

Contents:

ISAE News	2
Other News	7
Letter.....	7
Articles	10
Meetings	13

Good Signs from Regional Meetings

This will be my last article in the ISAE newsletter as the society's President. Jan Ladewig, as Junior Vice-President, has been nominated to serve as President next year. I have enjoyed serving in that capacity for the past two years, but am looking forward to the role of Senior Vice-President. It has been a pleasure to work with the members of the ISAE Council as it has addressed the society's business.

This past December I was able to attend two regional meetings of the ISAE, in London and Lillehammer. These meetings demonstrated two points which I believe are crucial to our continued success as a scientific society. The UK/Ireland region met jointly with the Association for the Study of Animal Behaviour. For applied ethology to make significant contributions in the future, we need to strive for quality in our research, its theoretical basis and application. Interaction with other related societies will foster that quality. We also need to meet with colleagues from nearby institutions to share results and ideas, and develop collaborative programs. Our members from the Nordic region have demonstrated those benefits.

One of the most demanding positions on Council is that of Secretary. This position involves much of the organizational work of the Society as well as the publication of this newsletter. We appreciate the contribution of Mike Appleby who has served so well in this position during the last four years. He has indicated that he will be stepping down this year in order to devote more attention to his other responsibilities.

I am looking forward to the meeting in Exeter and the fine program which has been organized. I hope to see you there.

Harold Gonyou
ISAE President



ISAE Officials

President:	Harold Gonyou
Senior Vice-President:	Herman Wierenga
Junior Vice-President:	Jan Ladewig
Secretary:	Mike Appleby
Assistant Secretary:	Henrik Simonsen
Membership Secretary:	Mark Rutter
Treasurer:	Mike Mendl
Editor:	Jeff Rushen
Legal Assessor:	Bill Jackson
Council members:	Joy Mench (92-95) Ruth Newberry (92-95) Elisabetta Canali (93-96) Marek Špinka (93-96) Paul Hemsworth (94-97) Pierre Le Neindre (94-97)

At the 1995 AGM, Herman Wierenga is due to stand down as SVP, Harold Gonyou will replace him and Jan Ladewig will become President. Mike Appleby, Joy Mench and Ruth Newberry will also be standing down, while all other members of Council are eligible and willing to continue. Following its last meeting, Council approached four people (two men and two women) to ask if they would stand as JVP but three of these declined. Council is therefore considering the following for nomination, although the number of nominees for Council members will depend on elections of other officers.

Junior Vice-President:	Pierre Le Neindre (France)
Secretary:	Linda Keeling (Sweden)
Communications Officer:	John Eddison (UK)
Council Members:	James Serpell (US) Inma Estevez (Spain) Bjarne Braastad (Norway) Francien de Jonge (Netherlands)

Other nominations are invited; they should be sent to the Secretary (address on page 12) after obtaining the agreement of the nominee.

Regional Secretaries

Australasia/Africa:	Lindsay Matthews
Benelux:	Harry Blokhuis
Canada:	Leah Braithwaite
East Central Europe:	Marek Špinka
Mediterranea:	Marina Verga
Orient:	Shusuke Sato
Scandinavia:	Heli Castrén
South America:	(Acting RS) Adroaldo Zanella
UK/Ireland:	Libby Hunter
US:	Janice Swanson
West Central Europe:	Doris Buchenauer

ISAE news

Where are we headed on the Internet?

If you were to gauge the level of success for the Applied-Ethology network by the number of subscribers, than you would have to say that it is a huge success. Since the network was put in place (November, 1993), the list has grown to over 300 individuals. An all-time record of 65 new subscribers was added to the list in September 1994. Not every individual stays on the network, but the growth in numbers far exceeds the occasional drop-outs. Considering that the ISAE membership has exceeded the 500 mark, it is reasonable to assume that the network will see continued growth for some time.

There are some major benefits from having a large number of users on the network. More users translates into more messages and more information exchanged. A greater number of individuals can be reached and expected to respond to conference announcements, job advertisements or requests for information. As a result the network becomes more useful. The increased traffic does not increase costs, since signing on and receiving messages is free for nearly everyone associated with a university, institute or organization that offers email privileges. This is not always true for individuals who arrange communication services with private companies. A few of our subscribers must pay for email services through a phone charge or pay a fee to their carrier for every message accepted. In addition, some networks see so much traffic that users become discouraged by the high volume. So far this has not been the situation on the A-E network. Until this month, we have averaged less than 50 messages a month.

My own personal expectations, early on, were that the network would also serve as a forum for discussion and dialogue among applied ethologists in an informal setting. As a recent PhD graduate I hoped to listen to and participate in discussions with senior ethologists as they formulated and expanded on their thoughts. I wanted something beyond what one could read in journals. I envisioned a setting similar to a faculty club, complete with beer, peanuts, and an easy chair, where the patrons drop their hats (and titles) at the door and the ideas flow and philosophies are expressed. I was hoping to learn by simply being in the 'presence' of leading ethologists. To a large extent this has happened and I thank frequent contributors like Jeff Rushen, Mike

Appleby and others for their ease in communicating their thoughts. However, as the number of subscribers grows my visual image switches to a crowded conference room where remarks are guarded, words are carefully chosen and all eyes and attention are focused on the person speaking.

Conversation on the internet can be, and often is, inhibited for most users. Results from a survey on other internet groups has shown that women are less likely to post messages on networks than men, even when the numbers are corrected by the sex ratio of users. You will have to dig into your cultural anthropology and sociobiology books to explain that result. However, as a medium for communication, the internet is a poor substitute for a dialogue in person. A study on human communication indicates that only 7% of the information we communicate comes from the words we choose. The internet provides us with only the written word and there is no chance for body language, eye contact, hand gestures, voice tone, inflection or emphasis that we humans normally rely upon during conversations. Still, I find the A-E network useful and interesting and I look forward to each day's messages. I enjoy the immediate exchange of information, announcements and inquiries.

Perhaps the real benefits of electronic communication are still on the horizon. I can foresee the day when the ISAE might publish an electronic journal complete with interactive buttons to play video clips or auditory signals that enhance the presentation of the behaviour and the results being reported. I don't just want to read about Fraser, Braithwaite and Weary's swine vocalizations; I want to hear them too! The negative attributes of electronic publishing (and there are several) are topics for another day. Until then, don't be bashful and keep using the A-E network. If you want to be added to the list just send me a message at:

stookey@sask.usask.ca

Joe Stookey

ISAE Membership.

Changes to UK phone numbers

On 16th April 1995 there will be some major changes affecting nearly all UK phone and fax numbers. UK national dialling codes will change to include a '1' after the initial '0', for example: London 071 will become 0171, Edinburgh 031 will become 0131, Okehampton 0837 will become 01837. The exception to this is in five UK cities: Bristol (0117 9), Leeds (0113 2), Leicester (0116 2), Nottingham (0115 9) and Sheffield (0114 2). UK members

should also note that the code to dial abroad from the UK will change from 010 to 00.

UK Phone and Fax numbers given in the new ISAE Membership directory include these changes.

New Members

Miss Siobhan Abeyesinghe, UK
 Prof. Luis Arias-de-Reyna, Spain
 Dr Alain Boissy, France
 Leah Braithwaite, Canada
 Dr Beate Buenger, Germany
 Dr Kathy Carlstead, USA
 Miss Stine Christiansen, UK
 Dr Margaret Clarke, USA
 Miss Justine Clegg, UK
 Dr Silvana Diverio, Italy
 Miss Jane Duggan, UK
 Hans Erhard, UK
 Prof. J. Michael Forbes, UK
 Riitta Haapasalo-Oivo, Finland
 Miss Jane Henderson, UK
 Ms Joanne Hetherington, UK
 Prof. Jiri Hrouz, Czech Republic
 Dr Larry Katz, USA
 Miss Rebecca Anne Ledger, UK
 Mr Sebastian McBride, UK
 Dr Cecilie Marie Mejdell, Norway
 Christoph Menke, Switzerland
 Dr Aaron Moore, USA
 Dr Nippo Murn, USA
 Dr Lawrence J. Myers, USA
 Ms Marion Peters, Germany
 Andre A. Ramos, France
 Dr Richard C. Rhodes III, USA
 Dr Peter Sandøe, Denmark
 Abdon L. Schmitt, USA
 Prof. Dr Teunis Schuurman, The Netherlands
 Yoshihiro Shuji, Japan
 Mr Hans Spoolder, UK
 Mr Paul Townsend, UK
 Karthikeyan Vasudevan, UK
 Dr Isabelle Veissier, France
 Dr Curt Walker, USA
 Miss Lin Wylie, UK
 Dr Frank Zerbe, Germany

There have been no resignations since the last newsletter.

E-mail address change

Please note that my email address is now:
 isae.membership@bbsrc.ac.uk
 and you can no longer use the old form of:
 isae.membership@afrc.ac.uk

Mark Rutter

Update on Regions

In view of the increasing importance of Regional activity in our society, it was agreed at the last Council meeting that instead of individual requests from Regions all having to be discussed by Council, Regional funds should be made available both for starting up and running costs. So now each Region has a start-up fund of £200 available on request. The money can be used to buy stamps to communicate with members in the Region, as a help to organize local meetings or similar purposes. In subsequent years the money automatically available will be £50 per year, plus an additional sum dependent on membership of the Region:

Members	Sum
35 - 49	£ 25
50 - 74	£ 50
75 - 124	£ 75
125 - 199	£ 100
>200	£ 150

These are not rigid ceilings: extra money may be made available for important regional activities, but this would require further consideration.

Initiatives for local activity can, of course, come from members as well as Regional Secretaries!

We are pleased to announce that we are trying to establish a new Region in South America with the help of Adroaldo Zanella, who is returning from Germany to Brazil this year. Adroaldo will serve as an 'Acting Regional Secretary' with the aims of encouraging applied ethologists in that region to join the society and organizing the election within the region of a Regional Secretary in due course.

Jan Ladewig and Mike Mendl

Help with English

The ISAE has developed a scheme for assisting members for whom English is not their first language, with preparation of manuscripts for publication in English language journals. We have had an excellent response from ISAE members offering to help - although more offers would be welcome - so we are now able to take requests from authors who would like to improve the English of their scientific articles. A list of helpers and their research interests is held by Lindsay Matthews, Animal Behaviour and Welfare Research Centre, AgResearch Ruakura, Private Bag 3123, Hamilton, New Zealand. Tel [64] 7 838 5569, Fax [64] 838

5727, Email matthewsl@agresearch.cri.nz. Please send any requests for assistance to me giving:

Paper title

Authors

Contact address (including fax and email if possible)

Key words

Journal to which the article will be submitted.

Do not send the manuscript. In return, you will receive the name of one helper. We have indicated to helpers that they should expect to be acknowledged in papers, but not to be an author.

We look forward to hearing from you.

Lindsay Matthews

Motivated in London

For those questioning their motivation, London was the place to be just before Christmas. Two meetings on the subject of motivation were organized. The first was an ASAB workshop ably organized by Georgia Mason and the second was an ASAB/ISAE joint winter meeting equally well organized by Fred Toates and Alistair Lawrence. Unfortunately Alistair was ill and didn't make it to see the fruits of his labour, but can rest assured that Fred handled the occasion well. At the 1994 International Ethology Conference in Spain the session on motivation was combined with that of decision-making and cognition and still only contained 4 papers. Few ethologists attending the IEC to get an update on what's hot and what's not in ethology would have got the impression that the topic of motivation was even warm. The two meetings in London may prove them wrong.

The ASAB workshop was called 'Motivation in the 90s: Motivational Models and the Behaviour of Captive Animals'.

Certainly the idea of having the meeting in a pub facilitated the eating and drinking part of the day and the proximity of an excellent Italian restaurant facilitated discussions late into the evening. It was attended by 28 people from Europe and North America whose interests fell within the areas of pure ethology, applied ethology and psychology. The workshop began with a section on the development of motivational systems and talks by Jerry Hogan and Klaus Vestergaard. This put the day into context by examining how rearing environment affects the properties of motivational systems. The rest of the day was spent considering hypotheses to explain two aspects of the motivational control of animal behaviour. The first was on behavioural needs and the motivational significance of performing behaviour. Here there were talks by Ian Duncan and

Fred Toates. The second part was the control of feeding, drinking and foraging - a comparative approach. Here duos presented talks, namely Ann Marie de Passillé and Jeff Rushen who talked on mammals and Harry Blokhuis and John Savory who talked about this in birds.

This may sound like a light programme - not many talks - but don't be fooled, our work started even before the meeting. In a move that was smart because it provides a useful source of information even now, but at the time had the effect of putting pressure on people to be informed and so elevate the level of the discussion, Georgia provided us all with a book of abstracts of who had done what relevant to motivation. Everybody was asked to send in abstracts of relevant papers before the meeting. Self promotion was allowed and since the people attending included most of the key people in the area, the book of abstracts included most of the key research. Georgia was perhaps over ambitious in how much pre-workshop work she expected from her participants but nobody was willing to admit they hadn't gone through the book beforehand. She also put considerable thought and effort into how best to organize the brain-storming after each session. People were split into groups and each group had a specific set of questions to discuss. Often insufficient time is set aside for discussion in meetings like this, however, these sessions were not only given time, but were strategically placed before lunch and coffee breaks to give more effective discussion time. Each group had a leader for the discussion and a rapporteur who was expected to organize the main ideas and opinions from the brain-storming into a form that could be presented to the others.

Getting a group of people together with such diverse backgrounds of course led to the inevitable discussions about terminology and definitions, but the big advantage of a meeting like this is the opportunity to discuss ideas. The opportunity to have new neurones firing over old problems and the chance to get help to develop an idea by having to defend it against constructive criticism are some of the few real thrills of research. Irrespective of background or opinion at the start of the meeting, I am sure quite a few researchers were jotting down good ideas for future work on their homeward journeys.

People always complain that a meeting is too short. Those attending the workshop would be no exception, but at least most of us had the opportunity to continue to discuss motivation in another meeting. The theme for the joint ASAB/ISAE meeting was Motivation, Cognition and Applied Aspects. The winter meetings of ASAB and

ISAE (perhaps with the now more politically correct name of the UK/Ireland regional meeting) are not usually joint but if this meeting is anything to go by it is to the benefit of both societies. The auditorium was well-filled and there were some traffic jams around the coffee at break time, so a wild guess might be that there were over 200 people attending. However, this meeting is traditionally held at London zoo and one of the nicer aspects of this is that all the participants can go into the zoo in the free time; for a walk, lunch, or a frantic shopping spree in the zoo gift shop. Then at the end of the first day people scattered with their various groups to shops, restaurants and night-clubs to buy, bargain or boogie the night away. Judging by some faces, this might be a good time to thank the organisers for the civilised 10:30 start the next day. For those unused to the big city lights and apt to overestimate their stamina, such kindnesses by organisers are remembered and appreciated.

The programme was circulated with the last newsletter. This didn't tell you, though that Anthony Dickinson's talk on 'Purpose, intentionality, learning and motivation' was actually on Snoopy and his (that is Anthony's) experiences with water melons in Spain. Georgia Mason was the first speaker on the second day and gave a summary of the motivation workshop, for those who didn't attend. There were discussion sessions led by Fred Toates with the apt titles of 'Where have we got so far?' and 'Where do we go from here?' Much speculation seemed to be on whether there was, or ever would be, a general theory of motivation. Final reflections on the conference should have been left to Alistair Lawrence but were instead presented by Bill Timberlake. Bill had already had experience of being an Alistair stand-in during the workshop, but the reflections on the meeting were distinctly his own.

In addition to the papers, there were some memorable moments from this meeting. The Master of Ceremonies (and slide operator) with his sergeant major voice made sure all sessions started on time, even if the chairpersons did not manage to make them end on time. And the display of books in the foyer, associated with free wine at the end of each day, provided a place to gather and facilitated the social atmosphere.

Three days on the topic of motivation makes it tempting to believe that perhaps this subject is making its well deserved return to popularity. I hope so. Many thanks once again to Georgia Mason, Fred Toates and Alistair Lawrence for helping us all 'get motivated'.

Linda Keeling

Nordic Winter Meeting

The 7th Nordic ISAE Meeting was held in December 1994 at Nordseter, a mountain resort 14 km from Lillehammer, Norway, arranged by Knut Bøe, Bjarne Braastad and Morten Bakken of the Agricultural University of Norway. Nordseter was chosen to ensure enough snow so that participants could combine scientific discussions with cross-country skiing in the terrain used for the 1994 Winter Olympic games.

The meeting attracted 20 members from Denmark, Sweden, Finland, Norway, as well as Canada, Spain and Portugal, the latter being guest scientists and students working in Skara, Sweden. Several persons could not come for various reasons so the Nordic group seems to remain around 25 active scientists. The relatively small number contributed to a relaxed atmosphere both during the programme and at the social gatherings.

ISAE President Harold Gonyou attended the meeting and gave an invited lecture on 'Behavioural strategies in farm animals and their implications for housing, management and welfare'. This was also the main theme of the meeting, although few addressed it directly. Thirteen spoken papers were given (see below), with discussion after each presentation. There was particularly vivid discussion on methodology and interpretation!

An excursion to several Olympic sites in Lillehammer, including the top of the largest jumping hill, was held during one afternoon. Several participants had the experience of a lifetime in the alpine ski-simulator. The informal banquet was held in the evening of the same day with excellent food in a small hotel. During the final evaluation of the meeting it was decided that future Nordic ISAE meetings should include a workshop on a selected and prepared theme with plenty of time for discussion. Exploratory behaviour was suggested as a theme for the next meeting which will be held in Uppsala, Sweden.

Vivi Pedersen and Bjarne Braastad

Titles of papers:

Behaviour problems in dogs. Vestergaard

Dustbathing behaviour in featherless chicks - a case of central motivational regulation. Damm & Vestergaard

Effects of age and repeated testing on open-field activity during early development of behaviour in blue foxes. Rekilae

Nestbuilding and behavioural disturbances around farrowing in domestic sows. Lisborg

The cost of interindividual disturbances in broiler chickens. Estevez

Effect of feeding station design and type of bedding on the behaviour and health of group-housed dry sows. Bøe

Open-field reactions of calves, the effect of space allowance and single vs. group housing. Bak Jensen

Keeping growing cattle outside during winter - behaviour, production and climatic demand. Redbo

Use of cover by domestic fowl housed indoors. Newberry

Behavioural consequences of leg disorders in broiler chicks. Singh Sanotra

Experience with cocks of two breeds and two densities in aviaries with laying hens. Braastad

Effects of construction work on behaviour and production in laying hens. Hansen

Livestock guarding dogs - protecting sheep from predators. Hansen

ISAE and the Council of Europe

The European Convention for the Protection of Animals Kept for Farming Purposes was opened for signature in 1976 and since then has been signed, ratified and brought into force by 21 countries and by the EU. The convention has had a useful influence on legislation and codes of practice within and outside Europe since that time. Detailed Recommendations have been prepared on pigs, laying hens, cattle, fur animals, sheep and goats. ISAE is the only scientific society which is allowed to be present at meetings to advise the Standing Committee.

The work of the Standing Committee in the last two years has involved preparing Recommendations on poultry *Gallus gallus*, ducks *Anas platyrhynchos* and *Cairina moschata*, turkeys *Meleagris gallopavo*, geese *Anser anser* and *Anser cygnoides*, quail *Corurnix japonica*, guinea fowl *Numida meleagris*, pheasants *Phasianus colchicus* and others, and ratites especially the ostrich *Struthio camelus*. Some preparatory work has also been done on farmed fish.

The role of the ISAE representative is to collect together scientific information relevant to the decisions which have to be made in each paragraph of the Recommendations. One component of all Recommendations now is a section on the biological characteristics of the subject animal which are relevant to the various recommendations and which help to explain to readers why certain provisions are necessary for the animals if their welfare is to be good. This section is normally drafted by the ISAE representative but may be improved or otherwise modified before the final form is reached. Several ISAE members have contributed information about the draft Recommendations, in particular on: how farm staff should care for the animals; the design of buildings; disease prevention; farm operations and procedures which might be painful or frightening for the animal; provision of food and water; lighting conditions; ventilation and other environmental control; and on reproduction and breeding. In many

of these paragraphs of the Recommendations, evidence concerning the behaviour of the animals and other evidence about welfare is needed. ISAE advice is made available in the form of scientific papers and revisions to the proposed draft which take account of the evidence contained in these papers.

If ISAE members, who have not so far been consulted but who have expertise on any of the species being considered except for domestic fowl, could help, please let me know. Amongst the areas under discussion where additional scientific information on all species would be helpful are the effects on welfare of: stocking density, improved accommodation design, light levels, food restriction, beak trimming, spur trimming, caponising, the use of coccidiostats and other preventive medicines, and new handling procedures. The most useful contribution would be a list of key references and details of relevant observations plus brief conclusions.

Donald Broom

Addresses Needed

Support for the society's fund to pay the expenses of our representatives on the Council of Europe is still urgently needed. Please send suggestions for people, societies or firms who might be approached for donations to Professor Henrik Simonsen, Royal Veterinary & Agricultural University, Department of Forensic and State Veterinary Medicine, 13 Bulowsvej, DK1870, Copenhagen V, Denmark. Tel [45] 31 35 17 88, Fax [45] 35 28 30 22, Email hesih3@wptemp.kvl.dk

letter

Dear ISAE

I was rather dismayed to detect the increasing emphasis on communication by electronic mail in the last newsletter. Whilst I appreciate that we are living in the age of the information super-highway, I am beginning to feel I'm a member of a minority group and threatened with discrimination. Please bear in mind that some of us live and work in remote locations; my reply to the all-too-frequent question 'Are you on electronic mail?' is that I consider myself fortunate to be on electricity, let alone electronic mail!

Carol Petherick

other news

Welfare Proceedings

The Proceedings of the International Conference on Farm Animal Welfare: Ethical, Scientific and Technological Perspectives are printed as two Supplemental Issues of the Journal of Agricultural & Environmental Ethics; Volume 6, 1993. Copies of the Proceedings are available for purchase. The cost for a set of the two volumes is \$25.00 US. Checks or money orders should be made payable to the University of Maryland Foundation and mailed to: International Conference on Farm Animal Welfare, Animal Sciences Center, University of Maryland, College Park, MD 20742-2311. Contents: Volume I: Ethical Technological and Sociopolitical Perspectives. Introduction, Ethical Perspectives, Impact of Technology, Political and Social Implications. Volume II: Scientific Perspectives. Defining Welfare, Researchable Approaches.

ASAS Update

In the latest newsletter of the American Society of Animal Science, Robert Zimbleman listed the following issues that are currently affecting US animal agriculture: dioxin, meat inspection, irradiation of meat, drug availability (primarily antibiotics), activist letters, and the USDA reorganization. Activist letters are being written with some emphasis on animal welfare and the environmental effects of animal agriculture. With the reorganization of the USDA and the current climate of cutting budgets, agencies and possibly departments within the US government; there are concerns about funding levels and support for research conducted at Land Grant Universities. Agricultural animal research funding is a strong concern of ASAS and whether budget cuts will greatly reduce current funding levels is not known. The impact on what little money is now allocated towards funding research in the area of animal well-being could be devastating if worst case scenarios come to pass.

The annual meeting of ASAS (see page 14) will focus on Institutional Animal Care and Use Committees and on applying the 3Rs concept (reduction, refinement, replacement) to agricultural animal research protocols.

Janice Swanson

Welfare of Extensively Farmed Animals

In September 1994 a meeting on 'Welfare of extensively farmed animals' was held as a satellite meeting to the EAAP in Edinburgh. The week-end was intended as a forum to exchange ideas and define requirements for future research on extensive farm animal welfare, and to establish contacts for future EU projects. Therefore the organizers, Mike Appleby and Alistair Lawrence, had given discussion a high priority.

At the meeting it became obvious that opinions as to what extensive farming means differ a lot. In Denmark and in a large part of Europe, extensive farming is regarded as outdoor animal production, while in other parts of the world, it means that the animals are able to move freely on vast areas. The participants of the workshop thus represented extensive systems covering everything from outdoor pig production on 4 acres to highland sheep-keeping.

In an early paper, Mike Appleby defined extensive farming as that in which 'the animals get most or all their feed from the environment'. He commented on the disadvantages for the animals of always having to stay outdoors (e.g. in hard weather) but pointed out that variability may itself be a condition for animal welfare. Several suggestions as to what welfare is and how to measure it were given.

The discussion on welfare was resumed in the afternoon at a workshop where the topic was 'Theoretical Frameworks'. However, the issue of defining and measuring welfare was so absorbing that we never got as far as discussing welfare of extensively farmed animals. The next phase in discussing welfare in extensive systems must be to determine how to increase welfare when we take the animals out of tethers, boxes and cages.

The other workshops dealt with 'Disease and parasitism', 'Zoo animals and wild animals', and 'Socioeconomic pressure'. The latter established that the general public assumes that less intensive systems result in better welfare for the animals, although only a small proportion will pay the higher price. Therefore it was concluded that there is a need for research in extensive systems to reduce costs and increase welfare.

On the second day of the meeting, the topics were 'Genetics and the environment', 'Neonate survival', and 'Fear and stress under extensive conditions'. During the last session it was discussed whether it is ethical to use tranquillizers when catching red deer. Otherwise, perhaps imprinting of

extensively kept animals should be attempted, e.g. by hand-feeding them, or is it possible to select for 'easy handling'? Perhaps, as suggested in the first paper that day, one of the breeding goals could be the animals' ability to adapt to extensive conditions.

Several research projects were introduced, as welfare of extensively farmed animals is a very integrated area. This was the occasion for very interesting discussions, with a very broad viewpoint. The proceedings are to be published in *Applied Animal Behaviour Science*.

The meeting atmosphere was relaxed with a good variation between papers, questions, discussions, and workshops.

Merete Studnitz

ISAH Congress

In September 1994 the International Society for Animal Hygiene organized its 8th international congress. The site was St Paul, Minnesota, USA and the co-sponsors were University of Minnesota and Washington State University. There was a busy three-day programme followed by a day with farm-tours in a well organized and friendly fashion.

Topics covered were Animal well being, Animal housing, Environmental safety, Health & productivity research, Case studies, Animal hygiene & food safety, Disinfection & disinfestation and Aquaculture. Many of these are of interest to researchers in applied ethology and several members of the ISAE attended the congress.

The session on Animal well being contained papers on coping strategies (Zanella), hormonal control of maternal behaviour (Castrén), environmental design to increase well-being (Loveridge), and current activities in legislation (Eliot). Many of the Animal housing papers dealt with effects of light, ammonia, dust etc. on animal health (Wiegand) but there were also papers on, for example, alternative housing for laying hens (Krger). Of course, a lot of interest was focussed on 'classical' hygiene questions such as the occurrence of salmonella.

Altogether, close to 200 papers and posters were presented of which papers dealing with behaviour in farm animals constituted a significant part. This is likely to be one of the major areas for ISAH congresses also in the future. The next congress will be held in Finland in 1997 (see page 14 for further details).

Bo Algers and Inger Sjberg

Situation Situation

Washington State University invites applications and nominations for an Assistant or Associate Professor (Animal Well-Being). This is a tenure-track, 12 month appointment. The individual must have a PhD or DVM and advanced training in animal welfare or behavior. The ability to communicate and collaborate effectively with others in teaching, research and the public are essential. Specific responsibilities include instruction at the undergraduate and graduate/professional school level, establishment of a productive, extramurally funded research program, and interact with the University and livestock industry and public sectors on animal welfare issues. Experience in and familiarity with livestock or aquaculture production practices is highly desirable. To ensure consideration, send a cover letter describing qualifications and goals for the position, curriculum vitae, completed college transcripts and names, addresses and FAX numbers of three references to: Raymond W. Wright Jr., Search Committee Chair, Department of Animal Sciences, Washington State University, Pullman WA 99164-6332, usa. Tel 509 335 4125, Fax 509 335 1074. Screening of applicants will begin April 3, 1995 and continue until the position is filled.

Certificate in Animal Welfare for Vets

The Royal College of Veterinary Surgeons (RCVS) in the UK has introduced a new post-graduate certificate in animal welfare science, ethics and law for its members. Veterinary surgeons in other countries whose degrees are recognised by the RCVS are also eligible. The certificate was set up in recognition of the fact that where matters on animal welfare and ethics are being discussed, the veterinary voice is often absent. And yet, veterinary surgeons by their training and vocation should be well qualified to comment on these matters. It has also been acknowledged that scientific information on animal welfare is rapidly expanding and vets need updating in this area. Furthermore, ethics relating to animal usage is an important and relevant topic for vets, as is an understanding of current laws relating to animal welfare. Those taking the certificate will be required to have a knowledge of these subjects in all the species treated by vets, including laboratory, companion, agricultural, zoological and wild animals.

The first candidates for this certificate have already enrolled and others have until April 1st 1995 to do so, via the Royal College of Veterinary Surgeons, 32 Belgrave Square, London SW1 8QP. The first exams will take place in September of this year and it is to be hoped that veterinary opinion on welfare, ethics and related topics will soon be heard more widely.

Caroline Manser

Measurements of Stress

In November 1994 a workshop was organised by Isabelle Veissier and Claudia Terlouw of INRA at Theix, France, on Measurements of Stress. Although it was internal to INRA, the speakers were international and 45 participants attended. The emphasis was on techniques, and a very wide variety of methods was covered, as well as a wide variety of species - from rats via minipigs to humans. This is part of a general programme funded by INRA to facilitate collaborative work between their teams: Action Incitative Programmée. This seems to be an approach which could usefully be followed in other countries as well.

Floating Nest Boxes for Moorhens

Ted Andresen has been working on designs of floating nest boxes for moorhens, coots and small rails. He has written an account of how to build and deploy these boxes, which demonstrates not only extensive knowledge of these birds but also considerable affection for them. If you would like to profit by his example either for research or for interest, just ask him for a copy of the article: Ted Andresen, 1873 60th Terr NE, St Petersburg, FL 33703-1721, USA. Tel [1] 813 526 6440, Email tandresen@space.honeywell.com

Reconciliation Study Group

A 'Reconciliation Roundtable' was held in July 1994 at the meeting of the American Society of Primatologists in Seattle, Washington and approximately 40 individuals attended. There was a general discussion of questions dealing with reconciliation and conflict resolution, particularly with methodology, including: How to define reconciliation? Does reconciliation occur in non-

primate animals? Are there other post-conflict interactions involving other group members? How do we analyze reconciliation data? What is an appropriate control procedure for non-captive (ie field) studies? What are the physiological/emotional mechanisms underlying reconciliation? What about more experimental approaches toward reconciliation research? The Roundtable ended with establishment of a Reconciliation Study Group to provide a forum for the exchange of ideas. If you would like more information, please contact Darlene Smucny, Fax [1]301 496 0630, Email ny6@cu.nih.gov

ISAZ

When the UK/Ireland Region of ISAE vacated its usual slot at the Royal Veterinary College, London, on the day before the ASAB meeting in December, fortunately the International Society for Anthrozoology was able to fill it, with a meeting on 'Behaviour of companion animals: research and practice.' A number of ISAE members attended; indeed, a couple of our members were among the authors of the papers presented. The majority of the programme was on cats and dogs; there were also papers on horses and llamas, and a general paper on 'Frustrative non-reward and behaviour therapy.' We warmly welcome this cooperation with ISAZ: in fact the two societies are exploring the possibility of mutual recognition of membership.

articles

Five Minute Philosophy: What is Fear?

This is a series of articles in which prominent members of the society are asked to expound ideas which concern them without being held to account for the exact details. This time Bo claims he took the series title literally!

Recently "fear" has been discussed on the applied-ethology computer network, and several researchers have asked whether we mix up fear with flight. Is fear a motivational state? David Wood-Gush in his book *Elements of Ethology* wrote that fear is generally considered as an emotional state but that it is difficult to assess and several measures of behaviour are needed. Further, he pointed out that external stimuli that elicit fear are often those with a marked degree of novelty.

In the preface of the book *Fear in Animals and Man*, the editor Wladyslaw Sluckin writes: "We all

know what fear is." Of course. It is an emotion in humans which we question if it exists in animals. When do humans experience fear? To me a common denominator for such cases could be Lack Of Information When There Is A Need For Information. The wider the gap between the amount of information needed (to be able to predict an event or to control it) and the existing information, the more fearful an animal could be. Fear would thus be an aversive emotional state which would be reduced either if information could be retrieved rapidly (it is often pointed out that the learning ability of animals is enhanced in situations we would like to associate with fear) or if the individual could be brought out of the situation and thereby reduce its need for information (flight). Maybe a ten minute philosophy might be enough to show how wrong this Five Minute Philosophy is. If not, at least it should be possible to test this hypothesis.

Bo Algers

Remember the Brain

As ethologists, we are concerned with the motor output of animals. Studies of blood hormone levels, muscle physiology, spinal reflexes, and socialization all help us explain certain aspects of behavior, but we must remember that the ultimate control center of all motor output is actually the same organ that allows us to remember it: the brain. In all vertebrates, the brain is a complex collection of fiber tracts bringing information into groups of neurons for processing, and the results influence output, including motor output. Millions of neural interconnections allow information from multiple sources to be integrated, and the importance of various stimuli to be assigned and used accordingly.

The anatomy of the brain is fairly similar among vertebrates, and all regions of the brain generally fall into one of four categories: 1. Fiber tracts (usually myelinated) from the peripheral nervous system bringing input from sensory receptors located throughout the body, including the viscera. 2. Unmyelinated nuclei or cortex, which consist of groups of cell bodies with multiple interconnections (most information processing occurs in these regions). 3. Pathways, often myelinated, linking nuclear and cortical regions with each other. 4. Myelinated pathways sending output to effector organs, including glands and all three types of muscle. Phylogenetically old grey matter regions include hippocampus, optic tectum, olfactory bulbs, and the limbic structures, while the large neocortical regions of primates are phylogenetically very new. In human brains, the huge cerebral cortex covers nearly

all of the older brain regions. This massive cortical enlargement is correlated with the vastly increased ability of humans to handle multiple inputs and perform complex tasks such as those involving fine motor control, language, memory, and spatial reasoning.

There are ultimately two major sources of brain output which can influence behavior, either directly or indirectly: neurons and hormones. Typically, rapid responses are neuronal, while slower, longer-lasting responses are hormonal. Both motor activity and hormone levels are commonly measured experimentally; these actually measure aspects of brain and spinal cord function. As an example, lactation in a mammal indicates that hormonal and neural inputs have triggered hormonal output of prolactin. Additionally, other aspects of the animal's behavior change to allow her young to nurse. The control center of these changes is of course the brain. However, because blood levels of prolactin or suckling behavior by the young are much more easily measured than brain function itself, the former are used experimentally.

Ethologists will benefit from some knowledge of brain structure and function, and I encourage everyone to learn something about this fascinating organ that studies itself. In my own graduate research, my major professor and I discovered a likely function for play behavior by studying brain structure and development. Because we knew that the cerebellum was the center of motor coordination and thus very important in performing complex motor tasks, and we knew that play behavior generally consisted of complex motor tasks which would be useful in adulthood, we sought a link between the cerebellum and play. We found published reports that much of cerebellar development occurs postnatally, at about the same time as play behavior. It was known that during neural development, more synapses are formed than are actually needed in the adult, and the "extra" synapses are retracted in an experience-dependent manner. Apparently, the synapses which form the best connections are retained in a "use it or lose it" scenario. Because the cerebellum was thought to be an excellent example of this phenomenon, we looked for the period of this cerebellar synapse retraction in mammals, and discovered that three species had been studied: mouse, rat, and cat. This critical period occurred exactly at the peak of play behavior in each species. Thus, it appeared that play behavior could actually influence brain development, and perhaps vice-versa. We plan to conduct further experiments to determine whether play does seem to influence cerebellar morphology, and thus motor skill.

The brain is an extremely complex organ, and much of this complexity remains unknown. However, we do know a great deal about the anatomy, cell physiology, and types of processing that occur in the central nervous systems of animals. A few good books reviewing these topics are listed below. By learning about this enigmatic organ, we as ethologists will enjoy greater understanding of our observations, which can lead to realistic inferences about likely causes of the output we see as animal behavior. I strongly recommend that faculty and graduate students do some reading and perhaps attend a course on the nervous system.

CARLSON, N. R. 1991. *Physiology of Behavior*, fourth edition. Allyn and Bacon: Boston and London.

KANDEL, E. R., SCHWARTZ, J. H., AND JESSELL, T. M. 1991. *Principles of Neural Science*, third edition. Elsevier: New York and London.

SARNAT, H. B., AND NETSKY, M. G. 1974. *Evolution of the Nervous System*. Oxford University Press

YOUNG, D. 1989. *Nerve Cells and Animal Behaviour*. Cambridge University Press.

Curt Walker

Book Review

PICARD, M., PORTER, R.H. et SIGNORET, J.P. (Eds) 1994. *Comportement et Bien-Etre Animal*. INRA Paris, 228 pp. ISBN 2-7380-0526-8

Although the title may suggest it, this book is not a systematic review of the various problems and aspects of animal welfare. As far as I know, no comprehensive book exists on the subject in French. The Frenchman looking for such a book will 'remain hungry' after reading this work ('rester sur sa faim' to use a French expression!). This work can not function as an introduction. It consists of a combination of 10 particular experiments or enquiries carried out in France and 5 reviews on the welfare of farm animals. However, the introductions of several articles reporting particular experiments consist of mini-reviews which provide the reader with a useful list of references. Each article represents a valuable scientific contribution. The only problem is that it is not clear why they appear rather loosely together in this volume. The various articles are grouped according to the following subjects: birth and parental bond (ungulates and chickens), emotionality and human-animal relations (cattle, sheep and quail), reproduction (pigs, chickens and sheep) and transport (stress-induced hyperthermia, calves, steers and horses). As these contributions are meant for specialists, I wonder why they are preceded by a chapter dealing with welfare in general in a rather popularizing way. Three people from different backgrounds briefly explain their personal view on welfare: the president of the confederation

of French animal protection societies, a pig breeder and a scientist from INRA. Seven pages are then devoted to a summary of French legislation.

In conclusion, this is a series of interesting scientific articles which deserved a different editorial treatment. The impression is that they were glued together in a rather hasty way. It would seem more appropriate either to produce a comprehensive review on farm animal welfare or a survey of a particular welfare problem, or alternatively to publish in the various *ad hoc* journals now existing. Nevertheless, people involved with farm animal welfare research will find this book a good additional source of information.

Frank Ödberg

No Comment

"The idea which the children had was to hurt the donkeys. Nobody had told them that it was cruel to hurt them, but then, nobody had told the donkeys either. On the rim of the world they knew too much about cruelty to be surprised by it. So the small circus was a unity - the beasts reluctant to move and the children vigorous to move them, the two parties bound together by the link of pain to which they both agreed without question. The pain itself was so much a matter of course that it had vanished out of the picture, as if by a process of cancellation. The animals did not seem to be suffering, and the children did not seem to be enjoying the suffering. The only difference was that the boys were violently animated while the donkeys were as static as possible."

From *'The Once and Future King'*, by T.H. White (1958)

ISAE newsletter

Compiled by Mike Appleby
IERM, University of Edinburgh EH9 3JG, UK
Tel. [44] (0) 131 667 1041
Fax. [44] (0) 131 667 2601
Email mappleby@srv0.bio.ed.ac.uk

Deadlines: late February for March issue;
late September for October issue

Page Layout and Design by
Mark Rutter

Legal Scene

Tracker Dog Gives Evidence

Ben, a German Shepherd dog, made history in November. The UK Court of Appeal held that if a dog handler could establish that a dog had been properly trained and, over a period of time, the dog's reactions indicated that it was a reliable pointer to the existence of a scent of some particular individual, its evidence could properly be admitted in a trial. Ben helped to convict two robbers. There was much discussion on animal behaviour. There had previously been no case on the point in issue in English law. Cases from South Africa, British Columbia, New Zealand and the US were cited.

Heavy Witnesses

A farmer produced his two shire horses as heavyweight witnesses. He got them as far as the marble hallway of Glasgow Sheriff Court where they produced motions of their own. Hastily moved outside, they were fed titbits by passers-by. (Report in the London Times).

Dangerous Dogs Act 1991

In Scotland, a Sheriff's order for destruction was quashed. Nobody had been injured. The Sheriff had not particularised why he had no other option. In England, a dangerous dog unmuzzled inside a car which was in a public place was held to be itself in a public place. However, in another case, a dangerous dog on a garden path was held to be not in a public place.

The Court of Appeal held absolute liability was imposed on an owner by the 1991 Act. It was no defence that he had no realisation that his dog might cause injury. The court also said that in normal cases there was no room for expert evidence. The offence was committed when a dangerous dog was allowed unmuzzled in a public place, no matter what its temperament or history.

CLAYSON, C. (1994). Dangerous dogs dangerously out of control. 158 *Justice of the Peace Journal* 302.

Abandonment of Animals

'A dog left unattended in a workshop had not been abandoned' said the UK High Court. The owner must have an intention to abandon.

Horse Law Book

BRITTON, Vanessa. The horse, safety and the law. Hardback : £9.99. ISBN 0-7063-7180. Ward Lock.

Bill Jackson

ISAE Meetings

Annual ISAE congress

The annual congress is a very important ISAE activity. This is the place where members meet each other and where new developments are discussed both inside and outside the lecture rooms. The organisation of the congress is mainly the responsibility of the "local organizers". For several years now, however, there has been a Congress Committee (with two council members and past, current and future local organizers as members) to support the local organizers. This Committee is developing a kind of scenario or shooting script (?) in which not only quality but also details concerning the whole organisation of a congress are described. The aim is to develop guidelines which guarantee good quality and some uniformity of the annual congresses.

To our surprise at the AGM in Denmark rather detailed questions and suggestions for the organisation of the congresses were discussed. In fact this supported the Council's initiative in installing the Congress Committee. At the next AGM in Exeter the Committee will report in more detail about its work.

Herman Wierenga

East Central Europe Meeting 1995, 5th May, Stara Lesna, Slovakia. This will be a joint meeting with the Czech & Slovak Ethological Society. Guest speakers: von Borell, Savory and Appleby. Contact Lubor Košťál, Institute of Animal Biochemistry and Genetics, Slovak Academy of Science, SK-900 28 Ivanka pri Dunaji, Slovakia. Tel. [42] 7 943 232, Fax [42] 7 943 932, Email kostal@ubgz.savba.sk

North American Meeting 1995, 8-9th July, Lincoln, Nebraska. The meeting precedes the annual ABS meeting at the same location from 9th-13th July. The main ISAE sessions on Sunday will be a free paper session and a joint poster session with ABS; there will also be an ABS session on Applied Ethology on Monday. Contact Janice Swanson, US RS, Tel [1] 913 532 1244, Fax [1] 913 532 7059, Email jswanson@oz.oznet.ksu.edu

ISAE International Congress 1995, Plans for this year's main meeting are proceeding apace. The registration deadline is 1st April 1995 (or by return fax if you receive this newsletter after 1st April).

There is also a deadline of the same date for submission of a 2 page summary from all contributors (both Oral and Posters). There will be sessions on Cognitive Aspects of Welfare, Measuring Behaviour, Companion Animal Behaviour and Free papers, and workshops on pet, zoo, farm, work and sporting animals. Excursions will include visits to local research establishments and a variety of social events, notably a Devon Cream Tea. Contact John Eddison, Fax [44] (0) 1626 325605, Email j.eddison@plymouth.ac.uk

UK/Ireland Meeting 1995, 29th November, London. The tentative title is 'From abnormality to animals as consumers: using behaviour to assess welfare' and there will also be a general session. Offers of papers, please, to Dr Georgia Mason, Department of Zoology, South Parks Road, Oxford OX1 3PS (Tel [44] (0) 865 271234, Fax [44] (0) 865 310447, Email g.mason@zoology.ox).

ISAE International Congress 1996, 13-17th August, Guelph, Canada.

UK/Ireland Meeting 1996, jointly with BSAS and RSPCA, 11-12th September, Leeds. 'Animal Choices'.

ISAE International Congress 1997, 13-16th August, Prague, Czech Republic.

ISAE International Congresses 1998-2000. Offers to host the main annual meeting of the society in the years 1998 to 2000 are invited. These should include some details of: who the local organisers would be, accommodation and conference facilities, transport to the location, possibilities of local financial support and initial ideas on scientific content. They should be sent to the Secretary, Mike Appleby (address on page 12) before 31st July 1995.

Other Meetings

In the Company of Animals, 6-8th April 1995, New York, USA. This is a cross-disciplinary conference exploring relationship between humans and other animals. Contact Evelyn Roberts, Social Research, 65 Fifth Avenue, New York, USA. Tel [1] 212 229 2488, Fax [1] 212 229 5476, Email robertse@newschool.edu

Animal Behavior and the Design of Livestock and Poultry Systems, 19th-21st April 1995, Indiana, Indianapolis, USA. Organised by Stan Curtis and

the Department of Dairy and Animal Science, Pennsylvania State University, sponsored by Northeast Regional Agricultural Engineering Service and the Animal Industry Foundation. Many speakers from industry and applied ethology. Contact Leah Braithwaite, Tel [1] 613 993 6002, Fax [1] 613 995 3845, Email braithwaitel@ncccot2.agr.ca

Animal psychology as a means to improve animal welfare, management and training, 29-30th April 1995, Devon, UK. This is intended for farmers, vets, trainers, breeders, curators, owners, therapists, teachers and consultants. Its purpose is to present and discuss recent developments from research and practice in animal psychology and ethics. Latest ideas on the optimal environment for different types of animal will be covered. On the first day theory will be presented, while the second day will consist of practical sessions using animals of your choice. Further courses may be run in October and December 1995. Contact Marthe Kiley-Worthington, Department of Psychology, Exeter University, Exeter, Devon EX4 4QJ, UK. Tel [44] (0) 1626 325656

Ethical Issues of Animal Research, 24-29th June 1995, Georgetown University, Washington DC, USA. This course is funded in part by the Ethics and Values Program of the National Science Foundation and organized by the Kennedy Institute of Ethics. Participants will include biological, bio-medical and social scientists, clinicians and those with a background in the humanities and philosophy. The course will enhance the experience of Institutional Animal Care and Use Committee members, and others responsible for training programs within academia or industry. Speakers include Beauchamp, Frey and Regan. Registration is \$500. Contact Moheba Hanif, Kennedy Institute of Ethics, Georgetown University, Washington DC 20057, USA. Tel [1] 202 687 6833, Fax [1] 202 687 6770, Email hanifm@guvax.georgetown.edu

III International Ethological Youth Congress, 23rd July-1st August 1995, Jakotpuszta and Kaposvar, Hungary. Based on camping and tourist accommodation in one of the most beautiful regions of Hungary, this will have scientific sessions on many aspects of applied ethology, visits to universities and research institutes, excursions to national parks and zoos and tours to farms and husbandry systems. Contact Tibor Keszthelyi, Godollo University of Agricultural Sciences, H-2103 Godollo, Pater Karoly u. 1-3, Hungary. Tel 3628 310200, Fax 3628 320997.

American Society for Animal Science, 25-28th July 1995, Orlando Florida, USA. This will include a seminar on Institutional Animal Care and Use Committees (IACUCs) and Oversight of Agricultural Research Animals. Contact the Scientists Center for Animal Welfare, Tel [1] 301 345 3500, Fax [1] 301 345 3503.

XXIV International Ethological Conference, 10-17th August 1995, Hawaii. Contact IEC Secretariat, Suite 150, GPM Building, San Antonio, Texas, USA.

First North American Symposium on Poultry Welfare, 12-13th August 1995, University of Alberta, Edmonton, Canada, prior to the main PSA meeting. Contact Ian Duncan, Department of Animal & Poultry Science, University of Guelph, Guelph, Ontario N1G 2W1 Canada. Tel [1] 519 824 4120, Email iduncan@aps.uoguelph.ca

Second International Conference on Environmental Enrichment, 21st-25th August 1995, Copenhagen Zoo, Denmark. The main topics will be environmental enrichment devices, managing behavioural problems and behavioural considerations in breeding programmes and reintroduction programmes. Contact Bengt Holst, Copenhagen Zoo, Sdr Fasanvej 79, DK-2000, Frederiksberg, Denmark. Tel [45] 36 30 25 55, Fax [45] 36 44 24 55.

Animals, Health and the Quality of Life, 6-9th September 1995, Geneva, Switzerland. This will be the Seventh International Conference on Human-Animal Interactions. Contact AFIRAC, 7 rue du Pasteur Wagner, 75011 Paris, France.

International Society for Animal Hygiene Congress, 17th-21st August 1997, Helsinki, Finland. Contact Hannu Saloniemi, College of Veterinary Medicine, Helsinki. Email saloniem@ekkl.vetmed.fi

XXV International Ethological Conference, 18-25th August 1997, Vienna.

isae95

Exeter • 3-5 August 1995

Reminder

The Congress registration deadline is:

1 April 1995