NEWSLETTER
Animal Behavior Society

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A quarterly publication

Terry Christenson, ABS Secretary
Jay Hansche, Associate Editor, ABS Newsletter
Department of Psychology, Tulane University, New Orleans, LA 70118

ABS NOMINATIONS FOR 1986 ELECTION OF OFFICERS

The following have been nominated for offices that begin 27 June 1987:

Second President:

Alison Jolly	The Rockefeller University
Patrick Colgan	Biology Dept, Queen's University

Secretary:

David Miller	Dept of Psychology, University of Connecticut
David Chiszar	Dept of Psychology, University of Colorado

Member-at-Large:

Julia Chase-Brand	Dept of Biol. Sci., Barnard College, Columbia University
George Barthalmus	Dept of Zoology, North Carolina State University

Additional nominations may be made by letter to the Nominations Committee (c/o Colin Beer, Institute of Animal Behavior, Rutgers Univ, Newark NJ 07102). Nominations must be signed by five or more ABS members in good standing (Constitution Article 8 Section 1); they must be received by 15 June. The ballot and brief resumes of the candidates will appear in the August 1986 ABS Newsletter.

ABS ANNUAL MEETING --UNIV OF ARIZONA IN TUCSON 8-13 JUNE

Hosted by Astrid Kodric-Brown, Dept of Ecol & Evol Biology.
KEYNOTE ADDRESS: John R. Krebs of the Edward Grey Institute of Field Ornithology will present "Behavioral Ecology-Past and Present".
FELLOWS LECTURES: "There is something about a deer mouse: Deterministic stochasticity" by John A. King (Michigan State University); and "An ethologist's view of the watery world of the butterfly fish" by Ernst Reese (Univ of Hawaii).
INVITED SESSIONS: Participants and paper titles are listed on page 11 of this Newsletter-- "Behavioral Adaptations of Desert Animals" organized by Jan A. Randall (Central Missouri State University); and "Margaret Altmann Memorial on Ungulate Behavior" organized by Harry Frank (University of Michigan-Flint).
OTHER HIGHLIGHTS: Allee Award; Founders Award competition for best poster presentation, with this first year in memory of Ed Banks; ABS Film Festival; field trips to Arizona-Sonora Desert Museum, the Presidio, Nogales, and the Southwestern Research Station of the AMNH; and more.

ABS FILM FESTIVAL

The ABS announces the Semifinalists for its 3rd Annual Film Festival, June 9 and 11 at the Tucson meetings. From a very large number of excellent entries, the films listed below were selected for outstanding qualities of photography, sound, theme, originality, and relevance to research in animal behavior. They will be shown at the Tucson meetings.

ABS Film Competition (commercial films):
- A Bite for Survival - EBE Corporation; Charles Patey
- Desire of the Moth - Films Incorporated
- Fastest Claw in the West - BBC Natural History Unit; Roy Caldwell
- Kitum: Elephant Cave - Nature: WNET 13
- *Korup: Tropical Rain Forest - Partridge Productions
- Life on Earth Series: The Hunters and the Hunted - Films Incorporated
- Mysterious Journey - Survival Anglia
- *Permission of producer not yet received.

Jack Ward Film Competition (non-commercial films):
- Condor by Thaya DuBois
- Platte, River of Life by Thomas Mangelsen

--Submitted by Pat DeCoursey, Chair, ABS Film Committee

NORTHEAST REGIONAL ABS MEETINGS

The University of Vermont will host the 1986 Northeast Regional Meeting of the ABS, 31 Oct - 2 Nov. The program, featuring a keynote address by Jeanne Altmann, will include both symposia and contributed paper sessions. Graduate student participation is particularly encouraged; ABS members in the region will soon receive a first mailing. For additional information contact Joan Herbers, Dept of Zoology, Univ of Vermont, Burlington VT 05405, (802) 656-0449.

ANIMAL WELFARE REGULATIONS

The Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture plans to publish in the Federal Register in June the proposed regulations to implement the new animal welfare requirements contained in the 1985 Farm Bill. APHIS invites comments on the proposed regulations which will pertain to laboratory and research animals. After a comment period, final regulations will be drawn up and printed in the Federal Register. By law, the regulations must be completed by December 1986. Your comments may be sent to Richard L. Crawford, USDA, APHIS, VS Room 764, Federal Building, Hyattsville MD 20782.

--Submitted by George H. Waring, Chair, ABS Public Affairs Committee

XX INTERNATIONAL ETHOLOGICAL CONFERENCE MADISON, WI, 7-16 AUGUST 1987

ABS members will be sent a first circular, including information on abstracts, early this summer. Plenary topics: history of animal behavior in North America; social influences on reproduction; cultural transmission of behavior; communication; group social structure; parent-offspring relationships; behavior genetics at the population level; applications of ethology to animal welfare. Please send inquires and ideas for workshops/roundtables to the Host, Charles Snowdon, Dept of Psychology, University of Wisconsin, Madison, WI 53706.

ATTENDANCE AT THE XX IEC, MADISON, WI

It is the policy of the International Ethological Council that no more than 25% of the participants at an IEC meeting shall be from the host country. Since the IEC in Madison is limited to 800 participants, this means that only 200 may attend from the U.S. (*but see below). For this reason the U.S. Ethological Conference Committee (USECC) is charged with issuing invitations. Any person wishing to attend should send (a) a one-page CV, (b) a selected list of publications, (c) an abstract of the research to be presented at the Madison meeting (please use the form that will be sent to you in the first circular) or a one-page statement of your current research. Please send seven (7) copies of your application by 30 September 1986 to H. Jane Brockmann, USECC Secretary, Department of Zoology, University of Florida, Gainesville, FL 32611.

In an effort to encourage young investigators, we plan to reserve a number of places at the IEC for those who have held the Ph.D. for 5 years or less at the time of the meeting. Normally graduate students are not allowed to attend IEC meetings, but if you will have completed your Ph.D. by August 1987 and would like to attend, please submit a letter of reference from your major professor in addition to the materials indicated above.

Invitations from the USECC will be forthcoming by 1 December 1986. Your materials will be forwarded to the IEC organizing committee in Madison and they will then decide (by 15 January 1987) whether your paper will be accepted as an oral presentation or as a poster. They will also send you registration and housing information.

*It is quite likely that there will not be 600 participants from non-U.S. countries. In this event additional U.S. participants will be invited. They will be notified by 1 April 1987.

--Submitted by H. Jane Brockmann, IECC Secretary

INTERNATIONAL SOCIETY FOR COMPARATIVE PSYCHOLOGY

The ISCP announces a quarterly publication of research reports to be published by the Human Sciences Press, Inc. The first issue will appear in the Spring of 1987. Inquiries should be directed to Ethel Tobach, Dept of Mammalogy, American Museum of Natural History, Central Park West at 79 St., New York, NY 10024.

AWARDS

T.C. SCHNEIRLA RESEARCH FUND

The T.C. Schneirla Research Fund announces two awards this year, in the amount of $500 each, for applicants studying the evolution or development of behavior. A one-page double spaced proposal describing the project to be supported; a one-page statement of the budget to be followed with justification; sources of other support and two letters of recommendation should be sent to Ethel Tobach, Dept of Mammalogy, American Museum of Natural History, Central Park West at 79 Street, New York, NY 10024. Deadline is 15 May 1986; awards will be made by 15 June.

THE AMERICAN ASSOCIATION OF ZOO KEEPERS

The American Association of Zoo Keepers announces the availability of grants for keeper-initiated zoo research. Two awards of up to $500.00 each will be awarded to full-time keepers who are members of AAZK. Proposals may be submitted at any time. For further information, contact Frank Kohn or Kaci Thompson, AAZK Research/Grants Committee, Department of Zoological Research, National Zoological Park, Washington, DC 20008.

VIDEO TECHNOLOGY FOR ANIMAL BEHAVIOR: WORKSHOP FOR THE 1987 ABS MEETINGS

To organize a symposium/workshop on the use of video equipment by animal behaviorists, I am soliciting information from interested members concerning aspects of film production and editing, methods, research, teaching, or equipment technology. Please send comments and ideas to Steven L. Hopp, ABS Film Committee, Dept. of Psychology, Emory and Henry College, Emory, Va. 24327, or contact me at the Tucson meeting.

ANIMAL BEHAVIOR SOCIETY DIRECTION OF CORRESPONDENCE

ABS NEWSLETTER & correspondence to the Society:
Terry Christenson, Dept of Psychology
Tulane University, New Orleans LA 70118

ANIMAL BEHAVIOUR--Manuscripts and editorial matters:
Charles Snowdon, Dept of Psychology,
Univ of Wisconsin, Madison WI 53706

ANIMAL BEHAVIOUR--Missing, defective, or back issues; changes of address:
H. Jane Brockmann, Dept of Zoology,
Univ of Florida, Gainesville FL 32611

CONTRIBUTIONS TO NEWSLETTER WELCOME

The Secretary thanks Alison Hartman for help with this Newsletter. We would be pleased to receive materials for the August ABS Newsletter by 1 July 1986 and the ASZ Fall Divisional Newsletter by 1 October. Send to Terry Christenson, Dept of Psychology, Tulane University, New Orleans LA 70118.

OPPORTUNITIES

RESEARCH DIRECTOR

Scientist with administrative skills to serve as Research Director at the Karisoke Research Centre in the Parc National des Volcans, Rwanda, Africa. Begins October, 1986. Karisoke is known for its mountain gorillas; expansion of biological research in the park is planned. Thus, there are also opportunities at the Research Centre for researchers in tropical montane ecology, conservation biology, animal behaviour, among other areas. Applicants should send a cover letter (one copy in English, and four in French to the Rwandan address), a CV, letter of recommendation, and research proposal to: P. Stacey Coil, Section of Neurobiology and Behavior, Cornell Univ , Ithaca, NY 14853; and David P. Watts, Director, Centre de Recherche a Karisoke, B.P. 105, Ruhengeri, Republique du Rwanda, Africa.

GREAT APE RESEARCH & CONSERVATION FELLOWSHIP

Co-sponsored by the L.S.B. Leakey Foundation and Wildlife Conservation International of the New York Zoological Society, awarded to promote long-term research on wild populations of great apes. Preference will be given to individuals whose work promises to significantly improve the conservation status of a population or species and elucidate causes of variation in ape behavior and our understanding of the origins of human behavior. Priority will be given to research in previously unstudied habitats. One or two Fellowships, worth together up to a total of $40,000, will be awarded in November 1986. Applicants should submit a curriculum vitae and a one-page statement of research goals by 1 May 1986 to Mary Pearl, WCI, New York Zoological Society, Bronx, NY 10406 USA. Eligible candidates will be asked to submit a full proposal to either WCI or L.S.B. Leakey by 1 August 1986.

SCHOLL RESEARCH FELLOWSHIPS

The Lincoln Park Zoological Gardens and Society are seeking candidates for the 1986 Scholl Research Fellowships to conduct research at the zoo for an 8-12 week period to be coordinated with the candidate's academic schedule. Research topics may be specific to the candidate's field of interest, as well as reflect the needs of the zoo. Attention will be given to scientific merit of the proposal, and feasibility and relevance of the research topic within a zoo environment. Stipend is $1,200. Send resume, research proposal, letter of interest, and two letters of reference to Dennis Meritt, Jr., Lincoln Park Zoological Gardens, 2200 North Cannon Dr, Chicago IL 60614.

RESEARCH ASSISTANTS

Research Assistants are needed for a field study of the Satin Bowerbird in Australia. These birds are unique in that males build bowers, structures that are important only for attracting mates. Males provide no assistance to females in rearing young. The focus of this research is to determine why the bower-building habit evolved and to use this peculiar behavior to experimentally test important models for the evolution of mate choice. Bowerbirds are active near bowers from mid-October to late December; assistants are needed during this period.

The field site is located 149 km SW of Brisbane in Beaury State Forest, New South Wales. Intensive work on the study population began in 1980, but birds have been marked and observed since 1975. Wildlife is abundant at the study site and includes 219 bird species and 13 species of large Marsupials.

Field Assistants receive no salary and must pay for their own transportation to Australia. I will provide food and housing at the field site. The field work is demanding and requires long hours of observation and daily walks up steep trails. Assistants are expected to be mature, congenial, in good health and have a strong interest in animal behavior. Credit can be arranged through the University of Maryland. Contact: Gerald Borgia, Dept of Zoology, University of Maryland, College Park, MD 20742, (301) 454-5757.

FIELD ASSISTANTS

Four assistants needed in studies on the behavioral ecology of birds of paradise in Papua New Guinea, August to December 1986. The field work involves behavioral observations and radio telemetry, is strenuous, and is carried out in very remote areas. All expenses are paid, including round-trip airfare, but there is no salary. To apply send resume, statement of purpose, and two letters of reference to S.G. Pruett-Jones, Department of Biology, C-016, University of California at San Diego, La Jolla, CA 92093.

FIELD ASSISTANT

Housing and a stipend of $1,200.00 provided for a summer assistant, 1 June to 15 August to work on milkweed leaf beetle mating behavior. Duties include taking care of laboratory cultures, lengthy field observations (focal samples of consortships that may last all day), and setting up experiments in both the laboratory and field. The work will be done at the Cornell Biological Field Station on Oneida Lake in upstate New York. Must have a sense of humor. Send resume and references to Janis Dickinson, Dept of Entomology, Cornell Univ, Ithaca, NY 14853; (607) 255-2096.

SUMMER FIELD COURSES

A number of field courses in 1986 offered at Biological Field Stations are summarized in a poster prepared by the Organization of Biological Field Stations. Most offerings are intended for undergraduate and graduate students in Biology. For a copy, contact Richard W. Coles, Washington University Tyson Research Center, PO Box 351, Eureka, MO 63025.

MOUNTAIN FIELD COURSES

The Mountain Research Station of the Univ of Colorado will offer mountain field courses in Colorado, Wyoming, Alaska, Hawaii, and Tasmania, 9 June to 15 August 1986 and 27 December to 20 January 1987. Offered for undergraduate or graduate credit. Summer courses include: Mathematical and Evolutionary Ecology, Pollination Biology, Forest Ecology, Isozyme Genetics in Field Biology, Field Techniques in Environmental Science, and Tropical Ecology and Resource Management in Hawaii. Winter 1986-1987 courses include: Winter Ecology, Snow Science, and Mountain Geomorphology and Ecology in Tasmania. The Mountain Research Station is located at 2900 m in the Front Range of Colorado, and offers easy access to a variety of terrestrial and aquatic habitats ranging in altitude from 1500 to 3800 m. Contact Mark Noble, MRS, Univ of Colorado, Nederland, CO 80466, (303) 492-8841.

GRADUATE STUDY

Rent-free living accommodations are available to graduate students interested in field studies involving the mechanisms mediating attachments in mallard ducks and the Giant Canada Goose. Contact L. James Shapiro, Avian Behaviour Laboratory, Dept of Psychology, Univ of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.

MEETINGS

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE ANNUAL MEETING- 25-30 May, Philadelphia. Symposia include: changing health of our planet; the replaceable human body; the use of animals in research; AIDS; trends in supercomputers; the Bhopal disaster; self-deception in daily life; and biomedical imagery. Contact AAAS Meetings Office, 1333 H Street, N.W., Washington, D.C. 20005, (202) 326-6440.

AMERICAN SOCIETY OF NATURALISTS ANNUAL MEETING- 26-30 May, Pacific Grove, CA. Contact Philip Hedrick, Biological Sciences, University of Kansas, Lawrence, KS 66045.

1986 ECOLOGY OF SOCIAL BEHAVIOR CONFERENCE- 5-7 June, Northern Arizona University, Flagstaff. For information contact Con Slobodchikoff, Dept Biology, Northern Arizona University, Flagstaff AZ 86011, (602) 523-4307.

CONFERENCE ON REPRODUCTIVE BEHAVIOUR- 7-10 June, Montreal, Canada. Focus on the regulation of reproductive behaviour primarily of animals. Contact Jane Stewart, CSBN, Dept of Psychology, 1455 Maisonneuve Blvd West, Montreal, Quebec H3G 1M8, Canada.

1986 ABS MEETING- 8-13 June. Host is Astrid Kodric-Brown, Dept Ecol & Evol Biol, Univ of Arizona, Tucson AZ 85721.

AMERICAN SOCIETY OF MAMMALOGISTS ANNUAL MEETING- 15-19 June, Madison, WI. Contact John A. W. Kirsch, Univ of Wisconsin Zoological Museum, or Frank Iwen, Curator of Mammals, 250 N. Mills St., Madison, WI 53706, (608) 262-3766.

1986 AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS- 15-21 June, University of Victoria. Contact Pat Gregory, Dept of Biology, Univ of Victoria, Victoria, British Columbia, Canada V8W2Y2.

SNAKE BEHAVIOR AND ECOLOGY symposium at the ASIH meeting, 15-21 June, Univ of Victoria. Topics: social behavior and reproduction, feeding behavior and ecology, physiological ethoecology, and population biology. Contact Neil B. Ford, Dept of Biology, Univ of Texas, Tyler TX 75701.

AMERICAN ARACHNOLOGICAL SOCIETY 18-22 June at Lindenwood College, St. Charles MO. Contact Bill Tietjen, Dept of Biology, Lindenwood College, St. Charles MO 63301.

INTERNATIONAL SYMPOSIUM ON VIOLENCE AND AGGRESSION- 22-25 June in Saskatoon. Contact David Keegan, Dept of Psychiatry, Univ of Saskatchewan, Saskatoon, Saskatchewan Canada S7N 0W0.

SOCIETY FOR THE STUDY OF EVOLUTION- 22-25 June, Durham, New Hampshire. Contact Jeffry B. Mitton, Society of the Study of Evolution, University of Colorado, 122 Ramaley, Campus Box B-334, Boulder, CO 80309, (303) 492-8956.

1986 INTERNATIONAL ORNITHOLOGICAL CONGRESS- 22-29 June, Ottawa. Contact Henri Ouellet, National Museum of Natural Sciences, National Museums of Canada, Ottawa, Ontario, Canada K1A 0M8.

CURRENT PERCEPTIONS OF TERRITORIAL BEHAVIOR poster symposium and round-table discussion at the 1986 IOC meeting, 22-29 June, Ottawa. Topics include territory exclusivity, space utilization, and defense. Contact Mark Finke, Kodak Research Labs, 1999 Lake Ave, Rochester NY 14650.

ENDOCRINE SOCIETY- 25-27 June, Anaheim, CA. Contact Ann Amrhein, Endocrine Society Annual Meeting Office, 428 East Preston Street, Baltimore, MD 21202 (301) 528-4259.

WORKSHOP: APPLYING BEHAVIORAL RESEARCH TO ZOO ANIMAL MANAGEMENT- National workshop hosted by the Woodland Park Zoological Gardens, Seattle, 19-26 July 1986. Contact Michael Hutchins, Dept of Psychology, Univ of Washington, Seattle WA 98195.

1986 XI CONGRESS OF THE INTERNATIONAL PRIMATOLOGICAL SOCIETY 20-25 July, Gottingen, FR Germany. Contact Hans-Jurg Kuhn, IPS Congress Office, c/o Deutsches Primatenzentrum (DPZ), Kellnerweg 4, D-3400 Gottingen, FR Germany.

VII BIENNIAL MEETING OF INTERNATIONAL SOCIETY FOR RESEARCH ON AGGRESSION - 23-27 July, Northwestern University, Evanston, IL. Plenary Speakers include- R. Adamec & C. Stark-Adamec: Limbic epilepsy and emotional state; G. Patterson: Structural models of childrens' antisocial behavior. Symposia include: Infanticide; Ethopharmacology of Aggression; Fighting and play fighting; Escalation; and Sexual aggression. Contact Joyce Rozwadowski, Dept of Psychology, Univ of Illinois, Chicago, IL 60680.

5TH INTERNATIONAL CONFERENCE ON HUMAN ETHOLOGY 27-31 July, Tutzing, West Germany. Follows the meeting noted above. Contact Forschungsstelle fur Humanethologie, Max-Planck-Institut fur Verhaltensphysiologie, D-8181 Seeweisen, West Germany.

AIBS ANNUAL MEETING- 10-14 August, Univ of Mass, Amherst. Includes the following societies: Amer Fern Soc, Assoc for Tropical Biology, Botanical Soc of Amer, and Mycological Soc of Amer. Contact AIBS, Meetings Dept, 730 11th St N.W., Washington D.C., 20001; (202) 628-1500.

SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES / HERPETOLOGISTS LEAGUE JOINT ANNUAL MEETING- 10-15 August, Southwest Missouri State University. Contact Robert Wilkinson, Life Sciences Department, SMSU, Springfield, MO 65802.

ECOLOGICAL SOCIETY OF AMERICA- 10-16 August, Syracuse, NY. Contact Mohan Wali or Robert Burgess, Dept of Environmental Forest Biology, SUNY- College of Environ Science and Forestry, Syracuse, NY 13210 (315) 470-6500.

AMERICAN ORNITHOLOGISTS' UNION-17-21 August, Mississippi State, MS. Contact Jerome A. Jackson, Dept. of Biological Sciences, PO Drawer Z, Mississippi State University, Mississippi State, MS 39762, (661) 325-3120.

1986 10TH INTERNATIONAL CONGRESS OF THE INTERNATIONAL UNION FOR THE STUDY OF SOCIAL INSECTS 18-22 August, Munich, West Germany. For information and registration forms contact Dr. C. Czoppelt,

Max-Planck-Institut fur Biochemie, D-8033 Martinsried, West Germany.

DELTA SOCIETY INTERNATIONAL CONFERENCE- 20-23 August in Boston. Topics to be covered in this conference are diverse, including any area involving interaction of people with animals or with nature. Contact Lynn Grotsky, Delta Society, 212 Wells Ave South, Suite C, Renton WA 98055.

AMERICAN PSYCHOLOGICAL ASSOCIATION- 22-26 August, Washington, DC. Contact Don Kent, American Psychological Association, 1200 - 17th Street, NW , Washington, DC 20036, (202) 955-7710.

INTERNATIONAL SOCIETY FOR NEUROETHOLOGY CONGRESS- 1-6 Sept, Tokyo, Japan. Plenary sessions include: neural processing of sensory information; learning and neural plasticity; neurogenetics and behavior development; neuroethology and human behavioral biology; behavioral rhythms. Contact Kiyoshi Aoki, Life Science Institute, Sophia University, Chiyoda-ku, Tokyo, 112, Japan.

1986 INTERNATIONAL SOCIETY FOR COMPARATIVE PSYCHOLOGY- 6-14 Sept, Univ of Costa Rica, Abelardo Brenes will host. Program includes: Costa Rican natural history and culture, field trips, workshops, symposia, and paper sessions. Contact Ethel Tobach, ISCP President, American Museum of Natural History, Central Park West at 79th St, New York, NY 10024.

AMERICAN ASSOCIATION OF ZOOLOGICAL PARKS AND AQUARIUMS- 14-19 Sept hosted by the Minnesota Zoological Garden. Contact Steve Iserman, Minnesota Zoological Garden, 12101 Johnny Cake Ridge Rd, Apple Valley MN 55124.

12TH ANNUAL AMERICAN ASSOCIATION OF ZOO KEEPERS NATIONAL CONFERENCE- 28 Sept. - 2 October, Winnipeg, Manitoba. Hosted by the Assiniboine Park Zookeepers Association. Theme is "Animal Integrity in Captivity". Contact Bob Debets, Assiniboine Park Zoo, 2355 Corydon Avenue, Winnipeg, Manitoba, Canada R3P 0R5.

WORKSHOP ON ZOO-UNIVERSITY COLLABORATIVE EFFORTS IN THE CONSERVATION OF ENDANGERED PRIMATES - 15-17 October, Madison, WI. Sponsored by the Wisconsin Regional Primate Research Center and the Milwaukee County Zoo. Topics include: reproductive biology, primate medicine, behavior, conservation, public awareness programs and exhibit design. Contact Anne Savage, WRPRC, Univ of Wisconsin, 1223 Capitol Ct., Madison, WI 53715.

CONFERENCE ON THE NEURAL MECHANISMS AND BIOLOGICAL SIGNIFICANCE OF GROOMING BEHAVIOR- 15-17 October, New York Academy of Sciences. Topics include: environmental and pharmacological modulation; neurochemistry; anatomical substrates and electrophysiological correlates; and ethological and comparative aspects. Contact Conference Dept, New York Academy Sciences, 2 East 63rd Street, New York, NY 10021; (212) 838-0230.

INTERNATIONAL MEETING FOR BEHAVIORAL ECOLOGY- 17-19 October at New York State Museum in Albany, New York. Program includes: invited speakers, sessions for submitted posters, and workshops. Working committees will report on the plausibility of a new scientific society, a new journal of behavioral ecology, and plans for future meetings. Contact Behavioral Ecology Group, Dept of Biol Sci, SUNY at Albany, 1400 Washington Avenue, Albany, NY 12222.

1986 CONSERVATION 2100: A FAIRFIELD OSBORN SYMPOSIUM, October 20-24, New York. Offered by Wildlife Conservation International, New York Zoological Society, in honor of Fairfield Osborn, former president of NYZS and a pioneer in wildlife conservation efforts. Participants from diverse disciplines will assess the current state of world wide conservation, and determine priority areas for future action and research. Contact Mary C. Pearl at (212) 865-6571.

NORTHEAST REGIONAL MEETING- 31 October-2 November, University of Vermont. For additional information contact Joan M. Herbers, Department of Zoology, University of Vermont, Burlington VT 05405, (802) 656-0449.

ENTOMOLOGICAL SOCIETY OF AMERICA- 8-12 December, Reno, Nevada. Contact William A. Allen, Dept of Entomology, Virginia Polytechnic Institute and State University, Blacksburg, VA, 24061, (703) 961-6772.

1986 ASZ MEETINGS- 27-30 Dec, Nashville. Contact Mary Adams-Wiley, ASZ, Box 2739, California Lutheran College, Thousand Oaks CA 91360.

1987 SIXTH BIENNAL CONFERENCE ON THE ECOLOGICAL AND EVOLUTIONARY ETHOLOGY OF FISHES- 17-20 May, Lamar Univ, Beaumont, Texas. Contributed papers plus two short symposia: coastal migrations in marine fishes, and correlates of sex change in fishes. Contact David L. Bechler, Dept of Biology, PO Box 10037, Lamar Univ , Beaumont, TX 77710.

1987 ABS MEETINGS- 21-26 June, Williams College, Williamstown MA 01267. Host is Lee Drickamer, Dept of Biology.

1987 XXTH INTERNATIONAL ETHOLOGICAL CONFERENCE 7-16 August, Madison WI. Host is Charles Snowdon, Dept Psych., Univ of Wisconsin, Madison WI 53706.

1987 ASZ MEETINGS- 27-30 Dec, New Orleans.

SYMPOSIUM PROPOSALS WANTED

If you are interested in organizing a symposium or invited paper session for the 1987 ABS meetings to be held at Williams College in June, contact Lee Drickamer at the Dept of Biology, Williams College, Williamstown MA 01267, or the incoming Program Officer, Susan Riechert, at the Dept of Zoology, Univ of Tennessee, Knoxville TN 37916. If you are interested in organizing a symposium for the 1988 San Francisco ASZ meetings, contact Mary Adams-Wiley at the ASZ, PO Box 2739, California Lutheran College, Thousand Oaks CA 91360.

ABS MEETING SITES SOLICITED

If you are interested in discussing the possibility of hosting an ABS national convention, contact the ABS President, Jeanne Altmann, Dept of Conservation Biology, Chicago Zoological Society, Brookfield IL 60513, (312) 485-0263 ext 438.

ANNOUNCEMENTS

AIBS DISTINGUISHED SERVICE AWARD

Ecologist Garrett Hardin has been named the recipient of the 1986 Award. Currently Professor Emeritus of Human Ecology at the Univ of California at Santa Barbara, Hardin is being recognized for his efforts in creating an awareness of the limits of our natural resources and particularly for his role in establishing the public policy debate about the "carrying capacity" of the ecosystem.

APPLICATIONS FOR ABS COMMITTEE APPOINTMENTS WANTED

Fifteen appointments will be made this year to ABS committees. If you are interested, contact First President-Elect, Gordon Burghardt, Dept of Psychology, Univ of Tennessee, Knoxville TN 37916.

NEEDED: HELP FOR OPPRESSED SCIENTISTS

In some places, scientists who are in disfavour are subjected to a sort of scientific strangulation. They may be prohibited from contacting colleagues, or barred from libraries and laboratories. Correspondence with foreign colleagues might be beneficial. Contact Julien Hiecklen, Dept of Chemistry, Penn State Univ, University Park, PA 16802, or Israel Halperin, Dept of Mathematics, Univ of Toronto, Toronto, Ontario, M5S 1A1, Canada.

ORGANIZATION OF BIOLOGICAL FIELD STATIONS

The Organization of Biological Field Stations is a 100-plus member association of institutions which act as sites for field research and instruction in biology, wildlife conservation, ecology, animal behavior and many related disciplines. Most of them are associated with colleges and universities. Many offer summer courses for undergraduate and graduate students from the parent institution and from other campuses across the continent. Occasionally there are opportunities for adults interested in nature study as well. For information, contact Richard W. Coles, OBFS, P.O. Box 351, Eureka, MO, 63025 (314) 938-5346.

BITNET COMPUTER NETWORK

The BITNET computer network allows rapid communication, especially with those abroad. Many North American and overseas universities are linked by BINET or other networks. However, there seems to be no directory which would provide names and network "addresses" of users. Those interested in BITNET or contributing to a users directory, contact Judith Gibber, Center for Studies in Behavioral Neurobiology, Concordia Univ, 1455 de Maisonneuve Blvd. West, Montreal, Quebec, Canada H3G1M8.

ANIMAL MISBEHAVIOUR

Those interested in contributing to another edition of Animal Misbehaviour contact Steve Rebach, Dept of Biology, Univ of Maryland-Eastern Shore, Princess Anne MD 21853.

ABS GRADUATE PROGRAMS IN ANIMAL BEHAVIOR

For a fee of $8, copies may be ordered from the Chair of the ABS Education Committee, Robert Matthews, Dept of Entomology, Univ of Georgia, Athens GA 30602.

AMERICAN SOCIETY OF ZOOLOGISTS

Join ASZ and receive American Zoologist, Newsletters from the society, discounts on some journals, special bulletins, and more. Annual dues are $48 for a regular member and $20 for graduate student members. For more information contact Mary Adams-Wiley, ASZ, Box 2739 California Lutheran College, Thousand Oaks CA 91360.

HUMAN ETHOLOGY SOCIETY

Membership in the International Society for Human Ethology is available for $10 U.S. ($5 for students). Contact Robert Adams, Dept of Psychology, Eastern Kentucky University, Richmond KY 40475.

ANIMAL BEHAVIOR CONSULTANTS NEWSLETTER

Issued quarterly; available to ABS members. Contact John Wright, Dept of Psychology, Mercer University, Macon GA 31207.

ABS OFFICERS

*To take office 14 June 1986

PRESIDENT: Jeanne Altmann, Dept Conservation Biology, Chicago Zoological Park, Brookfield IL 60513
1st PRESIDENT-ELECT: Gordon Burghardt, Dept of Psych, Univ of Tennessee, Knoxville TN 37916
2nd PRESIDENT-ELECT: Sidney Gauthreaux, Jr., Dept of Zoology, Clemson Univ, Clemson SC 29631
*2nd-PRESIDENT-ELECT: John Fentress, Dept Psych, Dalhousie Univ, Halifax, Nova Scotia, Canada B3H 4J1
PAST PRESIDENT: Colin Beer, Institute of Animal Behavior, Rutgers Univ, Newark NJ 07102
SECRETARY: (1984-87) Terry Christenson, Dept of Psychology, Tulane Univ, New Orleans LA 70118.
TREASURER: (1985-88) H. Jane Brockmann, Dept of Zoology, Univ of Florida, Gainesville FL 32611
PROGRAM OFFICER: (1983-86) Lee Drickamer, Dept of Biology, Williams College, Williamstown MA 01267
*PROGRAM OFFICER:(1986-89) Susan Riechert, Dept Zoology, Univ of Tennessee, Knoxville TN 37916
PARLIAMENTARIAN: (1983-86) Edward H. Burtt, Jr., Dept Zool, Ohio Wesleyan Univ, Delaware OH 43015
*PARLIAMENTARIAN: (1986-89) Edward H. Burtt, Jr., Dept Zool, Ohio Wesleyan Univ, Delaware OH 43015
EDITOR: (1985-88) Charles Snowdon, Dept Psychology, Univ of Wisconsin, Madison WI 53706
MEMBER-AT-LARGE: (1983-86) Philip Lehner, Dept Zool. Colo State Univ, Fort Collins CO 80523
MEMBER-AT-LARGE: (1984-87) Joan S. Lockard, Dept Neur. Surgery, Univ Washington, Seattle WA 98195
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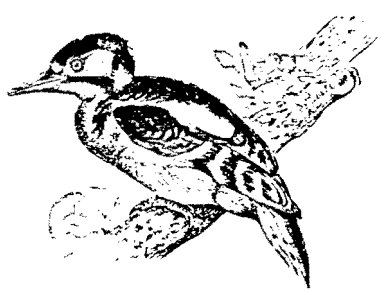


ABS/ASAB GUIDELINES FOR THE USE OF ANIMALS IN RESEARCH (1986)

The use of animals in research raises important ethical issues. Studies in laboratory settings necessarily involve keeping animals in cages. Manipulative procedures and surgery may be necessary to achieve the aims of the research. Observation of free-living animals in their natural habitats may involve disruption, particularly if feeding, capture, or marking is involved. While the furthering of scientific knowledge is a proper aim, and may itself advance an awareness of human responsibility towards animal life, the investigator should always weigh any potential gain in knowledge against the adverse consequences for the animals used as subjects, and also for other animals in the case of field studies.

In order to help their members make what are sometimes difficult ethical judgements, the Association for the Study of Animal Behaviour and the Animal Behavior Society have formed Ethical and Animal care committees respectively. These committees jointly produced the following guidelines for the use of all those who are planning and conducting studies of animal behaviour. These guidelines will be used by the Editors of Animal Behaviour. Submitted papers that appear to violate the spirit of the guidelines will be referred to one of the committees, and the evaluation of the committee will be used by the editor in deciding whether to accept the manuscript.

1. LEGISLATION.

Investigators must abide by the spirit as well as the letter of relevant legislation. For those who reside in Great Britain, references to laws designed to protect animals are given in the Universities' Federation for Animal Welfare Handbook (UFAW 1978). In the U.S.A., both Federal and State legislation may apply: guidance can be obtained from the Code of Federal Regulations (CFR), Title 9, and from the Department of Health and Human Services Publication No. (NIH) 85-23 (1985). In Canada, guidance can be obtained from the Canadian Council on Animal Care publications Guide to the Care and Use of Experimental Animals, vols. 1 and 2 (1980-1984). Workers elsewhere should acquaint themselves with local requirements.

2. CHOICE OF SPECIES.

The species chosen for study should be well-suited to answer the questions posed. When research involves the use of procedures that are likely to cause unavoidable pain or discomfort to the animal, and when alternate species can be used, the researcher should employ the species which in the opinion of the researcher and other qualified colleagues is least likely to suffer. Choosing an appropriate subject usually requires knowledge of a species' natural history as well as its complexity. Knowledge of an animal's previous experience, such as whether or not it has spent a lifetime in captivity, can be of profound importance. Although not usually appropriate in studies of behaviour, alternatives to animal experiments may sometimes be possible (Smyth 1978).

3. NUMBER OF INDIVIDUALS.

In laboratory studies or field studies involving manipulations potentially detrimental to the animal or the population, the researcher should use the smallest number of animals necessary and sufficient to accomplish the research goals. The number of animals used in an experiment can often be dramatically reduced by good experimental design and the use of statistical tests which enable several factors to be examined at one time. Still (1982) and Hunt (1980) discuss ways of reducing the number of animals used in experiments through alternative designs. Useful reference works are Cox (1958) and Cochran & Cox (1966).

4. PAIN OR DISCOMFORT.

If procedures used in research involve pain or discomfort, the investigator must consider whether the knowledge that may be gained justifies the stress and pain inflicted on the animals. In general, researchers are urged to consider the use of alternative procedures before employing techniques that are likely to cause physical or psychological discomfort to the animal. Pain or discomfort, even when unavoidable, should be minimized to the greatest extent possible under the requirements of the experimental design. Attention should be given to proper pre- and post-operative care in order to minimize preparatory stress and residual effects. Unless specifically contraindicated by the experimental design, procedures that are likely to cause pain or discomfort should be performed only on animals that have been adequately anesthetized. Investigators are encouraged to discuss with colleagues both the scientific value of their research proposals and also possible ethical considerations. Colleagues who are in a different discipline are specially likely to be helpful since they may have perspectives which differ from those of the investigator.

The following more specific points may be of use:

a. Fieldwork.

Observation of free-living animals in their natural habitats may involve disruption, particularly if feeding, capture, or marking is involved. While field studies may further scientific knowledge and advance an awareness of human responsibility towards animal life, investigators should always weigh any potential gain in knowledge against the adverse consequences of disruption for the animals used as subjects and also for other animals and plants in the ecosystem. Two useful sources of information are the books edited by Stonehouse (1980) and Amlaner & Macdonald (1980).

b. Aggression, Predation, and Intraspecific Killing.

The fact that the agent causing harm may be another nonhuman animal does not free the experimenter from the normal obligations to experimental animals. Huntingford (1984) discusses the ethical issues involved and recommends that, wherever possible, field studies of natural encounters should be used in preference to staged encounters. Where staged encounters are necessary, the use of models or alternative experimental designs should be considered, the number of subjects should be kept to the minimum needed to accomplish the experimental goals, and the experiments made as short as possible.

c. Aversive Stimulation and Deprivation.

These procedures may cause pain and distress to animals. To minimize possible suffering of the animal, the investigator should ascertain that there is no alternative way of motivating the animal, and that the levels of deprivation or aversive stimulation used are no higher than necessary to achieve the goals of the experiment. Alternatives to deprivation include the use of highly preferred foods and other rewards which may motivate even satiated animals. Use of minimal levels requires a knowledge of the technical literature in the relevant area: quantitative studies of aversive stimulation are reviewed by Church (1971); the behaviour of satiated animals is considered by Morgan (1974). Further comments on reducing distress due to motivational procedures are to be found in Lea (1979) and Moran (1975).

d. Social Deprivation, Isolation, and Crowding.

Experimental designs which require keeping animals in over-crowded conditions, or which involve social deprivation or isolation, may be extremely stressful to the animals involved. Since the degree of stress varies considerably with the species, and with the age, sex, reproductive condition, and social status of the individuals, the biology of the animals concerned and their

previous social experience should be considered, and stressful situations should be avoided as much as possible.

e. Deleterious Conditions.

Studies aimed at inducing deleterious conditions in animals are sometimes performed in order to gain scientific knowledge of value to human problems. However, the humane treatment of research animals in such experiments should still be considered by the investigator. Animal models should be suitable to the problem investigated. Where feasible, studies inducing a deleterious condition in animals should also address the possible treatment, prevention, or alleviation of the condition. Furthermore, if the goals of the research allow it, the investigator should consider using naturally-occurring instances of such conditions in free-living or domesticated populations, as an alternative to inducing the deleterious conditions.

5. ENDANGERED SPECIES.

Members of endangered or locally rare species should not be collected or manipulated in the wild except as part of a serious attempt at conservation. Information on threatened species can be obtained from the International Union for the Conservation of Nature, Species Conservation Monitoring Unit, 219C Huntingdon Road, Cambridge CB3 ODL, England. In the U.S.A., rules and regulations pertaining to the Endangered Species Act of 1973 may be found in CFR, Title 50. Lists of endangered species can be obtained by writing to the Office for Endangered Species, U.S. Department of Interior, Fish and Wildlife Service, Washington, D.C. 20240, or the Committee on the Status of Endangered Wildlife in Canada, Canadian Wildlife Service, Environment Canada, Ontario, K1A OE7. Investigators working in other countries should familiarize themselves with local information on threatened and endangered species.

6. PROCUREMENT OF ANIMALS.

Animals should be obtained only from reliable sources. For workers in the U.K., advice may be obtained from the Laboratory Animal Breeders' Association, Charles River (UK) Ltd., Manston Research Centre, Manston Road, Margate, Kent, CT9 4LP. In the U.S.A., information on licensed animal dealers can be obtained from the local office of the U.S. Department of Agriculture (USDA). So far as is possible, the investigator should ensure that those responsible for handling the animals in route to the research facilities provide adequate food, water, ventilation and space, and do not impose undue stress. If animals are captured or killed in the wild this should be done in as painless and humane a manner as possible.

7. HOUSING AND ANIMAL CARE.

The experimenter's responsibilities extend also to the conditions under which the animals are kept when not in use. Caging conditions and husbandry practices must meet at the very least minimal recommended requirements. Guidance can be obtained from the UFAW Handbook (1978), from DHHR Publication No. (NIH) 78-23 (1985), and from the CCAC Guide to the Care and Use of Experimental Animals (1980-1984).

Although these publications provide general guidelines that can be applied to wild animals, special attention may be required to enhance the comfort and safety of wild species. Normal maintenance should incorporate, as much as possible, aspects of the natural living conditions deemed important to the welfare and survival of the animals. Consideration should be given to providing features such as natural materials, refuges, perches, and dust and water baths. Frequency of cage cleaning should represent a compromise between the level of cleanliness necessary to prevent diseases, and the amount of stress imposed by frequent handling and exposure to unfamiliar surroundings, odors, and bedding.

8. FINAL DISPOSITION OF ANIMALS.

Whenever practical or feasible, researchers should attempt to distribute their animals to colleagues for further study. However, if animals are distributed for use in additional experiments, care should be taken that the same animals are not used repeatedly in experiments which involve invasive surgical procedures or other treatments which are likely to be stressful or painful. Except as prohibited by federal, state, provincial, or local laws, researchers may release field-trapped animals if this is practical and feasible, and if it is critical to conservation efforts. However, the researcher should consider that releases into the wild may be injurious or detrimental to existing populations in the area, and animals should be released only at the same site where they were trapped (unless conservation efforts dictate otherwise), and only when their ability to survive in nature has not been impaired, and when they do not constitute a health or ecological hazard to existing populations. If animals must be destroyed subsequent to a study, this should be done in as humane and painless a way as possible, and death of the animals should be confirmed before their bodies are discarded.

These guidelines supplement but do not supercede the legal requirements in the country and/or state or province in which the work is carried out. They should not be considered an imposition upon the scientific freedom of individual researchers, but rather as helping to provide an ethical framework to which each investigator may respond in making decisions related to animal welfare.

REFERENCES

Amlaner, C.L.J & Macdonald, D.Q. 1980. A Handbook on Biotelemetry and Radio Tracking. Oxford: Pergamon.

Canadian Council on Animal Care. 1980-84. Guide to the Care and Use of Exp Animals, Vols 1,2. Ottawa: CCAC.

Church, R.M. 1972. Aversive behavior. In: Woodworth and Schleosberg's Experimental Psychology. 3rd edn (Ed. by J.W. Kling & L.A. Riggs), pp. 703-741. London: Methuen.

Cochran, W.G. & Cox, G.M. 1966. Experimental Designs. 2nd edn. New York: Wiley.

Code of Federal Regulations. 1973. Wildlife and fisheries (Title 50), Chapter 1 (Bureau of Sport Fisheries & Wildlife Service). Washington, D.C.: U.S. Gov Printing Office.

Cox, D.R. 1958. Planning of Experiments. New York: Wiley.

Hunt, P. 1980. Experimental choice. In: The Reduction and Prevention of Suffering in Animal Experiments. Horsham, Sussex: Royal Soc for the Prev. of Cruelty to Animals.

Huntingford, F. 1984. Some ethical issues raised by studies of predation and aggression. Anim. Behav. 32, 210-215.

Lea, S.E.G. 1979. Alternatives to the use of painful stimuli in physiological psychology and the study of behaviour. Altern. Lab. Anim. Abstr. 7, 20-21.

Moran, G. 1975. Severe food deprivation: some thoughts regarding its exclusive use. Psychol. Bull. 82, 543-557

Morgan, M.J. 1974. Resistance to satiation. Anim. Behav., 22, 449-466.

National Research Council. 1985. Guide for the Care and Use of Lab Animals. NIH publ. 85-23. Wash. D.C.: USDHHS.

Smyth, D.H. 1978. Alternative to Animal Experiments. London: Scolar Press, Research Defence Society.

Still, A.W. 1982. On the number of subjects used in animal behaviour experiments. Anim. Behav. 30, 873-880.

Stonehouse,B. 1987 (Ed.) Animal Marking: Recognition Marking of Animals in Research. London: Macmillan.

Universities Federation of Animal Welfare. 1978. The UFAW Handbook on the Care and Management of Lab Animals. 5th edn. Edinburgh: Churchill.

A PIVOTAL YEAR FOR LAB ANIMAL WELFARE

Secretary's Note: The following is an abridgment of an article written by Constance Holden published in Science, 11 April 1986, 232:147-150. It is the first of two articles.

The past year has been a pivotal time for the animal welfare movement and a difficult one for scientists whose work involves experimental animals. Two major federal actions- amendments to the Animal Welfare Act of 1966 and revisions of the Public Health Service's (PHS) animal care guidelines- tighten standards for the humane use of animals and emphasize that the main responsibility for proper animal care lies at the institutional level.

The National Institutes of Health (NIH) also acted to withhold research money from two institutions- the City of Hope Medical Center in Duarte, California, and the head trauma laboratory at the University of Pennsylvania- in the aftermath of raids by the Animal Liberation Front. And, in its first action under the new guidelines, in February the NIH suspended grants for research on vertebrates other than rodents at Columbia University (See "Centers Targeted by Activists" below).

Compliance with the new rules will unquestionably be costly, particularly when combined with the darkening fiscal picture created by Gramm-Rudman and the indirect costs crunch. They are also likely to lead to a reduction in animal use at least in some institutions. But in general, the scientific community has accepted the changes as necessary.

The major regulatory development is the move to locate oversight and monitoring of animal use and care firmly at the institutional level. To this end, the new PHS guidelines require every research institution to appoint an "institutional animal care and use committee." Every committee must have a veterinarian and an outside member on it. Research protocols must be reviewed by the committee to be sure they adhere to established standards. Committees must inspect facilities twice a year. Institutions must designate clear lines of authority for those involved in animal research, submit exhaustive information on the animal care program, and supply a detailed "assurance" from facilities that have not been accredited by the American Association for accreditation of Laboratory Animal Care (AAALAC). The accompanying NIH "Guide for the care and use of laboratory animals" specifies in excruciating detail requirements for personnel training, animal housing, and veterinary care.

The amendments to the Animal Welfare Act [sponsored by Representative George Brown (D-CA) and Senator Robert Dole (R-KS)] and passed as part of the 1985 farm bill, are designed to harmonize with the PHS guidelines and extend their coverage to other facilities. They cover all research facilities-about 2000- that are engaged in interstate commerce. The amendments, which were the product of several years of intense lobbying and consideration of alternate bills, also mandate the establishment of animal care committees. The new law directs investigators to consider alternatives to animal use and specifies measures to minimize pain and distress. It also has two brand-new provisions- one requires exercise for laboratory dogs, the other [insisted upon by Senator John Melcher (D-MT)] says that primates must be furnished with a "physical environment adequate to promote" their "psychological well-being." This last vague provision could prove quite troublesome. Its official meaning is yet to be determined by the Department of Agriculture which is supposed to issue regulations on the act by the end of this year.

The National Association for Biomedical Research, according to its director, Frankie L. Trull, believes that the costs of bringing facilities up to snuff - not to mention the increased cost for staff work for animal care committees- may compel some smaller universities to get out of the animal business altogether. "We are seriously concerned that research institutions may be reaching the point where research will be sacrificed for economic reasons, " she says. To many observers, the recent crackdown on Columbia University was a significant indication that NIH, at least, intends to interpret its standards rigorously. "We are all [happily] shocked," comments John McArdle of the Humane Society of the United States.

Animal rights activists are now suggesting that the number (of subjects) can be drastically reduced with the introduction of alternatives to animals. These are commonly defined as the "three R's": replacement of animals with in vitro cultures, lower organisms, and nonanimal models; refinement of methodologies so as to reduce animal pain and stress; and reduction of the number of animals used in a test. McArdle claims, for example, that 80 to 90% of animal use could be curtailed immediately and the rest by the end of the century.

In fact, the picture is far too complex and fraught with uncertainty for any authoritative projections to be made. Animal advocates tend to blur the line between the use of animals in testing and their use in basic research, although the two uses are in many ways quite separate in their problems and prospects. Money problems are nowhere near as severe in private industry, where most toxicity testing occurs, as they are in academia, the locus of basic research. Animal use accounts for a minuscule proportion of the cost in industry.

It is true that in toxicity testing, significant advances have been made in the past few years in the direction of refining research methodology and the use of in vitro and mathematical models. Short-term toxicity testing has been where most of the progress has occurred- particularly with regard to the Draize eye irritation test and the LD 50 (lethal dose that will kill 50% of the test population). While trends in academic research have largely been in response to financial pressures, social pressures have had a dramatic effect in industrial testing, particularly in well-known consumer products such as cosmetics and household cleaners. Companies that a few years ago regarded research on alternatives as somewhat offbeat are now trumpeting their various initiatives and boasting of substantial reductions in animal use.

The rapidity with which this has all come about can in large measure be traced to the activities of one man: Henry Spira, a New York activist who in 1980 organized an anti-Draize campaign that stirred widespread public response. In swift succession, several new research programs were set up, notably one at Rockefeller University, subsidized by $1.25 million from Revlon, and the Center for Alternatives to Animal Testing at Johns Hopkins University, launched with a $2.1-million grant from the Cosmetics, Toiletry and Fragrance Association.

The classic LD 50 test has now been virtually eliminated in favor of tests using judiciously selected dosages on fewer animals. A cosmetics association membership survey last year, for example, revealed that there had been a 75 to 90% reduction of animal use in oral toxicity tests.

Nonmammalian models, such as the aplysia, the squid, and the horseshoe crab, have become very popular with neuroscientists, but the choices have been dictated by science and practicality, not by the urge to replace mammals.

The more moderate branch of the animal welfare movement appreciates the complexity of the problems in

developing alternatives. Christine Stevens, founder of the Animal Welfare Institute (who is credited as being a major force in getting the Animal Welfare Act amended), agrees that the real promise in the near future is in refining methodologies, getting researchers better trained in the use of animal models, and improving information systems.

The revised Animal Welfare Act provides legislative basis for what could become a major information resource by directing the National Agricultural Library to provide a new information service on improved methods of animal experimentation with the help of the National Library of Medicine. However, money for this project would presumably come from APHIS, which would need a dramatically expanded budget to do it.

The main administrative focus for encouraging work on alternatives is in NIH's new Biological Models and Materials Resources Section within the Division of Research Resources. Its director, James Willett, is in charge of formulating a plan for NIH, due in October, which will be largely based on an NAS report, "Models for Biomedical Research: A New Perspective," issued last spring (Science, 21 June 1985, pp. 1412-1413).

As for immediate goals, the research community and the mainstream of the animal welfare community appear to be willing to work together on one, which is to get APHIS adequately enforced and funded. Inspection of laboratories covered by the Animal Welfare Act has always been a minor AHPIS duty. A report last year by the Government Accounting Office revealed that inspections were infrequent (the new legislation mandates twice yearly inspections) and that its veterinarians were poorly trained in laboratory animal care. The inspection budget has limped along at about $4.8 million a year, and the President's budget regularly calls for that to be zeroed out- the idea being that local agencies and humane groups can do the job.

New regulations notwithstanding, the animal rights forces continue to grow, fed by an enormous amount of publicity over the past year, including an article in Parade magazine which resulted in 10,000 letters to the Humane Society, and massive interest engendered by figures such as talk show host Phil Donahue and commentator Paul Harvey. McArdle says Humane Society membership has doubled over the past year to 450,000, and that most of the new members are animal rightists. People for the Ethical Treatment of Animals (PETA), the country's largest radical group, says its membership has quadrupled, to over 120,000.

The use of animals in behavioral research- the area that offers the slimmest prospects for replacing whole animals- is particularly abhorrent to these groups. They cite, for example, experiments in "learned helplessness" (which have made a major contribution to the understanding of depression), which demonstrate that animals suffer far more stress when they have no control over the timing of a noxious stimulus (electric shock). Animal rightists also oppose using animals for research on substance abuse- the attitude being that we know already that these things are bad, and we have no right to inflict disorders on healthy animals that they are not naturally prey to.

There is little doubt that the combination of political pressure, financial stringency, and new improved methodologies will result in the continued reduction of animal use at least in the near future. There is also little doubt that confrontations between the scientific community and the radical fringe of the animal welfare movement will continue.

---Centers Targeted by Activists---

Universities whose animal care policies have, with help from animal liberationists, drawn the attention of the National Institutes of Health.

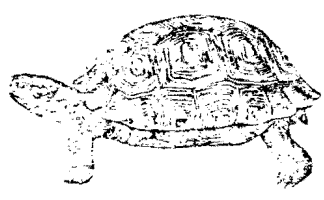
The University of Pennsylvania: Animal liberationists staged a raid in May 1984 in which they trashed a laboratory at the Head Injury Clinical Center where baboons were being subjected to whiplash injuries, and made off with extensive videotapes of the experiments. In July 1985, following a 4-day PETA sit-in at NIH, the grant was suspended, reportedly on the grounds that there was insufficient supervision and training of the researchers. In November, NIH announced that there would be no new grants on vertebrate animals to the university until a new assurance based on the revised PHS guidelines had been approved. Ongoing grants are not affected.

City of Hope Medical Center in Duarte, California: Members of the Animal Liberation Front broke into the Beckman Research Institute in December 1984, destroying equipment and carrying off some animals. Their primary focus was a research project testing tobacco carcinogens in dogs. The Public Health Service asked for an evaluation of the animal care program which was produced in July 1985, documenting some deficiencies in facilities and veterinary oversight. NIH responded by suspending the animal care assurance and about $1-million worth of grant money, according to executive medical director Charles Mittman. The center also acquiesced to a $12,000 fine from the Department of Agriculture.

University of California, Riverside: In April 1985 members of the Animal Liberation Front carried off 467 research animals, stole documents, and vandalized facilities during a raid on the university's psychology and biology laboratories. Among the kidnapped was a stump-tailed macaque whose eyes had been sewn shut for research on the development of a device to help blind people navigate. PETA, which acts as a mouthpiece for the unidentified liberationists, claimed the animals had been subjected to painful and unnecessary experimentation and, in some cases, starved.

This February, however, after an 8-month investigation, NIH concluded that Riverside has an appropriate animal care program and that no corrective action is necessary.

Columbia University: Following an unannounced site visit in January, NIH suspended all grants involving research with vertebrates other than rodents at the university. The visit was triggered by an assurance statement submitted in December which documented various deficiencies in facilities, as well as complaints from animal activists, some of whom had entered in November to take pictures. The university has set up an emergency animal care task force to coordinate immediate changes required to get funding back, which, it is hoped, will be in effect later is the spring.



REVIEWERS FOR ANIMAL BEHAVIOUR

I am grateful to the efforts of the several hundred people who have reviewed manuscripts for ANIMAL BEHAVIOUR during the past year. 95% of the manuscripts were reviewed and an editorial decision reached within 8 weeks of submission. In general the quality of reviews has been excellent. So that we can continue this success in the coming year I want to update the reviewer files for 1986-87. If you fall into one or more of the following categories, please complete this form and return it to me as soon as possible: (Check as many as are appropriate).

_____ 1. Have never reviewed for ANIMAL BEHAVIOUR. [If you filled out this form last year and still haven't received a manuscript, it is because I haven't found one appropriate for you. You need not resubmit a form this year.]

_____ 2. Will have a change of address for all or part of 1986-87.

_____ Permanent _____ Temporary From _____ to _____

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I will be able to review a manuscript and return it within 2-3 weeks of receiving it except for the following times between July 1, 1986 and June 30, 1987:

Thank you for your willingness to help with the review process.

Return this form to: Charles T. Snowdon
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1986 MEETING OF THE ANIMAL BEHAVIOR SOCIETY WITH THE

AMERICAN SOCIETY OF ZOOLOGISTS AMERICAN MICROSCOPICAL SOCIETY
THE CRUSTACEAN SOCIETY, INTERNATIONAL ASSOCIATION OF ASTACOLOGY,
AND SOCIETY OF SYSTEMATIC ZOOLOGY
DECEMBER 27 - 30 OPRYLAND HOTEL, NASHVILLE TENNESSEE

SYMPOSIUM SPONSORED BY ABS/DAB

ENERGETICS AND ANIMAL BEHAVIOR (organized by John L Gittleman and Steven D. Thompson. All day December 28. Tentative program includes:

GITTLEMAN, J.L AND THOMPSON, S.D., Energetic Constraints on Mammalian Reproduction
BARTHOLOMEW, G.A., A Historical View of Energetics and Behavior
CARPENTER, F.L., Comparative Use of the Same Energy Source by Two Hummingbird Species
GOLDSTEIN, D.L., Energetics of Free-Living Birds: Laboratory and Field Measurements
HERTZ, P.E. AND HUEY, R.B., The Influence of Physiological State on the Defence Responses of Ectotherms
RIECHERT, S.E., Costs of Fighting in Spiders
RYAN M.J., Energetic Constraints on Acoustic Communication
KINGSOLVER, JOEL G., Energetic Constraints and Behavioral Models of Optimality
BUCHER, T., Energetics of Avian Hatching
HENNEMANN W.W. III, Energetics of Spread-Winged Behavior in Birds

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HABITAT SELECTION AND EVOLUTION (organized by Michael L Rosenzweig) Morning of December 29. Tentative program includes:

ROSENZWEIG, M.L., Coevolution of Optimal Habitat Selection
VRBA, E., Habitat Selectivity and Species Selection in Grazers
TAYLOR, C., Genetic Heterogeneity and Spatial Variability in Drosophila
ISTOCK, C. Genetic Heterogeneity and Habitat Variability in Space and Time: The Case of the Pitcher Plant Mosquito
RICE, W. Habitat Selection and Non-Random Mating in Speciation
SCHAFFER, W., Density-Dependent Habitat Selection and the Dimensionality of Natural Systems

Animal Behavior Division contributed oral papers are scheduled for the morning of December 29 and all day on December 30. Posters may be viewed the afternoon of December 29.

Abstract and Transmittal Forms and instructions are now available. Deadline for submission is August 11. Abstracts will be published in the American Zoologist 26(4).

For the following informational items about the Nashville meeting send this coupon to Mary Adams-Wiley, American Society of Zoologists, Box 2739 California Lutheran College, Thousand Oaks, Ca. 91360. ABS members must request these materials. They will not be automatically sent to them otherwise.

Name and Address: _____

_____

_____

____ Brochure detailing Nashville Meeting Plans
____ Housing & Registration Forms (Available in October)
____ Forms to contribute a paper (poster/oral presentation)

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(Year term expires in parentheses)
(Send your ideas and comments to these committees)

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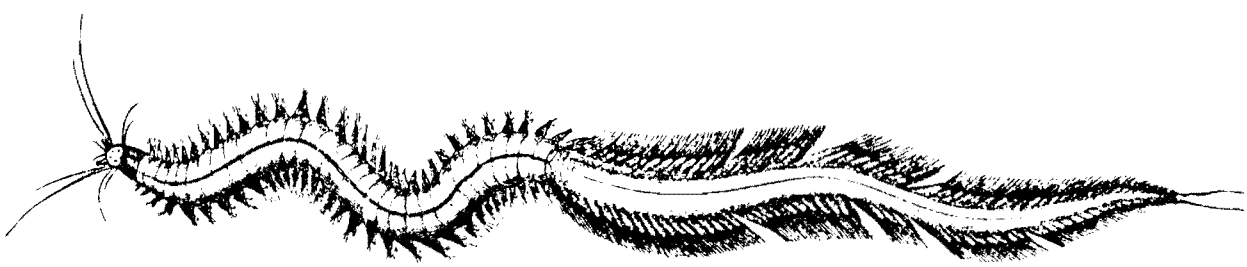
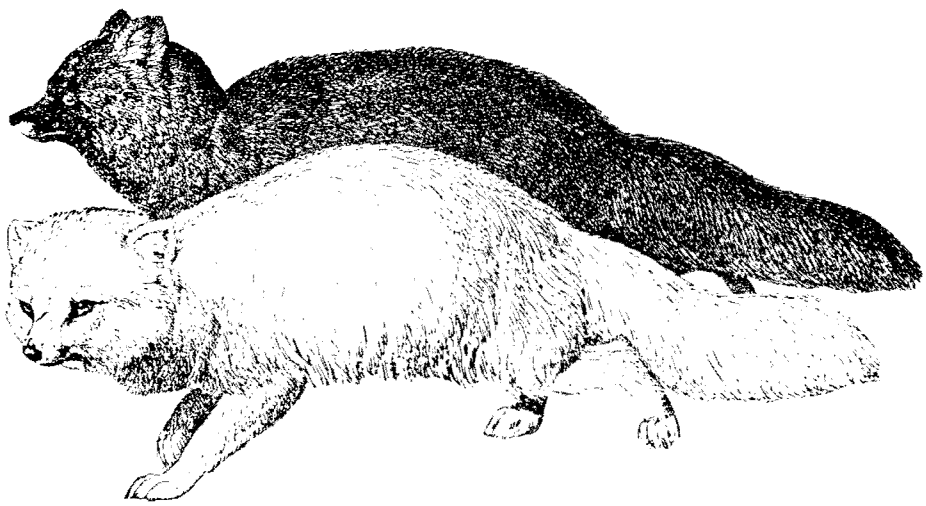
INTERESTED IN SERVING ON AN ABS COMMITTEE?

Several committee appointments will soon be made. If you are interested in serving, contact Gordon Burghardt, Dept of Psychology, University of Tennessee, Knoxville TN 37916.





ABS TUCSON MEETINGS- PAPER SESSIONS

Behavioral Adaptations of Desert Animals--
Organized by Jan A. Randall (Central Missouri State University). Papers include: Physiological problems, behavioral solutions and the temperate distribution limits of the bat, M. californius (Gary Bell); Vibration sensitivity and predatory habits of a nocturnal sand scorpion (Philip Brownell); High, short season, patchy deserts: causes of active foraging in an ambusher (David Duvall, Michael King, Brent Graves, David Chiszar); Alternative mating strategies of desert grasshoppers: influences of host-plant distribution and variation (Michael Greenfield); Comparison of communication in kangaroo rats: sandbathing, urine-marking, and footdrumming (Jan Randall); Spider conflict over sights of differing value in a desert habitat (Susan Riechert); Differences in colony foundation, worker size variance and foraging behavior of sympatric, desert, seed-harvesting ants (Steven Rissing); Social communication in horned lizards: the behavioral consequences of diurnal foraging on exposed desert terrain (Wade Sherbrooke); Pulsed parasite transmission correlated with reproductive behavior of desert amphibians (Richard Tinsley); Quickies in the desert: ecological constraints and the evolution of explosive breeding systems (Bruce Woodward & Sandra L. Mitchell; and Avian reproduction: temporal organization in arid environments (Carol Vleck).

Margaret Altmann Memorial on Ungulate Behavior--
Organized by Harry Frank (University of Michigan-Flint). Papers include: The behavior of moose at natural salt licks in Quebec (Serge Couturier & Syrille Barrette); Bones of contention revisited: did antlers enlarge with sexual selection? (Valerius Geist); Male ungulates who do not flehmen: correlations with alteration in vomeronasal system anatomy (Ben Hart & Lynette Hart); Species specific pattern of chemosensory communication: relation to social behavior (L. Hart & B. Hart); Predator-prey interactions in captivity: wolves and bison (Erich Klinghammer); Socio-ecology of American bison (Dale Lott); Rutting behavior of moose in central Alaska (Victor Van Ballenberghe & Dale G. Miquelle); Social attachment and organizational pattern in the family Equidae (George Waring); Intrasexual competition and mate choice in rocky mountain bighorn sheep (John T. Hogg); Maternal behavior and investment in pronghorn (John A. Byers); and Patricia Moehlman (title to be announced).

VOLUNTARY CONTRIBUTIONS ACCEPTED

The Animal Behavior Society welcomes contributions. Members may make the ABS a beneficiary of an estate or name the ABS in a will. If interested, contact the ABS Treasurer or President. Consider this opportunity to help the Society formulate and attain short- and long-term goals.

APPLICATION FOR MEMBERSHIP: ANIMAL BEHAVIOR SOCIETY

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_____ Spouse Member - $9 Receive Newsletter
_____ Non-member Subscription (Library) $7 Receive Newsletter

My student membership application is endorsed by (Dept Head, ABS Member or Fellow):

Name_____ Signature_____

This application form should be sent with remittance (make check payable to Animal Behavior Society or include your Mastercard #_____ or VISA #_____

Card Holder's signature _____) to:

H. Jane Brockmann, ABS Treasurer, Dept of Zoology, Univ of Florida, Gainesville FL 32611.

Terry Christenson
ABS Secretary
Dept of Psychology
Tulane University
New Orleans LA 70118

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