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## Five Hundred and Still Growing

During the recent congress in Foulum I referred to the ISAE as healthy and growing. We have now exceeded 500 members with many of the recent additions coming from outside western Europe, our traditional base. I believe I speak for all of the Council when I say it is an exciting time to be involved in the planning for the Society, but we also recognize that there are challenges facing us.

The international growth of our Society raises questions of how to ensure that all members have the opportunity to participate. Our concerns must extend beyond scientists and students in various European countries, and also include those in New Zealand, Japan, Brazil, the United States and elsewhere. The roles of International Congresses and Regional Meetings will no doubt change to accommodate these needs. Regional Meetings will become increasingly important in providing opportunities to present ideas and research, particularly for students. I expect that International Congresses will develop to reflect more the Society as a whole, and less the region in which they are held. Council has anticipated these needs and designated our Junior and Senior Vice-Presidents to coordinate Regions and International Congresses, respectively.

The Society must also ensure that the interests of all members are reflected in our plans. Animal welfare has been a driving force in our Society for some time, and it will continue to be important, but applied ethology is also relevant to productivity, efficiency, and sustainability in animal agriculture, and similar goals in the care and management of companion and laboratory animals, zoos, and wildlife. Expansion of our areas of interest should not be seen as a dilution of our discipline, but an opportunity to strengthen it. As we search for the role of applied ethology in addressing topics as diverse as farm animal welfare and wildlife management, we should find ourselves focusing more on the basics of animal behaviour which apply to all of these issues.

Our meeting in Exeter next year promises to be an important one for our Society. At that time we will elect the sites for our International Congresses from 1998 to 2000. We will also elect at least five new members to positions on the Council. I encourage your involvement as we face the challenges of our growing Society.

*Harold Gonyou*  
*ISAE President*



formerly Society for Veterinary Ethology



# 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)

## Regional Secretaries:

*Australasia and Africa:* Dr Lindsay Matthews, Ruakura Agricultural Centre, Private Bag, Hamilton, New Zealand.

Tel (64) 7 838 5569, Fax (64) 7 838 5727

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*West Central Europe:* Dr Doris Buchenauer, Institute of Animal Husbandry, Hannover School of Veterinary Medicine, Buenteweg 17p, D-30559 Hannover, Germany.

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Nominations for the 1995 AGM are invited for the following posts: Junior Vice-President, Secretary, Communications Officer and two Council Members. It is noted that the the JVP is President-Elect and that the society has only had one woman President. Nominations should be sent to the Secretary, Mike Appleby (IERM, University of Edinburgh EH9 3JG, UK. Fax +44 (0) 31 667 2601. Email MAPPLEBY@SRV0.BIO.ED.AC.UK) after obtaining the agreement of the nominee, preferably by 28th November 1994.

## ISAE news

### Email Network

This continues to expand, now having over 200 subscribers including about 125 society members. It tends to have flurries of activity then quiet spells, and most people must find something of interest on it because very few have dropped out. If you are on email but haven't yet subscribed, you can do so 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 Joe Stookey at:

`stookey@sask.usask.ca`



# ISAE Membership

Membership continues to grow and grow. Over 100 new members have joined over the last year, and the Society now has over 500 members. The Society is also growing more international, with more than 60% of members from outside the UK.

## Membership Directory

A new ISAE Membership Directory will be produced next February and distributed with the next issue of the Newsletter. To ensure that the Directory will be up-to-date, *all* members are encouraged to complete the enclosed form and return it to their *Regional Secretary* as soon as possible.

## Frequently Asked Questions

Answers to the six most frequently asked questions about ISAE membership are given below.

*Q. When is my ISAE membership subscription due?*

A. The date your next membership subscription is due is **printed on your ISAE Newsletter address label**. If any member objects to this information being publicly displayed they should contact me and I will remove it from their label. Note that the Society does *not* issue reminders; it is up to members to keep their subscription payments up-to-date.

*Q. Why doesn't the Society issue regular membership subscription reminders?*

A. The extra work and cost involved with sending annual reminders to all members would mean the Society would have to charge a considerably higher annual subscription rate. Note that any member who is two or more years in arrears with their subscription payments will be contacted by their regional secretary, and only if they still fail to pay their subscription (or if they cannot be contacted) will they be deleted from the Register of Members of the Society.

*Q. When does the membership year (or 'tracking period') start and finish?*

A. The membership year currently runs from **1st June** to the **31st May** the following year. It is planned to change this to 1st January to 31st December the next time the membership subscription rate is increased. With this in mind, we would encourage members to pay their annual subscriptions *early*; ideally on, or shortly after, 1st January each year. Note that members who pay by standing order should still make their payment on the 1st June until further notice.

*Q. How much is the annual membership subscription?*

A. The membership subscription rate was increased on the 1st June this year to **£10.00** per year. However, for those members paying arrears, the rate is still £5.00 per year for membership years 92/93 and 93/94.

*Q. Is it possible for two or more members to pay their subscriptions with a single payment?*

A. We are happy to receive one payment from a group of members (e.g. from all those at one Institution), but please include a note detailing exactly how much is being paid by each member.

*Q. What methods can I use to pay my subscription?*

A. Membership subscriptions can be paid by various methods:

① *Members with a UK bank account:*

① **Standing order**, on a form available from the Membership Secretary.

② **Cheque**, payable to 'ISAE'.

② *Members with an EU bank account:*

① **Eurocheque** in UK Pounds (£), payable to 'ISAE'.

③ *Members with a Giro account:*

① **Giro Cheque** in UK pounds (£), payable to 'The International Society for Applied Ethology'.

② **Giro Transfer** in UK pounds (£), to 'The International Society for Applied Ethology', Account number 106507109.

④ *Members without a UK/EU/Giro bank account:*

① **Credit card** (Visa, Access, Mastercard or Eurocard), quote your name (as it appears on the card), card number, expiry date, and the card holders registered address. Note that we cannot accept payment by American Express or Diners Club.

② **International Money Order** in UK Pounds (£), payable to 'ISAE'.

③ **Bank Transfer** in UK pounds (£), to 'The International Society for Applied Ethology', Account number 90069645, Bank Sort Code 82.67.08, Clydesdale Bank plc, 28 High Street, Penicuik, Midlothian, EH26 8HW, UK. Ensure that the bank quotes your name as a reference when making the transfer.

④ **Cash**, at one of the Society's meetings, in either UK pounds (£) or the local currency, to the Membership secretary, Treasurer or their representative.

⑤ **Cheque**, in your own currency, payable to 'ISAE', and including a £10.00 handling fee to cover exchange costs e.g. if paying two years membership subscription, send the equivalent of £30.00.



## Changes of Address

Stephen J. **Blakeway**, 4F2, 51 Salisbury Road, Edinburgh EH16 5AA UK

Dr Harry **Bradshaw**, Dept Clinical Veterinary Medicine, Madingley Road, Cambridge CB3 0ES, UK

Prof. Dr Detlef W. **Fölsch**, Animal Behaviour and Management, Universität Gesamthochschule Kassel, Norbbahnhofstraße 1a, D-37213 Witzenhausen, Germany

Leonor **Galhardo**, Travessa do Possolo nº 17, 4ª cave, 1300 Lisboa, Portugal

Dr Philip N. **Grigor**, Macaulay Land Use Research Institute, Craigiebuckler, Aberdeen, AB9 2QJ UK

Dr Stephen **Hall**, Dept Clinical Veterinary Medicine, Madingley Road, Cambridge CB3 0ES, UK

Major Tom **Ogilvie-Graham**, HK DASU RAUC, Borneo Lines BFPO 1

Louise S. **Reade**, Dept Clinical Veterinary Medicine, Madingley Road, Cambridge CB3 0ES, UK

Dr Shusuke **Sato**, Grassland Research Institute, Kawatabi, Narugo, Miyagi 989-67, Japan

P.H.**Simmins**, Rhone-Poulenc Animal Nutrition, 42 Avenue Aristide Briand, BP100 92164 Antony, France

Dr Markus **Stauffacher**, Institut für Nutztierwissenschaften, Physiologie und Tierhaltung, ETH Zentrum TUR E23, CH-8092 Zürich, Switzerland

Veena **Thimmaiah**, D-52, UAS Quarteas, MRS, UAS Hebbal, Bangalore-560024, India

Prof. Eberhard **von Borell**, Institute of Animal Breeding and Husbandry, Matrin-Luther University Halle-Wittenberg, Adam-Kuckhoff-Straße 35, D-06108 Halle, Germany

## New Members

Prof. Jack **Albright**, USA

Prof. Clive W. **Arave**, USA

Dr Denna M. **Benn**, USA

Sabine **Braun**, Germany

Dr Kathy **Carlstead**, USA

Prof. James **Craig**, USA

Birgitte **Damm**, Denmark

Prof. Andrzej **Frindt**, Poland

Dr Nicoline **Geverink**, The Netherlands

Miss Rona **Gibb**, UK

Dr Flaviana **Gottardo**, Italy

Dr Lasse **Gravås**, Norway

Mr Roger **Hancock**, UK

Miss Amanda **Hawthorne**, UK

Eva **Hydbring**, Sweden

Dr Ian **Inglis**, UK

Ivan Dimirov **Ivanov**, Russia

Birgitta **Johansson**, Sweden

Dr Eila **Kaliste-Korhonen**, Finland

Dr Marthe **Kiley-Worthington**, UK

Joergen B. **Kjaer**, Denmark

Dr Seiji **Kondo**, Japan

Dr Pierre Le **Neindre**, France

Løne **Lisborg**, Denmark

Dr Silvana **Mattiello**, Italy

Dr Michael **Mayntz**, Sweden

Dr Patricia **McConnell**, USA

Dr Shigeru **Morita**, Japan

Dr Julie **Morrow-Tesch**, USA

Sir Børge **Mortensen**, Denmark

Dr Mikhail **Moshkin**, Russia

Dr Lucas P.J.J. **Noldus**, The Netherlands

Anna **Olsson**, Sweden

Dr Irina **Oskina**, Russia

Dr Irene **Plyusnina**, Russia

Prof. Fred **Provenza**, USA

Dr Whitney **Reilly**, USA

Dr Norbert **Schwarze**, Germany

Dr James **Serpell**, USA

Zuzana **Štetkova**, Czech Republic

Merete **Studnitz**, Denmark

Dr Toshio **Tanaka**, Japan

Dr Hajime **Tanida**, Japan

Karen **Thodberg**, Denmark

Dr Oleg **Trapezov**, Russia

Ellen-Margrethe **Vestergaard**, Denmark

Dr Hanna-Marja **Voipio**, Finland

Margret **Wülbers-Mindermann**, Sweden

## Resignations

H.E. **Carter**, UK

Caroline **Channing**, UK

H.A. **Delpietro**, Argentina

P.D.**Fry**, UK

Helen **Knott**, UK

*Mark Rutter*

## Anthea Jackson

We regret to report that Anthea Jackson, Bill's wife, died in May 1994. Many members will remember Anthea from the long period during which Bill served as secretary of the society, from 1977 to 1985. We extend our sympathy to Bill and the family.

## Alastair Mews

We regret to announce the death of Alastair Mews of the RSPCA.



## Guelph in June

The first ISAE North American regional meeting followed on the heels of a Canadian national workshop entitled "Farm Animal Welfare Canada - Past, Present and Future". This juxtaposition worked well, attracting participants from across Canada and perhaps making the trip more worthwhile for Americans attending the ISAE meeting. I will attempt to summarise the highlights of the Canadian workshop by stealing shamelessly from David Fraser's typically insightful concluding remarks and then I will briefly review the North American ISAE meeting.

### Canadian Farm Animal Welfare Workshop

There was little disagreement at a fundamental level between agriculturalists and animal protectionists attending the workshop: both wanted good animal husbandry and workable solutions rather than battles from positions that ignore others' values. Conflict was demonstrated, however, between economics and animal welfare. Regulation could be used to overcome this disparity but so far Canada has opted instead for voluntary "Codes of Practice". Bo Algers' description of the monitoring of production practices in Sweden provided an excellent comparison that helped focus the discussion on the benefits and drawbacks of regulation. It is not clear, though, how attempting to set effective national standards will be affected by international trade agreements. It was suggested that recent GATT (General Agreement on Tariffs and Trade) negotiations obstruct the misuse animal health issues as trade barriers and instead, protectionist governments may try to use humane production standards to limit imports. If Canada decided to enforce a minimum space allowance for laying hens, could Canada then ban cheaper imports from countries that permit higher bird density? Would the European Economic Community have to provide some official sanction of the "Codes of Practice" for similarity with European standards to be recognised? These decisions will be based, in part, on the knowledge base created by research; however, there were differing opinions over the direction this research should take. Basic research was criticised as often being curiosity-driven and impractical; on the other hand, lacking fundamental understanding of an animal's response to its environment may result in superficial and misleading conclusions. Industry is interested in research that results in immediate economic payoff and funds for

basic research have become difficult to secure. Hence, if the humane movement continues not to fund research, the Canadian behavioural research effort may be steered away from basic animal welfare issues.

### North American Regional Meeting

The inaugural ISAE North American Regional Meeting was well organised and sincere appreciation is extended to Tina Widowski for her efforts. The meeting consisted of fourteen papers in three sessions, an ISAE business and organisation session, one poster session and an informal presentation and group discussion. This was all successfully crammed into one day! The titles of the papers presented are printed below and the abstracts were available on the Applied Ethology email network. Abstracts can be provided to interested persons not on email by myself or Ruth Newberry (please send a self-addressed envelope). During the business and organisational session it was decided that Canada and the United States would continue to have joint meetings. The next North American Regional meeting will coincide with the meeting of the Animal Behavior Society and therefore will be held July 5 and 6 1995 in Lincoln, Nebraska, USA. Volunteers were solicited for the position of Regional Secretary in both Canada and the US. A fitting conclusion to the meeting was the discussion led by David Fraser entitled "Animal Welfare as a Value-laden Concept: Implications for Science". He carefully developed animal welfare as a concept that involves many attributes whose relative importance are difficult to establish in an objective way. This approach and his suggestion that science, instead of attempting to "measure" animal welfare, should rather be identifying, rectifying and preventing animal welfare problems, generated considerable debate. The full text of his presentation was available on the Applied Ethology network. Interested persons not on email can obtain a copy from David Fraser or myself.

*Leah Braithwaite*

Titles of papers for which abstracts are available:

Calling by domestic piglets: honest signalling and animal welfare. Weary & Fraser.

Vocalisations by piglets during castration: punishing pain or purely protest? Braithwaite, Weary & Fraser.

Effects of branding on weight gain, rectal temperature and subsequent handling in feedlot cattle. Schwartzkopf, Stookey & McKinnon.

Influence of human assistance at parturition on cow/calf bonding in beef cattle. Stookey, Bailey & Campbell.

High-frequency vs low-frequency fluorescent lights: Hens do not mind the flicker. Widowski & Duncan.



Evaluation of an enrichment device for caged laying hens. Taylor, Hurnik & Hurnik.

Use of cover by domestic fowl. Newberry & Shackleton.

Parent-offspring conflict in pigs. Pajor, Fraser & Kramer.

Effects of stress on maternal behaviour in pigs. Rushen, de Passillé, Ladewig & Foxcroft.

The motivation of non-nutritive sucking in calves (*Bos taurus*). de Passillé & Rushen.

Post-hatching behaviour of turkey poults: life without Mom. Panning & Duncan.

Preliminary study on maternal behaviour in water-buffalo. Pinheiro-Machado & Schmitt.

Diurnal activity patterns of a pair of captive red wolves. Moore & Woods.

Piglet savaging by gilts and sows: some possible causes. Harris & Gonyou.

Science, values, and animal welfare. Fraser

Choosing to maximize distance from group members results in animats positioning around the enclosure perimeter. Zhou & Stricklin.

## International Congress

The 28th International Congress of the ISAE took place in the tropical environment of the Research Centre Foulum, Denmark, from August 3rd to 6th this year. The majority of the 150-plus participants came from Western Europe, but the Congress was also enhanced by the attendance of members from Eastern Europe, Canada, Japan and the USA. The friendly and casual atmosphere, combined with extremely warm weather, made the conference seem more like a holiday than a business trip!

The meeting began with the first David Wood-Gush Memorial Lecture, given by Ian Duncan of Guelph, who reviewed 4 aspects of the question "Why?", raising an important question concerning the relevance of using the functional approach in applied ethology. Ian considers promising areas of research to include neurophysiology, suffering, motivation, and cognitive abilities.

Five sessions followed, consisting of spoken papers and related posters. Session 1, Stress in Relation to Production, started with an invited paper by Ebby von Borell, who discussed the importance of integrating behavioural, neuroendocrine and immunological responses to stress, and reviewed how stress affects production performance. Ruth Newberry headed the 2nd session, entitled Response of Animals to Environmental Enrichment, with a colourful presentation, comprehensively reviewing the current state of environmental enrichment research. In the 3rd paper session, Individual Variation in Response Patterns, keynote speaker Per Jensen discussed 4 important properties of individual variation, and theoretical reasons behind variation's existence.

A morning was devoted to the examination of Teaching and Training in Applied Ethology around the world. Although this was an appealing concept, audience attendance was low, perhaps due to lack of emphasis on teaching philosophies, in favour of very general geographical overviews of teaching facilities. The final session consisted of a diverse selection of free papers, with topics ranging from frustration to human-animal interaction.

One excellent suggestion for improving poster sessions emerged at the Annual General Meeting. It was proposed that future sessions be held in conjunction with an evening reception, giving more visibility to both posters and presenters. Thursday's excursion was to the North Sea Centre at Hirtshals, and to a viking settlement, followed by the opportunity for a brief swim off the beautiful Jutland coast; some of those who went described the trip as interesting and informative. We chose instead to visit Legoland, the home of our favourite childhood toy!

Special thanks to the organizers of this year's Congress, and the staff of Research Centre Foulum, who provided excellent facilities. Although many of us were unable to experience much of Denmark, the local food gave us a "taste" of it! Finally, the Congress dinner (with a little help from ad lib wine, beer and port for some), offered a good opportunity for socializing, and dancing to the live jazz band.

*Moirra Harris and Renee Bergeron*

### Minutes of 28th Annual General Meeting, Foulum, Denmark, Friday, 5th August 1994

The meeting was chaired by the President, Harold Gonyou, and attended by 114 members.

① Minutes of 27th Annual General Meeting, Berlin, Germany, 28th July 1993. Approved, with no Matters Arising

#### ② Reports from officers

① Junior Vice President (Jan Ladewig): Further development of the regions is increasingly important. Activity depends primarily on the members in each region, but regions may apply for central funds for specific purposes. Regions are not fixed or final; for example, there may soon be a South American region.

② Secretary (Mike Appleby): Professor Ingvar Ekesbo was made an Honorary Member of the Society during the year.

The newsletter continues to develop. Submissions would be welcome, particularly from younger members. From next year it will be produced by a new Communications Officer who will also develop email communication.



③ Assistant Secretary (Henrik Simonsen): The expert advice given to the Council of Europe by Don Broom (farm animals) and Frank Ödberg (lab animals) is invaluable especially because of the Council's influence on legislation. Our fund to support this work is important: members are urged to send Henrik suggestions of people, societies or firms who might give donations.

④ Membership Secretary (Mark Rutter): A record of 107 applications has taken membership over 500. There are still 40% in UK/Ireland but this proportion declines as other regions increase. The subscription is now £10.00; the date when this is due is shown on each member's newsletter address label.

There are now 49 subscriptions to Applied Animal Behaviour Science (AABS). New applications (at £95.00) will be welcome.

⑤ Treasurer (Mike Mendl): Accounts were circulated, showing a balance in the General Fund of £5929. Suggestions from members on how funds should be spent (including by regions) will be welcome.

⑥ Editor (Jeff Rushen): The email network now has over 200 subscribers including about 125 members. Society matters will increasingly be circulated on it so members are urged to join.

The first ISAE Special Issue of AABS will include invited papers on social behaviour and plenary papers and some abstracts from this congress. Subsequent issues will be on similar lines but it is not planned to publish abstracts again. Meetings are encouraged to make their own plans for circulating abstracts including by email.

### ③ Elections to Council

All office bearers were eligible and willing to continue and there were no other nominations so they were elected unopposed.

Council: Lindsay Matthews and Frank Odberg had completed their terms and were thanked for their work. Paul Hemsworth and Pierre Le Neindre were proposed as new members. They were elected unopposed.

Auditor: Joyce Kent was nominated and confirmed and the continuation of Cheryl Horsfall was also confirmed.

### ④ Any other business

Anne-Marie de Passillé initiated a discussion on poster sessions at congresses. There was general agreement that these should be given more emphasis, with time set aside for people to read and perhaps present posters. Meetings might even consist only of posters and discussions, although the opportunity for young people to speak at congresses is also important. The point was made that if posters form an important proportion of a meeting then poster abstracts should be published.

Adroaldo Zanella raised general issues on congress organization, including the possibility of parallel sessions. Discussion also emphasised the importance of studies on species other than farm animals, and of support for Eastern Europeans and students to attend congresses. It was pointed out that the Congress Committee, including the organisers of the next three meetings, was present and would take account of this discussion.

A motion was proposed by Adroaldo Zanella, seconded by Harry Bradshaw: 'Future ISAE Congresses should consider parallel sessions to reflect the diversity of interests in the society.' An amendment was proposed by Jeff Rushen, seconded by Herman Wierenga: 'Council should give general consideration to the structure of meetings including poster sessions.' It was pointed out that the Congress Committee was already doing this and the amendment was withdrawn. The motion was passed by a large majority.

A motion was proposed by Ian Duncan, seconded by Anne-Marie de Passillé: 'The Council should establish a prize for the best poster presentation at each congress.' It was passed by a large majority.

### ⑤ Presidential address

Harold Gonyou pointed out that the society is healthy and growing, with 500 members and increasingly international, but that as with growing children this gives problems. The society's work is still predominantly on welfare and farm animals; applied ethology is not and should not be restricted to this. There is, in fact, increasing interest in other species; next year's congress will include a session on companion animals and we are establishing a first 'study group' on this subject with Jan Ladewig coordinating.

Our congresses are increasing in size and in geographical spread, so planning must be longer-term: we have a 'Three year plan' following this year's congress with one in Western Europe (Exeter 95) one in North America (Guelph 96) and one in Eastern Europe (Prague 97). This year we will be asking for offers for 1998, 1999 and 2000. Some congresses are difficult for some members to get to, so regions must 'take up the slack' and organise regional meetings; these are increasing in frequency and quality.

We have had a breakthrough in communication with establishment of the email network and members are encouraged to use this. Communication with Council and with Regional Secretaries is also encouraged.

Harold ended by considering leadership of the society. Next year we will be electing a new Junior Vice President, Secretary and Communications Officer and two Council Members. Factors which will be relevant include geographical representation and also gender, because we should note that the Society has only had one woman President. Council will continue to make nominations as necessary but democracy is important and nominations from members are invited.

## UK/Ireland Region

As you will know, the usual UK/Ireland winter meeting is this year a collaborative effort with the Association for Study of Animal Behaviour. Details are given below. I am also thinking of other ways to develop activity in our Region, and I would welcome suggestions. As one possibility, I am investigating the



possibility of a satellite meeting at the British Society of Animal Science (BSAS).

Animal welfare sessions now appear to be a regular feature at BSAS (formerly British Society of Animal Production) meetings in Scarborough in March. Many of the papers and posters are presented by members of ISAE, and I have felt for some time that closer links between the two societies would be mutually beneficial. As a start, I have in mind a smallish, informal satellite meeting, with a couple of short talks on hot topics, followed by an informal discussion session. Interested BSAS members could perhaps be enticed along with the promise of a free drink, and some may even be persuaded to join ISAE! I would like to hear members views on this idea. Do you go to BSAS? Would you be interested in attending or talking, and how many people do you think you could press-gang into attending? Do you have any ideas for topics? If you have a view, I would like to hear from you at the address above. (I'm the UK/Ireland Regional Secretary by the way, and no, I don't have an email address).

On another topic, as ISAE is affiliated to the Institute of Biology, I have been approached by the chair of the Women in Biology Working Group (Jean Walsingham in Reading) to ask if ISAE would like to propose up to three people who would be willing to join the group. I assume they are looking for women! If you want more information please contact me.

*Libby Hunter*

## Contacts with Other Organisations

ISAE tries to maintain contact with scientific organizations active in related areas. On the one hand these are organizations active in more fundamental science (ethology, psychology) and on the other hand those which are, like ISAE, active in the applied field. Some examples follow. At council level there is exchange of information between ISAE and the European Association for Animal Production (EAAP) about activities. Furthermore, at EAAP meetings papers are often presented or sessions chaired by ISAE members. In a similar way we are developing a relation between ISAE and the American Association of Animal Science (ASAS). We have also approached the World Veterinary Association and the International Society for Anthrozoology to cooperate and made clear that we are interested in exchange of expertise.

If you have suggestions for further development of contacts with scientific organizations, or for contacts with other organizations, please let me - or any other council member - know.

*Herman Wierenga*

## English: An International Language?

Something which is ever more obvious to me when I am editing or refereeing papers written by non-English-speakers is that I have a huge advantage writing papers in my own language. Furthermore, suggesting that authors get someone fluent in English to help them with the text is often just wishful thinking: it is obviously difficult for scientists in many countries to find anyone who will help them in this way. For these reasons, we are proposing that our society should help to link those who can offer help of this kind with those who need it. The scheme is likely to be particularly relevant to papers intended for submission to Applied Animal Behaviour Science (AABS) but will not be restricted to that journal. It will, however, be restricted to members of ISAE.

I have myself helped to revise manuscripts from a number of colleagues from abroad and while it may be quite time-consuming - for example, I spent a couple of evenings on one paper recently - it is also rewarding. Among other bonuses is that it can help to establish relationships which later develop in other ways. If you are reasonably proficient in writing English, I urge you to return the postcard enclosed with this newsletter, or to contact Lindsay Matthews, who has agreed to coordinate the scheme, by some other means: Dr Lindsay Matthews, Ruakura Agricultural Centre, Private Bag, Hamilton, New Zealand. Tel (64) 7 838 5569, Fax (64) 7 838 5727, Email SUMNERR@RUAKURA.CRI.NZ

Whether the scheme gets off the ground depends on response, so you may not hear from us for some time, or possibly at all. In any event, your name will only be given to one person until or unless you request otherwise. How frequently you help that person depends only on you. You should expect to be acknowledged in papers, but not to be an author. A list of people helping in this way will probably also be published periodically in AABS.

People needing help with their English writing are asked not to contact us at this stage unless they have constructive suggestions about the running of the scheme. We will let you know, probably in the next newsletter, when it will be appropriate to do so.

*Mike Appleby*



## European Convention Report

At the latest Council of Europe meeting on the Convention on Protection of Vertebrate Animals used for Experimental and other Scientific Purposes, a very lengthy discussion took place concerning transport problems. It was concluded that laboratory animals could have specific transportation requirements and the parties should enquire about problems occurring. Some delegates thought it would be very difficult to obtain trustworthy information in order to identify and localise frequent problems (e.g. transit delays, negligent dispatchers, etc.) while others argued that such problems regulate themselves as no laboratory is happy to receive dead or unhealthy animals. According to the results of the enquiries, this working party will examine whether the text of the convention should be improved.

The observer from Eurogroup for Animal Welfare asked that importation should be justified, especially when exemptions are granted to buy to non-registered breeders. The discussion resulted in the agreement that the following criteria should be used: availability in time (is it better to import than to oblige national suppliers to overbreed in order to be able always to satisfy the demand?), quality (better than national sources and resulting in less animals being used), quantity. Cost should not be an important criterion. Such criteria should be kept in mind by the respective national authorities. This is a practical problem; it concerns the correct application of the existing convention and does not require new legislation.

Very little is known about the welfare aspects of transport and housing of transgenic animals. As no particular problems were reported the initial attitude was to decide that there were none. The observers of the Federation of Veterinarians of the EC (FVE) and ISAE joined in a common word of warning that this could be an erroneous impression due to superficial observation. Investigations could eventually identify defects when the animals are exposed to relevant stimuli. Therefore, it is more correct to say that no particular problems have been reported up to now. Eurogroup and the World Society for the Protection of Animals (WSPA) will draft a 'code of practice' concerning transgenics. The convention requires that animals used in procedures should be declared and counted into the statistics. Although one cannot enforce this, it was decided to encourage the parties to include all animals, e.g. also those killed which are

not part of an experiment in itself but which serve as tissue or organ donors. They should be mentioned in a separate column. Some countries do so already while others don't. This will give an idea about the development of 'alternative methods' and reduce the erroneous belief that no animals are needed for alternative methods. Information was given about identification (use of tattooing and chips in various countries). ISO will meet later in September in order to decide upon a European standard for chips. If a standard is adopted, it is estimated it will take about two years before the norm will be enforced.

## Communications

Italian law now grants the status of conscience objector to students or researchers who refuse to carry out experiments on animals. A German court granted the right to refuse to a student and obliged the university to organise alternative practicals and demonstrations. In Norway students have to declare that they will not object to the proposed programme before starting their studies.

The FVE observer informed us that an animal welfare group has been erected within their organisation and that it will deal with laboratory animals.

The ISAE observer informed the meeting that it is also intended to erect such a working group within the ISAE (together with a zoo group and a companion animals group). Apparently, an increasing number of such groups are being created and it would be good to keep them in contact.

The most important way ethology can contribute for the moment to the welfare of laboratory animals concerns housing. In order to plan further studies or co-ordinate research projects it would be good to have the report of the 1993 CEC Berlin meeting. The German delegate and the observer from FELASA (Federation of European Laboratory Animal Science Associations) replied that it will probably be available before the end of this year.

ISAE members who can contribute in one way or another to solving the problems dealt with above are welcome to contact me.

*Frank Olof Ödberg*

## Addresses Needed

The expert advice given to the Council of Europe by Don Broom (farm animals) and Frank Ödberg (lab animals) is invaluable especially because of the Council's influence on legislation. Our fund to support this work is important and Henrik Simonsen does vital work in eliciting donations to it from a number of sources. However, most sources are limited, and Henrik has few addresses in some



countries. Members are urged to send suggestions of people, societies or firms who might give donations to Professor H. 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) 31 37 31 93.

## Annual Meetings of the EAAP

### Edinburgh 1994

The EAAP (European Association on Animal Production) held its annual meeting this year from 5th until 8th of September in Edinburgh. For ISAE the sessions on Stress and the immune system, Organic farming and Alternative housing systems for cattle were the most interesting.

#### Stress and the immune system

Harry Blokhuis (The Netherlands) prepared and chaired this session. The session aimed at integrating studies on stress and studies on the immune system. Stress in farm animals is often studied to answer questions related to animal welfare such as the evaluation of housing conditions, management procedures or treatment of animals.

Studies of immune function in farm animals are more related to prevention of disease, development of vaccines etc. In most cases there is no interaction between research on stress and research on the immune function. However, there is now growing evidence, mainly from human and laboratory animal studies, of reciprocal influences among the three main control systems of body, viz. among the nervous system, the endocrine system and the immune system, and thus linking stress and immune function. This session gave an overview of these interactions and some first results of research in this field with farm animals. This session will help to stimulate interdisciplinary research among ethologists, stress-physiologists and immunologists. It is the general feeling that this field of psycho-neuro-immunology is of enormous fundamental and practical potential.

#### Organic farming

Organic Agriculture is an area of increasing importance and research interest, as many European countries look to de-intensify their agriculture. Papers were presented on pigs, sheep and dairy cattle. Many of the organic standards established in various countries have not yet been well researched although studies are underway on the various

conversion schemes. The session, chaired by Peter Rowlinson, UK, provided an opportunity for discussion of work in progress elsewhere in Europe in addition to the British and Danish work presented.

#### Alternative housing systems for cattle

This session was prepared and chaired by Jos Metz from the Netherlands. The papers gave an overview of recent developments in the area of housing systems for cattle, as triggered by public discussions and newest research about the welfare of cattle. The first speaker, Don Broom (UK), presented many data in respect of welfare problems in cattle and existing legislation, in particular in UK. The next paper, about veal calves, showed differences between individual and group housed animals in respect of opportunity to express social behaviour. It was concluded that social contacts probably reduce discomfort but that housing calves in small groups may not be the best way to fulfil welfare needs of these animals. In two papers that dealt with housing and management for fattening bulls it was concluded that for the welfare of the bulls loose housing, soft floor, enough space and enough roughage are important both to prevent behavioural problems and diseases. Also for dairy cattle differences were shown among housing systems in respect of various behavioural problems. In tying-up systems various behavioural problems were observed, which were partly compensated by combining the system with keeping the animals in yards for part of the day. In the last paper about welfare it was shown that Switzerland applies an authorisation procedure to test housing systems and to prevent introduction of systems that are negative for the welfare of the animals. The last paper discussed the influence of the need of reducing environmental pollution of the housing of cattle. It is not clear yet how welfare and environmental demands can be combined best in the new housing systems.

The final discussion revealed that in recent years distinct progress has been made in identifying welfare problems of cattle in the existing systems. Moreover, it also has been made clear, in what direction the required changes should go. However, further interdisciplinary work has to be made in order to find optimal systems, from the viewpoints of animal welfare, the environment and the farmer.

#### Lillehammer 1996

EAAP has already decided about the programme for the annual meeting in 1996 in Lillehammer, Norway. For ISAE two sessions in particular are interesting. First, Genetic aspects of disease



resistance. The idea is also to include in this session papers about genetic aspects of behaviour, stress and the immune system. Second, Welfare measurements and new pig housing systems. Ebby von Borell will chair this session; papers about measuring pig welfare and about development of animal friendly housing systems will be presented. Any suggestions for these two sessions are welcomed!

*Herman Wierenga*

## **Behavioural Ecology Congress**

On August 14-20th 1994, the Fifth International Behaviour Ecology Congress was held at the University of Nottingham, UK. Close to 600 delegates attended. More than 175 oral papers were presented over 4 concurrent sessions and there were over 225 poster presentations. Sessions were held on life history strategies, sexual selection, foraging, communication, exploitation and parasitism, parental behaviour, predator-prey relationships, kinship and behaviour, and social behaviour and cooperation. Oral presentations were 20 min long with 5 minutes for questions and 5 minutes to change location. This format has worked extremely well at the past two meetings and should be considered if the next ISAE meeting has concurrent sessions.

The main theme of the plenary sessions was an examination of the relationship between behavioural ecology and other fields. Plenary sessions were given by Linda Partridge "Genetic and non-genetic approaches to questions in behavioural ecology", Jan Komdeur "Why are adolescents helpful at times and how do parents control their help in a stressed environment", Alan C. Kamil "Psychology and behavioural ecology: strange attractors or just chaos", Monique Borgehoff Mulder "The place of behavioural ecological anthropology in evolutionary social science" and of particular interest to ISAE members Marion Stamp Dawkins "Back to basics: why behavioural ecology contributes less to animal welfare and conservation than it should do". In her lecture, Dawkins stated that the functional approach could be extremely valuable to both animal welfare and conservation but only if behavioural ecologists return to a broader view of animal behaviour and consider questions of mechanism and development. Dawkins acknowledged that the field of applied ethology lacks the evolutionary perspective that characterised classical ethology and encouraged behavioural ecologists to consider questions of motivation and cognition. However, during the

question period it was pointed out that behavioural ecologists have already developed models, e.g. resource defence models, which could have an effect on animal welfare if they were to be used by applied ethologists. In my opinion, if behavioural ecology is going to make a contribution to animal welfare it will not be by going back to a mechanistic approach but by looking forward and collaborating with applied ethologists.

The Sixth International Behavioral Ecology Congress will be held in Canberra, Australia, September 29-Oct. 4, 1996. Hope to see you there!

*Ed Pajor*

## **Situation Situation**

Behavioural needs of captive mustelids: a three-year research position is available on this BBSRC-funded project, to start in Feb. 1995. Salary according to age and qualifications. For further details, contact Dr G. Mason, Animal Behaviour Research Group, Department of Zoology, South Parks Road, Oxford OX1 3PS, UK.

*Georgia Mason*

## **Animal Welfare Information Centre**

Don Broom and his colleagues at the University of Cambridge, UK, have announced the establishment of an information centre which can provide scientific information on the welfare of laboratory animals, farm animals and other species, in the form of reference lists (with abstracts if required) or literature reviews with interpretation. While this service is largely based on computerised databases and is charged for, members of ISAE will be glad to know that the small SVE library which was taken over by the Cambridge group some years ago is being put to good use. Contact Dr Caroline Manser, Department of Clinical Veterinary Medicine, Madingley Road, Cambridge, CB3 0ES, UK. Telephone 0223 330843 (or 337600 for messages), fax 0223 330886.

## **Companion Animal Behaviour Counselling**

The Society for Companion Animal Studies reports in their newsletter that a new Certificate in Advance Studies in Companion Animal Behaviour Counselling has been established at the University of Southampton, UK by the Anthrozoology Institute. It will run during vacation periods and will involve veterinary science, psychology, ethology, physiology



and pharmacology as well as training and clinical aspects of behaviour counselling. It will be concerned most with dogs and cats but reference will also be made to other species. Contact: Companion Animal Behaviour Counselling, Marketing Department, Department of Adult Continuing Education, University of Southampton, Highfield, Southampton SO9 5NH, UK.

## articles

### Five Minute Philosophy: Emotionality of Individual Vertebrates

*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. However, the title does not prevent contributors from spending more than five minutes on the ideas, as in the current case: see Wiepkema & Koolhaas, 1992, *The Emotional Brain. Animal Welfare*, 1 : 13-18.*

Discussions on animal emotions (or feelings) are often broken off by the remark that subjective phenomena do not lend themselves to biological research. I am a biologist: should I be silent about these emotions? No.

From the point of view of natural sciences (biology) such phenomena are not measurable : therefore they cannot have any straightforward scientific value. Nevertheless most of us do not deny emotions in other humans and many covertebrates. Stronger, we often foster the idea that the existence of animal emotions is a basic starting-point of animal welfare debates. We would make a significant step forward if we were able to reformulate questions about (animal) emotions in such a way, that emotional phenomena were brought within the domain of natural sciences, of biology. I think this is possible and in the following I will reflect on that.

First some remarks on science; more precisely on natural sciences including biology. For these I owe much to a booklet of Peter Medawar ('The Limits of Science', Oxford University Press, 1985) in which he in his inimitable and transparent style elaborated on the limits of science (I recommend it!). In his opinion (and I agree with him) there are no limits upon the power of science to answer questions of the kind science can answer. Before coming to this, I will make a note on those questions science cannot

answer: the so-called ultimate ones. Examples of these are : from where do we come, what is the meaning of my life, why did my son die untimely, etc. Answers to such questions that may concern us are not given by science; such answers stem from the field of religion or human beliefs. Ultimate questions are ultimately relevant and the same holds for the trials to find answers to such questions. Animal emotions do not belong to those events that raise ultimate questions.

Questions that can be answered by science are characterised by being derived from hypotheses that possibly could be true, i.e. hypotheses that can be falsified (Popper), and thus refer to observable and measurable phenomena or events. This mini-philosophy leads to the conclusion that to handle animal emotions scientifically we should create operations that bring these emotions into the domain of science. To do so I want to reformulate the proper questions, having in mind the existence of numerous (and often) visible emotional phenomena (including the old darwinian emotional expressions) typical of most, if not all, vertebrates. These emotional expressions have rarely been analysed in a systematic way by ethologists.

Reformulating questions also implies getting rid of inadequate ones. An example of the latter is: what precisely does a specific individual feel or experience during a specified emotional state or process? We have no means to disclose this sort of individual experience. Therefore, we should forget this sort of question; at least for the moment. The approach I have in mind is analogous to the one followed in, for instance, colour vision research. This prosperous research did not focus on questions like "is your blue identical to mine?" etc. but on phenomena like "do individuals distinguish between blue and red?" or "do they use colour differences as signals?" etc. Why should we not develop an analogous approach for animal emotions?

To proceed in this I need at least one axiom and two hypotheses or conjectures that could possibly be true. The axiom is: all vertebrates experience comparable (not identical!) emotional states somewhere throughout their life. This seems to me a plausible axiom, since I do not see any argument favouring the idea that emotional states (as experienced in myself and, indirectly, in other humans, especially those with which I am most familiar) have no precedent in other vertebrates. On the contrary, all *prima facie* evidence strongly suggests, that those non-human vertebrates I know individually experience highly comparable emotional states. These states are well recognisable and often have great informational value.



Given this axiom I need two conjectures to model adequate research. The first is that emotional states of vertebrates can be recognised (qualitatively and quantitatively) and categorised by means of a systematic description of various emotional expressions (behavioural patterns like tail movements, sounds uttered, smells produced, etc. and physiological events, especially those reflecting activities of the autonomic nervous system; heart rate, colour changes etc.). These expressions do not occur at random; there is an underlying system to be detected. The null hypothesis assumes no system. An interesting point that should be kept in mind is that most of these expressions have also great communicative relevance. Remember the familiarity aspect necessary to recognise emotional expressions.

The second conjecture refers to possible mechanisms underlying these expressions. Being explicit about possible mechanisms will help in testing the systematics of emotional expressions and states. My guess is that different emotional states reflect different states of cognitive uncertainty of the individual with regard to the meaning of changes in its Umwelt. These changes may have significance for the near future (at best minutes in animals) or the remote future (days or years in humans). Formulated this way, emotionality will only occur in those organisms that are able to doubt the reliability of their information. Doubt reflects one of the highest achievements of the brain. Roughly reliability may increase or decrease and this may differentiate between positive and negative emotional expressions respectively (pleasure versus fear).

This hypothesis can be operationalised by having an organism in an experimental situation in which the predictability or controllability of its Umwelt can be changed in a qualitative and quantitative way. A good example of such an approach can be found in the classic extinction procedure. In such experiments we should not only record the time course of bar pressing, but also the occurrence of emotional expressions.

If these guesses are viable, some important perspectives are opened. First, it may become clear unambiguously that we and our covertebrates hold comparable emotional states. Second, such a statement will strengthen the scientific framework of the animal welfare debate.

The above implies new and often first steps in the analysis of emotional expressions in domestic animals. Knowledge of these expressions may enhance strongly the reliability of predictions we can make about future activities of a given individual. Another most interesting aspect of these expressions is their communicative value. The study of these

signals will not only reveal much about emotional states of animals, but also of the social organisation of the same animals.

Such a study will certainly reveal the uniqueness of individual animals. All have their own story and interests. Individuality may be higher in those species that have invested much per individual (mammals, most birds); it might be low in species that have invested in quantity of progeny (most fishes, amphibia). If, in the latter species, individuality is low, this may be associated with a weak emotionality. The lower the individual investment, the more such individuals behave like automata. It could be that for this reason emotionality and welfare questions are scarcely interesting in most invertebrates.

*Piet Wiepkema*

## "Good" Stress and "Bad" Stress?

At the ISAE Conference in Foulum, Denmark, recently, the question 'Does stress always reduce welfare?' was asked during one of the discussions. As is often the case with such complex questions, it can be helpful to compare the stress-welfare situation with the related area, health and disease, i.e. to ask the question, does sickness always reduce health?

I think not. On the contrary, in some cases, sickness can even improve health. For instance, if you have had a period of too much work, too many deadlines to meet, too many administrative obligations to fulfil, in short if you have been too "stressed" for some time, you are more likely to come down with a bad cold. One morning you wake up, your head feels double its normal size, your eyes itch, your nose is stuffed, your throat sore, and you ache all over. Your body is telling you that you have been burning the candle at both ends. It is warning you to take a break, so that you can recharge your batteries. So you call in sick, stay home in bed, and cure your cold with rum toddies. (A rum toddy against the common cold is like whisky against snake bites: you are cured not because of it but in spite of it). If you don't listen to your body, if you spray a decongestant into your nose and drag your miserable self to work because you think you are indispensable there, you may later come down with a much more serious disease (such as a heart attack, high blood pressure, an allergy, etc.). Clearly, in this situation the cold is a sickness that can improve your health.

Another example: a ten-year old boy is infected with mumps. For a couple of days he looks pretty silly in his head because of swollen salivary glands



and he gets to stay home from school. If he did not catch this disease during childhood, he could get it as an adult. The infection could then attack his testicles and make him permanently sterile. Clearly, the relatively harmless children's disease protects him against the more serious disease in adulthood. The sickness improves his health. There is scientific evidence that "stress" (in this case handling) during "childhood" (a few days after birth) has a lifelong effect on the response to stress in adulthood, at least in laboratory rats (Meaney *et al.*, 1989, *Neuroendocrinology* 50, 597). Whether it is only the stress response that is changed or whether the perception of the stressor is also affected, we do not know. It is tempting to speculate, however, that also the perception of the stressor is changed, that "practice improves performance".

Certainly, repeated exposure to a gradually increasing intensity or duration of a stressor, with the aim of improving "coping", is a commonly used method, both in behavioural research and in clinical work. For instance, repeated handling and restraint of a farm animal can result in a situation where it is possible to collect blood samples through venipuncture without any behavioural or physiological reaction from the animal. Similarly in the behavioural clinic, modifying the behaviour of a companion animal (for instance fear of thunder in a dog) is best achieved through repeated exposure to increasing intensities of the stressor, a process referred to as successive approximation.

The important thing both in the sickness-health and in the stress-welfare situation is that the initial stimulus (stressor or disease agent) is mild enough not to harm the organism permanently, and yet intensive enough to activate some defence mechanism. As far as stressors are concerned, this touches upon another question often asked during discussions at meetings: are there such things as good stress (eustress) and bad stress (distress)?

If an animal is subjected to an aversive situation for a short period of time (such as social isolation or immobilisation), the hypothalamo-pituitary adrenal (HPA) axis, among other things, is activated and the secretion of corticotrophic releasing hormone (CRH), adrenocorticotrophic hormone (ACTH) and glucocorticosteroids is increased to some degree. If the animal is subjected to a pleasant situation (such as mating) the same activation of the HPA axis may result. The two situations are clearly different; only one of them is considered negative. Yet, they both may result in the same physiological stress reaction. How come one stressor is good, the other one bad if they cause the same reaction? In the following I will argue that this kind of question is irrelevant.

Activation of the HPA axis after stimulation of various types of stressors is 'good'. It is not only good, it is essential for life. Without it, the organism would die a fast death. What exactly the beneficial effects of these reactions are, we may not fully understand. We do know that the reactions affect the glucose metabolism, thus providing energy that may be needed for dealing with the stressor, and that the immune system is kept in check so that the organism is not damaged by its own defence reactions (Munck *et al.*, 1984, *Endocrine Review* 5, 25). We also know that CRH has important functions at the central nervous level, probably helping the animal mentally to deal with the stress situation (Dunn & Berridge, 1990, *Brain Research Review* 15, 71). Undoubtedly, our present knowledge of how HPA activation helps the organism covers only part of the whole picture. As pointed out by Gary Moberg at a meeting in Tune, Denmark earlier this year, however, the fact that the activation of the HPA axis has been around for thousands of years is proof enough that it is important; that its activation is 'good'.

As in all aspects of life, few things are only good; most things also have side effects. In medicine, for instance, all drugs have side effects. These side effects can be negative or they can be neutral or even positive. If you take aspirin for a headache, one side effect is that it can cause stomach ulceration due to its acidity (a bad side effect), it can change the smell of your urine (an insignificant side effect), or it can prevent your blood from clotting in your coronary arteries (a positive side effect). Positive and insignificant side effects we can easily accept. Negative side effects we have to consider carefully and weigh against the seriousness of the sickness, the necessity of the drugs, and their desired effects. The side effect of the activation of the HPA axis is, first of all, that it costs energy, not so much for synthesising the hormones involved, but more because of the mobilisation of glucose. Another side effect is interference with the activity of the hypothalamo-pituitary gonadal axis, and a third the immunosuppressive effect. As with drugs, if the 'intake' is a one time thing at a reasonable dosage, the organism may readily compensate so that no damage is detected. If the stressor is not too severe and applied only once, a slight increase in food intake may compensate for the increased energy expenditure. If the stressor is applied in midcycle, sex hormone secretion may be back to normal by the time the next ovulation takes place. And if the immune suppression is short lasting, the risk of some infectious agent invading the organism is minimal so that, all in all, the side effects may all go unnoticed.



As long as effects (energy provision, immune system check, CNS preparation) and side effects (growth retardation, immune suppression) are balanced, the stress reaction is primarily beneficial. At some point, however, as stressor duration, intensity, or frequency increase, the negative side effects may take the overhand and turn the whole thing into something predominantly bad. The point or threshold at which this turnover happens depends upon many different factors, such as genetic predisposition, earlier experience, individual characteristics such as temperament, coping pattern, etc. For example, if the stressors are applied too often or if their intensity is above some (imaginary) threshold, one or several of the body functions may show signs of impairment. Theoretically, it is possible to imagine different 'side effect thresholds' for the different body functions, e.g. growth rate being affected first, then the immune system, etc. Furthermore, animals kept on a restricted diet or animals experiencing a rapid growth rate may not be able to compensate as readily as *ad libitum* fed or slow growing animals, thus showing the side effect earlier. Similarly, animals exposed to infectious agents to which they are not used (e.g. when animals from different herds are mixed) may also be more likely to become infected as a result of stress as compared to animals that are stressed but kept in their usual 'microorganismic environment'.

Consequently, the 'goodness' or 'badness' of an HPA axis activation does not pertain to whether it is caused by the stress of mating or by the stress of confinement. Rather, the degree of 'badness' depends upon to what extent the different body functions can be restored during intervals between activation of the HPA axis. The 'badness' of stress has something to do with the pauses in between stress situations. So beware, too frequent or too intensive mating can also result in negative side effects!

Jan Ladewig

## **ISAE** newsletter

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## Legal Scene

### Dangerous Dogs in UK

Developments on the UK Dangerous Dogs Act 1991 continue. In one case the Divisional court declined to accept an owner's voluntary intoxication as an excuse to a charge of allowing a pit bull terrier to be in a public place without a muzzle. The veterinary press reports that the British Veterinary Association has pledged its support for the Amendment Bill currently going through the Lord's (see last issue of the ISAE Newsletter). The Bill is "seeking to inject a bit of common-sense into the Act by giving magistrates some discretion as to the sentences they can impose". Currently destruction is mandatory. The BVA say it is extremely difficult to identify dogs as pit bull terriers. Veterinary surgeon, April Jones, says it is "a nigh on impossible task which may be likened to redheads proving they are not Celtic".

Recent articles and books in this area include the following.

CLAYTON, C. (1993). Dangerous Dogs and Public Places. Justice of the Peace Journal (J.P.N.) 824.

COTTRELL, R. (1994). Dangerous Dogs : Time for Amnesty. 158 J.P.N. 9.

GANNON, D.E. The Complete Guide to Dog Law. Hardback : £19.95. ISBN 0-87605-658-3. Simon and Schuster.

### Stag hunting

Mr Justice Laws decided that Somerset County Council, UK, is not permitted to take a decision about activities on its land which was based on free-standing moral perceptions as opposed to an objective judgement about what would conduce to the better management of the estate. The decision is to be appealed.

### Shocked parrot

A Swedish Court has ordered a burglar to pay damages of 3,000 kronor (£250) in damages for frightening a parrot when he broke into a house. Since the burglary the parrot has been afraid to stay at home alone.

Bill Jackson

## Newsletter Layout

Eagle-eyed readers may have noticed a slightly different look to this issue of the Newsletter. In order to simplify the process of page-layout, we are now using Microsoft Word instead of Aldus Pagemaker. If you have any comments about the new format, please let us know!



## ISAE Meetings

**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 Motivation, Cognition and Applied Aspects. Details are enclosed.

**Nordic Meeting 1994**, 5th-6th December, Nordseter fjellstue, Lillehammer. The main theme of the Seventh Nordic meeting will be 'Behavioural strategies in farm animals and their implication for housing, animals, and welfare'. ISAE president Harold Gonyou will give an invited lecture. Papers for this theme and free papers are welcome. There will most probably be snow in Lillehammer at this time, and those interested in skiing are invited to arrive at the hotel before the weekend. A sight-seeing trip to Olympic sites will be arranged. The deadline for registration is 1st November. For registration form, please contact Knut Bøe, Bjarne Braastad or Morten Bakken, Department of Agricultural Engineering, Agricultural University of Norway, PO Box 5065, N-1432 Aas, Norway or e-mail K.E.BOE@ITF.NLH.NO

**East Central Europe Meeting 1995**, 5th May in Stará Lesná, Slovakia, jointly with the Czech & Slovak Ethological Society. For further details contact Marek Špinko (address on page 2).

**North American Meeting 1995**, 5th-6th July, Lincoln, Nebraska, US in conjunction with ABS.

**ISAE International Congress 1995**, 3rd to 5th August, Exeter, UK. Details are enclosed.

**ISAE International Congress 1996**, Guelph.

**ISAE International Congress 1997**, Prague.

**ISAE International Congresses 1998-2000**. Offers to host the main annual meeting of the society in the years 1998 to 2000 are now 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 15) before 31st July 1995.

## Other Meetings

**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.

**Animal Welfare in Intensive Livestock Farming**, March 1995, Italy. The Foundation for Animal Prophylaxis and Zootechnical Initiatives, the Union of Veterinary Surgeons of Public Medicine, and Legambiente (an Italian environmental association) are planning a course and conference on the following topics: (a) the veterinary profession and the problem of animal welfare, (b) the contribution of ethology to understanding suffering, (c) ethical views of welfare, (d) legislation on welfare, (e) assessing welfare and (f) indicators of welfare. Contact Marina Verga or Elisabetta Canali, Istituto di Zootecnica Veterinaria, Via Celoria 10, 20133 Milano, Italy. Fax (39) 2 7060 2227.

**XXIV International Ethological Conference**, 10th to 17th August 1995, Hawaii. 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.