hour) in two year old bulls.

In the after-coffee session, chaired by Louise Holm, Grete Meisfjord Jorgensen described a study on paddock size and activity levels in horses in Norway. This study had an interesting focus since recent Norwegian legislation demands a turn out period for stabled horses. Horses showed higher activity levels in bigger paddocks, and travelled longer distances in larger paddocks – partly as a result of a longer fence line along which they could eat grass! The presentation included some really nice photos of the researchers in the ‘observation loft’ and left a real impression of the time and effort required to collect the activity data. The study concluded that a daily turnout for horses was important to the animals, but that the size of the paddock was only

significant if a large paddock (2700m²) was compared with a smaller paddock (300m²) but that there was not a difference in behaviours seen in a range of small paddocks (150 m², 300 m², and 450 m²).

A study by Anneli Olarsbo and Lena Lidfors were presented by Lena, and described the use of field shelters by cattle during the winter in Sweden. The study showed that the animals spent about 12% of their time in the shelters and additionally about 6% of their time close to the shelters, and that the animals used the shelters more in wet and cold conditions rather than in cold but dry conditions, and clear walkways between the shelter and the feeding area shown to be important. Despite the presumption that 'hardy' cattle like Scottish Highland would use the shelters less, this was not shown in this study.

In a talk describing the effects of water baths and pairing on the development of stereotypies in young mink, Maarit Mohaibes first showed some very clear photos of the housing systems she used to study the mink. She described the combinations used to test the effects of water availability and social contact, and concluded that pair-housed mink developed fewer stereotypies than single housed animals but that the positive effects of water on mink behaviour were more evident when the mink were housed in pairs.

The dinner was sociable, and afterwards I took a bus ride to Helsinki in the company of a friend from Finns for the Whales Society (and missed my bus stop on the way back and walked in the blowing snow until my toes hurt) and came back to find the social (drinking) activity still going on after the sauna, and so I defrosted my feet in good company with a beer in my hand!

On the second day of the meeting, in the session chaired by Laura Hänninen, the first talk by Marianne Nielsen explored the bond between the calf and the dam. The behaviour of 43, 9-week-old calves reared in groups of four by 11 foster cows was filmed. The spatial and behavioural interactions between the calves and the foster dam were analysed from the video, and the study showed that the cows formed a stronger bond with one calf in 6 of the 11 groups studied, and with two calves in two groups, and with all (4) of the calves in 3 groups. The study concluded that, although the overall trend was toward the dam establishing a closer bond with only one calf, this was not invariable and that individual cows could show variability in bonding preference. Helena Hepola from Helsinki described the effects of restricted suckling time on the behaviour of calves around the time of weaning. Some of the calves were abruptly weaned at 5 weeks, and others had their suckling reduced from twice daily to one time daily suckling. These different approaches to weaning did not affect the lying behaviour of the animals, but abrupt weaning lead to increased vocalisation and reduced silage intake in the dam when compared to restricted suckling as a step toward weaning.

To explore the effects of mixing of calves, Gry Færevik described a study in which recently weaned calves were placed in unfamiliar groups, and Louise Holm from Denmark went on to show some great photos of her study which gave pigs the choice of carrots hidden in sand, sand alone, and carrot pieces to test the attractiveness (using double demand curves) of two resources. The study showed that the pigs showed greater motivation to use a rooting material with food feedback, to a rooting material without. Louise described an interesting study, and carrying all the buckets of sand and carrots had been great for her muscle development!

Moving on to poultry, Matti Heikkilä from the Research Centre for Animal Welfare in Helsinki explored the preference for different lighting regimes in laying hens. Birds reared under regimes of natural light, artificial light and darkness were then given a choice by connecting pens of different light regime by tunnels. He found that chicks reared in artificial light preferred artificial

light at 14 weeks of age, and suggested that chicks reared in natural light may be more adaptable to a changing light environment.

After lunch and with an introduction to the session by Gry Færevik, Andy Butterworth started the afternoon session with a review of recent Norwegian work on the effectiveness of killing methods for Minke whales in the Norwegian commercial whale hunt. He compared the data on whale behaviours and pathological findings presented in the Norwegian work with results with results from studies he had carried out in captive cetacea in the USA, and with data from Japanese whaling activities. He concluded that the behavioural and physiological data did not enable fully reliable assessment of the effectiveness (and the humaneness) of harpooning to be made.

Tiina Kauppinen from the Rurulia Institute, Helsinki, talked about a study in which Finnish dairy and pig farmers attitudes to animal welfare were assessed by interview. The study explored the moralistic and practical (utilitarian) elements of farmers views as to whether they could, or could not, improve animal welfare on their farms, and Tiina described how the study will progress to study the connection between attitudes, productivity, and changes in animal welfare.

Ulla Holma compared animal-based methods with resource based measures (ANI 35L/2001) for assessing the welfare of organic layers. This interesting study suggested that, for a full understanding of the welfare impacts of systems, it is necessary to assess both animal-based and environment-based measures together.

In the last session, chaired by Matti Heikkilä, the first speaker Andrew Janczak outlined a study in which egg corticosterone levels and faecal corticosterone metabolites were measured in laying birds, one group of which was subject to a variable feeding regime. The study did not find variation in the level of egg corticosterone between groups, but did detect raised faecal corticosterone metabolites, increased duration of tonic immobility and reduced feeding time in the treated group when compared to birds on a stable feeding regime.

Tarja Koistinen offered farmed foxes bone as a gnawing object in addition to their usual soft paste feed. The addition of bones reduced stereotypic behaviours and the removal of bones once introduced did cause an increase in stereotypies. Tarja also found that, although the foxes used the bones for gnawing, the foxes may have been frustrated by the inability to bury the bones, and that the physical space taken up by the bone in the cage may have contributed to changes in lying behaviour.

The last talk of the meeting was given by Marianne Norring who had studied the effect of concrete floor material on the development of skin, claw and nipple lesions in piglets. Marianne described the feeding and lying behaviours of the piglets and sows, and found that skin lesions were common (223 out of 230 piglets), that sand coated concrete led to a higher incidence of claw lesions, and that sows with more piglets had more nipple lesions.

I greatly enjoyed this meeting. The papers were snappy and well illustrated with good photos. The meeting was very well organised, and for me, the arctic weather outside added an element of 'winter red cheeks' that I thoroughly enjoyed. Well done to the organising committee Satu Raussi, Anna Valros, Marianne Norring, Jaako Mononen, Teppo Rekilä, Laura Hänninen, Matti Heikkilä & Hannu Korhonen.

(ISAE member Andy Butterworth is a research scientist in Clinical Veterinary Science at the University of Bristol Vet School, Langford, UK. His particular interests are the application of welfare assessments on farm, and the welfare of captive and hunted animals. –Derek)

The 8th ISAE North American Regions Meeting – reviewed by Dr. Stephanie Torrey

The 8th ISAE North American Regions Meeting was held at the beautiful University of British Columbia (UBC) campus in Vancouver on June 7-8. Drs. Dan Weary and Nina von Kyserlingk were the local organizers from UBC, and they were assisted by the organizing committee of Ray Anthony, Nancy Clarke, Anne Marie de Passillé, Derek Haley, and Jeff Rushen. Julie Huzzey and Trevor DeVries also provided great on-site assistance with registration and audio-visual equipment during the meeting.

The well-organized meeting had seventy-eight attendees, including thirty-seven students. Thirty universities and institutes were represented at the meeting, which included twenty-four oral presentations and twenty-five posters. The presentations covered a wide range of topics and animals, including livestock, pets, laboratory animals and fish. Dr. Suzanne Millman from the University of Guelph began the conference with an insightful keynote address titled “Sickness motivation and why it matters for animal care and welfare”. In conjunction with the meeting, Dr. Carla Forte Maiolino Molento from Universidade Federal do Paraná (Brazil) gave the UBC Peter Stratton Memorial Lecture entitled “Animal welfare and the control of stray dogs in Brazil”. Many informal discussions ensued at the coffee breaks and delicious dinner at the Sage Bistro on UBC campus.

All of the abstracts from this meeting are now available on the ISAE Home Page. The next North American regional meeting may be held in 2008, perhaps on the western coast of the United States.

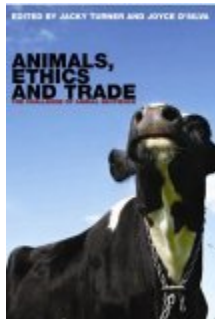
(ISAE member Stephanie Torrey is a research scientist with Agriculture and Agri-Food Canada in Lennoxville, Quebec. Dr. Torrey’s research program focuses on studying the behaviour of swine. –Derek)

ISAE Members on the Move

Kristin Hagen – embarking on applied ethics

Back to Germany, I’m now based near Bonn / Cologne, at the *Europäische Akademie* (www.europaeische-akademie-aw.de). I’m primarily working in an interdisciplinary project addressing “pharming” - a new branch of biotechnology that uses transgenic plants or animals as living “factories” to produce pharmaceuticals. My main responsibility within this are the animal welfare and animal ethics perspectives. So do get in touch if you want to discuss issues like transgenic animal health & welfare, milking rabbits, the ethics of genetic modification, or similarities & differences between “old-fashioned” (e.g. breeding, natural selection), and “modern” genetic modification! My new contact information is as follows: Europäische Akademie GmbH, Wilhelmstraße 56, 53474 Bad Neuenahr-Ahrweiler, Germany; phone: +49-(0) 26 41-973318; fax: +49-(0) 26 41-973320; email: kristin.hagen@ea-aw.de.

New reading in applied ethology



Animals, Ethics and Trade – The challenge of Animal Sentience, 2006, Jacky Turner & Joyce D'Silva (Editors), London: Earthscan Publications, 286 pages, ISBN: 184407255X, approximate price: 16 £.

In March 2005, the Compassion in World Farming (CIWF) Trust organised a large conference in London entitled “From Darwin to Dawkins: the science and implications of animal sentience”. Some of the papers given at the conference are appearing in a special issue of *Applied Animal Behaviour Science* edited by John Webster. The present book is a compilation of 24 other contributions by authors from various areas of academia, industry and organisations, framed by an introduction and conclusion by Joyce D'Silva of the CIWF Trust.

The first two sections are entitled: *Animal Sentience: Evidence and Interpretations* and *Ethics, Law and Science*. One of the main messages most of the authors in these sections seem to agree on is that farm animals are sentient, that science is not the only valid way of knowing, and that common sense and intuition (also) play important parts in the attribution of sentience and in the development of moral judgements. I personally agree, and it may be useful to have this position stated by prominent members of the scientific community. However, while some of the papers are well-written and provide some useful analysis, others are disappointingly superficial and partly pathetic in my opinion. Surely, if the point is not just to preach to the converted, a certain quality of style and argument would be desirable.

The third and fourth sections are called *Implications for Farming and Food Production* and *Animal Sentience in International Policy*. They are heterogeneous sections. While the book is of course part of CIWF's campaigning, it is not hostile or alienating; rather, the editors have chosen inclusion of pragmatic perspectives. I think this is a strength. Some of the contributors providing industry and policy perspectives are surely not in the business of campaigning for animal welfare - maybe rather in the business of giving their organisations animal welfare friendly images. They may even sound hypocritical at times - but fair enough. Dialogue is important and I'm sure there was ample discussion at the conference. I also found the inclusion of ecological and international perspectives timely and interesting.

On the negative side, some of the articles in this book are rather superficial or unstructured and will not appeal to specialists. However, I still find the volume quite well-edited because it is readable and accessible. All contributions can, I think, be read by specialists from different disciplines and by interested laypeople alike, and the broad range of topics provides a reasonably good introduction for readers interested in the larger picture of animal welfare promotion in the global reality.

Appl. Anim. Behav. Sci. news -- from Elsevier

Publisher's Note – Appointment of Dr Carol Petherick as co-Editor-in-Chief

The Publisher is delighted to welcome Dr Carol Petherick to the Journal as our new co-Editor-in-Chief of *Applied Animal Behaviour Science*.

Carol succeeds Professor Harold Gonyou, who has resigned from this position after 6 years. The Publisher would like to take this opportunity to thank Harold for the excellent service that he has given to the Journal, and for his ideas which have helped to ensure that the Journal continues to develop while maintaining its familiar high standards. In particular, Harold has taken a great interest in harmonising the editorial process between the Amsterdam and North American

offices, and in finding ways in which the judgement of the quality of a paper does not depend on the office handling it.

For those readers who do not know Carol personally, the following may be of interest.

Carol was born in England and studied at Reading University, Berkshire, England under the tutelage of Don Broom, and obtained a BSc (Hons) in Psychology/Zoology having specialised in ethology in her final year. She then worked as a research assistant on the spatial requirements of livestock at the Scottish Farm Buildings Investigation Unit, Aberdeen, Scotland and was supervised by Seaton Baxter. During that time Carol obtained an MSc, through research, from the University of Aberdeen; her thesis was entitled 'A Biological Basis for the Design of Space in Pig Housing'.

Carol obtained a scholarship from the Australian pig industry to carry out research for her PhD at the University of Queensland, Brisbane, Australia under the supervision of Judith Blackshaw. The title of her PhD thesis was 'The Agonistic Behaviour of Group Housed Sows and Grower Pigs' and the research investigated the effects of group size on the agonistic behaviour of growing pigs and methods of reducing aggression between sows in a novel group-housing system.

After obtaining her PhD, she moved back to Edinburgh, Scotland, to work with Ian Duncan on the cognition and motivation of poultry at what was then the Institute of Animal Physiology and Genetics Research and is now the Roslin Institute (of 'Dolly the sheep' fame). Much of this work investigated dust bathing behaviour by hens, and used preference testing and assessment of motivation to better understand animal feelings.

Carol returned to Queensland a little over 12 years ago, and is now an Australian citizen and married to an Australian. She has been employed during this time by the state department of agriculture (Dept Primary Industries and Fisheries), and is the only research ethologist in the Department. Her research has been mainly on beef cattle, with funding coming mostly from a Cooperative Research Centre (CRC), which involves other state departments of agriculture, CSIRO and various universities and so on for the beef cattle industry. She has particular interests in two broad areas: (1) extensive livestock production and (2) cattle sexual behaviour, especially bulls. More specifically, she is interested in the challenges to animal welfare that arise from extensive livestock production systems, how livestock cope and adapt with the dramatic changes associated with a move from extensive to intensive systems, and the role of so-called 'temperament' in that coping process. In relation to sexual behaviour, she is interested in the factors that contribute to the fertility of particular bulls e.g. mate seeking, mate choice, timing of mating, multiple matings and sperm competition, and so on. She also retains interests from her MSc, PhD and post-doctoral work, in space allowances for intensive livestock systems and transportation, and assessment of motivational states and emotions.

Much of Carol's 'spare' time is spent in the yard'; she and her husband have a house on 1 hectare of land, and in the 4 years since they moved there they have been busy landscaping and planting an estimated 500-600 shrubs and trees, mostly native species and many that are local species too. Carol comments that it is a challenge keeping them alive and growing, as rainfall tends to be confined to a short period of the year and there are high evaporation rates too, as a consequence of high temperatures. They have also been experiencing drought conditions over much of Queensland for a number of years.

Please join us in thanking Harold as he steps down from this position, and in welcoming Carol to the journal for what we hope will be an exciting and interesting appointment.

Free back issues of Applied Animal Behaviour Science

You may recall that Elsevier contacted the ISAE back at the end of February with some back issues of Applied Animal Behaviour Science it had to give away. A message was sent around to ISAE members via ISAEnet-1 and 14-Mar-06 one name was drawn from those received. The lucky winner of these free back issues was Dr. Agustin Orihuela, Universidad Autonoma del Estado de Morelos, Mexico

Legal Scene

by Dr. Bill Jackson, MRCVS DVSM DrMedVet Barrister

The Times of London, England on May 4th 2006 carried a story about powers to kill millions of birds by suffocation if an outbreak of avian flu in Britain threatened human health.

Emergency legislation was placed before Parliament during the May Day Bank Holiday, giving Margaret Beckett, the Rural Affairs Secretary, the power to order “ventilation shutdown” at chicken farms. This would remove oxygen flow from the chicken house.

Birds could take up to a day to die, depending on their age, size and the time of the year. Death would be caused by a combination of overheating, bird flu and lack of oxygen.

The Department for Environment, Food and Rural Affairs (Defra) confirmed on 3rd of May 2006 that an amendment to the Welfare of Animals (Slaughter or Killing) Regulations 1995 gave the authority for such a cull. A spokesman said that it was “not the method of choice” and would be used only if state vets had no other means to remove infected birds quickly.

In an epidemic however, and if human infection were a possibility, Defra fears that some poultry workers may decline to help in the usual methods of culling – rounding up birds by hand, stunning them and humanely gassing them in a mobile chamber.

The Times has learnt, however that approving death by suffocation during an epidemic may be an attempt to win approval for the gassing of entire chicken houses during a virulent avian flu outbreak. State vets and industry chiefs believe that gassing flocks would be the quickest and most humane form of slaughter if the deadly virus took hold.

Welfare organisations are outraged and say the new powers were in breach of standards laid down by the World Organisation for Animal Health, based in Paris, France.

For more information, contact Bill Jackson at member@sanctuarystreet.wanadoo.co.uk.

ISAE Members-only Discussion Forum

The following topics are currently listed on the our web-based members-only discussion forum:

- Automated recording of behaviour and posture changes
- Effects of tethering on the welfare of dogs
- Behaviour indicators of welfare in dogs
- Studies measuring the effect of castration on testosterone levels
- Measuring attention in animals

To view these discussions visit <http://www.voy.com/167578/>. The URL is also on the ISAE Home Page under “members only”. The password to access the site changed 19-Nov-05 and will change again, shortly after the Bristol Congress. The ISAE password is always sent to members via ISAEnet-l, however it can also be obtained by contacting the ISAE Communications Officer.

Online Membership Renewal

Membership fees are due paid by 1 June, each year. In 2004 we established online membership renewal for current ISAE members: <https://secure.bucks.net/rfb/isae/onlinereg.asp>. You do require your membership ID number to use this system.

Employment Opportunities

Employment opportunities related to applied ethology that are brought to the attention of the Communications Officer, are posted to the ISAE Home Page. Below is a sample of positions currently available. Please check the ISAE Home Page for further details and for application deadlines: <http://www.applied-ethology.org/employment.htm>.

The Eco-Etho Research & Education Centre, La Combe, Drome, France, is **now able to take and supervise graduate and undergraduate students** for their projects in ethology of large mammals. We currently have projects on cattle cognition and decision taking, horse concept learning, African elephants social life & cognition. Improving teaching of mammals, including dogs. We have field studies to do on wild boar, roe deer, chamois and red squirrels who are resident on the centres nature reserve and farm. **Contact Dr. M.Kiley-Worthington by e-mail at eco-ferme.mkw@wanadoo.fr**. Also visit the website at <http://www.eco-etho-recherche.com/>.

Other employment opportunities available:

Position	Location	Contact
Professor in Poultry Science / Ethology	Nova Scotia Agricultural College, Truro, NS, Canada	Tarjei Tennesson ttennessen@nsac.ns.ca

Professor in Ethology	Swedish University of Agricultural Sciences	Stefan Gunnarsson stefan.gunnarsson@hmh.slu.se
Faculty Position Animal Behavior and Welfare	University of Maryland College Park, MD, USA	Inma Estevez iestevez@umd.edu
MSc or PhD Studentship Behaviour of pigs	Prairie Swine Centre Saskatoon, SK, Canada	Harold Gonyou gonyou@sask.usask.ca
Software & Instrumentation Sales Engineer Neuroscience & Zoology	Noldus Information Technology, USA	Bart Van Roekel bart@noldus.com

ISAE Congress bids for 2010-2012

Invitation to Submit an ISAE Congress Bid for 2010-2012

We are scheduled to hold upcoming international congresses in Bristol, UK (2006), Merida, Mexico (2007), Dublin, Eire (2008) and Australia (2009). The ISAE Council is now seeking bids to host the 2010-2012 ISAE International Congresses. This is an opportunity to raise the international profile of applied ethology activities in your region. If you are interested in submitting a bid, please contact Ruth Newberry, ISAE Senior Vice-President, at rnewberry@wsu.edu for further information.

Future meetings

ISAE Meetings

- **40th International Congress**
August 8-12, 2006 in Bristol, **UK**
- 19th Nordic Regional Meeting
January 2007 in **Sweden**
- **41st International Congress in Mexico**
Tentative dates to fall during the week of 29-Jul-07
- **42nd International Congress in Dublin, Ireland**
Dates to be announced, 2008
- **43rd International Congress in Australia**
Dates to be announced, 2009

Other meetings of potential interest can be found on the Applied Ethology Home Page:
<http://www.usask.ca/wcvm/herdmed/applied-ethology/meetings.htm>

Other Meetings

2006

- **American Society of Animal Science / American Dairy Science Association** – Joint meeting
July 9-13, 2006 in Minneapolis, MN, **USA**
- **American College of Veterinary Behaviorists / Amer. Veterinary Soc. for Animal Behaviour** – (Joint) annual meeting
July 16-17, 2006 in Honolulu, HI, **USA**
- **Poultry Science Association** – Annual meeting
July 16-19, 2006 in Edmonton, AB, **Canada**
- **International Society for Behavioral Ecology** – 11th International Congress
July 23-28, 2006 in Tours, **France**
- **International Society for Applied Ethology** – 39th International Congress
August 8-12, 2006 in Bristol, **UK**
- **Animal Behavior Society** – Annual meeting
August 12-16, 2006 in Snowbird, UT, **USA**
- **European Conference on Behavioural Biology** – Mechanisms in behavioural ecology
September 4-6, 2006 in Belfast, **UK**
- **American Academy of Pain Management** – 17th Annual meeting
September 7-10, 2006 in Lake Buena Vista, FL, **USA**
- **International Academy of Veterinary Pain Management** – Annual meeting
September 13-15, 2006 in Santos, SP, **Brazil**
- **Quality of Life: The Heart of the Matter** – A UFAW & British Veterinary Association
Ethics Committee Symposium
September 13-15, 2006 in London, **UK**
- **International Equitation Science Symposium** – 2nd meeting
September 19-20, 2006 in Lodi, **Italy**
- **European Society of Veterinary Clinical Ethology**
September 22, 2006 in Ghent, **Belgium**
- **EU workshop on welfare standards concerning the stunning and killing of animals**
September 26-29, 2006 in Bristol, **UK**

- **International Society for Anthrozoology**
October 5-6, 2006 in Barcelona, **Spain**
- **International Congress on Concepts in Animal Welfare – Theory, Teaching, Practice**
October 16-18, 2006 in Rio de Janeiro, **Brazil**
- **Lameness in Ruminants** – 14th International Conference
November 8-11, 2006 in Colonia, **Uruguay**
- **German Veterinary Society – International Congress on Applied Ethology** – 38th
November 23-25, 2006 in Freiburg, **Germany** – **MORE DETAILS BELOW!**
- **ASAB Winter Meeting: Behaviour into Welfare**
November 30 to December 1, 2006 in London, **UK** – **MORE DETAILS BELOW!**

2007

- **XXX International Ethology Conference**
August 15-23, 2007 in Halifax, NS, **Canada**

-
- **German Veterinary Society – International Congress on Applied Ethology** – 38th
November 23-25, 2006 in Freiburg, **Germany** – **MORE DETAILS BELOW!**

The programme of the 2006 meeting will include sessions on the following topics:

- 1) POSITIVE EMOTIONS
- 2) HORSES; SHEEP; GOATS
- 3) ONTOGENESIS AND LEARNING
- 4) FREE PAPERS

Preferred are innovative contributions on the behaviour of domestic/captive animals and animal husbandry. There will be a brief meeting of the ISAE-Regional-Group West Central Europe at the congress.

The congress committee will select approx. 25 contributions based on the information provided in the abstracts. Studies that have already been published will not be considered. Authors will be informed about acceptance or rejection of their offers in June 2006, along with a provisional programme and information about registration. There is no congress fee for those giving an oral presentation. For other participants the congress fee (including proceedings) will be about Euro 120 (for students Euro 35). Following the congress, all accepted contributions will be published (approx. 10 pages for each oral presentation, abstracts of posters, in German or English) in a conference report by KTBL/DVG, Darmstadt, Germany.

For further information please contact Dr. U. Pollmann
 Fax: ++49-761-1502-299
 e-mail: Ursula.Pollmann@cvuafr.bwl.de

· **ASAB Winter Meeting: Behaviour into Welfare**

November 30 to December 1, 2006 in London, UK

**Association for the Study of Animal Behaviour (ASAB) Winter Meeting Thursday Nov 30th
– Friday Dec 1st 2006**

Institute of Zoology meeting rooms, Regent's Park, London.

Behaviour into Welfare

Organisers: Victoria Braithwaite (Edinburgh University) & Rick D'Eath (Scottish Agricultural College)

The ASAB Winter 2006 meeting focuses on animal welfare and the role that behaviour plays within this research field. The welfare of animals kept for farming, in zoos or laboratories and as companions can be a cause for public concern. The behaviour of captive animals can give insights into their attempts to cope with their environment, in particular where environmental challenge goes beyond what the animal has evolved to cope with, or where the environment does not provide adequately for normal motivated behaviour.

The meeting will address four main themes:

I. Genes, the environment and welfare

Captive animals often have a different genetic make up and/or different developmental experience from their wild counterparts, each of which can have important positive or negative affects on their welfare in later life.

Invited Speaker: Hanno Würbel, University of Giessen, Germany

- Effects of the early environment on development and welfare
- Effects of genotype on behaviour and welfare

II. Emotional state and welfare

Animal mental states lie at the heart of what we mean by welfare, but cannot be directly measured. Motivational measures and methods which make use of the interaction between cognition and emotion can give us useful insights into welfare.

Invited Speaker: Liz Paul, University of Bristol, UK

- Assessing mental states
- Motivation

III. Assessment of welfare

Welfare assessment takes place in a research setting but also in 'the field' for example when inspectors visit farms or labs. Behaviour used correctly can be an important measure of welfare, either in its own right or in combination with physiological measures.

Invited Speaker: Marian Dawkins University of Oxford, UK

- Integrating behaviour and other welfare measures
- Pain and welfare

IV. Ethics of animal use

Science, including the behavioural sciences, can inform the animal welfare debate (for example by providing objective comparisons of different housing conditions). Ultimately, though, a variety of ethical concerns are at the heart of wider societal concerns over animal welfare. Scientists engaged in behaviour and welfare science are affected by and involved in this wider debate.

Invited Speaker: David Fraser, UBC Canada

- Are invasive measures of welfare justified?
- Behaviour & welfare of GM animals

ISAE Council for 2005-2006

President	Marek Spinka	Research Institute of Animal Production CZ-104 00, Prague Uhrineves, Czech Republic Tel: (420) 2 6771 0713 Fax: (420) 2 6771 0779 E-mail: spinka@vuzv.cz
Senior Vice-President	Ruth Newberry	Washington State University Box 646520 - Pullman, WA 99164-6520, USA Tel: (1) 509 335 4650 Fax (1) 509 335 4246 E-mail: rnewberry@wsu.edu
Junior Vice-President	Janice Swanson	Dept. An. Sci & Industry, Kansas State University 232 A Weber Hall, Manhattan, KS, USA Tel: (785) 532-1244 Fax: (785) 532-2461 E-mail: jswanson@ksu.edu
Secretary	Anna Valros	Dept. Clinical Veterinary Sci., University of Helsinki, P.O.Box. 57, Helsinki, Finland, 00014 Tel: +358-9-19149571 Fax: +358-9-19149670 E-mail: anna.valros@helsinki.fi
Assistant Secretary	Anna Olsson	Institute for Molecular and Cell Biology Rua Campo Alegre 823, 4150-180 Porto, Portugal Tel: (351) 22 607 4900 Fax: (351) 22 609 9157 E-mail: olsson@ibmc.up.pt
Membership Secretary	Moira Harris	Behaviour & Welfare Group, Clinical Veterinary Sci. Langford House, Langford, Bristol BS40 5DU, UK Tel: (44) 117 928 9404 Fax: (44) 117 928 9582 E-mail: moira.harris@bristol.ac.uk
Treasurer	Debbie Goodwin	University of Southampton, School of Psychology Southampton, SO17 1BG, UK Tel: (44) 2380 597272 Fax: (44) 2380 597306 E-mail: d.goodwin@soton.ac.uk
Communications Officer	Derek Haley	Alberta Agriculture Food and Rural Development 4920-51 Street, Red Deer, AB, T4N 6K8, Canada Tel: (1) 403 340 5524 Fax: (1) 403 340 4896 E-mail: derek.haley@gov.ab.ca
Editor	Vicky Sandilands	Avian Science Research Centre, Scottish Agricultural College, Ayr, Ayrshire, KA6 5HW, Scotland, Tel: +44 (0)1292 525421 Fax: +44 (0)1292 525098 E-mail: vicky.sandilands@sac.ac.uk
Legal Advisor	Bill Jackson	19 Raven's Croft, Eastbourne East Sussex BN20 7HX, UK Tel & Fax: (44) 1323 733589 E-mail: member@sanctuarystreet.wanadoo.co.uk
Ordinary Members	Anne Marie de Passillé	Agriculture and Agri-Food Canada P.O. Box 1000, Route #7 Hwy Agassiz, V0M 1A0 Tel: (1) 604 796 2221 Ext. 321 Fax: (1) 604 796 0359 E-mail: depassilleam@agr.gc.ca

Ordinary Members	Joe Garner	Purdue University, Animal Sciences, 125 South Russell Street, West Lafayette, IN 47907, USA Tel: (1) 765 494 1780 Fax: (1) 765 494 9347 E-mail: jgarner@purdue.edu
	Kristin Hagen	Veterinary University in Vienna Current address: PB 1040, 9580 Bergsfjord, Norway Tel: +47 78453170 Fax: 47 78453145 E-mail: kristin.hagen@vu-wien.ac.at
	Bjorn Forkman	Royal Veterinary & Agricultural University, Frederiksberg C, DK-1870, Denmark Tel: 46 3528 3581 Fax: 46 3528 3022 E-mail: bjf@kvl.dk
Auditor	Mark Rutter	Inst. of Grassland & Environ. Research North Wyke, Okehampton, EX20 2SB, Devon, UK Tel: +44(0) 1837 883500 Fax: +44(0) 1837 82139 E-mail: mark.rutter@bbsrc.ac.uk
Procedural Advisor	Carol Petherick	Dept. of Primary Industries and Fisheries, Box 6014, CQMC, N. Rockhampton, Qld 4702, Australia Tel. +61 (0)7 4936 0331 Fax +61 (0)7 4936 0390 E-mail: carol.petherick@dpi.qld.gov.au
Education Officer	Toby Carter	Anglia Polytechnic University East Road, Cambridge CB1 1PT, UK Tel: (44) 1223 363271 Ext. 2777, Fax: (44) 1223 417712 E-mail: t.carter@apu.ac.uk
Ethics Committee Chair	Chris Sherwin	Behaviour & Welfare Group, Clinical Veterinary Sci. Langford House, Langford, Bristol BS40 5DU, UK Tel: (0117) 928 9486 Fax: (0117) 928 9582 E-mail: chris.sherwin@bristol.ac.uk

ISAE Regional Secretaries for 2005-2006

Australia & Africa	Lindsay Matthews	Ruakura Agricultural Centre Private Bag, Hamilton, New Zealand Tel: (64) 7 838 5569 Fax: (64) 7 838 5727 E-mail: lindsay.matthews@agresearch.co.nz
Benelux	Ingrid de Jong	Animal Sciences Group of Wageningen Box 65, 8200 AB, Lelystad, The Netherlands. Tel: (31) 320 238192 Fax: (31) 320 238094 E-mail: ingrid.dejong@wur.nl
Canada	Derek Haley	Alberta Agriculture Food and Rural Development 4920-51 Street, Red Deer, AB, T4N 6K8, Canada Tel: (1) 403 340 5524 Fax: (1) 403 340 4896 E-mail: derek.haley@gov.ab.ca
East Asia	Seiji Kondo	Graduate School of Agriculture, Hokkaido University Sapporo 060-8589, Japan Tel: (81) 11 706 2545 Fax: (81) 11 706 2550 E-mail: skon@anim.agr.hokudai.ac.jp
East Central Europe	Gudrun Illman	Research Institute of Animal Production CZ-104 00, Prague Uhrineves, Czech Republic Tel: (420) 2 67 009 657 Fax: (420) 2 6771 0779 E-mail: illmannova@vuzv.cz
Latin America	Francisco Galindo	Universidad Nacional Autónoma de México, Ciudad Universitaria, 04510, México, D.F. México Tel: (52) 5 6225941 Fax: (52) 5 6162342 E-mail: galindof@servidor.unam.mx
Mediterranean & Other	Elisabetta Canali	Instituto di Zootechnica Veterinaria Via Celoria 10, 20133 Milano, Italy Tel: (39) 02 5031 8027 Fax: (39) 2 7060 2227 E-mail: elisabetta.canali@unimi.it
Nordic	Margit Bak Jensen	Research Centre Foulum PO Box 50, DK-8830 Tjele, Denmark. Tel: (45) 8999 13725 Fax: (45) 8999 1500 E-mail: margitbak.jensen@agrsci.dk
UK / Ireland	Charlotte Nevison	Anglia Polytechnic University East Road, Cambridge CB1 1PT, UK Tel: (44) 1223 363271 Ext. 2281, Fax: (44) 1223 417712 E-mail: cnevison@apu.ac.uk
USA	Inma Estevez	Animal & Avian Sciences, University of Maryland College Park, Maryland, USA 20742-2311 Tel: (1) 301 405 5779 Fax: (1) 301 314 9059 E-mail: iestevez@umd.edu
West Central Europe	Lars Schrader	Federal Agricultural Research Centre Doernbergstrasse 25-27, 29223 Celle, Germany Tel: +49-(0)5141-3846101 Fax: +49-(0)5141-3846117 E-mail: lars.schrader@fal.de