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Looking Further Forward

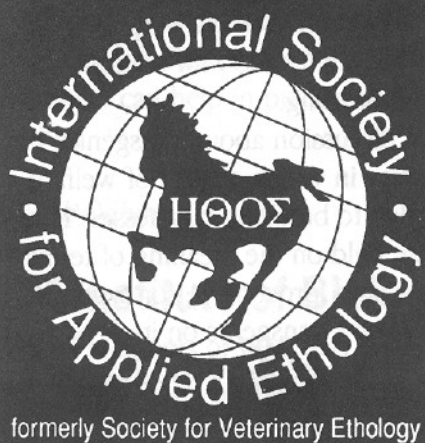
Since the Society changed its name last year - and it is quite hard to believe that it was only last year - there has been a considerable impetus to consider the future development of our subject and our Society. This was emphasised by Herman Wierenga, our President, in his article in the last newsletter, 'Looking Forward', and he returned to this theme in his remarks at the AGM in Pittsburgh this August. He ended the meeting by saying that our progress so far in changing and growing, and the potential for further change and growth, offer considerable promise for the future.

Members who attended the Twenty Fifth Anniversary Congress in Edinburgh in 1991 will also be interested to know that the proceedings of the workshops on 'The future of Applied Ethology' are about to appear in the press, in *Applied Animal Behaviour Science*. These workshops identified important issues in relation to six major areas of applied ethology, and made recommendations on how those issues might be addressed.

Links between our Society and the journal *Applied Animal Behaviour Science* (AABS) are, in fact, about to become rather closer. The Secretary of ISAE, Mike Appleby, has now been appointed Associate Editor of the journal, with responsibility for papers from Europe, to assist the work of the Editor-in-Chief, Katharine Houpt. For the first time for many years, an Editor of the journal will be simultaneously a member of ISAE Council.

Developments concerning journals and publication are obviously particularly important for our Society, and they were also discussed at some length in Pittsburgh. As well as developing closer links with AABS, the possibility was raised again, as it has been before, of launching a new journal, under the full editorial control of ISAE. It is essential that for any such developments we know the needs, requirements and preferences of our members, and a questionnaire is enclosed. This is supported by a full explanation of the possibilities from Ian Horrell, the Society's Editor. Even if you do not read anything else in this newsletter, please read and respond to this questionnaire. As Herman Wierenga also said in Pittsburgh, it is only with the full cooperation and involvement of our members that ISAE can move forward and achieve its potential.

Mike Appleby, Secretary



ISAE Officials

President:	Herman Wierenga
Senior Vice-President:	Bo Algers
Junior Vice-President:	Harold Gonyou
Secretary:	Mike Appleby
Assistant Secretary:	Henrik Simonsen
Membership Secretary:	Carol Petherick
Treasurer:	Mike Mendl
Editor:	Ian Horrell
Legal Assessor:	Bill Jackson
Council members:	Elisabetta Canali Jan Ladewig Lindsay Matthews Joy Mench Ruth Newberry Frank Ödberg
Regional Secretaries: (not otherwise on Council)	Harry Blokhuis Marie-France Bouissou L.C. Hsia Andrew Luescher Willem Schouten Marina Verga Klaus Zeeb

ISAE news

Impressions from Pittsburgh

This year's ISAE International Congress was held in August in conjunction with the American Society of Animal Science (ASAS) in Pittsburgh, Pennsylvania, USA. At the opening session the self-confessed 'Canadian Mickey Mouse poultry scientist', Ian Duncan, gave an excellent paper on what Applied Ethology and Welfare is all about. There can be no doubt that this will have helped the cause of animal welfare in North America. He also drew attention to the relatively small number of scientists working in this field in the USA, compared to Canada and some European countries.

The meeting had parallel sessions in a wide variety of subjects (including breeding and genetics, environment and behaviour, extension, forages, growth and development, meat science and muscle biology, nutrition, physiology, production and management). In this big event the sessions on Environment and Behaviour (including a poster session on the Tuesday) probably formed

the 'home base' for most of the ISAE members. The pattern during these sessions was an invited 30-minute paper followed by a series of 10-minute papers. Abstracts of all papers (except the invited ones) and posters are published in the *Journal of Animal Science* (Vol. 70, suppl. 1, 1992). The Environment and Behaviour sessions were well attended up to and including the very last paper by Klaus Vestergaard (which, as I remember it, dealt with ancient means of visual presentation).

There was ample time for the poster session, except for those actually presenting a poster, who had to choose between attending the AGM and looking at the other posters. The session was in a separate hall, providing good opportunity for reading and discussing the posters. Of the social events I particularly enjoyed the ISAE dinner cruise on the three rivers of Pittsburgh. I felt it was nice to be 'among ourselves' and it compensated for the big scale of the Congress which sometimes made it difficult to find your party for a discussion.

As this was one of those few meetings where no list of participants is provided, it is difficult to evaluate the attendance of ISAE members and to compare it with previous meetings. No doubt, however, some familiar faces were missing. I hope to meet those people again in Berlin in 1993.

Harry Blokhuis

European Convention on Experimental Animals

On behalf of ISAE, I attended a meeting in April of the Council of Europe working party which is preparing material for the European Convention for Protection of Vertebrate Animals Used for Experimental and Other Scientific Purposes. We dealt with transgenic animals, with education and training and with housing.

The main discussion about transgenics concerned the way in which control of welfare could be extended to breeding businesses. Long discussions were held on the meaning of terms like 'use', 're-use' and 'procedure'; for example, can the breeding of a transgenic on itself be considered a 'procedure'? There is a clear intention to ensure that breeders should take special care about the eventual needs of transgenic

animals, and that if suffering is inherent in their existence this should be controlled through permits.

Statistical protection was also discussed, including need for data banks. For example, some strains will have to be maintained during periods of low demand; how can we avoid breeding too many animals which will not be used?

The Federation of European Laboratory Animal Science Associations (FELASA) proposed a draft text on training of people involved in use of animals for scientific purposes:

- A. Animal care technicians,
- B. People carrying out animal experiments,
- C. People responsible for directing animal experiments and
- D. Laboratory animal science specialists.

FELASA gives priority to category C and proposes that they can be considered competent when they have (1) completed a full university degree course in a biomedical discipline such as biology, medicine or veterinary medicine, and (2) attended a course in laboratory animal science of at least 80 hours. A curriculum was proposed, including ethology in a section called 'Biology and husbandry of laboratory animals'.

I queried why scientists of other disciplines such as experimental psychology were apparently excluded. This turned out to be because FELASA is considering at this stage only those who have the overall responsibility for work carried out in their laboratory. This would not exclude experimental psychologists or others from conceiving and carrying out experiments (category B). I insisted that this should be clarified and explained.

Concerning housing, it was agreed that FELASA and ISAE would cooperate to present a report on housing. FELASA will deal with the physical environment and health while ISAE will deal with physical and social determinants of behaviour. I shall soon be exploring which ISAE members can help in putting such a report together.

Frank Ödberg

UK Institute of Biology

British members of ISAE may be interested to know that ISAE is affiliated to the Institute of Biology. This is partly to support their representa-

tion of all UK biologists in political and other matters, partly because it gives us publicity and partly to take advantage of their facilities, such as their meeting rooms in London. Affiliation also gives certain advantages to individual members of ISAE. In particular, they will waive the £10 application fee for those applying for Associate, Graduate or Member grades for the first time, and they will reduce the first annual subscription by 10%. For a new Member, this means a saving of over £14. Information on the IoB is enclosed for British members.

ISAE Membership

New Members

I am pleased to say that applications for membership continue to arrive. We welcome the following new members to the Society:

M. Adcock, 2100 L St., NW, Washington, DC 20037, USA

Dr D. Arey, Centre for Rural Building, Craibstone, Bucksburn, Aberdeen AB2 9TR, UK

Dr John Barnett, Victorian Institute Animal Science, 475 Mickleham Road, Attwood, Victoria 3049, Australia

Mr K. Batajoo, Dept. Dairy Science, 266 Animal Sciences, 1675 Observatory Dr., University of Wisconsin, Madison, WI 53706, USA

Violet Beattie, School of Psychology, Queens University of Belfast, 10 Lennoxvale, Malone Road, Belfast BT7 1NN, Ireland

Ms D. Bennett, ICI, CTL, Alderley Park, Macclesfield, Cheshire SK10 4TJ, UK

Prof. P. Brooks, University of Plymouth, Seale-Hayne Faculty, Newton Abbot, Devon TQ12 6NQ, UK

Dr Dietmar Büttner, Universitäts Klinikum, Zentrales Tierlabor, Hufelandstr, 55, D-4300 Essen 1, Germany

Mr A. Chamove, Psychology Dept., Massey University, Palmerston North, New Zealand

Dr Iain Christison, Dept. Animal & Poultry Science, University of Saskatchewan, Saskatoon, Canada S7N 0W0

I. Estevez, Dpto. Biología Animal (Etología), Fac. Ciencias, Univ. Córdoba, 14004 Córdoba, Spain

Mr F.A. Galindo-Maldonado, Dept. Clinical Vet. Medicine, Madingley Road, Cambridge CB3 0ES, UK

Miss S. Held, Dept. Biol. Sciences, UCW, Aberystwyth, Dyfed, SY23 3DA, UK

Dr P. Hemsworth, Victorian Institute of Animal Science, 475 Mickleham Road, Attwood, Victoria 3049, Australia

Mr J. Highet, 46 Liverpool Road, Aughton, Nr Ormskirk, Lancs L39 3LW, UK

Ms Nicola Hodgkiss, Daracombe, Mile End Road, Highweek, Newton Abbot, Devon TQ12 1RW, UK

Ms G. Hoffmann, 14 Bangalee St., Brisbane, QLD 4074, Australia

Miss Maureen Gannon, Silsoe Research Institute, Wrest Park, Silsoe, Beds. MK45 4HS, UK

Dr G. Illmann, Research Institute of Anim. Prod., Group of Ethology, CS-104 00 Praha 10, Uhrineves, Czechoslovakia

Michael Kreger, 2101 Hildarose Dr. #203, Silver Spring, MD 20902, USA

Mr B. Ladd, Purdue University, Dept. Animal Science, West Lafayette, IN 47907, USA

J. Ladd, Poultry Building, Dept. Animal Science, Purdue University, West Lafayette, IN 47907, USA

Mr K. Lakhanpal, 9a Milnan Road, Reading, Berkshire RG2, UK

Dr A. Mastrodomenico, via San Marco 18\c, 83053 S. Andrea di Conza (AV), Italy

Dr S. McDonnell, Univ. Penn. Sch. Vet. Med., New Bolton Center, 382 W. Street Road, Kennett Square, PA 19348, USA

Ms K. Meyer, Ty Fry Farmhouse, Rhoslefnhir, Pentraeth, Gwynedd LL75 8YT, UK

Miss E. Moore, Dept. Clinical Vet. Medicine, University of Cambridge, Madingley Road, Cambridge CB3 0ES, UK

Dr J. R. Morris, Animal & Poultry Science Section, Ridgetown College of Agricultural Technology, Ridgetown, Ontario N0P 2C0, Canada

Prof. David B. Morton, Dept. Biomedical Science & Ethics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

Ms N. Munkenbeck, 63 Niemi Road, Freeville, NY 13068, USA

Ms A. Nimon, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER, UK

Prof. R. Oberosler, Dept. Animal Production, University of Udine, via S. Maura 2, 33010 Pagnacco (Udine), Italy

Dr Janet O'Connell, Dairy Husbandry Dept., Teagasc, Moorepark Research Centre, Fermoy, Co. Cork, Ireland

Prof. J.S.J. Odendaal, Dept. Veterinary Ethology, Faculty of Veterinary Science, University of Pretoria, Private Bag X04, Onderstepoort 0110, Republic of South Africa

Major Tom Ogilvie-Graham, Household Cavalry Mounted Regiment, Hyde Park Barracks, Knightsbridge, London SW7 1SE, UK

Ms E. Paul, Dept. Clin. Vet. Medicine, Comp. Animal Research Group, 307 Huntingdon Road, Cambridge CB3 0JQ, UK

Dr A. Podbersceck, Comp. Animal Research Group, University of Cambridge, 307 Huntingdon Road, Cambridge CB3 0JQ, UK

Dr J. Pollard, Animal Nutrition Unit, Invermay Agricultural Centre, Mosgiel, New Zealand

Dr K. Polydorou, P.O. Box 284, Nicosia, Cyprus

Dr K. Stafford, Massey University, Palmerston North, New Zealand

A. Taylor, Dept. Animal & Poultry Science, University of Guelph, Guelph, Ontario N1G 2W1, Canada

Sylvia Taylor, 235 Sunnyside Rd E2, Temple Terrace, FL 33617, USA

Dr C. Trincherro, via Mazzini 24, 10123 Torino, Italy

K. Uetake, Dept. Animal Production, Hokkaido National Agric. Experiment Station, Hitsujigaoka, Toyohira, Sapporo, 062 Japan

M. Vandenhede, Université de Liege, Service d'Hygiene et de Bioclimatologie, Faculté de Médecine Vétérinaire, Bat. B43, 4000 Liege, Belgium

Dr M. Varley, Dept. Animal Physiology & Nutrition, Leeds University, Leeds LS2 9JT, England

Resignations

There have been the following resignations:

Dr V.L. Voith - Texas, USA

Mr T.W. Heard - Wiltshire, England

We are sorry to lose Mr Heard's membership as he was a founder member of the SVE.

Changes of address

There are changes of address for the following:

Dr B. Graf - Institut für Nutztierwissenschaften, Gruppe Physiologie und Tierhaltung, Eidg. Techn. Hochschule, ETH Zentrum-LFW, CH-8092 Zürich, Switzerland

Niwako Hata - c/- Mr Ogata, 34-7, Yamadanishi 3-chome, Suita-shi, Osaka 565, Japan

Dr L. Keeling - Dept. Animal Hygiene, Swedish University of Agricultural Sciences, P.O. Box 345, 532 24 Skara, Sweden

J. Campbell - 16 Panmure Place, Edinburgh EH3 9JJ, UK

Dr J.C. Eddison - Dept. Agriculture, Seale-Hayne Faculty of Agriculture, Food & Land Use, University of Plymouth, Newton Abbot, Devon TQ12 6NQ, UK

Dr D. Fraser - Animal Behaviour Team, Building 94, Center for Food & Animal Research, Agriculture Canada, Ottawa K1A 0C6, Canada

Prof. H. Gonyou - Prairie Swine Center Inc., P.O. box 21057, 2105 8th St. East, Saskatoon, Saskatchewan S7H 5N9, Canada

Obituary

We regret to announce the death of one of our long-standing members, the Hon. Moyra Williams. Ms Williams was a veterinary surgeon and ethologist who ran a newsletter (Equine Behaviour) for people interested in horses. She was a cheerful and enthusiastic person for whom many people had great respect. She supported SVE very well and regularly attended our meetings. Her presence will be greatly missed.

Membership Directory

We had hoped that this would be ready to be sent out with this Newsletter, but we still don't have the information in a form suitable for printing. Thanks must once again go to Mark Rutter for the time and effort which he is devoting to this. As soon as the directory is ready it will be mailed to members.

Membership Subscriptions

I continue to receive letters from members asking when their membership subscriptions are due, despite making numerous announcements about this in the Newsletter. Members will usually discover the due date on their address label of their Newsletter. This is not the case this time as the membership information is having to be transferred to a different computer for printing labels and we haven't yet discovered how to include payment details in the transfer!

It has also been proposed that, starting next June, the Regional Secretaries help by contacting members in their region who are 2 years in arrears

and are on the "deletion" list! However, it is really still the responsibility of members to keep a track of when their payment is due. Those people listed in the last Newsletter who did not contact me and pay their arrears have now been removed from the membership list. If you have not had a Newsletter this time and are reading a colleagues' this could be the reason!!

If you are unsure whether or not you are still a member, when your subscriptions are due, or how to pay then please contact me.

Carol Petherick

AFRC IAPGR, Roslin, Midlothian EH25 9PS, UK

Tel: (031) 440 2726 Fax: (031) 440 0434

E-mail: PETHERICKC@UK.AC.AFRC.IAPE

other news

Situation situation

Researcher in Ethology: At the Ethology Section of the Department of Animal Hygiene, of the Swedish University of Agricultural Sciences in Skara, Sweden, there will be a vacant position as Researcher in Ethology, preferably post-doctoral. The position is for a period of three years in a project on individual differences in behaviour of pigs, particularly aggression. The closing date for applications is 1st December 1992. For a more detailed description of the project and position, contact Mrs Christina Rafstedt, Dept of Animal Hygiene, PO Box 345, S-532 24 Skara, Sweden (Tel +46 511 30218). Further information can also be obtained from Professor Per Jensen at the same address (Tel +46 511 30219).

Society for Companion Animal Studies

Many of the activities of the Society for Companion Animal Studies, which has 350 members from 18 countries, will be of interest to at least some of the members of ISAE. This can be illustrated by the programme of their meeting held in February 1992 at Leicester, UK, called 'Interfaces: Companion Animals and the Man-Made Environment.' This included, for example, 'The beneficial effects of pet ownership on human health and behaviour.'

by James Serpell and 'Cats in the man-made environment,' by Dennis Turner. Short versions of the papers were printed in the Spring 1992 issue of SCAS' journal, which can be obtained from the Director of SCAS, Anne Docherty. She can also supply more details about the society. Her address is The Mews Cottage, 7 Botanic Crescent Lane, Glasgow G20 8AA, UK (Tel 041 945 2088).

Ethics in research on animal behaviour

The Association for Study of Animal Behaviour (ASAB) and the Animal Behavior Society (ABS) have long been effective proponents of the principle that scientists should 'put their own house in order' and consider the welfare of their research animals and other ethical aspects of their work, rather than waiting for others to do so. They have now produced a booklet called 'Ethics in research on animal behaviour,' edited by Marian Dawkins and Morris Gosling, to reinforce this position. The booklet reprints the latest version of their 'Guidelines for the use of animals in research'. It then has a number of general articles, such as Patrick Bateson's 'Assessment of pain in animals' and a number about specific areas of study, such as Felicity Huntingford's 'Some ethical issues raised by studies of predation and aggression.' Members of ASAB and ABS will have received a copy of this booklet, enclosed with the journal *Animal Behaviour*. Non-members can obtain copies from Dr L.M. Gosling, Secretary, ASAB Ethical Committee, MAFF Central Science Laboratory, London Road, Slough SL3 7HJ, UK. The price is £10, payable to ASAB.

articles

Focus on ... Italy

While Italian researchers have been attending the annual meetings of the SVE, and now the ISAE, for many years, it is apparent that studies in Italy on the behaviour of farm animals have been increasing in the last few years. The meeting held in Montecatini in 1990 gave the opportunity for a larger number of Italian researchers to find out about the Society, and nowadays there is a consid-

erable number of members from our country. To get to know each other better, Italian members of ISAE met in Milan in April 1992, and it is hoped to continue the example of other regional sessions in future. Members of groups that work on applied ethology introduced their main topics of research, and stressed the importance of regular national meetings. The possibility of a future meeting with participants coming from, for example, France, Spain, Portugal and Greece was also raised.

The majority of the researchers come from institutes and departments of the universities. A description of their main topics follows, which also gives some indication of the spread across the whole country.

University of Bari, Department of Animal Production: feeding behaviour; adaptation to different environments; feeding techniques in lambs.

University of Messina, Veterinary Physiology Institute: acoustic communication in domestic species; behaviour of dairy cows on pasture and when tied.

University of Milan, Institutes of Animal Husbandry and Veterinary Medicine: adaptation of farm animals to housing and feeding systems during the first months of life; human-pet relationships.

University of Naples, Agricultural Faculty, Department of Animal Science: factors affecting maternal behaviour and kid-goat bonds; grazing and olfactory behaviour in goats.

University of Parma, Department of Biology and Physiology: agonistic and maternal behaviour of sows; hierarchies in gilts.

University of Turin, Agricultural Faculty, Department of Animal Production: dairy cattle especially regrouping and production; beef cattle problems concerned with transportation.

Elisabetta Canali and Marina Verga

Legal Scene

Legal joke

Cases involving animals are rare, judicial jokes are rarer and a judicial joke on animal behaviour must be unique. It doesn't have to be funny: lawyers always laugh at judges' jokes. From *Lathall v. Joyce and son* (1939): "It is obvious that a frightened bullock may blunder about and run into

people and injure them without any *Mens Rea* if such a phrase can aptly be applied to such a creature."

'*Mens Rea*' is a guilty mind or intent, usually an essential element in a crime.

Export of sheep from UK to France

For several months in 1990 French farmers attacked lorries and killed or injured sheep, causing great concern about their welfare. The UK Minister of Agriculture, Fisheries and Food refused an export ban. When the applicants queried this, it was held that the Minister was entitled to take into account the undesirability of giving way to 'terrorism' by French farmers, and to expect the French authorities to deal with the attacks.

UK Dangerous Dogs Act 1991

There is currently much concern over this Act, which involves registration of dangerous dogs and mandatory destruction if they commit an offence. For example, it may actually require an owner to prove that their dog is not a pit bull terrier, which has been described by a Scottish judge as a 'surprising and alarming' departure from normal rules of evidence. While the whole problem is based on behaviour, behaviour is not a direct factor in the Act except that one section creates a separate offence of owning or being in charge of a dog of any type which is dangerously out of control in a public place.

A recent article by R. Stevens and F. Davies considers 'Reformed law on dangerous dogs: an overview of the law.' *Justice of the Peace Journal* 156, 277 and 293.

UK Protection of Badgers Act 1992

This consolidates earlier Acts, providing in one Act that badgers are protected against cruel treatment, from interference with their setts and from being taken, injured or killed. It came into force on October 16th 1992.

Patents for life

An article by R. Nott considers 'Patent protection for plants and animals.' 1992 *European Intellectual Property Review* 3, 79.

Freedom for vets

Luxembourg imposed a law banning foreign doctors, dentists and vets from establishing secondary practices in Luxembourg in addition to their main practice elsewhere, on the grounds that they could not provide a proper 24 hour service. The EC upheld Freedom of Establishment for such professionals, because a full service could be provided through substitutes and temporary employees.

Bill Jackson

meetings

ISAE Meetings

UK Winter Meeting, 2nd December 1992, Royal Veterinary College, London. Details of this meeting, with its main theme on 'Behaviour and welfare of animals during handling and transport', are enclosed.

Nordic Winter Meeting, December 1992, Lund. The main theme will be 'Theoretical and practical assessment of behavioural needs'. Details have been distributed to Nordic members; they can be obtained from Professor H.B. Simonsen, Royal Veterinary and Agricultural University, Dept of Animal Science and Animal Health, Division of Ethology and Health, Bulowsvej 13-1870 Frederiksberg C, Denmark (Tel 45 35 28 28 28, Fax 45 35 36 18 78).

ISAE International Congress 1993, 26th to 30th July, Berlin. Details of this joint congress with EAAP and the Humboldt University of Berlin are enclosed.

ISAE International Congress 1994, Foulum, Denmark.

ISAE International Congresses 1995 to 1997. Offers to host the main annual meeting of the society in the years 1995 to 1997 are now invited. No formal details are required at this stage: simply contact the Secretary of the Society, Mike Appleby, if you are interested in organising a meeting at your

institution or in your country in one of those years, or if you require further information on what will be involved. The address is at the end of the newsletter.

Other Meetings

24th Internationale Arbeitstagung Angewandte Ethologie Bei Haustieren, 18-21 November 1992, Freiburg, Germany. Details are enclosed.

Ecology of Social Systems, 3-4 December 1992, London Zoo, UK. Association for Study of Animal Behaviour (ASAB).

Australasian Society for Study of Animal Behaviour, 13-16 February 1993, Christchurch, New Zealand. Contact Rob Hughes, Department of Psychology, University of Canterbury, Christchurch 1, New Zealand.

ASAB Easter Meeting, 24-26 March 1993, Edinburgh, UK. Talks by postgraduates are encouraged. Contact Des Thompson, Scottish Natural Heritage, 2 Anderson Place, Edinburgh EH6 5NP, UK.

Biological Basis of Sustainable Animal Production, 13-15 April 1993, Wageningen, Netherlands. This conference celebrates the 75th anniversary of Wageningen Agricultural University. There will also be a satellite meeting on 16th April to honour Professor Piet Wiepkema on his retirement. Contact Gabriel van Winkel, PO Box 338, 6700 AH Wageningen, The Netherlands.

Learning in Animals, 15-20 April 1993, Skara, Sweden. The 5th 'Crane Seminar', led by Per Jensen from Skara, with invited lecturers Anthony Dickinson and Gabriel Horn, from Cambridge, UK, and Louis Lefebvre from Montreal, Canada. Contact Christina Rafstedt, Dept of Animal Hygiene, PO Box 345, S-532 24 Skara, Sweden, before 15 February 1993.

Fourth International Livestock Environment Symposium, 6-9 July 1993, Coventry, UK. Contact Chris Boon, Welfare Science Division, AFRC Institute of Engineering Research, Wrest Park, Silsoe, Bedford MK45 4HS, UK (Tel 0525 60000, Fax 0525 60156).

Behavioural Ecology and Physiology, 14-16 July 1993, Bristol, UK. Association for Study of Animal Behaviour. Contact Innes Cuthill, Department of Zoology, University of Bristol, Woodland Road, Bristol BS8 1UG, UK.

Environmental Enrichment for Zoo Animals, 16-20 July 1993, Portland, USA. The first ever conference on this subject will include theoretical papers, case studies and workshops, leading to practical recommendations. Contact: David Shepherdson, Metro Washington Park Zoo, 4001 SW Canyon Road, Portland, OR 97221, USA (Tel 503 226 1561, Fax 503 226 0074).

XXIII International Ethological Conference, 1-9 September 1993, Torremolinos, Spain. Contact Dr Anna Omedes, XXIII IEC, Ap. 98033 Barcelona, 08080 Spain.

Fourth European Symposium on Poultry Welfare, 18-21 September 1993, Edinburgh, UK. Contact Dr John Savory, AFRC Institute of Animal Physiology and Genetics Research, Roslin, Midlothian EH25 9PS UK.

Animal Farming and the Elements, 20 November 1993, Rothamstead, UK. Organised by the Institute of Biology.

Welfare of Extensively Farmed Animals, 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 EH25 9RG, UK.

ISAE *newsletter*

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