

5. Deploy resources to locations and in seasons of greatest need;
6. Redirect and refocus research efforts to support the above goals and to achieve the long-term objective of preventing predator damage rather than controlling predators.

In addition, Andrus placed the following restrictions on the use of certain techniques:

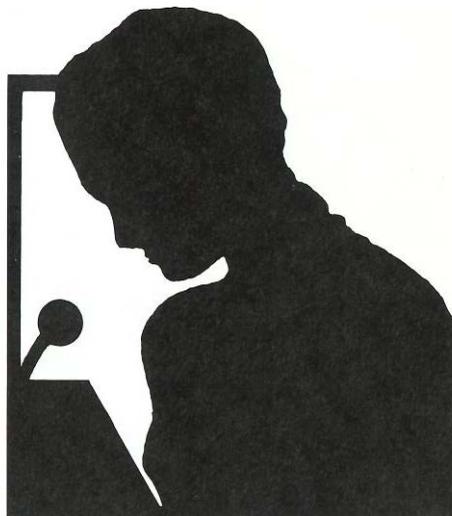
1. The practice of denning should be eliminated;
2. The use of aerial shooting, particularly in winter, should be tightly controlled to achieve policy goal (1) above;
3. All efforts will be made to utilize traps in the most selective and humane manner possible, through such practices as the use of tension devices, prohibition of bait sets, and frequent checks of traps;
4. There will be no further research or development of potential uses of Compound 1080. However, research may be continued on other toxicants that do not have secondary effects, are selective and humane.

Although denning (management jargon for the killing of cubs still in the den) is eliminated in these restrictions, no provision is made for the humane disposal of cubs if a lactating female is taken. This loophole introduces the possibility of continued de facto denning by local predator control personnel.

Andrus also called for a five-year research program on nonlethal control methods and animal husbandry techniques and practices.

(Abstracted from the *The Humane Society of the United States News* 25:19, 1980.)

MEETINGS and ANNOUNCEMENTS



FORTHCOMING MEETINGS

Ninth International Congress on Animal Reproduction and Artificial Insemination: June 16-20, 1980, Madrid, Spain. Contact Dr. Tomas Perez Garcia, INIA, Crida 06, Departamento de Reproduccion Animal, Avda. de Puerta de Hierro s/n, Madrid-3, Spain.

Second International Congress on Toxicology: July 7-11, 1980, Brussels, Belgium. "Mechanisms in Toxicity and Hazard Evaluation." Contact SdR Associated, 16 Avenue des Abeilles, 1050 Brussels, Belgium.

American Society of Animal Science: Annual Conference, July 27-31, 1980, Cornell University, Ithaca, New York. Will include a symposium co-sponsored by the Institute for the Study of Animal Problems on "The Role of Animal Behavior in Agriculture." Contact Dr. Clifton A. Baile, University of Pennsylvania School of Veterinary Medicine, 382 West Street Road, Kennett Square, PA 19348, USA.

International Society of Animal Hygiene: Third International Congress of Animal Hygiene, September 10-12, 1980, Vienna, Austria. Contact Secretariat, Third International Congress of Animal Hygiene, c/o INTERCONVENTION, P.O. Box 35, A-1095 Vienna, Austria.

American Association for Laboratory Animal Science: 31st Annual Session, October 5-10, 1980, Indianapolis, Indiana. Contact Mr. Joseph J. Garvey, Exec. Secy., AALAS, 210 N. Hammes Ave., Suite 205, Joliet, IL 60435 USA.

Israel Association for Buiatrics: Eleventh International Congress on Diseases of Cattle, October 20-23, 1980, Tel Aviv, Israel. Contact Dr. E. Mayer, Congress Secretariat, P.O. Box 9610, Haifa, Israel.

MEETING REPORTS

BSAVA Symposium

The British Small Animal Veterinary Association (BSAVA) held a symposium on the Human-Companion Animal Bond in London on January 24-25, 1980. Long neglected or taken for granted, the human-animal bond was dissected and explored by over a dozen speakers whose backgrounds included veterinary medicine, psychiatry, anthropology, ecology and sociology.

The symposium opened with an historical review of the relationship between man and other animals by Michael W. Fox (Institute for the Study of Animal Problems). This paper emphasized how perceptions, attitudes and values influence the man-animal relationship, contemporary abuses, and societally condoned unethical animal exploitation. Following a cautionary note on misguided 'naturalism', he described what he terms 'actualizing relationships' and developed the concept of responsible humane stewardship.

Victoria Voith (University of

Pennsylvania) discussed animal behavior problems that can arise from animal-human attachment and how to take preventive measures with animals that are used in pet facilitated therapy. She also noted that 90% of clients use parental expressions when addressing their animals, e.g., "Come to Daddy," etc.

Giseler Guttman (University of Vienna) gave an intriguing review of his studies in Vienna of people's attitudes toward pets. He reported four major characteristics of pet owners: they regard the companion animal as someone with whom to talk; they find it acceptable to keep the animal without the company of its own species; they enjoy providing the care involved in pet owning; and in contrast to non-pet owners, they would be less likely to keep a pet if friends did not approve. Non-pet owners were more concerned about disease hazards and loss of personal freedom, and they did not value an animal as someone with whom to talk.

Michael McCulloch (Oregon State University) gave a particularly stimulating paper on the benefits of pet ownership for chronically ill and depressed outpatients. He urged that more emphasis be given in veterinary and medical schools to the pet-owner bond. A veterinarian should have some knowledge of the pet's family background and be more sensitized to the emotional impact of animal euthanasia. In this connection, Leo Bustad (Washington State University) presented guidelines for a veterinary school curriculum tailored to promote a greater understanding of the pet-owner relationship. Dr. McCulloch concluded that pets give joy, make people feel needed, improve morale, and help maintain a sense of humor in chronically ill and emotionally disturbed patients.

Jules Cass (Veterans Administration) gave an overview of pet facilitated therapy (PFT) in the Veterans Administration hospital setting. He

observed that PFT meets the requirements of being biologically safe (no harmful side effects), and that while more systematic research is needed, the lack of research to date should not slow down clinical application of PFT. Cass also stated that the Veterans Administration has charted comprehensive recommendations to encourage patient access to appropriate pets, and he mentioned the new Minnesota law permitting the keeping of pets under proper conditions for therapeutic purposes in hospitals and other institutions.

Samuel Corson (Ohio State University) gave an encouraging paper on companion animals as bonding catalysts in geriatric institutions. He summarized his observations on pet facilitated psychotherapy in an 800-bed nursing home for the mentally retarded of various ages. On the basis of his data, no nursing home should be without companion animals since their therapeutic role in improving the morale and sociability of patients has been conclusively established.

James VanLeeuwen (Hospital for Sick Children, Toronto) emphasized a possible link between child abuse and pet abuse and suggested that family therapy may be needed in situations where pets are abused. The increasing problem of dog bites may involve parental neglect (when a child is bitten) and perhaps should be reported to the appropriate authorities. Children's abuse of animals may indicate immediate therapeutic intervention. Dr. VanLeeuwen also described how valuable it is as a potential diagnostic tool to have children draw a scene of their family with the pet included. Alistair McDonald (University of Dundee) described a study of interactions in the home between children and their dogs. He discovered a subgroup of children in his survey who perceived their dogs as understanding the emotional content of what they said; these children differed significantly in other aspects from the rest

of the sample.

Eleanor Ryder and Ceile Washington (University of Pennsylvania) described the establishment of a social work service in the University of Pennsylvania School of Veterinary Medicine which is helping to improve the pet owning family-veterinarian relationship.

Alan Beck (University of Pennsylvania) gave an in-depth review of his experiences in creating guidelines for planning for pets in cities, a subject which has been seriously neglected by urban planners. Beck outlined the types of legislation and urban designs needed to accommodate pets for the benefit of all, including non-pet owners.

Anthropologist Constance Perin discussed dogs as symbols in human development. She suggested from her vantage point as a cultural anthropologist that the emotional dependence of owners on their pets is not based on the owners finding other people disappointing, but rather on the vitalizing effect of the animals. Human interest in another species is aroused by that species' behavioral patterns of curiosity, exploration and play. Less because we feed them and more because they take an interest in what we are doing, dogs' active responses keep us mutually involved.

Aaron Katcher (University of Pennsylvania) addressed the subject of the form and function of interaction between people and their pets. Studies of transactions between people and pets may be critical to the understanding of problems in human behavior. Following research which demonstrated improved probability of one year survival in heart attack victims who owned pets, Katcher's laboratory identified seven functions of pets which would be expected to decrease the likelihood of illness or to reduce the death rate from a wide variety of physical diseases: companionship; someone to care for; someone to keep you busy; someone

to touch and fondle; someone to watch; someone to make you feel safe; and a stimulus for exercise. In addition to studying the health function of companion animals, his research team also investigated the ways in which people touch and talk to their pets. Ninety-four percent of the people surveyed talked to their pets as they would to a person and eighty-one percent think pets are sensitive to their owners' feelings. While blood pressure increases when a person talks in an experimental setting (possibly related to evaluation anxiety), there is no such increase when the person talks to his or her pet in the same setting. In fact, a subject stroking a pet experiences a decrease in systolic blood pressure to below the resting rate. Thus, fondling or idle play with the pet is a kind of relaxing reverie state with distinct psychophysiological correlates. Dr. Katcher concluded that animal contact is not an inferior form of or substitute for human relationships, but supplements and augments those relationships.

The BSAVA is to be congratulated for organizing such an excellent symposium, which has been provisionally scheduled for publication as a book. For further details contact Dr. Bruce Fogle, British Small Animal Veterinary Association, 22 Seymour Street, Portman Square, London W1H 5WD, U.K.

Animal Welfare Curriculum

On February 7, 1980, a group of conservationists, animal welfare theorists and other academics met under the auspices of the Yale University School of Forestry and Environmental Studies (New Haven, Connecticut) and the Geraldine Rockefeller Dodge Foundation to consider the role of animal rights and welfare issues in a human/animal ecology graduate program. This conference was the last in a series of three, the earlier ones having dealt with the biopolitical implications of the Endan-

gered Species Act and the vagaries of wildlife management programs. Compared to these two topics, animal welfare has suffered from a conspicuous lack of attention from academic institutions. Accordingly, meeting organizer Dr. Stephen Kellert stressed the need to examine the reasons for this lack of attention and to determine whether animal welfare issues could be usefully integrated into a university program on human/animal ecology.

Since a large number of the participants were associated with animal welfare organizations either directly or indirectly, it is perhaps not surprising that the general consensus was that animal welfare and animal rights issues do have a place in academic studies. Some interesting points were raised in the course of the general discussions indicating that there are, indeed, fruitful questions for academic inquiry, especially in an interdisciplinary graduate program.

Patricia Forkan (The Humane Society of the United States) highlighted the multi-faceted nature of the pet overpopulation issue, a thorough analysis of which would include: a) sound statistical techniques to determine which animals are turned loose or handed over to shelters and by whom; b) economic analyses of the relative costs of animal control programs versus other options; and c) sociological investigations of human/animal emotional needs and the possible impact of pet cotherapy.

Professor Tom Regan (North Carolina State University) projected that the ideal student graduating from an appropriate human/animal ecology program would have a solid knowledge of biological and behavioral sciences, a good sense of historical perspective and a firm grasp of political considerations. Such a student could then tackle some of the trans-scientific problems in the field of animal welfare. For example, ABC network broadcaster Roger Caras

raised the question of ownership of animals, and argued that this concept of 'ownership' is at the base of many animal welfare problems (e.g., the treatment of farm animals under different husbandry systems).

The conference was not designed to produce recommendations on the substantive issues that should (or could) be covered, on research needs and priorities, on the educational character and level of the program, or on the possible policy and management impact of the program. However, it was clear from the discussion that the participants foresaw the need for a program which would produce analytical, creative investigation leading to the breakdown of the myths currently plaguing animal welfare topics.

ANNOUNCEMENT

International Society for Animal-Assisted Therapy

The International Society for Animal-Assisted Therapy has been formed as a research center and information clearinghouse on the role of companion animals in reaching and treating institutionalized or otherwise isolated members of society. The Society plans to develop animal training centers and education programs in veterinary medicine and related professions, as well as foster research on pet facilitated therapy and support appropriate legislation.

General annual membership dues are \$25.00, and \$10.00 for shelters and individuals on fixed incomes. For further information, contact Dr. Bruce M. Feldmann, International Society for Animal-Assisted Therapy, 1042 Oxford St., Berkeley, CA 94707, USA.



BOOK REVIEW

THE ILLUSTRATED VETERINARY ENCYCLOPEDIA FOR HORSEMEN and VETERINARY TREATMENTS AND MEDICATIONS FOR HORSEMEN edited by Don M. Wagoner (*Equine Research Publications, Dallas, TX, 1979, \$46.95 and \$38.95 respectively*) are meant to bridge the gap in equine literature between the highly technical veterinary reference manuals and the less informative, nontechnical books commonly available to the layman. These books should be considered as companion volumes: the first deals primarily with the identification and explanation of equine disorders, while the latter explains common treatments and therapy that may be employed after the ailment has been diagnosed. Veterinary procedures are discussed in sufficient detail to provide a realistic understanding of the results which may be expected. In many cases, the efficacy of certain treatments is reviewed with particular attention to potential side effects and humane considerations.

Both volumes are easy to read and well illustrated. They do not avoid the use of medical terms since many horse maladies lack common names, and the texts are designed to facilitate communication between the practitioner and the client. For ease

in locating a particular subject, the reader can swiftly refer to an extensive color-coded glossary or index.

The major disadvantage of these books is their cost. While a ninety dollar price tag may not be especially prohibitive for the veterinarian, stable owner or professional horseman or woman, it is certain to deter the young novice who is perhaps most in need of this information. However, the fact that these volumes are of value to both the equine practitioner and the horse enthusiast makes them a worthwhile investment.

M.S. Paulhus

PLACENTA—A NEGLECTED EXPERIMENTAL ANIMAL edited by P. Beaconsfield and C. Vilee (*Pergamon Press, Oxford, U.K., 1979, \$24.50*) is the published proceedings of a round table discussion held in October 1978 at Bedford College, London.

As indicated by the title, the potential of the placenta as an experimental research tool is far from being fully realized and yet readily available placental samples offer exciting opportunities to study human metabolism and physiological processes. For those interested in the concept of alternatives, these are vital considerations.

The human placenta possesses the unique property of differentiating and growing from embryonic tissue to maturity (and senescence?) in nine months. During this time, it passes through stages of graft acceptance, invasive growth and "rejection" while also maintaining a number of metabolic and immunological processes. This unusual diversity is discussed by major figures from each relevant field in individual chapters dealing with metabolism, cell replication, immunology and aging.

There is no chapter on ethical implications in the acquisition and use of human placentas. With the burgeoning bioethical debate on

human research and abortion, among other concerns, it is unfortunate that this topic was not included as a postscript to the publication.

A.N. Rowan

BOOKS RECEIVED

CELL SUBSTRATES: THEIR USE IN THE PRODUCTION OF VACCINES AND OTHER BIOLOGICALS, J.C. Petricciani, H.E. Hopps and P.J. Chapple, editors (*Plenum Press, New York, NY, 1979, \$39.50*).

GENETICS FOR DOG BREEDERS, Frederick B. Hutt (*W.H. Freeman & Company, San Francisco, CA, 1979, \$15.00*).

ABNORMALITIES OF COMPANION ANIMALS: ANALYSIS OF HERITABILITY, C.W. Foley, J.F. Lasley and G.D. Osweiler (*Iowa State University Press, Ames, IA, 1979, \$12.95*).

RAISING AND CARING FOR ANIMALS, A HANDBOOK OF ANIMAL HUSBANDRY AND VETERINARY CARE, Guy Lockwood (*Charles Scribner's & Sons, New York, NY, 1979, \$8.95*).

ANIMALS AS MONITORS OF ENVIRONMENTAL POLLUTANTS, Proceedings of the 1977 Symposium on Pathobiology of Environmental Pollutants: Animal Models and Wildlife as Monitors, (*National Academy of Sciences, Washington, DC, 1979, \$20.50*).

MICROCOMPUTERS AND PHYSIOLOGICAL SIMULATION, James E. Randall (*Addison-Wesley, Reading, MA, 1980, \$14.50*).

STANDARDIZATION OF ANALYTICAL METHODOLOGY FOR FEEDS, W.J. Pigden, C.C. Balch, Michael Graham, editors (*Int. Devel. Res. Ctr., Ottawa, CAN. [Unipub, N Y], 1980, \$10.00*).