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## To Encourage, Support and Provide

The Constitution of our society includes five aims. Each of these aims includes one or more of the words 'encourage', 'support' and 'provide'. The intent of the International Society for Applied Ethology is to assist its members in furthering the field of applied ethology. I would like to review some of the ways the society is attempting to accomplish those aims, and ask for your suggestions for how we can improve our efforts in the future.

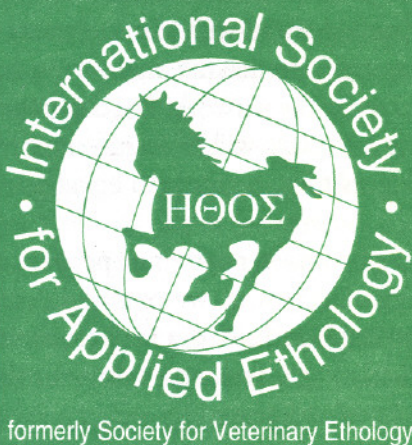
Since the beginning of the society, we have held annual meetings to facilitate interaction of applied ethologists. This year's congress will be in Foulum, Denmark. Future meetings are scheduled in the United Kingdom, Canada and the Czech Republic. These meetings should be a focal point for sharing of scientific results and discussion of issues related to our discipline. This year's congress will include a session on teaching, an area which is often overlooked in scientific societies but which is vital to broadening the acceptance and understanding of our discipline by others.

As part of our aim to improve the transfer of information, the society negotiated an arrangement with Elsevier for members to obtain Applied Animal Behaviour Science at a reduced rate. Although we fell short of the minimum number of subscribers originally suggested, we have tentative agreement from Elsevier that we can proceed with this lower figure. Those that subscribed should begin receiving the journal shortly. We encourage others to consider subscribing as well.

An email network was established for applied ethology in November through the efforts of our members. We hope this method of communication becomes available to all of our members and that they find it a useful means of keeping in touch with each other. We are also discussing the possibility of using electronic mail for more formal communications such as a newsletter or abstracts of papers presented at meetings.

In order for the society to respond to the needs of its members, it is essential that communication from the members to the Council be facilitated. One way we attempt to accomplish this is through our Regional Secretaries. At the meeting of the Council just prior to the congress at Foulum, the Regional Secretaries will each present a report, including comments from members in their region. I encourage each of you to contact your Regional Secretary or a member of the Council if you have any suggestions or concerns relating to how the society is 'encouraging, supporting, and providing' for the field of applied ethology.

*Harold Gonyou*





## 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:	Lindsay Matthews (91-94)
	Frank Ödberg (91-94)
	Joy Mench (92-95)
	Ruth Newberry (92-95)
	Elisabetta Canali (93-96)
	Marek Špínka (93-96)

At the 1994 AGM, all the members of Council are eligible and willing to stand for a further year with the exception of Lindsay Matthews and Frank Ödberg. At its meeting in November 1993, Council decided to make the following nominations to the AGM. If any members wish to make alternative nominations they should obtain the agreement of the nominee and then contact the Secretary.

Council members: Pierre Le Neindre (France)  
Paul Hemsworth (Australia)

The activity of the Society's Regions is being strengthened and the appointment of Regional Secretaries is therefore being reviewed. The following list includes three Council members who have been asked to organize nominations in the near future (O).

UK/Ireland	Libby Hunter
Mediterranea	Marina Verga
USA	Joy Mench (O)
Scandinavia	Heli Castrén
Canada	Ruth Newberry (O)
Benelux	Harry Blokhuis
W.Cent.Europe	Doris Buchenauer
Australasia	Lindsay Matthews (O)
E.Cent.Europe	Marek Špínka
Asia	Shusuke Sato

Three of these Regional Secretaries are new, nominated by their Regions:

Dr Doris Buchenauer, Institute of Animal Husbandry, Hannover School of Veterinary Medicine, Buenteweg 17p, D-30559 Hannover Germany (Tel. +49 511 9538876, Fax. +49 511 9538582);

Dr Heli Castrén, College of Veterinary Medicine, Dept Animal Hygiene, PO Box 6, SF-00581 Helsinki, Finland (Tel. +358 0393 1571, Fax. +358 0393 1799);

Dr Elizabeth Hunter, Cambac JMA Research Ltd, Unit 4 Wards Farm, Greenmoor Lane, Woodcote, Reading, Berkshire RG8 0RB, UK (Tel. +44 491 681440, Fax. +44 491 682083).

## ISAE news

### Email Network "Applied Ethology" On Line!

Currently, there are literally hundreds of electronic mail (email) networks and electronic bulletin boards in place around the world discussing topics from aquaculture and alien visitors all the way through to the zodiac and zymology. Ken Boschert, a DVM and computer enthusiast from Washington University, St. Louis, has personally identified and compiled a list (which he appropriately calls the Electronic Zoo) of more than 200 bulletin boards that restrict their discussions to some topic on animals. Today a person with an email or bitnet address can gain access to information or communicate with another computer user on opposite sides of the globe by typing and receiving messages at a computer terminal. A personal computer attached to a phone modem is equally capable of linking you with the electronic world.

With such technology in place, Ruth Newberry urged ISAE council members to consider developing an electronic network for applied ethologists. A sub-committee consisting of Mike Appleby, Ruth Newberry and Jeff Rushen (and later myself) were assigned the task to investigate the feasibility and determine the potential uses of such a network (see the article by Jeff, below).

In earlier discussions, concerns were voiced that the number of applied ethologists having access to email may be too small to create a useful network. The committee pushed ahead with plans to create a network on the assumption that the only way to test its success was to set up the network. The committee hopes that having it in place will be an incentive for additional ethologists to gain access to email privileges.

With the help of computer systems operators at the University of Saskatchewan, we obtained distribution-server privileges and set up a mail-list-server named "Applied-ethology". In simple terms, a message is sent, via email, addressed to:

[applied-ethology@sask.usask.ca](mailto:applied-ethology@sask.usask.ca)



and redistributed to all email addresses contained on the list-server. The first test messages were sent to core committee members on November 18th, 1993. Today there are over 95 subscribers on the Applied-ethology network.

The intent of the network is to use it for the exchange of information, discussions, announcements, news items etc. that are of interest to people working and studying in the field of applied animal ethology. Non-ISAE members, with an interest in applied ethology, are welcome to participate.

It is difficult to gauge the usefulness of the network for the subscribers this soon after its initiation. There are several different levels at which a subscriber might find the network useful. First, users are free to "lurk" on the network, and may gain useful information or insight by reading the open discussions, without ever participating in the discussions themselves. Secondly, subscribers can very easily engage in discussions "behind the scenes" with other users by replying to the originator of a message without sending messages to the entire network. (For example, I personally received 16 messages relating to a question I posted on tail docking in dairy cattle, but only 5 messages were sent out over the entire network; I received 13 messages on smelling/signaling fear in animals, while only 4 messages were sent to the entire network on the topic). Finally, subscribers are welcomed and encouraged to discuss their viewpoint openly, post announcements, make queries and seek contacts.

To date the discussions on the network have been diverse (gilts savaging piglets and tail docking in dairy cows; the cost of the Applied Animal Behaviour Science journal and the future of an electronic journal). In addition, books have been advertised, personal introductions have been made and computer software packages were mentioned. Several queries without discussions have been posted on the network (how to identify suckling heifers; evidence of overlap or collaboration in human welfare/animal welfare; right-left pain asymmetry; welfare legislation in France; guidelines for identifying and labeling free range eggs; and suggestions for ISAE meeting dates for 1996). As one of the network coordinators I have no way of monitoring or knowing how often queries are answered or how much information is exchanged at the personal level, but I would encourage all subscribers (researchers, teachers, students etc.) to participate and use the network.

You are able to subscribe automatically to the

network by sending a simple command message to the following computer address:

`applied-ethology-request@sask.usask.ca`

As the text of your message (*not* the subject header) you must type the command:

`SUBSCRIBE applied-ethology username@fqdn`  
(where username refers to your computer userID name and fqdn means fully-qualified-domain-name e.g. `DOE@sask.usask.ca`). Make sure you type *only* the command. "Applied-ethology-request" is not a person, so *do not* type a message. If you are unable to subscribe automatically you may contact:

`stookey@sask.usask.ca`

The network was put in place for your use and enjoyment, please feel free to use it! Incidentally, this article was sent to the ISAE Newsletter editor via email.

*Joe Stookey*

## Electronic Publishing: Bulletin Board, Newsletter and Journal

**T**hose of you who are regular users of electronic mail (email) surely have been impressed by the extent that it increases the speed, if not necessarily the quality, of communication, and by the fact that it is free (at least for the moment). ISAE has already begun to take advantage of this new medium of communication by establishing the email bulletin board 'Applied-ethology' (see the article by Joe Stookey). However, there are a number of potential uses that I think we should consider. Discussions between various council members have resulted in an embryonic 3-step plan.

The first step was to set up the email bulletin board, which has now been done. The second step is to examine the feasibility of an email version of the ISAE Newsletter. Theoretically, an email substitute for the current, printed Newsletter could be implemented immediately. The main advantages for ISAE in doing this are that it is cheaper, and faster. Thus, notices about jobs, conferences etc. could be circulated in a more timely manner than is now possible. However, since less than 25% of ISAE members currently have access to email, it seems likely that an email version will have to coexist with the printed version for some time. There are a number of ways that this could be done. The Secretary (Mike Appleby) could simply transmit Newsletter material as it becomes available to those who have access to email. This would mean that those on email would get the



information considerably earlier than the others. If this is considered unfair, Mike could compile all information and simultaneously release an electronic and a printed version. In either case, those with access to the email version might agree to forgo their rights to a printed version, thus saving the society some money.

The email Newsletter could be sent out over the present bulletin board. However, a number of non-ISAE members now have access to the bulletin board. Therefore, we need to consider whether we should set up a second system that is restricted to ISAE members. Alternatively, if we wish to use the Newsletter as a means of publicizing the ISAE, then we could transmit the Newsletter over some of the other bulletin boards that currently exist (e.g. ETHOLOGY).

The third step, clearly the most radical, is to establish an electronic journal. One of my own sources of motivation in wanting a functioning email bulletin board for ISAE was that it would be a precursor to an email journal and help prepare the ISAE for the inevitable day when most scientific 'publishing' is electronic. There are a number of issues underlying this, many of which arise from the relationship between ISAE and the journal Applied Animal Behaviour Science (AABS) and the eternal question of the ISAE having its own journal.

**Issue 1:** Most scientific societies publish their own scientific journal. This can be a source of revenue, and is a major incentive for people to join the society because they can get the journal at an affordable price (sometimes for free). The fact that ISAE does not have its own journal will always keep its financial state somewhat precarious and will also limit its ability to attract new members. The endless debate about the society having its own journal resulted in us having two options. One, was to negotiate with Elsevier for a reduced price to AABS for ISAE members. The result of the negotiations is that ISAE members can get the journal for about US\$150. However, the fact that less than 10% of ISAE members seem willing to take up this option indicates, to me at least, that this aspect of our negotiations has not been entirely successful. The second was for the society to publish its own journal. Members were polled on this and a majority of the minority that responded rejected this option because a new journal was considered financially too risky. One clear advantage to having an electronic journal is that it can be provided far more cheaply (at the moment

apparently for free, although this will probably change).

**Issue 2.** A related problem is the high price commercial publishers charge libraries for subscriptions to their journals. Every year we are asked to justify the thousands of dollars that our library must pay for subscriptions to journals like AABS. Subscription prices this high simply mean that many dollars out of shrinking research budgets are directly handed over to publishing firms instead of being spent on research. The advantage of journals published by scientific societies is that they are traditionally much cheaper, and this will be even more true for electronic journals.

**Issue 3.** The lack of an ISAE journal limits our communication both within the society (e.g. publication of conference proceedings) and with the outside world. As you all know, an agreement has been reached with Elsevier that the society can edit one special issue of AABS each year. This is, I think, a real step forward and it does have a number of attractions. However, it does not go all the way to meeting our needs. First, the special issue will largely be taken up by review articles. Thus we still not have any means of exerting any quality control over normal research papers published in AABS. Such papers will not be published in the special issue. Second, the space available for abstracts from conferences is limited so that we will not be able to publish complete proceedings of all ISAE conferences. One serious problem is the time delay to publication. Abstracts from summer congresses will not be published until after at least 6 months, and for winter meetings the delay will be at least 12-18 months. Personally, I do not see the point of publishing abstracts this late. The majority of ISAE members cannot attend all conferences and it would be very useful to be able to send everyone a full copy of proceedings. The special issue of AABS is not the best way to do this, but an electronic journal would be perfect.

In the long run, I am convinced that we still need our own journal, and I think we should seriously consider an electronic journal. There are still outstanding problems regarding electronic publication of scientific research, such as problems of copyright, managing subscriptions etc. However, some electronic journals already exist, and many traditional journals are beginning to be published in disk form as well. When SVE was founded it was decided not to publish a journal. I think this was a mistake and that we are presently suffering from it. When the



switch from paper publishing to electronic publishing occurs, we need to make sure that ISAE is ready and does not miss a second opportunity. Consequently, we need to begin investigating how electronic journals might function. As a concrete proposal, I suggest that we begin to phase out publishing abstracts in the Special Issue of AABS and begin to send them over the email bulletin board. I think we could complete this transition within 3 years (depending on how quickly people can get onto email). I suggest that we begin this for the next conferences and that conference organizers encourage electronic submission of abstracts.

The ISAE Council is going to be discussing such matters at its next few meetings, so if you have thoughts on this matter, please don't hesitate to communicate them.

*Jeff Rushen*

## ISAE Membership Renewal of Standing Orders

**M**embers who currently pay their subscriptions by standing order are reminded that they will need to complete a new standing order form (enclosed) ready for the subscription increase on 1st June this year. The completed form should be sent to: Dr Mark Rutter, ISAE Membership, Institute of Grassland and Environmental Research, North Wyke, Okehampton, Devon, EX20 2SB, UK.

## E-Mail Address Change

**W**ould anyone wishing to contact the Membership Secretary by e-mail please address the message to [isaemsec@afrc.ac.uk](mailto:isaemsec@afrc.ac.uk). Note that I can still be contacted at my old address ([rutterm@afrc.ac.uk](mailto:rutterm@afrc.ac.uk)) but this is now intended for non-ISAE correspondence only.

## Changes of Address

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**Vivi Pedersen**, Zoological Institute, University of Copenhagen, c/o PFR-North, Hundeløvej 75, 9780 Løkken, Denmark

**Isobel Vincent**, Dept of Large Animal Medicine and Surgery, The Royal Veterinary College, University of London, Hawkshead Lane, North Mimms, Hatfield, Herts AL9 7TA, UK

**Miss Beverley Williams**, 17 Dalkeith Street, Portobello, Edinburgh EH15 2HP, UK

**Françoise Wemelsfelder**, SAC, Genetics and Behavioural Sciences Dept, Bush Estate, Penicuik EH26 0QE, UK

## New Members

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**Prof. Jean Boyazoglu**, Viale della Tecnica 245, Scala Dx - int. 6, I -00144 Roma (Eur), Italy

**Dr Ursula Breuer**, Hochstraße 7, Attenkirchen, D-85395, Germany

**Dr I. Lehr Brisbin Jr**, Savannah River Ecology Lab, University of Georgia, PO Drawer E, Aiken, SC 29802, USA

**Miss Sarah Chaplin**, 12 Glenisla Gardens, Edinburgh EH9 2HR, UK

**Mr Grant Edwards**, Department of Zoology, South Parks Road, Oxford OX1 3PS, UK

**Lotta Ekstrand**, Dept Animal Hygiene, Swedish University of Agricultural Sciences, PO Box 345, S-532 24 Skara, Sweden

**Mr R. Paul Evans**, Fourwinds, Mousecroft Lane, Shrewsbury, Shropshire SY3 9DU, UK

**Aidt Feldkamp**, Institut für Medizinische Psychologie, Medizinische Akademie Magdeburg, Leipziger Straße 44, D-39120 Magdeburg, Germany

**Mr Malcolm Gibb**, Institute of Grassland and Environmental Research, North Wyke, Okehampton, Devon EX20 2SB, UK

**Dr Nobumi Hasegawa**, Grassland Research Laboratory, Tohoku University, Narugo, Miyagi 989-67, Japan

**Dr Veronika Heizmann**, Institute of Physiology, Veterinary Medicine University Wien, Linke Bahng. 11, 1030 Wien, Austria

**Hans Hopster**, Research Inst. for Animal Prod. JUO-DLO, PO Box 501, 3700AM Zeist, The Netherlands

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LL57 1LA, UK

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**Teppo Rekilä**, Department of Applied Zoology, Univ. of Kuopio, PL 1627, 70211 Kuopio, Finland

**Ms Irene Rochlitz**, Dept Clinical Veterinary Medicine, University of Cambridge, Madingley Road, Cambridge CB3 0ES, UK

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**Gurbakhsh Singh Sanotra**, Royal Vet. and Agric. University, Dept Animal Science and Animal Health, Division of Ethology and Health, Bülowssvej 13-1870 Frederiksberg C, Denmark

**Dr Matthijs Schilder**, Lab for Comparative Physiology, Ethology and Socio-ecology, Padulaan 14, PO Box 80.086, 3508 TB Utrecht, The Netherlands

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**Mr Nikita Stepanov**, Inst. of Evolutionary Animal Morphology and Ecology, 33 Leninsky Prsp, Moscow 117071, Russia

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**Miss Crista Troeglen**, Calle B Manz. 3 #35, Col. Educación, Del. Coyoacán, C.P. 04400, México

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**Jennifer Whybrow**, 2 New Woodside, Bush Estate, Penicuik, Midlothian EH26 UK

**Christoph Wichtmann**, Institut für Neuropsychopharmakologie, Ulmenallee 30, 14050 Berlin, Germany

**Hanno Würbel**, Institut für Labortierkunde, Universität Zürich, 8057 Zürich, Switzerland

**Aurelia Zimmermann**, 26 Temple Park Crescent, Edinburgh EH11 1HU, UK

## Resignations

**Dr Alan J. Tilbrook**, Monash University, Australia

**John Herbert**, Edinburgh, Scotland

*Mark Rutter*

## Nordic Winter Meeting, December 1993

The sixth Nordic ISAE Winter Meeting was arranged by the College of Veterinary Medicine, Department of Animal Hygiene, in Saitia research center in the south of Finland on the 9th and 10th of December. We were altogether 25 persons from Sweden, Norway and Finland. We had also Willem Schouten from Wageningen attending the meeting during its first day, as he had been opponent for my thesis on the 7th December. However, our Danish colleagues were not able to attend the meeting which was a pity. I am afraid that the distant location of Finland might have been an obstacle.

Eleven papers were presented. The theme for the meeting was "Rearing conditions for young animals in relation to their behaviour and health". In Finland at least, we need new regulations for rearing conditions and management of calves and piglets. The necessity for research in this field is growing, but this type of study is not much done. There were five papers concerning the theme; the behaviour and rearing conditions of pigs around and after farrowing and weaning (Maria Alonso-Spilsbury, Per Jensen and Linda Keeling, Sweden), calving behaviour of heifers and cows (Jens Jung, Sweden) and rearing conditions for heifers (Hans Petter Kjaestad, Norway).

Half of the papers were concerned with fur-bearing animals; nest boxes for foxes (Jaakko Mononen), resting shelves for foxes (Mikko Harri and Hannu Korhonen), stress indicators for minks (Liisa Nurminen), heart rate measurements of foxes (Tiia Kohonen) and temperament measurements in foxes (Teppo Rekilä; all from Kuopio, Finland).

In Finland farm animal behaviour is studied at the College of Veterinary Medicine, Department of Animal Hygiene in Helsinki and, as you will have noticed, the behaviour and management of fur-bearing animals are studied at the University of Kuopio and the research center in Kannus.

The concept of stress and the interpretation of results from stress studies were discussed. There was also discussion about the necessity to study animals in their natural environment in order to be able to interpret the results from behavioural studies.

In the evening there was sauna and swimming. Unfortunately I could not myself take part in the relaxation because of broken ribs but I hope that there was lively discussion while the others were drinking beer.

*Heli Castrén*



## **Practical Solutions to Practical Problems: UK/Ireland Winter Meeting December 1993**

**I**n the past, applied ethologists and welfare organizations have occasionally been criticised for not being very proficient at providing detailed and workable means through which practitioners can improve the welfare of animals in their charge. The title of this meeting, therefore, made a clear statement of ISAE's intention to counter such a charge. I am pleased to report that the meeting was very stimulating and satisfied the objectives of the title. However, like Tinbergen's famous four questions, the meeting could be viewed at several levels. So, while some papers did indeed describe practical solutions to practical problems, much of the discussion concerned *how* applied ethologists should go about their business of finding practical solutions and, more fundamentally, even attempted to identify those characteristics of applied ethology that make it a respectable scientific discipline.

A number of papers described studies that addressed particular problems in pigs and poultry, providing results that included either full or partial solutions. In particular, Abbott & Hunter showed the beneficial effects of early handling of pigs on later behaviour, and Martin & Edwards reported methods that can alleviate food-related aggression in outdoor sows.

Several other papers reported studies that, while they did not so much offer practical solutions, certainly provided a greater insight into key factors underlying important problems. These papers covered a diverse range of topics which included: effects of social behaviour on lameness; effects of environmental enrichment on a variety of species; transport problems; mixing of sows; the effect of noise on piglets; nest-searching in hens; various studies on housing design.

Contrasting with these investigative studies, Lawrence discussed the nature of scientific endeavour with particular reference to applied ethology. This provided a focus for much of the concluding discussion in which various issues were raised. These concerned not only our role as solvers of welfare problems but also the contribution to science which can be made by applied ethology in a climate where working on applied problems is, perhaps, sometimes

regarded as intellectually rather inferior to pure science. The meeting took an optimistic view, identifying as one of the great strengths of applied ethology the fact that it draws from many disciplines and can therefore provide novel insights that are unavailable to purer sciences. As long as the research is carried out in a rigorous manner, applied ethology certainly deserves respect as a scientific discipline. I take the view that these discussions are all part of the growing pains of a society with a new(ish) name and should stimulate us all to think more deeply about the problems (pure or applied) on which we work.

Finally, in addition to the scientific programme, Libby Hunter's nomination as Regional Secretary for the UK/Ireland Region of ISAE was duly supported by the meeting.

*John Eddison*

## **Honorary Membership**

**A**t the Applied Animal Behaviour meeting in Freiburg in November 1993, our Senior Vice President Herman Wierenga had the opportunity to present Professor Ingvar Ekesbo with Honorary Membership of the International Society for Applied Ethology. Professor Ekesbo has been active in veterinary medicine since graduating in Stockholm in 1948, particularly in the areas of animal hygiene and animal husbandry. Since 1970 he has built up a research group in the Swedish University of Agricultural Sciences which has developed an international reputation in farm animal ethology. Indeed, his own influence in the field has been vital over many years and he has also made an invaluable contribution to this Society. He was President in 1977. He expressed surprise and pleasure at the presentation.

The Society now has four distinguished scientists whom it is proud to list as Honorary Members: Mr Alec Brownlee, Professor Ingvar Ekesbo, Professor Andrew Fraser and Professor Piet Wiepkema

## **Wood-Gush Memorial Fund**

**W**e are pleased to be able to say that the appeal for the David Wood-Gush Memorial Fund, announced in the last newsletter, has been sufficiently successful for the proposed annual lecture to begin at this year's ISAE International Congress in Denmark as planned. This is particularly appropriate because David had a number of links with Denmark, and generous donors have included the Danish RSPCA. The first David Wood-Gush Memorial Lecture will be given by Ian Duncan, David's erstwhile



student and long-term colleague and friend.

Details about the fund including forms for donations and covenants can still be obtained from Professor Aubrey Manning, ICAPB, University of Edinburgh, Ashworth Building, West Mains Road, Edinburgh EH9 3JT, UK. Donations can be sent to The University of Edinburgh Development Trust (David Wood-Gush Memorial Fund), Development Office, Old College, South Bridge, Edinburgh EH8 9YL, UK.

## *other news*

### **Report on the Fourth European Symposium on Poultry Welfare**

**P**oultry welfare has been discussed in a formal setting in Europe for many years now. The "First Danish Seminar on Poultry Welfare in Egg-laying Cages" was held in 1978. The Danes bit the bullet and invited along interested parties with a very wide range of views on welfare from producers to animal protection societies. The format was so successful that, in 1981, the First European Symposium on Poultry Welfare was organized, also in Denmark. Since then, these Symposia have been held every four years, all organized by Working Group IX of the European Federation of the World's Poultry Science Association. The objective has been to increase awareness of poultry welfare issues, to disseminate knowledge of research results, to draw attention to current research, to identify gaps in knowledge and thus to influence future research.

The 1993 Symposium, which was chaired by Ragnar Tauson (Sweden) was held at Heriot-Watt University near Edinburgh on September 18-21. There were four main sessions with invited papers reviewing topical research. After each session the papers were discussed by groups of participants, and this was followed by a general discussion in a plenary session. There were also two sessions of Free Papers and a Poster Section. The conference was attended by 120 people from research institutes, universities, animal protection organizations and industry. Although most people attending were from Europe, there were also several participants from Australia, China, New Zealand and North America.

The first session dealt with basic biology and welfare. Nichelmann (Germany) presented a paper on "Early Experience and Adaptation" in which he concluded that the biological processes occurring in the perinatal period may be more important than previously thought in regulating such things as thermoregulation and environmental preferences later in life. Blokhuis and colleagues (The Netherlands) reported on experimental results which suggested that feather pecking and stereotypies have a common origin in that both may be derived from foraging behaviour. Perry and Lewis (UK) reviewed "Light Perception and Behaviour" in poultry and concluded that most of the available evidence suggests a welfare and health advantage for shorter periods of illumination, including intermittent regimes. The effect of light on poultry was also dealt with by Nuboer (The Netherlands) who described work from his laboratory on the spectral and temporal aspects of fowl vision. Grossmann and colleagues (Germany) gave a highly technical paper on the role of neurohypophyseal arginine vasotocin in regulating fluid balance. The session finished with a very comprehensive review on the voluntary regulation of food intake by Savory. (UK)

The second session was entitled "Welfare Criteria in Alternative Housing Systems". Duncan (Canada) and Mench (USA) reviewed the topic of behaviour as an indicator of welfare. They suggested that behaviour can be used to identify states of suffering and that certain luxury behaviour patterns may indicate positive emotional states. They pointed out that there is great potential for using social behaviour to assess the welfare of birds in the large groups that are commonly a feature of alternative systems. Morgenstern and Lobsiger (Switzerland) reported on a survey of the health of laying hens, comparing battery cages with the main types of alternative housing systems now found in Switzerland. Engström (Sweden) and Schaller (Norway) reported on three Norwegian and five Swedish trials in which birds submitted for post mortem examination and at the processing line revealed morbidity differences between four different aviary systems, Get-away cages and conventional cages.

There followed two papers on air contamination in poultry production systems, the first by von Wachenfelt dealing with the Swedish scene and the second by Groot Koerkamp and Drost covering The Netherlands. Both studies reported that ammonia



and dust levels were much higher in alternative husbandry systems than in battery case systems. The session finished with a paper by Mettler (Switzerland) and Lagergren (Sweden), representatives of poultry producer groups in their respective countries, on the "Economic and Legal Aspects of Marketing Alternative Poultry Products". Using case histories from Sweden and Switzerland, they argued that restrictions to protect animal welfare are most effective when implemented voluntarily and counter-productive when legally imposed. They also said that, when marketed properly, animal welfare can be made a selling feature for a product.

The third session dealt with the welfare of turkeys, waterfowl and other "minor" species such as game birds. Hocking (UK) described commercial turkey production systems in the US and Europe. He suggested that there is evidence that beak and toe-trimming causes at least short-term pain in turkeys, and indicated that more information is required on snood removal, transportation, low intensity light, long photoperiods and the factors influencing lameness and ulcerative dermatitis. Rauch and colleagues (Germany) summarized research on the welfare of ducks and geese. Stocking density and environmental barrenness appear to contribute to problems of feather pecking and abnormal sexual and prelaying behaviour in ducks. Faure (France) and Mantovani (Italy) described commercial management practices for rearing guinea fowl and gamebirds. Feather pecking and cannibalism are common in all species. With regard to gamebirds, there is extremely high mortality in the first months after release. The ethical implications and possible environmental impact of releasing birds adapted to captivity into the wild was the topic of subsequent spirited discussion. The "Welfare of Domestic Quail" was addressed by Gerken (Germany) and Mills (France). They recommended decreasing group sizes and male to female ratios, as well as housing quail in cages less than 25 cm high, as measures to decrease mortality and injuries.

In the fourth session, which dealt with broilers, Elson (UK) described the various housing systems and management practices used, and suggested that while broiler welfare is generally good, it could be improved by providing perches. Fris Jensen (Denmark) discussed the influence of stocking density on welfare and productivity. He also described the use of feed restriction and lighting programmes to dec-

rease skeletal disorders and metabolic disease (ascites). Genetic and environmental influences on the incidence and severity of these pervasive health problems were further described by Thorp and Maxwell (UK). The welfare of broiler breeders was addressed by Mench (US). The severe food restriction necessary to ensure good health and reproductive competence creates welfare problems for breeders, since they show evidence of stress and also appear to be chronically hungry.

Transportation was dealt with by Mitchell and Kettlewell (UK) who described how they had mapped thermal loads in various parts of transport vehicles, and indicated that this information had been used to develop an on-line monitoring and warning system which alerts the driver when temperature and humidity reach levels determined in laboratory studies to be potentially detrimental to the birds. Mohan Raj (UK) reviewed studies from his laboratory which showed that stunning using either argon or a mixture of carbon dioxide and argon was effective in inducing insensibility within 2-3 minutes in chickens and turkeys.

Nineteen free papers, many dealing with aspects of the welfare of laying hens, were presented. In addition, twenty-two posters, some of which were of a very high standard, were on display throughout the meeting.

Copies of the Proceedings of this Symposium, which contains the full text of the invited papers together with summaries of the free papers and the posters, can be obtained for the very reasonable price of £10, from Universities Federation for Animal Welfare, 8 Hamilton Close, South Mimms, Potter Bar, Herts EN6 3QD, UK.

*Joy Mench and Ian Duncan*

## European Convention Report

**O**ur latest meeting for the European Convention on Protection of Vertebrate Animals Used for Experimental and Other Scientific Purposes (ETS 123) (Strasbourg, 30th Nov. to 3rd Dec. 1993) was rather important because it was not a preparatory working party but a statutory Multilateral Consultation of Parties to the Convention.

As usual, I shall not report the many points of the agenda which were irrelevant to our society, such as information concerning implementation of the Con-



vention in different countries. The major problems in relation to the Convention which had to be dealt with were education & training, housing and imported animals.

I. Education. Four categories of persons have been defined. (A) Persons taking care of animals (usually caring for daily management, such as cleaning, transport, reproduction etc.). (B) Persons carrying out procedures (usually technicians performing experiments under control of a scientist or junior scientists such as PhD students and those working in a team without directing the work). (C) Persons responsible for directing or designing procedures. (D) Laboratory science specialists (e.g. veterinarians inspecting and advising laboratories). These levels should not be related to administrative function; for example, a category A person who rises in the hierarchy could in time become manager of an animal house. At this meeting, an agreement was reached on a resolution which mentions in detail which topics instruction should be given for all four categories. Each Party is free to implement these requirements the way it deems best.

One point of interest to ISAE concerns the degrees a person should have to start courses under category C. The draft text included a restricted list which would have closed the door for a lot of researchers, especially in the behavioural field. However, it was amended in such a way that each individual case can be examined in respect of the instruction received. For example, someone with a degree in experimental psychology with extensive training in neurophysiology and neuropsychology will be allowed to start a C course and will not be required to follow subjects he has already been examined on, while the education of somebody graduating in psychology from a university where that subject is very speculative could be judged insufficient to start a C course.

II. Housing. First, a reminder: Appendix A of the Convention determines cage sizes, population densities etc. These norms were agreed in a rather arbitrary way. The legislation now asks ethologists to determine what cages should look like and what they should contain to satisfy the animals' needs. The cart has been put in front of the horse.

The final report of the Berlin CEC workshop on housing (May 1993) was not yet ready. Furthermore, scientific data are lacking which could support several proposed changes, such as 'enrichment' for some rodents, not to mention cage size. Enrichment implies

a lot of things which increase environmental and behavioural variability: social contact, physical structure of the cage, objects which can be manipulated, transported and transformed, and feeding. For the sake of simplicity I shall use the word without going into detail. On the one hand, it is not just animal protection people but many behavioural scientists who feel that the environment of laboratory animals could be improved. On the other, changes should be well documented for two reasons. First, we should be careful not to play the apprentice sorcerer by introducing changes which could turn out to be worse for the animals. A systematic evaluation of any kind of enrichment of socially kept animals is to be encouraged in place of the alternative approach of 'We tried it out and it seems to work'. Second, changes such as increasing the size and shape of rat cages would imply substantial financial investment. It is unlikely that such improvements will be accepted unless supported by strong scientific evidence.

It therefore seemed impossible for this Consultation to finalise technical changes to Appendix A. However, I should have left the meeting unhappy if no official statement on enrichment had been produced. First, because of the intrinsic importance of the problem. It had to be recognised that doubts exist on whether several aspects of Appendix A are sufficient to satisfy the welfare of the animals. Second, as specific research is needed, it is important that scientists should be supported by such a statement in their quest for grants and could not be sent off with the argument that the problem is trivial. I am very satisfied that such a statement was easily and unanimously agreed.

III. Imported animals. The various representatives exchanged information on problems experienced with import of animals from countries outside the Council of Europe. Most problems do not seem to be due to transport duration but to transfers (climatic conditions, custom delays, wrong destinations). Other problems are the control of breeding places outside the Council and the sanitary quality of imported animals. Methods for increasing the breeding of primates in Council countries were examined.

The report to the Committee of Ministers will also suggest more frequent re-evaluation of the Convention to keep up more easily with scientific developments.

*Frank Ödberg*



## New Society, New Journals

**W**e have received a letter from Dr Bart Knol of the University of Utrecht which suggests that among veterinarians the necessity of a forum for discussing problem behaviour in companion animals has been recognised and that many are of the opinion that a professional veterinary organization is needed. They propose the foundation of a European Society for Veterinary Clinical Ethology (ESVCE) with an inaugural meeting during the Voorjaarsdagen Congress in Amsterdam in April (see Meetings, below). They have produced the first issue of what is intended to be the society's journal, the Bulletin on Veterinary Clinical Ethology, with articles on semiology of communication patterns between dog and man, and on social dominance evaluation. Information on both the society and the journal could be obtained from Dr B.W. Knol, Department of Clinical Sciences of Companion Animals, Faculty of Veterinary Medicine, University of Utrecht, PO Box 80.154, 3508 TD Utrecht, The Netherlands. He expresses a hope, which we support, that our organizations will be complementary so that our efforts will benefit the welfare of both animal and owner.

From next year, the Journal of Applied Animal Welfare Science 'will publish articles and reports that provide information on methods of experimentation, husbandry and care that demonstrably enhance the welfare of farm, laboratory, companion or wild animals.' It will be a co-publication of Psychologists for the Ethical Treatment of Animals and the American Society for the Prevention of Cruelty to Animals. It will be co-edited by Kenneth Shapiro (Maryland) and Stephen Zawistowski (New York), with Amelia Tarzi (New York) as International Editor.

## Active developments in NZ

**T**here are a number of active developments in the areas of farm animal behaviour and welfare in New Zealand, or perhaps we are just more aware of them through the involvement and communication of our NZ Council Member Lindsay Matthews. Communication is in fact getting steadily easier, particularly by electronic mail. Nevertheless I still sometimes find myself guilty of 'hemispherism', for example by referring to our 'Summer Congress' rather than our 'Annual Congress'!

Lindsay is Director of the Animal Behaviour and Welfare Centre at Ruakura, in association with the

University of Waikato. One scheme they have in operation is a Visiting Lectureship in Psychology which brings two or three scientists each year to Waikato including, currently, Alistair Lawrence from Edinburgh, UK. As part of the 1993 annual meeting of the NZ Society of Animal Production, the ABWRC organised a half-day session on the theme 'Animal welfare: time for change'. This comprised the following papers, which should by now be available in the conference proceedings.

'Facility design in relation to behavior, stress and bruising' by Grandin;

'Is the welfare of dairy cows at risk from current farm practices?' by Hargreaves et al;

'Farm practices and deer welfare' by Pollard;

'Castration, tail docking and dehorning: what are the constraints?' by Stafford and Mellor;

'Humane slaughter: an achievable goal?' by Cook et al;

'Improving productivity with better stock handling' by Hemsworth et al;

'Egg production in NZ: are we chickening out on welfare?' by Temple and Foster;

'Does intensive pig farming have a viable future?' by Barnett et al;

'Animal welfare: a threat or an opportunity for research, farming and trade' by Bayvel

One interesting aspect of that list is the number of titles which end with question marks!

*Mike Appleby*

## **ISAE** newsletter

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## Newsletter Round-up

**A**s Secretary of ISAE I receive a number of newsletters from other societies or groups. It is difficult to know how best to use them, but I do try to pass on information which will be of interest to ISAE members. Here are a few items from current issues.

The latest issue of the Journal of the Society for Companion Animal Studies has quite a lot of material on 'Pets, health and quality of life for older people', including the launch of a booklet with this title which can be obtained free by sending an sae (A5) to SCAS, 1A Hilton Road, Milngavie, Glasgow G62 7DN, UK. It also has a short review of 'Pet sex: the rude facts of life for the family dog, cat and rabbit' by Peter Neville, which despite its title is apparently aimed at 'an intelligent adult readership'.

The World Veterinary Association Bulletin has a special issue on Veterinary Education with a lead article by Dr Jean Pierard. Dr Pierard is President of the World Association of Veterinary Educators and Chairman of the WVA Veterinary Education Committee. The latter has set out Minimum Requirements for Veterinary Education; I note that these include study of animal husbandry and animal welfare but no explicit mention of behaviour.

The US Department of Agriculture's Animal Welfare Information Center Newsletter usually has one major article. This time it is on 'The use of behavioral techniques to reduce or eliminate abnormal behavior' by Gail Laule.

The Association for Study of Animal Behaviour Newsletter has, as usual, information on quite a few meetings and on the impressive range of ASAB grants available to members: for research and new ventures, for travel including conferences and for workshops. It also has as many as five advertisements for field assistants (each for more than one, and one of them for 20!). In addition, it has an important article by Trevor Poole on 'Alternatives to toe clipping for identifying small vertebrates.'

*Mike Appleby*

## letters

There is no correspondence in this issue, but letters and other contributions will be welcome. Please send them to Mike Appleby.

## articles

### Five Minute Philosophy: 'Pure' and 'Applied' Ethology

*This is a series of articles in which prominent members of the society are asked to expound on ideas which concern them without being held to account for the exact details.*

**T**hroughout my ethological career in the UK I attended meetings of both the Association for Study of Animal Behaviour (ASAB) and ISAE (formerly SVE) and noticed that almost mutually exclusive groups of people were present. There were a few ASAB meetings with an 'applied' theme or papers but the audience then consisted almost entirely of ISAE members. I am sorry to report that I have even seen ASAB members leave the theatre when 'applied' papers were given during open sessions and return when the 'pure' papers have restarted. Is this mere coincidence or am I suffering from paranoia? Does paranoia also account for my feelings of 'discomfort' at ASAB meetings and 'comfort' at ISAE meetings? Over the years my thoughts have frequently turned to the reasons for this experience and whether or not it was something peculiar to me. I have come to the conclusion that I am not paranoid but that these feelings stem from a distinction between 'pure' and 'applied' ethology and ethologists. I became further convinced of this when I read a short letter by John Krebs in the ASAB newsletter in October 1991. For those of you who did not see it, it stated that the UK's Agricultural and Food Research Council (AFRC) had been disappointed by the quality of recent grant applications in the field of animal welfare research and asked ethologists to consider applying to them for funding, saying that they would consider basic research on such things as cognition, motivation and perception. The AFRC "accepted ... that this basic research, whilst ultimately of relevance to farm animals, may best be carried out on 'model' systems of convenience for laboratory work. ... For example, an application to study the role of 'expectation' in learning in pigeons would ... be appropriate for the AFRC to fund." Krebs queried whether ethologists had not recognised that the AFRC is a possible source of funds, or whether it was "that virtually everyone has been drawn to work in currently fashionable areas such as sexual selection."



Following discussions with colleagues I drafted a reply but I was prevented from sending it to ASAB for publication. I am sure that some people will consider that I am now thumbing my nose from a safe distance (Australia) but I feel strongly that this issue must be addressed and resolved. My reactions to that letter have a common root in this 'pure' and 'applied' distinction:

1. The statement that ethologists have been drawn to work in currently fashionable areas such as sexual selection is incomplete because it certainly is not true of ethologists working on solving practical problems. This statement suggests that a distinction is being drawn between the 'pure' and more 'applied' aspects of ethology and this is very unfortunate because ASAB has a long history of members who have carried out excellent research on agricultural animals. This tradition has continued and in recent years it has been the 'applied' ethologists who have attempted to keep a balance in behavioural studies while the 'pure' ethologists have been furiously following the fashion of function. To draw a distinction between the 'pure' and 'applied' ethologists is a threat to ethology itself. Indeed Peter Slater in 1988 (ASAB newsletter 2) emphasised that ethologists must perform both fundamental and applied research if British ethology is to have a future.

2. There are pitfalls in advocacy of non-agricultural animals as suitable models for investigating animal welfare questions. Not only is there major variation in the responses of different strains/lines of agricultural animals but also considerable variation within lines. Drawing inferences between agricultural and non-agricultural species would be at best tentative and at worst misleading. I also wonder why anyone would want to use a pigeon as a model in farm animal welfare studies when there is an agricultural species available (the chook!) which is just as easy to keep in the laboratory and, moreover, comes with a wealth of biological documentation.

3. There is another possible flaw in the AFRC's appeal if it generates a flood of applications from ethologists who have no commitment to welfare research but view it as a device for obtaining additional funding to extend their existing interests.

4. Most animal welfare research in AFRC Institutes is funded by the Ministry of Agriculture, Fisheries and Food and must accordingly address practical welfare problems.

Is this division of ethology into 'pure' and 'applied' camps a UK or European phenomenon? Cer-

tainly it was not present in Australasia in the 1980s. The joy of attending the Australasian Society for Study of Animal Behaviour (ASSAB) meetings was to hear about basic and strategic studies of a wide range of species: native, introduced, domesticated, wild and feral. I don't believe that I am simply being nostalgic, but time will tell because I shall soon be attending by first ASSAB meeting after 6 years' absence.

Perhaps some progress is being made in the UK: there is to be a joint meeting of ISAE and ASAB in December this year and my sincere hope is that this marks the start of a closer relationship between the two societies and to an end to divisions between 'pure' and 'applied'. This will only be achieved if this first step continues to be fostered; perhaps the winter meetings of the two societies should combine on a regular (if not annual) basis, with a theme that has common ground for both their memberships. ASAB's Easter meetings traditionally have no specific theme and provide the opportunity for students in particular to present their work. I urge more ISAE members to offer papers and attend these meetings. However, perhaps the greatest progress towards closer links would be for more ASAB members to join ISAE and *vice versa*; ignorance of others' research will always be the greatest barrier to good working relationships and science.

Of course if we follow this discussion through to the logical conclusion then it is evident that ISAE are guilty of being divisive in view of the society's name. I can hear the groans of despair as you read this but yes, I believe that there is a case for another change of name in the not too distant future!

*Carol Petherick*

## Breeding for Better Welfare

**W**ild animals living under natural conditions are constantly adapted to their environment by the continuously ongoing process of natural selection. Individuals in the population which are less than optimally adapted (less 'fit') are likely to be less successful in maintaining life and reproducing, with the result that any genetic trait involved in the suboptimal adaptation should eventually be eliminated. In contrast, better adapted individuals propagate genetic traits which may enhance adaptation relatively more in the population. Under stable conditions (an unchanging environment) this



process is more subtle. Under unstable conditions (e.g. during climatic changes or sudden sparseness of resources) the selection pressure is more intense.

Although survival and reproductive success are not entirely dependent on hereditary factors, genetic traits may play a role even if indirectly. A wild animal, for example, no matter how 'fit', could have an accident and break its leg. The possibility still exists, however, that this animal had a hereditary tendency to weak bone structure, thus making a bone fracture more likely.

All living organisms are subjected to natural selection. In domestic animals, however, the effect of this selection can be altered by humans in that less fit animals may be protected against diseases, provided with sufficient food and allowed to breed on an even greater scale than would be possible in nature. The logic for this interference by humans is obviously to obtain a higher level of productivity. Unfortunately, however, negative traits may be propagated unknowingly and undetected, as a side effect of this type of selection. There are several examples in the past of breeding programmes inducing such negative side effects. One of the most dramatic was of pigs bred for muscle mass that also had a higher incidence of malignant hyperthermia. The overall effect of this breeding is that affected animals are less resistant to physical stress. Similarly beef cattle bred for the double-musced syndrome, apart from being more susceptible to stress are unable to give birth to their large calves, making routine Caesarian section a necessity.

In less extreme cases side effects of artificial selection may be less obvious. The question is, how many 'weaknesses' have been introduced into modern breeds of animals through production-oriented breeding programmes? How many calvings in a dairy herd need some kind of assistance, and how many sows are unable to show normal oestrus because of such programmes? To what degree has the resistance to various diseases been affected, making an increased dependence on veterinary assistance necessary? Obviously, these questions do not only pertain to reproductive performance and disease rate. An increased reliance on medical treatments to keep a population of food-producing animals healthy is not acceptable from the consumer's point of view; possible also not from a financial point of view.

But what does animal welfare have to do with this problem? The fact that less fit domestic animals are

protected, fed and cared for medically is, without doubt, a more humane treatment than that of their wild-living cousins. However, because every interference by humans means some kind of handling and restraint, which is to some degree stressful even in domestic animals, the overall effect of this development is a reduction of their welfare. To allow a treatment such as Caesarian section to become a standard routine is clearly not acceptable from a welfare point of view. But even relatively minor interactions with the animals, such as other types of birth assistance in cattle or oestrus stimulating treatments of sows, may be a threat to their welfare.

In several areas of the world where extensive farming is practised, 'low maintenance breeds' have been developed (such as low maintenance cattle and sheep breeds in New Zealand and Australia). These animals live practically as feral animals: they are checked only once or twice a year. Because of the minimal human interference, natural selection has exerted its effect maximally with the result that these animals are able to survive and reproduce often even under rather harsh conditions. In particular, their resistance to disease (e.g. from ecto- and endoparasites) is now included in breeding programmes and has reached a high level. One current problem in these herds is that the demand for meat and wool of a higher quality has led to the introduction of European breeds that are less suited to the extensive conditions. The result is that the survival and reproductive rates have decreased in the original breeds.

The phenomenon of low maintenance breeds is clearly essential for herd management under extensive conditions such as in rural areas. Low maintenance, however, could just as well be a criterion for herds living under extensive yet less rural conditions and also for herds living under intensive conditions. The necessity for a more intensive selection pressure under natural conditions is also valid for man-made environments, whether extensive or intensive. Breeding programmes that take not only productivity into account but also health (such as disease resistance, natural oestrus expression, ease of birth etc.) would indirectly improve productivity and quality of the products, and would directly improve the welfare of the animals. As in veterinary medicine in general, prevention is better than cure.

*Jan Ladewig*



# The Legal Scene

## Dangerous Dogs

Three cases on the UK Dangerous Dogs Act 1991 reached the Court of Appeal. The Act bans pit bull types and similar animals from public places at all times unless muzzled. The Court made it clear that the offence is one of strict liability. In other words it is not necessary to prove a guilty state of mind on the part of the owner. In normal cases there is no need for expert evidence but it might be admissible on the question of whether the dog had actually bitten anyone. All three appeals were dismissed.

The veterinary press reported a private meeting hosted by Lord Houghton. The controversial mandatory destruction of the dog was the main issue. Should magistrates have some discretion? A further point made was that the police should use their powers under the 1871 Dogs Act, which is still in existence. That Act gives the court an option for an order that the dog be destroyed or for an order for the dog to be kept under control.

An article on the 1991 Act by G. Babington-Browne appeared in the Justice of the Peace Journal (1993) 157, 531.

## Status of RSPCA Inspectors

The UK Queen's Bench assumed that an RSPCA inspector was a person charged with investigation of offences under the Police and Criminal Evidence Act 1984.

## Sick as a Parrot?

Ever since the BBC's Monty Python sketch parrot humour has been popular. A most distinguished Queen's Council writing in The Times about a Californian murder trial has added to the genre. In November 1991 a parrot called Max was found near the body of his owner. Since that time he has persisted in shrieking "Richard, no, no, no!" The question of course is whether Max can be called as a witness. How will Max be cross-examined? The precedents suggest that the court will want to listen. The 1987 case was recalled in which a dog gave evidence at an industrial tribunal to show her obedience to her owner Richard Adams, author of Watership Down.

*Bill Jackson*

# meetings

## ISAE Meetings

**North American meeting 1994.** The Canadian and United States regions of the ISAE will hold a joint meeting at the University of Guelph on June 5. This immediately follows the conference on animal welfare listed below. The meeting will include papers and an organizational session for future regional events. Those interested should contact Tina Widowski for more information.

**ISAE International Congress 1994,** 3rd to 6th August, Foulum, Denmark. Full details of the Congress have been sent to those who noted an interest, and registration forms and instructions for contributors are now enclosed. The programme is looking strong and will include the following sessions and keynote speakers:

Stress in relation to production:

*Eberhard von Borrell*

Response of animals to environmental enrichment:

*Ruth Newberry*

Individual variation in response patterns:

*Per Jensen*

Teaching/training in applied ethology:

*An international panel*

Free papers

In addition, we are pleased to announce that the first David Wood-Gush Memorial lecture will be given by Ian Duncan from Guelph, Canada. If you need more details about the Congress, contact Knud Bach Kristensen, National Institute of Animal Science, Research Centre Foulum, PO Box 39, DK-8830 Tjele, Denmark (Tel. +45 89 99 19 00, Fax. +45 89 99 19 19). We look forward to seeing as many members as possible in Foulum.

**West Central Europe Meeting 1994,** 17th November. This meeting will be part of the regular Freiburg conference on Applied Animal Behaviour: see below.

**UK/Ireland Meeting 1994,** 1st-2nd December, London Zoo. This will be a joint meeting with the Association for Study of Animal Behaviour on the subject of Cognition, Motivation and Welfare. Offers of papers, with a half page abstract, should be sent to Dr F. Toates, Dept. of Biology, The Open University, Milton Keynes MK7 6AA, UK, or to Mike Appleby.



**ISAE International Congress 1995**, 3rd to 5th August, Exeter, UK. A first announcement and call for abstracts is enclosed. For further details contact Dr John Eddison, Dept of Agriculture and Food Studies, Seale-Hayne Faculty, University of Plymouth, Newton Abbot, Devon, TQ12 6NQ, United Kingdom, or email [j.eddison@plymouth.ac.uk](mailto:j.eddison@plymouth.ac.uk).

**ISAE International Congress 1996**, Guelph, Canada.

**ISAE International Congress 1997**, Prague, Czech Republic.

## Other Meetings

**Voorjaarsdagen International Veterinary Congress**, 22nd to 24th April 1994, Amsterdam, The Netherlands. This is an initiative of the Netherlands Association for Companion Animal Medicine and includes sessions on house soiling and aggression by dogs and cats. Contact Voorjaarsdagen Congress Committee, c/o Royal Netherlands Veterinary Association, PO Box 14031, NL-3508 SB Utrecht, The Netherlands

**The Canadian Approach to Animal Welfare**, 3rd to 4th June 1994, University of Guelph, Canada. This meeting is being organized by the Expert Committee on Farm Animal Welfare and Behaviour (Canada). Contact Frank Hurnik or Ruth Newberry.

**Applications of Learning Theory to Animal Research and Management**, symposium at the joint meeting of the American Society of Animal Science and the American Dairy Science Association, 11th to 15th July 1994, Minneapolis, USA. Topics will include operant techniques, aversive conditioning and ethical issues in animal agriculture. Contact Harold Gonyou or the ASAS.

**XXI International Ornithological Congress**, 20th to 25th August 1994, Vienna, Austria. Contact XXI IOC, Interconvention, Friedrichstraße 7, A-1043 Vienna, Austria.

**Awareness in Domesticated Animals**. This meeting, announced in the last newsletter for August 1994 in Wales, UK, has had to be cancelled, with apologies for any inconvenience.

**Behaviour and Welfare of Extensively Farmed Animals**, 3rd to 4th September 1994, Edinburgh, UK. A satellite to the EAAP meeting, organised by the Scottish Centre for Animal Welfare Sciences. Contact Dr Michael Cockram, Veterinary Field Station, Easter Bush, Midlothian, UK.

**Behavioural Brain Research in Naturalistic and Semi-naturalistic Settings: Possibilities and Perspectives**, 10th

to 20th September 1994, Nato Advanced Institute, Acquafredda di Maratea, Italy. Topics: Brain morphology analysis, Telemetry, Brain-related behavioural tests, Primatology, Homing pigeon studies, Mollusc behaviour. Contact Dr L. Ricceri, Lab. FISIOPATOLOGIA O.S., Istituto Superiore di Sanita', Viale Regina Elena 299, 00161, Rome, Italy.

**Environmental and Management Systems for Total Animal Health Care in Agriculture**, 12th to 16th September 1994, St Paul, USA. This is the VIII Congress of the International Society for Animal Hygiene. The program areas will be on Animal housing, Health and productivity research, Environmental safety, Case studies/investigative strategies, Animal well-being and Disinfection/disinfestation. Contact VIII Animal Hygiene Congress Secretariat, 225 Veterinary Teaching Hospitals, College of Veterinary Medicine, Gortner Avenue SE, St Paul, Minnesota 55108, USA.

**Internationale Arbeitstagung Angewandte Ethologie bei Haustieren**, 17th to 19th November 1994, Freiburg, Germany. This will include a meeting of the ISAE West Central Europe Region: contact the Regional Secretary Doris Buchenauer.

**Exploitation of Mammals**, 25th to 26th November 1994, London Zoo, UK. This symposium is organised by the Mammal Society and the Universities Federation for Animal Welfare. Contact Victoria Taylor, UFAW, 8 Hamilton Close, South Mimms, Potters Bar, Hertfordshire EN6 3QD, UK.

**Behaviour of Companion Animals: Research and Practice**, 30th November 1994, Royal Veterinary College, London, UK. This meeting of the International Society for Anthrozoology is the day before the UK/Ireland ISAE/ASAB meeting and is open to ISAE members who wish to present papers or attend. Contact Dr A. McBride, Anthrozoology Institute, Department of Biology, University of Southampton, Hampshire SO9 3TU, UK.

**First Asia-Pacific Colloquium in Neuroscience**, 15th to 17th December 1994, Singapore. Contact Singapore Neuroscience Association, c/o Department of Anatomy, National University of Singapore, Kent Ridge, Singapore 0511.

**XXIV International Ethological Conference**, 10th to 17th August 1995, Hawaii. (N.B. the wrong year was given in the last newsletter). Contact IEC Secretariat, Suite 150, GPM Building, San Antonio, Texas, USA.

**Animals, Health and the Quality of Life**, 6th to 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.