



# NEWSLETTER

## Animal Behavior Society

Vol. 35, No. 1  
February, 1990  
A quarterly publication

*David Chiszar, ABS Secretary*  
*Maura Carew, Associate Editor*

*Department of Psychology, University of Colorado, Campus Box 345, Boulder, Colorado, 80309*

### ABS ELECTION RESULTS

A total of 111 members voted (4.4% of the membership) compared with 9.6% in the August election (see November 1989 Newsletter, Vol. 34, No. 4, for details). One ABS officer was elected, to take office 16 June 1990.

SECOND PRESIDENT-ELECT: GAIL MICHENER

### CONTENTS REQUIRING RESPONSES

Registration Form for the 1990 ABS Meeting . . . . .	P. 9-10
Questionnaire on Use of Animals in Research . . . . .	P. 14-15

### ASZ - DIVISION OF ANIMAL BEHAVIOR ELECTION RESULTS

CHAIRPERSON: ZULEYMA T. HALPIN  
PROGRAM OFFICER: JAN RANDALL  
(Continuing as SECRETARY: ANNA E. ROSS)

### ANIMAL BEHAVIOR SOCIETY DIRECTION OF CORRESPONDENCE

ABS NEWSLETTER & general correspondence to the society:  
David Chiszar, Dept of Psych, Campus Box 345,  
Univ of Colorado, Boulder CO 80309  
ANIMAL BEHAVIOUR--Manuscripts and editorial matters:  
Lee Drickamer, Dept of Zoology  
Southern Illinois Univ  
Carbondale, IL 62901  
ANIMAL BEHAVIOUR--Missing, defective, or back issues:  
change of address:  
Robert Matthews, Dept of Entomology  
Univ of Georgia, Athens GA 30602

### NEWSLETTER

Contributions for the ABS Newsletter are welcome. Deadline for receipt of materials for the February issue is 15 Jan 1990. Send to D. Chiszar, address above.

### ABS ANNUAL MEETING SITE

The 1990 meeting will be at SUNY Binghamton, 10-15 June.  
Local host: Stim Wilcox, Dept Biol Sci, SUNY, Binghamton  
NY 13901. Phone: 607-777-2423.

### ABS OFFICERS

PRESIDENT: Patrick Colgan, Biology Dept, Queen's Univ,  
Kingston, Ontario, Canada K7L 3N6.  
1st PRESIDENT-ELECT: Charles Snowdon, Psychology  
Dept, Univ Wisconsin, Madison WI 53706.  
2nd PRESIDENT-ELECT: H. Jane Brockmann, Dept Zool,  
Univ Florida, Gainesville FL 32611.  
PAST-PRESIDENT: John Fentress, Dept Psych and Biol,  
Dalhousie Univ, Halifax, Nova Scotia, Canada B3H 4J1.  
SECRETARY: (1987-1990) David Chiszar, Dept Psych,  
Campus Box 345, Univ Colorado, Boulder CO 80309  
TREASURER: (1988-1991) Robert Matthews, Dept  
Entomology, Univ Georgia, Athens, GA 30602.  
PROGRAM OFFICER: (1989-1992) Lynne Houck, Dept  
Biol, Univ Chicago, Chicago IL 60637.  
PARLIAMENTARIAN: (1989-1992) George Waring, Dept  
Zool, Southern Illinois Univ, Carbondale IL 62901.  
EDITOR: (1988-1991) Lee Drickamer, Dept Zool, Southern  
Illinois Univ, Carbondale, IL 62901.  
MEMBER-AT-LARGE: (1987-1990) Julia Chase, Biol Dept,  
Barnard College Columbia Univ, New York, NY 10027.  
MEMBER-AT-LARGE: (1988-1991) George Barthalmus,  
Dept Zool, North Carolina State Univ, Raleigh, NC  
27650.  
MEMBER-AT-LARGE: (1989-1992) Steven Austad, Dept  
Biol, Harvard Univ, Cambridge MA 02138.

### Submitted by Robert W. Matthews, Treasurer ABS STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS 1 JULY 1988 TO 30 JUNE 1989

<b>BEGINNING BALANCE</b>	
First City Bank, Gainesville, FL	
Checking account.....	\$ 6,354
Money Management account.....	\$ 10,594
Florida Federal Savings and Loan Association, Gainesville, FL -	
Certificate of Deposit.....	\$ 78,834
Empire of America Savings Bank, Gainesville, FL -	
Certificate of Deposit.....	\$ 31,941
Editor's Fund (cash).....	\$ -2,188
Secretary Chiszar's Fund (cash).....	\$ 690
Education Committee Fund	\$ 100
<b>TOTAL BEGINNING BALANCE</b>	<b>\$126,325</b>

<b>REVENUE RECEIVED</b>	
Membership Dues	
Regular and Emeritus .....	\$ 54,867
Spouse.....	\$ 714
Student and Emeritus.....	\$ 14,888
Subscriptions to Publications	
Journal.....	\$ 58
Late Fees .....	\$ 2,231
Interest .....	\$ 9,698
Label List Sales .....	\$ 1,200
Graduate Programs in	
Behavior Booklet .....	\$ 522
Careers Brochure Sales .....	\$ 24
Film Lists .....	\$ 12
Advertisements in Annual	
Meeting Program <sup>1</sup> .....	\$ 400
Donation from ASAB	
for Editorial Office .....	\$ 10,000
Other Misc. Donations <sup>2</sup> .....	\$ 142
<b>TOTAL REVENUE RECEIVED</b>	<b>\$ 94,756</b>
<b>TOTAL FUNDS AVAILABLE</b>	<b>\$221,081</b>

<b>EXPENDITURES</b>	
ASAB for Journal	
<i>Animal Behaviour</i> <sup>3</sup> .....	\$ 0
Editor of <i>Animal Behaviour</i> <sup>4</sup> .....	\$ 34,619
Secretary Chiszar .....	\$ 4,098
Treasurer <sup>5</sup> .....	\$ 7,278
Second President Elect	
(Allee Award) <sup>6</sup> .....	\$ 500
Program Committee <sup>6</sup> .....	\$ 5,596
Education Committee .....	\$ 57
Member-at-Large (Research grants)	\$ 3,318
Membership Committee <sup>7</sup> .....	\$ 4,639
Film Committee .....	\$ 624
Historian.....	\$ 200
AIBS Annual Dues .....	\$ 751
Accounting and Computer.....	\$ 956
Equipment Purchases.....	\$ 2,839
<b>TOTAL EXPENDITURES</b>	<b>\$ 65,475</b>

<b>ENDING BALANCE</b>	
Citizens and Southern Bank, Athens, GA	
Checking Account .....	\$ 27,671
Money Management Account ...	\$ 40,195
Bank South, Athens, GA	
Money Management Account.....	\$ 100
Trust Company of Georgia,	
Athens, GA	
Certificate of Deposit .....	\$ 86,017
Secretary's Fund.....	\$ 1,592
Editor's Fund.....	\$ 31
<b>TOTAL ENDING BALANCE</b>	<b>\$155,606</b>

<sup>1</sup> This includes advertising for 1988 meeting in Missoula (\$200) and 1989 meeting (\$200).

<sup>2</sup> The surplus of \$1,011 from the 1988 Missoula meeting was also donated to ABS, but it was not deposited prior to 30 June, and will therefore appear on the 1989-1990 financial statement.

<sup>3</sup> We are billed annually for the journal *Animal Behavior* by the Association for the Study of Animal Behaviour (ASAB). The original invoice dated 10 March 1989 was lost in transit. The amount due of \$32,226 was paid in full on 13 July 1989, and will therefore appear on the 1989-1990 financial statement.

<sup>4</sup> This includes transition expenses.

<sup>5</sup> This expenditure includes the usual costs involved in maintaining the membership lists, processing checks, recording and sending all changes to the publisher in England, postage, preparing labels on request, sending out dues notices, bad checks, credit card fees, banking charges, printing and computing fees, and the annual audit. In addition, transition expenses are included.

<sup>6</sup> Because two meetings fell within the same fiscal year, this expense is about double normal.

<sup>7</sup> Includes production and distribution of a membership list to all members.

**TREASURER'S NOTE.** 1990 Dues Notices were sent out later than usual this year, and a few of you may not have received any notice. This has been due to printer difficulties, and the change to a new form. For those few who have not yet received a 1990 notice (far west coast) the late fee of \$5 normally charged for renewals after 1 January will be waived. Next year we will mail dues notices beginning in July with payment due by 1 December. The current dues notice allows prepayment of 3 years dues, and I encourage all who can to do so. A new feature on the dues notices is the opportunity to contribute to either the ABS Research Awards Fund or the general fund. All monies donated to the Research Awards Fund will be used to increase the number of amount of awards in the current year.

One of the biggest headaches of the treasurer's office is the matter of address changes and journal problems. These, together with any new members, are compiled once each month and an update sent air mail to the journal publisher in England who maintains their own list of ABS members' addresses for mailing the journal. This fall one of our mailings was lost for over 3 months (?sea mail) and the publisher had turnover in the person who handles ABS matters. The net result was that in some instances changes in address or resolution of journal problems took considerably longer than the 6 weeks normally allowed. To alleviate this problem we now (since December) fax the monthly updates to England. Things seem to be working smoothly again, but your patience on this is much appreciated.

## OPPORTUNITIES

**EDITOR'S NOTE.** Opportunities and announcements are published as soon as possible (i.e., in the next issue of the Newsletter). It sometimes happens, however, that a position is filled between the time we receive the advertisement and the time of the next quarterly issue of the Newsletter (i.e., a period of 2-3 months). Accordingly, we apologize for inconveniences this may cause, and we recommend that interested persons precede their formal responses to advertisements with a phone call to ascertain that the position is still available. (If an ad appears in the Newsletter, the editors have received no indication that the position has been filled as of press time.)

**VOLUNTEER FIELD RESEARCH ASSISTANTS-** needed for a study of the mating system and parental care behavior of the Cinereous Harrier in the patagonian region of Argentina. Required mid-September 1990 to Mid-February 1991. Travel and living expenses covered. A modest stipend may be available, subject to funding. Responsibilities include finding and monitoring nests, recording detailed behavioral observations, banding harriers, and censusing bird prey species and small mammal populations. Enthusiasm is a must; individuals must be willing to tolerate isolated and primitive living conditions, and to work long hours. Some experience with raptors in the field, or with bird and small mammal censusing techniques is desirable. Must be willing to learn local avifauna. Experience in South America, and facility with Spanish, is an asset. Please send letter of interest, resumé, names of 2 references, and dates of availability to: **R. Bruce MacWhirter**, Dept Zool, The Ohio State Univ, 1735 Neil Ave, Columbus, OH 43210, USA.

**RESEARCH POSITION AVAILABLE-** for non-destructive study of Uinta ground squirrels, *Spermophilus armatus*. Located in Grand Teton National Park, WY, the population consists of 120-150 adults and yearlings, and as many as 400 young of the year. The population has been part of a study of behavior and ecology that began in 1986. Most matrilineal geneologies are known from trapping juveniles as they appear for the first time at the maternal burrow at weaning, and individuals have been marked permanently using monel eartags. Squirrels emerge from hibernation around April 9, and most individuals have hibernated by the second week in August. The site is isolated from interference by tourists but, at the same time, easily driven to by those with permission. It is in a large pasture which was grazed for the last time in 1988. The predominant vegetation on the site is Kentucky blue grass, which remains relatively short throughout the season, facilitating behavioral observations and visual censuses. Interested persons should contact: **James Rieger**, Div of Mammals, Museum of Zool, Univ of Michigan, Ann Arbor MI 48109-1079. Phone: 313-764-0456.

**NEW MOUNTAIN RESEARCH STATION FACILITY-** The Univ of Colorado's Institute of Arctic and Alpine Research has been awarded funding by the National Science Foundation to build a new alpine tundra laboratory for its Mountain Research Station. The modular, quonset-hut-shaped building will be constructed at 3,500 m on Niwot Ridge, in the Niwot Ridge Biosphere Preserve, and should be available for use during the 1990 field season. The laboratory will facilitate research conducted at the Mountain Research Station, such as the NSF-funded Long-Term Ecological Research project carried out by researchers from INSTAAR and elsewhere.

The building will have 12-V power from a combination of solar cells and an existing wind turbine, and heated by solar panels. It will be insulated to permit year-round work, well-lighted, and contain space for a variety of types of research, equipment storage, and emergency or short-term housing. Dimensions are approximately 20 by 55 feet.

We invite research applications for work that will take advantage of this new facility. For more information, contact: **Dr. David W. Inouye**, Director, Mountain Research Station, 818 County Road 116, Nederland CO 80466. Phone: 303-492-8842, or via electronic mail: [INOUE\\_D%2FCUBLDR@VAXF.COLORADO.EDU](mailto:INOUE_D%2FCUBLDR@VAXF.COLORADO.EDU).

**VOLUNTEER FIELD ASSISTANTS-** May-July 1990. Two summer volunteers to assist in a long-term study on the behavior and ecology of Kentucky Warblers. Unique opportunity to learn and participate in all phases of a comprehensive project, and to live on site at the Smithsonian's Conservation and Research

Center. Duties will include: behavioral observations using a laptop computer, recording vocalizations, banding, taking blood and sperm samples, vegetation surveys, computer data entry and analysis, and sonographic sound analysis. Dormitory room with kitchen, laundry, etc. provided free. A willingness to rise early and work independently in the field six mornings a week, and a commitment to stay the entire summer are required. Field experience with birds helpful, but not essential. Send a letter describing your qualifications and interests, your resumé, and names of two references by 15 March 1990 to: **Mary Victoria McDonald**, Smithsonian Conservation and Research Center, Front Royal VA 22630 or phone: 703-635-4166.

**FIELD ASSISTANTS NEEDED-** to help with a study of brood parasitism and parental care strategies in American Coots in central British Columbia. Assistants are required from late April to mid-August, 1990 and are needed to help in all aspects of the study, including trapping and marking birds, monitoring nests, setting up experiments, and various behavioral observations. I will cover expenses (room, board), and a small stipend (\$1500 for the summer) will be available if the project receives full funding from grants which are now in review. If interested, please send resumé, phone number, and names, addresses and phone numbers of two references to: **Bruce Lyon**, Dept Biol, E.E.B., Princeton Univ, Princeton NJ 08544-1003. Phone: 609-258-5402.

**VOLUNTEER FIELD ASSISTANT NEEDED-** Approximately 1 June to 31 Aug 1990 to assist in an underwater study of fish social and mating behaviors. The research is being conducted by a predoctoral graduate student on the Caribbean island of Bonaire. The assistant should be an undergraduate or graduate student with a biology major, field research experience and an interest in tropical fish behavioral ecology. The applicant must be a certified and experienced scuba diver with his/her own dive gear. The work involves 4-6 hrs of scuba diving each day (6 days/week), mostly less than 30 feet deep, to observe and manipulate wild fish populations. Volunteers will be provided with tanks and weights, housing, food and use of a car on the island. Transportation to and from Bonaire is the responsibility of the volunteer but may be reimbursed (depending on funding). For more information or to apply for this position please call: **Simon Nemtzov** at 516-781-1556 between 9 and 11 p.m. Eastern time. A decision will be made in mid-April.

**18-MONTH \$30,000 RESEARCH FELLOWSHIP-** Metro Washington Park Zoo, Portland OR beginning early 1990 available for qualified postdoctoral or ABD candidate. Research to focus on activity levels and occurrence of stereotypic patterns in a cross section of species including Asian elephants, carnivores and primates. Changes in husbandry techniques and/or enclosure modifications appropriate for each species will be made and results monitored. Contact: **Dr. Jill Mellen**, Conservation Research Coordinator, Metro Washington Park Zoo, 4001 S.W. Canyon Rd., Portland OR 97201. Phone: 503-226-1561.

**FIELD ASSISTANTS (1 or 2)-** needed for a project on mating and parental behavior of red-winged blackbirds in Ithaca NY. The study focuses on the ecological factors influencing the frequency of extra-pair copulations and the subsequent effects of these matings on parentage and parental care. Assistants will help capture and band adults and nestlings, take blood samples for parentage studies, and perform observations of mating and parental behavior. Although experience with fieldwork and birds is helpful, I am most interested in motivated persons that are enthusiastic about ecological and behavioral research on birds. The project starts 20 April 1990 and will finish in mid-July; exact start and end dates are flexible. Room and board are not

provided, but the stipend of \$125/week should cover all expenses. Field hours are long and tedious, but field and living conditions are excellent and this will be a superb opportunity to interact with several other biologists studying avian behavior. Please send a letter describing why you are interested, a resumé, and names, addresses, and phone numbers of 2 references to: **David F. Westneat**, Section of Genetics and Development, 403 Biotechnology Bldg., Cornell Univ, Ithaca NY 14853. Phone: 607-255-4839.

**FIELD RESEARCH ASSISTANTS-** April-August 1990 for research into the reproductive behavior of the barking treefrog (*Hyla gratioiosa*). Research will be conducted in the Ocala National Forest near Ocala FL and will involve marking males and females, censusing ponds for marked individuals, radio-tracking males, and conducting feeding manipulations. Assistants will be provided with room and board. Anyone available for at least 2 months of the study is encouraged to apply. Send the names of 2 references and a letter describing interests, goals, and a summary of relevant coursework and research experience to: **Kit Murphy**, Section of Neurobiology and Behavior, Cornell Univ, Ithaca NY 14853. Phone: 607-255-2255.

**TWO VOLUNTEER ASSISTANTS NEEDED-** 25 May-25 June for an ongoing study of pronghorn behavioral ecology. Duties include radio-tracking females, monitoring reproductive state, catching and marking fawns, and monitoring fawn survival. The study area is a high-elevation sagebrush habitat in the Colorado Rockies. Room and board are provided in the town of Kremmling. Send resumé and 2 letters of recommendation to: **W. Sue Bairbanks**, P. O. Box 553, Kremmling CO 80459. Deadline: 1 April 1990.

**M.S. and Ph.D. ASSISTANTSHIPS - WATERFOWL RESEARCH-** are available for Summer or Fall 1990 for research on winter ecology of waterfowl. Applicants with interests in animal behavior and quantitative ecology are desired. Successful applicants must meet requirements for admission to graduate study in the School of Forestry, Wildlife and Fisheries, Louisiana State Univ. Send resumé, photocopies of GRE scores and college transcripts, and names and phone numbers of 3 references to: **Dr. Alan D. Afton**, Louisiana Cooperative Fish and Wildlife Research Unit, 310 Forestry, Wildlife and Fisheries Bldg., LSU, Baton Rouge LA 70803. Phone: 504-388-4212.

## ANNOUNCEMENTS

**RESEARCHERS, STUDENTS, AUTHORS, ZOO PERSONNEL, WOLF LOVERS, ETC-**

**WOLF LITERATURE SEARCH** is now available for a modest fee. Scientific books and papers, as well as popular books and articles - more than 2,000 references - are currently available and are continually being updated. These include references from Eastern Europe and the Soviet Union. An updated WLR will be published in January of each year.

For a fee of \$10 which includes postage and handing, plus 10 cents for each reference, we will perform a search covering scientific and/or nonscientific books and articles.

Searches can be made by first author, co-author(s), title (or a word in the title), date of publication, name of book or journal, and/or key words in any combination. Please specify your preference for either or both scientific and non-scientific references and tell us which works or authors you would like us to omit from the list. When your list is printed we will enclose a bill, which is payable upon receipt.

Send your requests to: **WOLF LITERATURE SEARCH**, Institute of Ethology, Wolf Park, Battle Ground IN 47920 or phone: 317-567-2265.

Also available: A Complete loose-leaf book of **Wolf Literature References** listed alphabetically by author: \$30 plus \$3 shipping and handling (\$3.50 to Canada). AIRMAIL to Europe: \$6.14 total shipping and handling charges.

**NOTE:** For purchasers of the complete loose-leaf **Wolf Literature Reference** list an update will be made available for a fee of \$10 plus 5 cents per reference upon request anytime during the year. Each succeeding January, a new updated **Wolf Literature Reference** list will be published.

(These fees are subject to change without prior notice.)

Make checks payable to NAWPF, Battle Ground IN 47920.

**USECC TRAVEL GRANT-** As in the past, the USECC will be submitting a travel grant for young scientists to attend the 22nd International Ethological Conference, 22-29 Aug 1991 in Kyoto, Japan. If awarded, applications will be requested during Fall 1990.

**ETHOLOGICAL CONFERENCE-** The 22nd International Ethological Conference will be held 22-29 Aug 1991 in Kyoto, Japan. If you are interested, please write **Conference Secretariat**, c/o SIMUL INTERNATIONAL, INC., Kowa Bldg. No. 9, 8-10 Akasaka 1-chome, Minato-ku, Tokyo 107, Japan.

**FREE BIOACOUSTICS SOFTWARE-** The Bioacoustics Research Program at Cornell's Laboratory of Ornithology has received NSF support to develop a bioacoustics software instrument for the analysis and synthesis of sounds. Development is in collaboration with the College of Engineering with advice from researchers in music, linguistics, psychology, and neurobiology and behavior. The software is written in the C programming language for distribution on a variety of computer platforms, but our initial platform is the Apple Mac II series. Functionality includes: highly interactive graphics interface for on-line software design of a user specified instrument; signal editor with display of oscillograms, spectra, spectrograms etc.; analysis and signal manipulation, including cross-correlation; and hardcopy output. A beta version is scheduled for completion in early summer 1990, with version 1.0 by December 1990. The software will be distributed for the cost of copying the documentation and software. For further information contact: **Dr. Christopher W. Clark**, Director Bioacoustics Research Program, Cornell Laboratory of Ornithology, 159 Sapsucker Woods Rd, Ithaca New York 13850. Phone: 607-254-2408.

**COASTAL ORNITHOLOGY-** is offered for advanced undergraduate and graduate credit (4 semester/6 quarter hr) this summer through the academic program of the Dauphin Island Sea Lab, Dauphin Island, AL. Five week (16 July-17 August) field-oriented course emphasizes ecology, behavior and identification. For further information on this and other marine-oriented courses, contact: **Registrar**, Dauphin Island Sea Lab, P.O. Box 369-370, Dauphin Island AL 36528.

## MEETINGS

**THE 2ND ANNUAL INTERNATIONAL CONFERENCE ON SOCIO-ECONOMICS-** 16-18 March 1990 at the George Washington University. Contact: Society for the Advancement of Socio-Economics, 714H Gelman Library, 2130 H Street, NW, Washington DC 20052

SEVENTH BIENNIAL CONFERENCE ON THE ECOLOGICAL AND EVOLUTIONARY ETHOLOGY OF FISHES- 19-23 May 1990 in Flagstaff AZ hosted by the Dept Biol Sci and the Bilbey Research Center, Northern Arizona Univ, approximately 230 km north of Phoenix, the state capitol. Major airlines serve Phoenix, with commuter airlines and buses connecting to Flagstaff. AmTrak train service also to Flagstaff from east or west coasts of USA. Flagstaff rests at 2150 m elevation in Ponderosa pine forest along the base of the San Francisco Peaks (to 3862 m), where C. Hart Merriam developed his Life Zone concept one century ago (1890). Within easy driving distance are habitats ranging from Alpine Tundra to Sonoran Desert, encompassing the Colorado River and the Grand Canyon, Glen Canyon Dam and Lake Powell, and the red rock cliffs of Sedona. Aquatic habitats comprise large rivers and lakes, smaller rivers, permanent and intermittent streams, lakes and ponds, collapsed travertine spring mounds, and ephemeral pools.

Plans for the conference include two symposia (*please contact conference or symposium organizers if you wish to be involved*), contributed paper and poster sessions, discussion meetings and trips to local habitats or historical sites. A final announcement, with a Call for Papers and details of the meeting, will be sent in late Autumn 1989. **SYMPOSIA: (Chief Organizer and Tentative Titles)-** 1. Behavioral Genetics of Fishes (David Noakes, Dept Zool, Univ of Guelph) 2. Colors, Vision and Underwater Light (Cynthia Annette, Cooperative Fishery Unit and Dept Zool, Univ of Arkansas. Contact: **Dr. W. Linn Montgomery**, Dept Biol Sci, Northern Arizona Univ, Flagstaff AZ 86011-5640 USA. Phone (602) 523-7505 or 523-2381.

ASSOCIATION FOR BEHAVIOR ANALYSIS- 16th ANNUAL CONVENTION- 27-31 May 1990, Opryland Hotel, Nashville TN. Submissions now being accepted for review! Deadline for receipt is 15 NOV 1989. For information contact: ABA, Western Michigan Univ, 258 Wood Hall, Kalamazoo MI 49008-5052. Phone: 616-387-4495.

THE BEHAVIOR OF MOLLUSCS- 3-7 June 1990 symposium and Film Festival at the 56th Meeting of the American Malacological Union at the Marine Biological Laboratory, Woods Hole MA. Papers are solicited on terrestrial, freshwater and marine molluscs of all classes. Subsections of the symposium include: Behavior related to Larval distribution, Feeding behavior, Social behavior, Reproductive tactics, Defensive behavior, Migrations, Biological rhythms, Ontogeny of behavior, and Integrative neurobiology and behavior. Contact: **Roger T. Hanlon**, President, American Malacological Union, Marine Biomedical Institute, Univ Texas Medical Branch, Galveston, TX 77550 USA. Phone: (409) 761-2133. FAX: 409 762-9382. BITNET: HANLON@UTMBEACH.

INTERNATIONAL ETHOLOGICAL CONFERENCE- The 22nd Conference will be held 22-29 August 1991 in Kyoto, Japan. For further information write: **Conference Secretariat**, c/o SIMUL INTERNATIONAL, INC., Kowa Bldg. No. 9, 8-10 Akasaka 1-chome, Minato-ku Tokyo 107, Japan.

INTERNATIONAL SOCIETY FOR RESEARCH ON AGGRESSION- the next world meeting if ISRA will be held in Banff, Alberta, Canada from 12-17 June 1990. Abstracts for individual papers and poster presentations may be submitted now but no later than the deadline of 1 April 1990. The registration fee for ISRA members will be \$80.00 US. Registration for non-members will be \$95.00 US and

registration for nonparticipating spouses is \$40.00 US. This fee includes all aspects of the non-academic programme (the gondola social, the bus tour, barbeque, and the final banquet). Contact the conference organizer, **Gordon W. Russell**, at 403-329-2406 (business) or 403-328-0870 (residence). Registration fees should be mailed to him at the Dept of Psychol, Univ of Lethbridge, Lethbridge Alberta Canada T1K 3M4.

**TWENTY-SIXTH ANNUAL MEETINGS - ANIMAL BEHAVIOR SOCIETY**  
**10-16 JUNE 1990**  
**THE STATE UNIVERSITY OF NEW YORK AT BINGHAMTON**

**Meeting Highlights**

Keynote address by Carl Hopkins  
Fellows lectures by Tom Eisner and Patricia Decoursey  
Banquet speaker Jim Garry -- professional story teller  
Symposia/Invited Paper sessions on:  
    Quantitative Genetic Analyses of the Evolution of Behavior  
    Theoretical and Empirical Studies of Cooperative Behavior  
    The Human-Animal Bond  
Allee paper competition

Behavior film competition  
Founders Memorial poster paper competition  
Evening of music played by society members  
Biological art exhibit  
Dance after the banquet/speaker  
Optional trip to Corning Glass Works and Taylor Vineyards  
Optional trip to Cooperstown (Baseball Hall of Fame, etc.)  
General good companionship

SUNY Binghamton takes pleasure in inviting you to attend the Twenty-sixth Anniversary Meetings of the Animal Behavior Society. Our compact, modern campus is set in the wooded hills of the Endless Mountains, on the edge of the Susquehanna River Valley. The campus includes several natural areas and is bordered to the south by a nature preserve with a beaver pond and trails. Many of us live in pleasant rural conditions, just a few minutes from campus, and we take pride in our ability to dodge multitudinous deer while we drive the local roads at dawn and dusk.

"Binghamton", actually an aggregation of small towns, offers a remarkable amount of culture. Aside from the events on campus, we have a resident opera, resident orchestra, resident ballet company, an art center (Roberson Center for the Arts and Sciences), two dinner theatres, and the Arena, which hosts anything from the Ice Capades or Follies to the Rolling Stones, and also is the base of the Binghamton Whalers hockey team. We are a 1-2 hr drive from the Catskill Mountains and the Finger Lakes country, and a 3-4 hr drive from the Adirondacks and New York City. We are near Waterman Nature Center and Kopernick Observatory, as well as several nice state parks close to town, with recreational facilities available, including swimming and boating.

**FACILITIES**

June is a pleasant time to visit Binghamton, with days in the 70's (F) and nights in the 50's. We have occasional rains, so we advise bringing an umbrella. All meeting functions will be centralized within a 100-yard walk, including a pleasant dormitory with a cafeteria meal plan and, extremely conveniently, and just across the street, a well-equipped lecture hall building plus adjacent classroom wing and library. Most facilities have handicap access. There is room in the dormitory for all who wish to stay there. For those with cars, there will be free, convenient parking. Please let us know if you need parking in a space for handicapped. Camping is not permitted on campus, but we have a list of local camping facilities which you can get by requesting the information on motels and other facilities on the registration form. We emphasize the convenience of staying in the dormitory: 100 yards in one direction and you're at the Lecture Hall; 100 yards in the other direction and you're at the Nature Preserve.

Athletic facilities are available, including soccer and intramural fields, running track, and tennis courts, as well as swimming, racketball, squash, and fitness room. There are open lockers; you must provide your own lock and your own towel. We will issue you a pass for the athletic facilities at your request. Local running trail/hiking/birding maps will also be available.

Some restaurants and two motels (Holiday Inn SUNY and Howard Johnson) are within a 15-20 min walking distance. Other motels and restaurants are with a 5-15 min drive as well as business and shopping areas. Restaurant information will be posted at registration. We will also be providing a shuttle service throughout the meeting to nearby motels and for other needs on a common sense basis.

**N.B.** Those who wish to stay over a Saturday night in order to capitalize on Super Saver air fares, note that dormitory rooms may be reserved for the Saturday night PRECEDING the meeting, 9 June. Cafeteria meals will not be available for the 9th, but will begin with LUNCH, ON SUNDAY 10 JUNE. Cafeteria meals, the picnic, and the banquet will be provided by the campus caterer, Marriott, which even students contend is doing a good job here.

**TRAVEL ARRANGEMENTS**

The Binghamton area is conveniently reached by car on the major Highways 17, 81, and 88. The Greyhound Bus terminal is a 10 min drive from campus. Amtrak Railway serves Syracuse, a 1 3/4 hr drive from Binghamton.

**Air Travel**

Link Airfield, a 20 min drive from campus, is served by United Airlines (Express), US Air, TWA Airlines (Express), Continental Airlines (Express), and some other commuter airlines. The **OFFICIALLY DESIGNATED AIR CARRIERS** for the meeting are United Airlines and US Air. The **OFFICIALLY DESIGNATED TRAVEL AGENCY** for the meeting is Rhodes Travel, in Madison, Wisconsin. To obtain the following excellent discount fares, you must make your reservations through Rhodes Travel, by calling toll-free: 1-800-356-6008 (in WI 800-362-0377; in Canada 1-608-231-3431). Identify yourself as traveling to the Animal Behavior Society Meeting.

The discounts are: United Airlines offers 40% off unrestricted coach fares and 5% off any and all available discount fares (including Super Saver type fares) to Binghamton, Albany, Syracuse, and Dulles International Airport in Washington, DC; US Air offers 35% off unrestricted coach fares and 5% off any and all available discount fares (including Super Saver type fares) to Binghamton. Even if you cannot use one of the designated airlines, Rhodes Travel can help you obtain the best rates on other airlines. Make your travel arrangements as soon as possible. The greatest discounts are received by those who book early.

## Shuttle Service

Beginning at noon on Saturday, 9 June (until 11:00 p.m. 9 June; and from 9:00 a.m. until 11:00 p.m. on Sunday 11 June), we will provide an hourly shuttle service from Link Airfield near Binghamton for a nominal charge, and free shuttle service from the campus to at least the nearer motels and shopping areas. Specific hours will be available after the meeting program is finalized. If you are arriving by bus, let us know when and we will arrange a shuttle for you.

## Car Rental

Rhodes Travel will also have special convention rates available for car rentals. Cars may be picked up and returned from the Binghamton, Syracuse and Albany airports or in town. Contact Rhodes Travel through the phone numbers cited above for air travel.

## Child Care

Care and activities for children during the meeting are being planned. There will be a list of sitters who can care for children in their homes, in a motel, or on campus. An alternative for 2-5 year olds is temporary enrollment in the Campus PreSchool, which has a few places available in each age group. Some activity programs for older children (art projects, visits to zoo, Discovery Center, Nature Preserve) will be developed if there is interest. IF YOU WISH TO HAVE CHILD CARE AT THE MEETING, PLEASE CONTACT ANNE CLARK WITH INFORMATION ON NUMBER AND AGES OF CHILDREN AND KIND OF PROGRAM, by 1 April.

## SPECIAL EVENTS

### Keynote and Fellows Speakers

We are pleased to announce our Keynote Speaker, Dr. Carl Hopkins of Cornell Univ; and our two Fellows Lecturers, Dr. Tom Eisner of Cornell Univ, and Dr. Patricia DeCoursey of the Univ of South Carolina. In addition, Dr. Fred Stollnitz will be available for a session to discuss NSF granting procedures, and Dr. Lee Drickamer, current editor of *Animal Behaviour*, will be available for a "Meet the Editor" session.

### Symposia / Invited Paper Sessions

There are two symposia scheduled: "Quantitative Genetic Analyses of the Evolution of Behavior", organized by Chris Boak and Ann Hedrick; "Theoretical and Empirical Studies of Cooperative Behavior", organized by David Sloan Wilson and Lee Dugatkin; and an invited paper session: "The Human-Animal Bond", organized by Ira Perelle and Sister Hildegard.

### Sunday Evening Picnic

We will follow the traditional picnic format, using open air and conviviality. Our stellar gastronomic feature will be a local specialty called spiedies, a special chicken or beef marinade known apparently only within a radius of about 70 kilometers. Within this radius, spiedies are very popular, including an annual spiedie contest. Cost for the picnic is \$7.50.

### An Evening of Music!!

For Monday (11 June) we are planning a special Evening of Music, performed with 100% enthusiasm by ABS Members, in SUNY Binghamton's Anderson Center for The Arts. The purpose of this evening is first and foremost to have fun, second to illustrate that behavioral biologists are more than scientists alone, and third, to further the cause of the ABS Research Grant program, to which we will donate the proceeds of optional tax-deductible donations. So far we have roped in the following 100% enthusiastic performers: Jelle Atema, Boston Univ Marine Program (flute); Tom Eisner, Cornell Univ (piano); Ron Rutowski, Arizona State Univ (violin/fiddle, guitar, banjo); George Uetz, Univ of Cincinnati (guitar, voice); George Barthalamus, North Carolina State Univ (harmonica); and if you're really lucky, Stim Wilcox might try something on folk autoharp.

### A Biology and Wildlife Art Exhibit

We plan an exhibit of art by biologists/biological artists, in the Lecture Hall area. ARTISTS ARE HEREBY INVITED TO SHOW THEIR ART at an exhibit which will run the duration of the meeting, or for a shorter period at the discretion of the exhibitor. ANYONE PLANNING TO BRING AN EXHIBIT SHOULD CONTACT ANNE CLARK, BIOLOGY DEPT, SUNY BINGHAMTON, NY 13901. Phone: 607-777-6228.

### About Our Banquet Evening

We offer the following two menu options for the dinner:

Menu 1 - Chicken Mascotte in Red Wine Sauce w/Artichokes & Mushrooms

Menu 2 - Stuffed Eggplant Mediterranean Style, Filled w/Green Peppers, Celery, Carrots, Tofu, Topped w/Sharp Shredded Feta Cheese

Both the above are served with Wine, Rice Pilaf, Sautéed Spinach, Rolls & Butter, Dessert, Coffee, Tea.

We have done our best to assure that this meal is enjoyable. We have room for approximately 360 people, who will be accepted in order of ticket reservations. Price: \$14.00.

### About Our Banquet Speaker:

Jim Garry is unique.

He has a Masters from the Univ of Michigan School of Natural Resources, is a professional storyteller, and is himself The Great Plains Lore and Natural History, Inc. For many years he has "collected" the lives and stories of western "Old Timers", and is versed in western natural history in general, with emphasis on the interplay between humans and the land they impact. He teaches at the Yellowstone Institute in the Grizzly Bear Biology Course, and leads natural history/historical expeditions in the west. How many people do you know who have been to a Sun Dance? The title of his talk is "The Folk Lore of the Grizzly Bear".

### After the Banquet

There will be a DANCE, on campus in the dormitory area. We are making our own music tapes, with a large variety, to ensure music that is acutely danceable and not so loud you can't talk. Refreshments will be available.

### Friday Evening Jam Session

We invite those interested to bring instruments and "jam", in the dormitory lobby area, to round out the week. We harbor a suspicion that jamming may occur on other nights also.

### Poster Sessions, Movies, and Gathering Room

The poster sessions and movies (on Tuesday and Wednesday evenings) will be within a few feet of each other, along with the Art Display and Book Display. "Wine and Cheese" will be provided on these evenings. We have designated a special Gathering Room in the Lecture Hall complex, amongst the meeting rooms, for relaxing and meeting people throughout the meeting.

### T-SHIRTS

We have chosen T-shirts with a nicely-done wrap-around butterfly motif in excellent color, produced by Harlequin Designs. The logo for 1990 is one of butterflies on the shirt. In choosing a butterfly-laden shirt we direct attention to the "little things that run the world" (E. O. Wilson's words) that are also endangered along with the big things. By purchasing these shirts through Harlequin Designs a portion of the profits (of which we get none) goes to international wildlife conservation efforts. Our thanks to the Harlequin Art Department for providing the butterfly logo.

### OPTIONAL ACTIVITIES

Binghamton has many nearby attractions which may be of interest, such as the Ross Park Zoo, the Kopernick Observatory, a variety of pleasant parks, many golf courses, Waterman Conservation Center, the Owego Train Ride, the Cornell Laboratory for Ornithology, the Finger Lakes (with several excellent small and larger vineyards), the Catskill Mountains, etc. Binghamton is a major center for gliding, and has an enthusiastic ballooning group. New York City, with all its museums, art, etc. is 3-4 hrs away by car. We will provide detailed information on the above attractions at the registration desk at the meeting. Occasional shuttle service to some attractions such as the Ross Park Zoo is planned.

### Fisherpersons Take Note (especially Fly Fisherpersons)

The trout streams near Binghamton (e.g., the Delaware, Beaverkill, and Willowemoc) have been fishing on world standards in the last few years. There are as many good-sized trout as in many famous western streams--all within 50 min to an hour and a half from campus. Some of us (Stim Wilcox in particular) are avid fly fishermen, and can advise appropriately if you wish.

We offer the following **TOURS** which emerged as clear winners of a local opinion poll. Prices for these trips are maximums, based on break-even costs for minimum group sizes. A \$10 deposit will hold your reservation (see Registration form). Depending on numbers, we may be able to lower the projected cost. Deposits will be refunded if a tour on a particular date does not make the minimum number. Deposits for tours which go will not be refunded after 1 May.

### Corning Glassworks and Winetasting Tour

Sunday 10 June and Wednesday 13 June. 9:00 a.m. - 6:00 p.m.

Approximate price: \$30, which includes a \$5 entrance fee at Corning.

Not included: Lunch at Corning.

This is a tried-and-true, very enjoyable trip to Corning Glassworks in Corning, NY where Corning's remarkable variety of glassware and glass art is on display and for sale (including a room of factory-discount kitchen ware), as well as viewing workers making glass produces; this is followed by a winetasting tour of Taylor Vineyards. Wines can, of course, be purchased at the vineyard.

### Cooperstown Trip

Tuesday 12 June and Saturday 16 June. 9:00 a.m. - 6:00 p.m.

Approximate price: \$20.

Not included: Lunch at Cooperstown

The Cooperstown trip includes the Baseball Hall of Fame, the James Fenimore Cooper Historical House, the Farmer's Museum, interesting shopping, and a remarkably immaculate town with lots of window flower boxes and views of Otesaga Lake. Considerable charm involved.

### FOR MORE INFORMATION

If you have questions or special requests, don't hesitate to call: **Stim Wilcox 607-777-2423** or **Anne Clark 607-777-6228**  
Dept of Biological Sciences SUNY Binghamton Binghamton NY 13901.



**Housing**

We encourage all guests to stay in the Hinman College complex, a 2 minute walk from the lecture halls and site of the dining hall, picnic and banquet. Rooms will be assigned as requests are received, but there is ample room for all. Rooms but not meals are available Saturday 9 June, to accommodate those using special airline fares. Restaurant information will be provided for Saturday arrivals.

Circle nights requested:

Single Room @ \$27.00 per night: June 9 10 11 12 13 14 15  
 \_\_\_\_\_ (No. of nights) x \_\_\_\_\_ (No. of rooms) x \$27.00 = \$ \_\_\_\_\_

Double Room: \$17.50 per night: June 9 10 11 12 13 14 15  
 \_\_\_\_\_ (No. of nights) x \_\_\_\_\_ (No. of Rooms) x \$17.50 = \$ \_\_\_\_\_

Roommate's name \_\_\_\_\_  
 \_\_\_\_\_ Please assign roommate. \_\_\_\_\_ Smoking \_\_\_\_\_ Non-smoking \_\_\_\_\_ No preference

Linens (sheets, pillowcases, towels) can be rented for a one-time charge of \$5.00/set. Pillows and blankets are provided with the room.

\_\_\_\_\_ (No. of linen packages) x \$5.00 = \$ \_\_\_\_\_ Housing Subtotal: \$ \_\_\_\_\_

\_\_\_\_\_ For those who prefer motels or camping, check here for information. There are a number of excellent motels within a few miles of campus. Singles range from \$29.00-\$60.00 before 1 May.

**T-Shirts** (Butterflies front and back! \$6.50/ea. Sizes S, M, L, XL, XXL)

T-Shirts should be ordered with Registration. They are **not** included with fee. They are 100% cotton and come in White, Aqua, Ecu, Mint, Pink, Silver and Peach. Size XXL costs \$1.00 more.

No. of shirts (Size/Color): \_\_\_\_\_ / \_\_\_\_\_, \_\_\_\_\_ / \_\_\_\_\_, \_\_\_\_\_ / \_\_\_\_\_  
 \_\_\_\_\_ Total Number Shirts) x \$6.50 + \$ \_\_\_\_\_ (per XXL) = \$ \_\_\_\_\_

**Optional Activities**

Coming Glassworks and Wine Tasting Tour

(Sunday, 10 June) \_\_\_\_\_ deposits x \$10.00 = \$ \_\_\_\_\_  
 (Wednesday, 13 June) \_\_\_\_\_ deposits x \$10.00 = \$ \_\_\_\_\_

Cooperstown

(Tuesday, 12 June) \_\_\_\_\_ deposits x \$10.00 = \$ \_\_\_\_\_  
 (Saturday, 16 June) \_\_\_\_\_ deposits x \$10.00 = \$ \_\_\_\_\_

Total Optional Activities: \$ \_\_\_\_\_

**Summary**

Registration subtotal: \$ \_\_\_\_\_  
 Housing subtotal: \$ \_\_\_\_\_  
 Meals subtotal: \$ \_\_\_\_\_  
 T-shirts: \$ \_\_\_\_\_  
 Optional Activities: \$ \_\_\_\_\_  
**GRAND TOTAL:** \$ \_\_\_\_\_

Make checks payable to "1990 ABS Meetings". Entire payment must accompany registration form. Refunds, less \$10.00 administration fee, will be made if we receive written notification of your change of plans by **1 May 1990**. **NO refunds will be issued after 1 May 1990**, except in severe emergency.

Mail to: 1990 Animal Behavior Society Meetings  
 c/o Dr. Anne B. Clark  
 Department of Biological Sciences  
 S.U.N.Y. Binghamton  
 Binghamton, NY 13901

**A BASIC Program for Recording Behavioral Events on a Personal Computer**  
James H. Petersen, U. S. Fish and Wildlife Service

While designing laboratory studies on predator-prey interactions of Columbia River fishes, we decided that an event recorder was necessary to keep track of rapidly changing behaviors. Commercial event recorders were relatively expensive, usually requiring purchase of hardware and statistical software. As an alternative, a BASIC program (listed below) was developed to record duration and timing of behaviors using a portable personal computer and statistical packages (SAS, Statgraphics, etc.) were used for analyses. This note briefly describes the BASIC program and its use.

During an observational period, the type, duration, and exact time of each behavior is recorded by the program. The following data are sent to the PC screen, to a data file and, optionally, to a printer:

- 1) a behavior code (any single alphanumeric character),
- 2) the duration of the behavior (seconds),
- 3) the start time of the behavior (seconds since midnight),
- 4) the end time of the behavior (seconds since midnight, and
- 5) the "Current Behavior", i.e., the last code input.

The "Current Behavior" code was added to assure that the observer could, at any time, verify the behavior that was currently being recorded. An example of a series of recorded behaviors (A, B, C) are:

Behavior	Duration	Start	End	Current Behavior
A	2.03	61851.92	61853.95	B
B	3.63	61853.95	61857.58	C
C	14.83	61857.58	61872.41	X

To use the BASIC program, enter the program code below, with line numbers, into an ASCII file and save it. From DOS, the program can be executed by typing: "BASIC [filename of saved ASCII file]", followed by a RETURN. You are prompted for an Experiment Name, Experiment Description, Output file name, and whether you want data also sent to the printer. To start recording a series of behaviors, press the code for the first behavior followed by a RETURN. A new behavior begins when any key is pressed, marking the end of the current behavior; RETURN's are not required after each code, except the first. To end an experiment, press "X" or "x". To exit BASIC, type "SYSTEM" and RETURN. Data from the saved disk file need to be imported to a spreadsheet or statistical program for analysis.

```

10  ===== BEHAVIORAL EVENT RECORDER =====
20  DIM C$(500), D(500), S(500), E(500) '500 behaviors maximum per expt.
30  GOSUB 400 'Get Experiment Information, open files, date
40  CLS : LOCATE 5,10 : PRINT "During the experiment, Press X or x to EXIT."
50  LOCATE 7,10 : PRINT "PRESS CODE FOR FIRST BEHAVIOR AND RETURN:"
60  INPUT CODE$
100 ***** BEGIN MAIN PROGRAM *****
110 N=1 'Counter for number of events
120 CLS : PRINT EXPTN$ 'Print Experiment Name, etc.
130 PRINT EXPTDESS : PRINT DATE$
140 PRINT HDR$
150 START=TIMER 'Start the timer
160 NXT$="" 'Next behavior not yet recorded
170 WHILE NXT$ <> "X" AND NXT$ <> "x" 'Continue until eXit code is pressed
180 IF NXT$ <> "" THEN GOSUB 300 'Output to screen and file
190 NXT$=INKEY$ 'Check keyboard buffer for input
200 WEND "EXit code encountered - stop
210 GOSUB 300 : C$(N) = "X" 'Output final event data
220 FOR I=1 TO N-1 'Print event information to file & screen
230 PRINT #2, USING OUTIMG$ ; C$(I) ; D(I) ; S(I) ; E(I) ; C$(I+1)
IF OUTX = 2 THEN PRINT #1, USING OUTIMG$ ; C$(I) ; D(I) ; S(I) ; E(I) ; C$(I+1)

```

```

250 NEXT
260 END ***** END MAIN PROGRAM *****
300 '----- COMPUTE EVENT DURATION AND OUTPUT -----
310 ENDEV=TIMER                      'Record end of event
320 DUR=ENDEV-START                  'Event duration
330 STEMP=START : START=TIMER        'Restart the timer
340 C$ (N) =CODE$ : D (N) =DUR        'Assign values for later output
350 S (N) =STEMP : E (N) =ENDEV
360 PRINT #3, USING OUTIMG$ ; CODE$ ; DUR ; STEMP ; ENDEV ; NXT$
370 N = N + 1                        'Next behavior counted
380 CODE$ = NXT$ : NXT$ = " "        'Set CODE$ to current behavior
390 RETURN

400 '----- INITIALIZING SUBROUTINE -----
410 'Constants, open appropriate files, input experiment information
420 HDR$ = "Behavior      Duration      Start      End      Current Behavior"
430 OUTIMG$=" \ \ #####.##  #####.##  #####.## \ \"
440 CLS : LOCATE 5, 10 : PRINT "BEHAVIORAL EVENT RECORDER (500 Max)"
450 LOCATE 7, 10 : PRINT "Experiment Name: " : INPUT EXPTN$
460 LOCATE 9, 10 : PRINT "Experiment Description ( < 80 characters) : "
470 LOCATE 11, 1 : INPUT EXPTDESS$
480 LOCATE 13, 10 : PRINT "Output file path\name: " : INPUT FILENS$
490 LOCATE 15, 10 : PRINT "Input Number for desired output option : "
500 LOCATE 17, 15 : PRINT "1 - Disk file only"
510 LOCATE 18, 15 : PRINT "2 - Disk and hardcopy (be sure printer is ON)"
520 LOCATE 20, 15 : INPUT "Choice :", OUTX
530 OPEN "LPT1:" FOR OUTPUT AS #1      'Open files
540 OPEN "O", #2, FILENS$
550 OPEN "SCRN:" FOR OUTPUT AS #3
560 IF OUTX<>2 THEN RETURN             'No hardcopy printout
570 PRINT #1, "Experiment Name: ", EXPTN$
580 PRINT #1, "Experiment Description: ", EXPTDESS$
590 PRINT #1, "Date: ", DATE$
600 PRINT #1, "Output filename: ", FILENS$ : PRINT #1, " "
610 PRINT #1, HDR$ : PRINT #1, " "
620 RETURN

```

*An Old-Timer's Lament*

By: Adriaan Kortlandt  
88 Woodstock Road  
Oxford OX2 7ND, England, UK

Animal behaviour is a lively subject. In my opinion, therefore, it should be presented in a lively way. In the scope of the "cultural evening" at the 21st International Ethological Conference I was generously given the opportunity of speaking in my personal style on "How Could Early Hominids Have Defended Themselves Against Large Carnivores?" This meant that I was allowed to add all the conceivable trimmings which make presentations more exciting. Such additions included: an impressive stuffed lion (to emphasize the scale of the problem), two australopithecine-sized boys attacking the predator in the manner conceived by prehistorians (in order to illustrate the impossibility of such a defense strategy), a mechanical substitute for an australopithecine (used in a field test with lions), a profusion of slides (showing the responses of lions to various test situations) and my impersonations of lion behaviour (when even the slides failed to portray the events adequately).

Some colleagues felt that such a theatrical presentation of a scientific subject was unscientific. Others told me that they liked it. This difference of opinion may deserve a public discussion. I therefore submit, as food for thought, to the readers of this Newsletter the following passages with which I ended my talk:

"In what is intended to be a farewell lecture, some final words may perhaps be added. Once upon a time, when I was still quite young, ethology was a magnificent science. It was the study of animal behaviour 'an und für sich', as the Germans say. With nostalgia I recall Heinroth's and Portielje's abundance of photographs, Niko and Luuk Tinbergen's and Frans Makkink's striking drawings, and Lorenz' acting of animal behaviour.

"All this is now bygone. Recently I browsed through the latest volume of the journal '*Animal Behaviour*'. It contained 1872 pages with text, formulas, tables, charts and graphs, but only two pictures portraying actually behaving animals: one good and one bad drawing. Ethology is supposed to be the study of behaviour, but the behaviour has become invisible. Thus the fun has evaporated from ethology. Where has the fun gone? To the TV companies, of course. We are left only with the words, the numbers, the tables and the charts.

"To oppose this trend of mental and aesthetic impoverishment, I wanted to show you tonight that quite simple experiments and quite simple observations, in the old ethological tradition, without any sophisticated apparatuses, computers, formulas, tables, charts, graphs, etc., can sometimes solve quite simple problems with quite fundamental backgrounds. I hope you enjoyed the revival of old-style ethology in this speech. Keep the style in mind and try to revive and radiate the fun of watching animals, rather than only the science. This is what I wanted to say, after having been ethologizing for fifty-two years."

## REFERENCE

Kortlandt, A., 1980. How might early hominids have defended themselves against large predators and food competitors? *J. Human Evol.*, 9, 79-112.



Our literature is filled with accounts, some anecdotal, others rather rigorously documented, of behavioral phenomena that have been neglected, forgotten and/or never noticed by persons who could use them in one way or another. Our purpose in trying out this new feature is to provide a forum where we could remind each other of such phenomena. Contributions from ABS members and non-members are welcome, and the following guidelines should be followed:

- (1) The "lost" phenomenon you describe must have been reported in the literature; no new observations can appear in the Newsletter (i.e., the Newsletter cannot compete with *Animal Behaviour*);
- (2) you must include the full reference to the original publication(s); and a xerox copy of the page(s) containing the phenomenon in question; and
- (3) your account should be 250 words or less.

The editor reserves the right to accept or decline submissions and to make minor adjustments in the text. Send submissions (as many as you wish) to D. Chiszar, address on page 1.

This feature has several goals. If any readers incorporate a *Nugget* into their lectures or if any research articles are inspired as a consequence of this feature, these goals will have been met.

Now I'll start the ball rolling by presenting the first pair of *Nuggets*.

### NUGGET 1 -- Fatal Refugia (Submitted by D. Chiszar, Univ of Colorado)

". . . I should mention one specie of watersnake--Kirtland's watersnake (*Clonophis kirtlandi*), which lives almost exclusively upon earthworms and slugs. Unfortunately, it is so restricted in distribution (Illinois to New Jersey) that dealers can seldom supply it alive, and even residents of this area find it rarely. A pair I once kept fed avidly on earthworms, exhibiting a strange ability to convince the worms that their mouths were but a refuge, into which the worms quickly and willingly crawled, and without further effort on the part of the snakes!" (Smith, 1977)

In view of the great interest in worm-eating snakes by ethologists and herpetologists, and in view of the equally great interest in luring behaviors by these and other specialists, I am amazed that Smith's account has apparently been lost.

## REFERENCE

Smith, H. M. 1977. *Snakes as pets*. Neptune City, NJ: T.F.H. Publications, Inc. Ltd. pp. 118-119.



### NUGGET 2 -- Crab Legs (Submitted by P. Weldon, Texas A & M Univ)

"The study of marine invertebrates has provided a number of good examples of antipredator defenses and social behavioral adaptations. A report by Baal (1953) indicates that an interaction between two common marine invertebrates - the spider crab (*Maia squinado*) and the octopus (*Octopus vulgaris*) - may yield results of particular interest to behavioral ecologists, crustacean biologists and others. Baal reported that the spider

crabs had collected off the coast of England during September into 'large heaps, about two feet high and three feet in diameter, with their legs so entangled as to make it difficult to separate a crab from a heap.' Some crabs from the periphery of the masses were eaten by octopuses, but most survived. The crabs remained in their defensive aggregations for several days, before both they and their predators disappeared into deeper waters. Dr. Mary K. Wicksten (Texas A&M Univ) has confirmed that this unusual behavior has not received, but certainly deserves, further attention."

**REFERENCE**

Baal, H. J. 1953. Behaviour of spider crabs in the presence of octopuses. *Nature (Lond.)* 171: 887.



*Presidents of the Animal Behavior Society*

DONALD A. DEWSBURY  
ABS Historian

Twenty-eight individuals have been elected President of the Animal Behavior Society. This includes individuals who have been elected but not yet taken office but excludes the Chairpersons of our predecessor, the ESA Section on Animal Behavior and Sociobiology.

**Sex**

Twenty-four of the 28 are male. The first female President (Kleiman) took office in 1983. None of the first 18 Presidents were female; 4 of the last 10 elected are female (Kleiman, J. Altmann, Brockmann, Michener).

**Birth Place**

Four Presidents were born outside of the U.S. (Marler, Beer, Colgan, Michener). The remaining 24 Presidents were born in 16 states. New York leads with five Presidents born in New York City (Schein, Hirsch, Dewsbury, Kleiman, J. Altmann--if one counts the two historians, who were both born in Brooklyn). Two each were born in New Jersey, Pennsylvania, Missouri, and Wisconsin. Only two (Eisenberg and Barlow) were born in the West.

**Ph.D. University**

Three universities produced three Presidents each: Chicago (J. Altmann, Burghardt, Hale), Michigan (King, Winn, Dewsbury), and Wisconsin (Brockmann, Southwick, Stokes). Two each were produced by Berkeley, Cambridge, and UCLA. Five of the 9 SoABS Chairpersons received Ph.D.'s from Chicago.

**University Location as President**

At their time as President, the ABS Presidents represented 22 institutions. There were two each from Chicago (J. Altmann, S. Altmann), Florida (Brockmann, Dewsbury), Illinois (Banks, Hirsch), the National Zoo (Eisenberg, Kleiman), Penn State (Hale, Schein), and Wisconsin (Hailman, Snowdon). Three (Colgan, Fentress, Michener) are at Canadian Universities. The University of Florida now has three Presidents.

**Age**

Twenty of the 28 Presidents took office in their 40's. Four (Eisenberg, Dewsbury, Southwick, and Winn) were under 40; four (Barlow, Beer, Hirsch, and Stokes) were 50 or over. The youngest was Eisenberg (37.5); the oldest was Stokes (56.3).

**THE USE OF ANIMALS IN RESEARCH**

Objectives: The primary objective of this study is to provide an initial evaluation of the various positions regarding the use of animals in research. In doing so, we hope to identify:

- 1) the specific concerns of individuals opposed to the use of animals in research and the concerns of individuals engaged in animal research.
- 2) the concerns of students pursuing careers in animal research and of those pursuing careers in other, unrelated fields.
- 3) the points of greatest controversy between animal researchers and animal rights activists.
- 4) inconsistencies in the attitudes toward animal research.
- 5) profile characteristics of animal researchers and animal rights activists.

This study is also intended to provide initial data for future comparison to address attitude change which is expected in light of the growing opposition to the use of animals in research. The important question, of course, is whether animal researchers are beginning to have some misgiving concerning their involvement with animal use, and is their doubt the result of animal rights activity. There is good indication that students and researchers are beginning to avoid research involving the use of animals--are their attitudes on this subject also changing?

**Target Groups for Questionnaire**

<u>Animal Researchers</u>	<u>Students</u>	<u>Animal Rights Activists</u>
ASP AALAS ABS	Undergrad. Psyc. Biol. Zool.	PETA Humane Society of the United States
Others?	Engl. Lang. Phil.  Grad. Medical	Others?

**THE USE OF ANIMALS IN RESEARCH**

**\* A Questionnaire \***

The controversy that surrounds animal research is a very serious matter. A lack of communication and a reluctance to acknowledge differing positions are creating a situation that undoubtedly will have devastating long-term effects for all concerned.

The following two pages is a series of short questions that address the use of animals in research. The questionnaire is being distributed to students and to the membership of several animal research societies and animal rights organizations in an attempt to evaluate the various positions regarding the use of animals in research.

The results of this questionnaire will be presented at the annual meeting of the Animal Behavior Society. As a member of ABS, I would greatly appreciate your response to this questionnaire.

Please return to:

Dr. Randall C. Kyes  
Box 7778 Reynolda Station  
Wake Forest University  
Winston-Salem, NC 27109

**THE USE OF ANIMALS IN RESEARCH**

Background Information

Age: \_\_\_\_\_  
 Sex: \_\_\_\_\_  
 Religion: \_\_\_\_\_  
 Ethnic Background: \_\_\_\_\_  
 Political Preference: \_\_\_\_\_  
 Annual Income: \_\_\_\_\_  
 State of Residence: \_\_\_\_\_

Education: (Circle highest level completed)  
 Elementary: Jr. High; High School;  
 2 Yr College; 4 Yr College;  
 Graduate or Professional School; Postdoctoral  
 Undergraduate major and degree: \_\_\_\_\_  
 Graduate major or professional training and degree: \_\_\_\_\_

If currently enrolled:  
 Year in school and major: \_\_\_\_\_

Occupation: (please be specific) \_\_\_\_\_

Do you own any pets? YES / NO List: \_\_\_\_\_  
 Do you hunt? YES / NO List kinds of animals: \_\_\_\_\_

Do you fish? YES / NO  
 Are you a vegetarian? YES / NO

Are you a member of an educational, research, or professional organization that deals with the use of animals in research?  
 YES / NO List: \_\_\_\_\_

Are you a member of an animal rights organization?  
 YES / NO List: \_\_\_\_\_

Whose position do you tend to support?  
 Animal Researchers or Animal Rights Activists

Are you for or against:  
 equal representation of the teaching of creationism in schools? FOR / AGAINST  
 the right to an abortion? FOR / AGAINST  
 nuclear power and weapons? FOR / AGAINST  
 research of any kind? FOR / AGAINST  
 gun control? FOR / AGAINST  
 prayer in public schools? FOR / AGAINST

1) What do you consider to be the greatest problem(s) with or facing animal research today?  
 \_\_\_\_\_

2) Do you believe there are certain cases where the use of animals in research is necessary? YES / NO  
 Do you believe there are certain cases where the use of animals in research is unnecessary? YES / NO  
 Do you believe there are certain cases where the physical disruption of animal research (e.g., damaging a laboratory facility; removing animals from a lab, etc.) is warranted? YES / NO  
 Do you believe animal researchers are presenting accurate information concerning the use of animals in research? YES / NO

Do you believe animal rights activists are presenting accurate information concerning the use of animals in research? YES / NO  
 Do you believe there should be more effort on the part of animal researchers to educate the general public regarding the use of animals in research? YES / NO  
 Do you think such an agreement is possible? YES / NO

3) Rank each of the following animal uses with regard to its level of acceptability.

	Acceptable			Unacceptable	
Medical research to benefit humans	1	2	3	4	5
Veterinary research to benefit animals	1	2	3	4	5
Product testing for consumer use (i.e., cosmetics)	1	2	3	4	5
Educational use to train physicians	1	2	3	4	5
Educational use to train veterinarians	1	2	3	4	5
Basic research	1	2	3	4	5
Observational field research	1	2	3	4	5

4) Which would bother you more? Product testing on a: (Circle one animal group for each pairing)

frog or dog	dog or human	dog or bug
human or bird	cat or rat	cat or frog
fish or snake	bird or frog	bug or bird
rat or monkey	monkey or dog	fish or human
bug or rat	bug or fish	bird or snake
cat or fish	dog or cat	frog or monkey
dog or rat	human or rat	monkey or fish
cat or human	cat or bird	snake or bug
fish or bird	snake or monkey	cat or monkey
rat or bird	bird or dog	fish or dog
monkey or human	rat or snake	human or bug
cat or snake	cat or bug	rat or fish
frog or fish	monkey or bird	snake or dog
bug or monkey	bug or frog	human or frog
rat or frog	snake or human	snake or frog

5) Rank in order of acceptance from most (1) to least (6) acceptable.

- \_\_\_\_\_ animals used in research
- \_\_\_\_\_ animals sold in pet stores
- \_\_\_\_\_ animals kept as house pets
- \_\_\_\_\_ animals raised on farms for food
- \_\_\_\_\_ animals kept in zoos
- \_\_\_\_\_ animals raised on farms for their fur

APPLICATION FOR MEMBERSHIP: ANIMAL BEHAVIOR SOCIETY

Name in full \_\_\_\_\_ Degrees \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ Phone \_\_\_\_\_

Position \_\_\_\_\_ Institution \_\_\_\_\_

- \_\_\_\_\_ Member- \$36 (U.S.) Receive Animal Behaviour and Newsletter
- \_\_\_\_\_ Student Member- \$18 Receive Animal Behaviour and Newsletter
- \_\_\_\_\_ Spouse Member- \$15 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:

**SEND THE APPLICATION TO:**

Robert Matthews, ABS Treasurer, Dept of Entomology, Univ of Georgia, Athens, GA 30602

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