

# NEWSLETTER

## Animal Behavior Society

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A quarterly publication

*Janis Driscoll, ABS Secretary*

*Michael J. Owren, Assoc. Editor*

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### SECRETARY GOOFS!

If you use the registration form from the November Newsletter to mail in your registration for the June 1991 ABS meeting, please mail it to the University of North Carolina at the address given, not the University of Colorado at the address given. The Secretary promises to proofread more carefully in future. The registration form in this Newsletter is (I hope) correct. Michael Owren has agreed to serve as associate editor of the Newsletter. This is sure to reduce the error rate dramatically.

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### SOME HIGHLIGHTS OF THE 1991 ABS MEETINGS

Following are some activities planned for the 1991 meetings which were not announced earlier. A separate Invitation to the 1991 annual meeting will NOT be sent except upon request. Additional information will be mailed to each person who registers. Registration forms and abstract transmittal forms can be found on pages 9 - 15.

**Keynote Address: Peter Marler, Speaker. Title: Meaning and Intent: Can Animals Withhold their Signals?**

**Special Discussion: Animal Behavior and Behavioral Ecology for the 21st Century.** A special meeting to discuss broad research goals for the next decade. The focus is on how the ABS membership can be more pro-active in presenting the value of our work to the public, to Congress, and to science administrators. Organized by Chuck Snowdon, Dept. of Psychology, University of Wisconsin, Madison, WI 53706 and Jeanne Altmann, Dept. of Ecology and Evolution, University of Chicago, Chicago, IL 60637.

**Symposium: Evolution of Geographic Variation in Behavior.** The evolution of behavioral phenotypes will be addressed from the perspective of geographic variation in behavior. The major focus is on comparing variation among divergent populations of single species. These comparisons will be used to infer the adaptive values of particular behavioral patterns, to test evolutionary models, and to examine evolutionary processes leading to behavioral diversification and speciation. A primary purpose of this symposium is to evaluate the strengths and limitations of this approach for addressing specific hypotheses concerning behavioral evolution. Organized by Susan Foster, Dept. of Zoology, University of Arkansas, Fayetteville, AR 72107.

**Symposium: Behavioral Endocrinology: Studies in the Field.** The major goal of this symposium is to provide an overview of studies that emphasize the endocrinological basis for understanding behavior observed in the field. Each speaker will summarize and interpret one particular area of field endocrinology studies. Some of the questions to be considered: Are there general patterns of hormone action that seem to apply across species? Are there hypotheses that can generate predictions for as yet un-studied species? What advice might one have for beginning students entering this field? What types of behavioral questions can and

cannot be answered by field endocrinological techniques? A partial list of speakers includes Rachel Levin, Robert Mason, Catherine Marler, Michael Moore and William Zielinski. Organized by Michael Moore, Dept of Zoology, Arizona State University, Tucson, AZ 85287 and Lynne D. Houck, Dept. of Ecology and Evolution, University of Chicago, Chicago, IL 60637.

**Workshop: Laboratories in Animal Behavior: Computer Simulations.** The purpose of this workshop is to familiarize teachers with current software appropriate for laboratory courses in animal behavior, comparative psychology, and experimental psychology. Most of the programs will be demonstrated using PC-compatible machines. Programs available for other machines (Apple) will also be demonstrated. Each participant will get hands-on experience with the programs as well as ideas for implementation into a laboratory curriculum. Organized by Jerome Lee, Dept. of Psychology, Albright College, Reading, PA 19612.

**Workshop: Review of Introductory Animal Behavior Textbooks.** A panel will review selected books with the goal of aiding faculty in the selection of texts most appropriate for the courses they teach. Detailed reviews of principal texts are designed to elucidate strengths and to provide comparisons. Organized by John T. Williams, Jr., Dept. of Psychology, University of North Carolina, Wilmington, NC 28403.

**Roundtable Discussion: The State of Comparative Psychology Today.** The goal of this session is to provide an opportunity for psychologists working in animal behavior to compare notes and discuss problems regarding the status of comparative psychology in psychology at large, in the Animal Behavior Society, in funding agencies, and in other institutions. The intent is pragmatic and aimed at the survival and development of the field rather than ideological or theoretical. The hope is that we can pull together. Organized by Donald Dewsbury, Dept. of Psychology, University of Florida, Gainesville, FL 32611.

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### TREASURER'S NOTE

Welcome to new members who sent in dues after September 1990. You may have wondered about your status. Since dues are paid on a calendar year basis, your membership became effective beginning January 1991. If you are in this category, this is probably your first Newsletter.

The deadline for 1991 dues receipt was 1 December 1990. If you paid by that date, then read no further. If you did not send your dues by the cutoff date, then you have been suspended from the Journal mailing list and will not receive the January or any subsequent 1991 *Animal Behaviour* issues. This is also your last ABS Newsletter until you reinstate. If you haven't paid (either can't find your dues notice or didn't get one) and you failed to receive the January 1991 issue of the Journal, then remit either \$36 (regular) or \$18 (student) to the Treasurer ASAP, and don't forget the \$5 late fee. Upon receipt of dues and late fee, you will be reinstated for 1991, and the

publisher will be asked to send missed back issues. However, expect a processing delay of about six weeks. **Note:** If you don't recall receiving any 1991 dues notice last fall, then most likely it was because you paid ahead for 1 to 3 years. To determine if this is your case, check to see that you did receive a January 1991 journal. Questions about your dues payment records, journal receipt problems, or changes of address should be communicated to me (Bob Mathews, Treasurer; see address below).

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#### ANIMAL BEHAVIOR SOCIETY DIRECTION OF CORRESPONDENCE

**ABS Newsletter** and general correspondence concerning the Society: Janis Driscoll, Dept. of Psychology, Campus Box 173, University of Colorado at Denver, P.O. Box 173364, Denver, CO 80217-3364, USA. Deadlines are the 15th of the month preceding each Newsletter. **Next deadline is April 15, 1991.** (FAX 303-556 4861)

**Animal Behaviour** - manuscripts and editorial matters: Lee Drickamer, Dept. of Zoology, Southern Illinois University, Carbondale, IL 62901, USA.

**Change of address**, missing or defective issues of *Animal Behaviour*: Robert W. Mathews, Dept. of Entomology, University of Georgia, Athens, GA 30602, USA.

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#### ABS OFFICERS

**President:** Charles T. Snowdon, Dept. of Psychology, University of Wisconsin, Madison, WI 53706, USA

**1st President-elect:** H. Jane Brockmann, Dept. of Zoology, University of Florida, Gainesville, FL 32611, USA

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**Secretary:** Janis Driscoll, Dept. of Psychology, University of Colorado at Denver, Denver, CO 80217-3364, USA

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**Program Officer:** Lynne Houck, Dept. of Ecology and Evolution, University of Chicago, Chicago, IL 60637, USA

**Parliamentarian:** George Waring, Dept. of Zoology, Southern Illinois University, Carbondale, IL 62901, USA

**Editor:** Lee Drickamer, Dept. of Zoology, Southern Illinois University, Carbondale, IL 62901, USA

**Members-at-large:** George Barthalamus, Dept. of Zoology, North Carolina State University, Raleigh, NC 27650, USA  
Steven Austad, Dept. of Biology, Harvard University, Cambridge, MA 02138, USA  
Martin Daly, Dept. of Psychology, McMaster University, Hamilton, Ontario, L8S 4K1, Canada

**Historian:** Donald Dewsbury, Dept. of Psychology, University of Florida, Gainesville, FL 32611, USA

#### ABS COMMITTEES

**Animal Care:** Joy Mench, Chair  
Lynette Hart, Harold Herzog, Craig Kinsley,  
Scott Line, Gail Michener, Melinda Novak,  
Steve Zawiskowski

**Career Awards:** Patrick Colgan, Chair  
George Barthalamus, Steve Austad, Martin Daly,  
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**Education:** Larry Williams, Chair  
Kate Bruce, Jerry Eberhard, Jerry Lee, Carol Saunders,  
Gail Michener, Patrick Colgan

**Ethics:** Edward H. Burt, Jr., Chair  
Michael Beecher, Bedford Vestal, Mary Ann Sydlík,  
Emilia Martins

**Film:** Jack Demarest, Chair  
Dorothy Fragaszy, Nancy Klepper-Kilgore, Neil A. Mercado,  
Desmond Maynard, Tom Rambo

**Issues in Applied Anlm. Behav.:** Benjamin H. Hart, Chair,  
Patricia B. McConnell, Sue McDonnell, Edward Price,  
Tine M. Widowski, Margaret Young

**Membership:** Ira Perelle, Chair  
Jill Mellen, Nancy Munkenbeck, Bob Wolf

**Nominations:** Past President Patrick Colgan, Past Past President John Fentress, Past Past Past President Sid Gauthreaux

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David Duvall, Mandy Medvin, Christopher Evans,  
George Waring, Patrick Colgan, Gail Michener

**Public Affairs:** Irene Pepperberg, Chair  
Cheryl Asa, Victor de Gheff, James Ha, Jennifer Neilsen,  
Meredith West

**Research Grants:** George Barthalamus, Chair  
Steve Austad, Martin Daly, Randall Kyes, Doug Mock,  
Patricia Schwagmeyer, Steve Vessey, Gary McCracken

**Endowments:** David Dunham, Chair  
Will Gergits, Lee Drickamer, Sid Gauthreaux, Carey Yeager

**Board of Professional Certification:** John Wright, Chair,  
Peter Borchelt, Dan Estep, Katherine Houpt,  
Phil Lehner, H. Jane Brockmann

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#### GRADUATE PROGRAMS IN ANIMAL BEHAVIOR HAS BEEN MAILED

The Graduate Programs in Animal Behavior (GPAB) bulletins have all been mailed. US members should have theirs by now; Canadian, Mexican, and non-North American members should have theirs by the end of February. If you have not received your copy by the end of February or if you need to correct your entry, drop a note to **Larry Williams, Primate Research Laboratory, University of South Alabama, Mobile, AL 36688 (BITNET: IPRIM2@USOUTHAL).**

The new GPAB has references to over 900 faculty in the United States, Canada and Mexico. Each is indexed by area of interest and major species orientation. Remember that the bulletin is available to anyone for a modest \$8.00 charge. If you have students, libraries or career centers that are interested, please have them mail a check (payable to ABS) to Larry Williams or Bob Matthews.

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### PRESIDENT'S MESSAGE from Chuck Snowdon

In mid-October, I visited with Stephen Koslow, Acting Director of Basic Brain and Behavior Research at the National Institute of Mental Health and with Dr. Mary Clutter, Assistant Director for Biological, Behavioral and Social Sciences at the National Science Foundation to talk with them about the value of animal behavior research. Both were very receptive to learning more about animal behavior and behavior ecology, and I left each of them with a position paper on the value of animal behavior research, an expansion of some of the ideas I presented in the August Newsletter.

Koslow pointed out that NIMH has been getting funding increases at much higher levels than inflation for the past several years and that he would be especially interested in seeing proposals that would develop new animal models of various learning, social or mental disorders. He thought our members might be especially valuable in pointing out new phenomena and new species for study, and he suggested that we be creative in finding ways to present our research interests so that they fit the mission of NIMH.

Since my meeting in October, Congress approved a budget increase of 17% for the research components of NIMH for fiscal 1991. Dr. Alan Leshner, a former ABS member, is currently the Acting Director of the National Institute of Mental Health. At this writing, I have no information on how much of the budget increase will be used for basic behavioral research, but I am hopeful that Dr. Leshner will be more sympathetic to basic research than previous Directors. NIMH has recently issued a call for proposals on the biological and behavioral aspects of cognition.

On November 30, I testified before the NSF Task Force Leading to the 21st Century, set up to evaluate the organization and research directions of the Division of Biological, Behavioral and Social Sciences at NSF. I will be happy to send a copy of my full testimony to anyone who is interested and will summarize my testimony here. (See oral testimony on pages 4 & 5.)

I argued that we are a thriving discipline with an increasing membership base, that our journal ranks in the top 6 journals in Behavioral Sciences and in Zoology in the Science Citation Index rankings of Scientific Impact. I argued that our field bridged biology and behavior and that we were opposed to a separation of the Biological from the Behavioral and Social Sciences. This was a key issue for the Task Force, and I estimate that about 15% or more of the total public hearing time was devoted to discussions of where animal behavior and behavioral ecology fit.

I argued that NSF was the major federal support for our research, but that our profession was not well-served by NSF. Fewer than 20% of the competing proposals submitted to the Animal Learning and Behavior Panel are funded, and many of our members who should be applying for grants have become discouraged and no longer submit proposals. I suggested that NSF reduce or eliminate overlap with NIMH in areas like immunology, molecular genetics and cell biology, and use the savings to fund a "catch-up" program in ecology and behavior, and develop a permanent commitment to research in conservation biology and biodiversity.

I argued that our work is basically "small science" and that small science was losing out to heavy funding of gargantuan projects such as the Hubble Space Telescope, the human genome project, and the supercollider. I pointed out the interdisciplinary nature of our field, and how we must draw on findings in behavioral, social, and biological sciences to do our work well. I suggested that NSF could promote greater interdisciplinary work in our field not by creating large interdisciplinary programs but by providing junior and senior behavioral scientists support to take a semester or a year to obtain training in other disciplines.

Animal Behavior and Behavior Ecology courses attract a large number of undergraduate students, and many of these students who would otherwise have little interest in scientific careers get excited about biological and behavioral science through our courses. We also reach the general public through nature and wildlife films. Therefore, our field makes an important contribution to science education and to utilizing scientific talent that might otherwise not have been utilized.

I pointed out that animal behavior and behavior ecology proposals are currently reviewed and administered through a variety of programs and panels at NSF, and I suggested that a new section on animal behavior and behavior ecology be formed with an administrator to make an explicit case for the value of our research.

Finally, I presented several examples of how animal behavior research has relevance to other fields. Cellular and molecular biologists need to know that social structure and behavior can affect physiology, hormones, and even the immune system. Our research has great value for resource preservation and conservation, to the study of human behavior, and to education.

It has become clear to me that we need to be much more active in talking to and educating those making decisions about the future funding of science. The visits to Washington have served to make our Society more visible and to assure that we will not be ignored.

Jeanne Altmann (who is a member of the NSF Task Force) and I think it is very important that the Society attempt to articulate a Research Agenda for the 1990s that we can present to science administrators. Jeanne and I will be holding a workshop at the Annual Meeting in Wilmington to solicit help from all of you for developing this agenda. In the meantime, I'd be happy to hear any suggestions or ideas that any of you might have.

Finally, on a lighter note, congratulations to Second President-elect Gail Michener who has become a Fully Certificated Teacher of Scottish Country Dance. Are there any other Scottish Dance teachers out there?

### RESPONSE TO SNOWDON

(Following is a letter from Edward H. Miller written in response to Chuck Snowdon's President's Message in the November 1990 Newsletter. The Newsletter Editor will be happy to publish all reasonable discussion of points of view expressed in the Newsletter.)

I would like to respond to Chuck Snowdon's remarks in the November ABS Newsletter. I support the position that practicing scientists have to become better known to the public - both as individuals and as disciplines. As well, scientists have to get more science out to the public generally, because it raises awareness, appreciation and support for science generally. For ethology, it strikes me that there has to be more stress on things that need study now because of the values that science places on them: endangered, rare and fractionated populations, species, and habitats, for example. I believe that public support for basic research can be substantially increased if ethologists (and other scientists) are seen to be choosing

as research subjects those things that need study now. And the ethological scientific community should be doing such. It is perfectly reasonable to defer most studies on *Mus musculus* or *Sturnus vulgaris*, while focusing on ethology of species about which we know little or nothing. One immediate consequence of such a trend would be the decreased sophistication of many studies because questions we can ask of South American *Zygodontomys* or Philippine *Tarsius* are obviously much broader and more elementary than for house mice or starlings. Conversely, the increment to our overall knowledge from such studies would be that much greater. In brief, I feel strongly that practising ethologists as a community should radically redefine their tasks in light of the rapid permanent loss of so many species and populations. This would be better for both the practise and public perception of science, and would give us a much richer knowledge than studies on taxa and biological systems that will always be with us. I realize that major funding agencies want to see conceptual advances, as can best be done with Brewer's yeast, house mice, etc.; that is a problem ethology would have to deal with through lobbying and education of such agencies. Further, a "return to basic ethology" program demands integrated multidisciplinary, and cooperative studies, yet the rewards (and working mind-set) for ethological researchers are generally highly individualized and personal.

Finally, ethologists should unite to establish or support repositories of films and audiotapes, photographs, etc. This is a crucial part of the legacy they should leave behind, rather than just peer-refereed papers (increasingly with few or no illustrations of animals!). It strikes me that ethologists have been pretty anaemic in this regard (VIREO, the Library of Natural Sounds, and the Borror Laboratory of Bioacoustics were all initiated and have been fuelled by ornithologists after all).

In summary, ethology needs to dedicate itself to some obvious common causes with other areas of organismal biology. These causes lie in documenting and understanding biological diversity, which are both appreciated and valued more and more by the general public. If ethology is dedicated to advancing knowledge, it should clearly do so with immediate reference to biological diversity globally, now and in the immediate future.

If ethology continues to study esoteric phenomena about a small number of secure species, when we are losing most of the world's (species) before we know anything about them, we will deservedly never increase public support or even support from our fellow biologists! ABS should take the lead in defining and rationalizing ethological research priorities incorporating such terms of reference.

Edward H. Miller  
Royal British Columbia Museum  
Victoria, BC V8V 1X4, CANADA

#### SNOWDON'S ORAL TESTIMONY TO NSF

Following is the oral testimony presented by Chuck Snowdon, ABS President, to the NSF Taskforce Leading to the 21st Century.

Thank you for the opportunity to present testimony to the task force today. I want to make four points.

1. The behavioral and biological sciences are inseparable. One cannot understand biology without knowledge of behavior nor can one understand behavior without knowledge of biology. The Division of Behavioral and Neural Sciences is the bridge between biology and behavior. This includes animal behavior and behavioral ecology which are represented by the Animal Behavior Society, as well as biological anthropology, neurobiology, and behavioral neuroendocrinology. Just as one cannot construct a bridge that is anchored to only one side of a river and just as a bridge will no

longer function if the banks are moved further apart, so the disciplines represented in the Division of Behavioral and Neural Sciences will not do well if one of the supportive disciplines is moved away. From this perspective there should NOT be separate directorates in Biological Sciences and in Behavioral and Social Sciences.

2. My colleagues and I cannot be competent animal behaviorists without being interdisciplinary. Many of us must know ecology, evolution, genetics and physiology to do our work well. Many of us must also be knowledgeable in linguistics, social anthropology, social psychology and developmental psychology to do our work well. While various other disciplines of both biological and behavioral sciences are essential to high quality animal behavior research, our research is equally valuable to scientists in the behavioral and biological disciplines. Let me give a few brief examples:

a. Charles Darwin's work on emotional expression in animals and man has had an important influence on many psychologists, such as Paul Ekman, who studies human emotional behavior.

b. Harry Harlow's work on social development in rhesus monkeys has been of major importance to theories of child development and to psychiatric models of depression.

c. Psychologists who study optimal foraging in animals are providing empirical tests of micro-economic theories in controlled laboratory environments.

d. Studies of primates such as woolly spider monkeys and mountain gorillas in natural environments can reveal under what conditions societies can be organized without overt aggressive behavior among group members. Recent work on chimpanzees and macaques illustrates mechanisms of reconciliation following aggression, and work on monogamous mice and monkeys illustrates the social and environmental conditions under which males will spontaneously care for infants. The behavior of these species is not heavily influenced by culture the way human behavior is, and so the study of these animals can illustrate a variety of possible novel solutions to human social problems.

e. Sir Charles Sherrington won the Nobel Prize for illustrating the mechanisms of nervous system structure and function, yet all of his work was based on close behavioral observation. Seventy years of subsequent research in the Neurosciences has completely supported the anatomic and physiological inferences that Sherrington made by observing behavior.

f. Research by animal behaviorists on sensory systems has led to practical applications for extending the range of the human senses. Griffin's demonstrations of sonar in bats has led to use of sonar technology in a wide variety of applications from fetal diagnostics to military applications.

g. Contrary to a bottom-up model of science that many of us were raised with, recent work of animal behaviorists shows that the social environment can either stimulate or suppress hormonal function and that the integrity of the immune system can be affected by the social environment. Behavior works in a top-down way to influence molecular and cellular biological functions. Molecular and cellular biologists need to understand the effects that behavior and social environment have on the phenomena that they study if they are to reach valid conclusions.

3. Animal behavior has an important role in science education. Jean Piaget began his scientific career by studying the behavior of snails and J.B. Watson started his research life with studies on the behavior of gulls. Courses in animal behavior and behavioral ecology attract

a large number of women who might not choose research careers in biological or behavioral sciences. Approximately 75% of our current graduate applicants are women. If we are to utilize this valuable pool of scientific talent, there must be sufficient funds for both graduate training and subsequent research opportunities. It would be a cruel hoax if we were to make efforts to recruit more woman and minorities into science through secondary school and undergraduate courses, but not be able to provide them with professional training or to have to tell them that fewer than 1% of them will be able to receive funding for independent research.

4. The real issue is not the organization of the Directorate, but the allocation of funds within the Directorate. If duplication with programs such as the Human Genome Project and AIDS research that are well-supported by NIH could be reduced or eliminated at NSF, there would be adequate funds for a catch-up program for organismic biology, and the behavioral and social sciences as well as room for new initiatives in conservation biology and biodiversity. A catch-up program applied to animal behavior and behavioral ecology would allow us to make full use of the entire pool of potential scientific talent and would allow us to continue making scientific contributions that impact on the social, behavioral, and biological sciences.

Thank you for your attention.

#### LEDERMAN REPORTS TO AAAS

(The following is a news release from AAAS dated January 7, 1991.)

American scientists overwhelmingly feel that diminished federal funding for research has slowed and even altered the ways they pursue answers to the nation's scientific problems, according to a report presented today to the nation's largest general scientific organization.

The report "raises serious questions about the very future of science in the United States", said physicist Leon M. Lederman, a Nobel laureate and president-elect of the Washington, D.C.-based American Association for the Advancement of Science (AAAS), who discussed the report with policymakers and representatives of major scientific organizations at a meeting here today (1/7/91).

The report, which will be mailed later this week to the 130,000 scientists and educators who are members of AAAS, is based on Lederman's informal survey of research scientists at 50 U.S. universities. In response to the inquiry, conducted in the summer and fall of 1990, some 250 scientists told Lederman that:

- a. University researchers are now less likely to pursue high-risk scientific inquiries with potentially high payoffs, instead "sticking to research in which an end product is assured or worse, working in fields that they believe are favored by funding agency officials.
- b. Ideas generated in academic laboratories are often carried to fruition in foreign labs which are better equipped; in comparison, many U.S. facilities are stocked with aging and inadequate equipment, with little to no funding for repairs and updating.
- c. Academic scholars are "cutting back on the number of students they are training," and "students now in laboratories are opting out of research careers."
- d. Scientists at even the best-funded universities spend an inordinate and ever-increasing proportion of their time seeking funding rather than conducting research.

In the report, Lederman stressed that "what concerns AAAS is not the plight of the scientists, but the implied threat to the health of U.S. research and all that means for the nation." He also called for a doubling of federal funds for academic research, as well as the development of innovative financing approaches to augment federal funds for science and the establishment of a commission to investigate such options.

Lederman noted that federal funding for both basic and applied scientific research in universities in 1990 was only slightly greater than it was in 1968 after correcting for inflation. The problem is compounded, he said, by the increased costs associated with research today, which are due to the complexity of the scientific questions being pursued, increased regulation, and the continuing need for more sophisticated equipment.

The survey, an informal attempt to take the pulse of America's scientific community, included researchers at the 30 universities that receive the greatest amount of federal funding, as well as 20 less research-intensive institutions. Copies of the report are available by writing to :AAAS, Directorate for Science and Policy Problems, 1333 H. St. N.W., Washington, DC 20005 (Editor's Note: The scientists who received Lederman's survey were chemists, physicists and biologists; areas we would consider to be well-funded compared to ourselves. Comments are invited.)

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#### TREASURER'S REPORT STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS 1 JULY 1989 TO 30 JUNE 1990

BEGINNING BALANCE	
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

TOTAL BEGINNING BALANCE \$155,606

REVENUE RECEIVED	
Membership Dues <sup>1</sup>	
Regular	\$74,885
Spouse	900
Student	6,481
Emeritus	1,066
Newsletter Subscription	318
Late Fees	1,621
Interest	9,087
Label List Sales	1,601
Grad. Prog. in Animal Behav. Booklet	424
Career Brochure Sales	40
Ads in Annual Meeting Program	335
Donation from ASAB for Edit. Office	10,000
Contributions to Unrestricted Fund <sup>2</sup>	1,188
Contrib. to Research Award Fund <sup>3</sup>	5,675
Miscellaneous Income	181

TOTAL REVENUE RECEIVED \$123,802

TOTAL FUNDS AVAILABLE \$ 279,408

EXPENDITURES	
ASAB for Journal Anim. Behav. <sup>4</sup>	\$ 65,883
Editor of Animal Behaviour	31,843
Secretary Chiszar	5,714
Treasurer	10,277
Second Pres-elect (Allee Award)	269
First Pres-elect (Founder's Award)	100
Program Committee <sup>5</sup>	9,429

Education Committee	2,209
Member-at-large (Research Grants)	3,262
Membership Committee	334
Film Committee	324
Historian	43
AIBS Annual Dues	750

TOTAL EXPENDITURE \$ 130,437

#### ENDING BALANCE

Citizens and Southern Bank, Athens GA	
Checking Account\$	\$ (4,630)
Money Management Account	56,960
Trust Company of Georgia, Athens, GA	
Certificate of Deposit	93,240
Secretary's Fund	939
Editor's Fund	2,462

TOTAL ENDING BALANCE \$ 148,971

NOTES: 1. Total dues revenue is somewhat higher because over 350 members paid ahead for 2 or 3 years. 2. The surplus of \$1,011 from the 1988 meeting was donated to ABS, but it was not deposited until July 1989; the remainder was from member contributions. 3. Of this, \$2,445,38 was the surplus from the 1989 meeting, earmarked for the research awards fund. Another \$500 was from book royalties contributed by a group of authors. The remainder was from individual member contributions ranging from \$2 to \$100. 4. We are billed annually for the journal *Animal Behaviour* by the Association for the Study of Animal Behaviour (ASAB). This amount includes payments for 2 years (88-89, total of \$32,226, and 89-90 total of \$33,657, since last year's was not paid until July 13, 1989, and therefore appears on this financial statement. 5. This amount includes payments for 2 years (88-89 total of \$3,213 should be subtracted to yield actual 89-90 expenditures of Program Committee = \$6,216).

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#### OBITUARY FOR

#### JAMES V. MCCONNELL (1925-1990)

By Donald Dewsbury

Jim McConnell will be best known and remembered among animal behaviorists for his research on learning in planarians and his editing of *The Worm Runner's Digest/Journal of Biological Psychology*. James Vernon McConnell was born October 26, 1925 in Okmulgee, Oklahoma and died in Ann Arbor, Michigan on April 9, 1990. He received his BA degree from Louisiana State University in 1947 and his PhD from the University of Texas in 1956; he served on the faculty of the Department of Psychology of the University of Michigan from 1956 until his retirement in 1988.

Jim was an iconoclast both in his view of science and in his broad interests in life. Though very serious about his research, he possessed the ability to step back from his work and see humor in it and the rest of life as well. He was experienced as a radio announcer, television writer, science fiction writer and humorist. He appreciated the finer things - in wines, in houses, in orchids, and in life. His frequent appearances in the mass media generated broad dissemination of his work, but was offensive to many traditional scientists.

McConnell began his flatworm research with a study of classical conditioning done while a graduate student at Texas (Thompson & McConnell, *J. Comp. Physiol. Psychol.*, 1955, 48, 65). He went on to publish studies suggesting that memory could be transferred between individuals via cannibalism and via injections of RNA (see *Anim. Behav. Suppl.*, 1965, 1, 61). The work has not always

replicated; however, as one can find flaws in both the original studies and the replications, the reasons are not always clear. A unique impact of this work was its replication by hundreds of high school students in science fair projects.

McConnell's *Worm Runner's Digest* was published in 21 volumes from 1959 through 1979. It included a unique blend of serious science and first-rate humor. When Jim split the journal in two, with the creation of the *Journal of Biological Psychology* for the serious research, it was allegedly because one distinguished psychologist complained that he could not discriminate the serious work from the humor. Jim told of a distinguished zoologist who demanded that he remove her name from the subscription list "because we were 'misleading students' into thinking that Science could be fun!" (McConnell, *Impact. Sci. Soc.*, 1969, 19, 241).

Jim McConnell was a master teacher, as confirmed by his receipt of the American Psychological Association award for Distinguished Contributions to Education in Psychology. He was the author of an extremely readable textbook in introductory psychology (McConnell, *Understanding Human Behavior*, Holt, Rinehart & Winston, 1974) which became his primary source of income. He devoted much effort to the application of techniques of behavior modification to human behavior.

Because of his outside activities, the serious aspects of Jim McConnell's science often were overlooked. He was both a Fulbright Scholar and the recipient of a career-development award from the USPHS. He was an able and thoughtful comparative psychologist. In a letter to me written six days before his death, Jim looked forward to writing an autobiographical chapter. The theme would have been that if one wanted to do good animal research, one had to learn to think like the animal you're studying. He added, "In retrospect, I realize that each time I followed that advice, I did good work; when I neglected to observe the beasties for a period of time before starting formal experimentation, I landed on my duff". But the last words he wrote to me were "I'm excited".

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#### MEETINGS

**1992 ABS MEETING.** The Animal Behavior Society will hold its 29th Annual Meeting at Queen's University, Kingston, Canada from 13-18 June 1992. Address inquiries to L. Ratcliff or P. Colgan, Dept. of Biology, Queen's University, Kingston, Ontario K7L 3N6, Canada.

**22ND INTERNATIONAL ETHOLOGICAL CONFERENCE,** Kyoto, Japan, 22-29 August, 1991. Deadline for submitting abstracts and for early registration: February 28, 1991. Deadline for hotel accommodations and tours: June 30, 1991. For information, contact 22nd IEC Conference Secretariat, c/o Stimul International, Inc., Kowa Bldg. No. 9, 1-8-10, Akasaka, Minato-ku, Tokyo, 107 Japan.

**1991 HUMAN BEHAVIOR AND EVOLUTION SOCIETY.** August 22-25, 1991, 3rd annual meeting, McMaster University, Hamilton, CANADA. To contribute papers, send title and abstract by April 1, 1991 to the Program Co-chairs: N. & R. Thornhill, Dept. of Biology, University of New Mexico, Albuquerque, NM 87131; e-mail NTHORN@UNMVM. For meeting information, contact Margo Wilson or Martin Daly, Dept. of Psychology, McMaster University, Hamilton, Ontario, CANADA L8S 4K1; 416-529140, ext. 3033; FAX 416-529-6225; e-mail: DALY@MCMASTER.CA

**AVIAN CONSERVATION: PROBLEMS AND SOLUTIONS** is the title of a one-day symposium that

highlights the annual meeting of the Association of Field Ornithologists to be held on the Ohio Wesleyan campus on March 22-24, 1991. Symposium speakers include Dr. Scott K. Robinson, naturalist with the Illinois Natural History Survey, who will speak on habitat fragmentation and the decline of North American songbirds; Brian A. Harrington, founder of the interational shorebird project and Ohio Wesleyan alumnus, who will speak on the efforts to save shorebird breeding, wintering, and staging areas throughout the western hemisphere; Dr. Tom J. Case who pioneered the reintroduction of peregrine falcons in eastern North America and will speak on the preservation of native hawks and eagles; Dr. Carlos E. Quintela, vice-president for Latin American affairs, advisor on conservation to the Bolivian government, and Lilly International Scholar, who will speak on Conservation in the Neotropics, the challenge of public-private partnerships; and Dr. Frances C. James, Fellow and past-President of the American Ornithologists' Union, who will provide a view to future conservation needs. Beeghly Library will host a reception and display of historical ornithological books after the symposium and a banquet will follow the reception. Dr. Robert Glotzhofer from the Ohio Historical Society will conclude the day with a retrospective "Wildlife and Landscape of Frontier Ohio".

After looking to the future in the opening symposium, the Association looks to the past on Saturday morning with a program on "History of Professional Ornithology in North America". Saturday afternoon is devoted to papers on birds by participants at the meeting. A reception and banquet follow the paper sessions, and the day concludes with a performance of "Music for String Quartet based on Bird Songs", including the premier of a piece written for the occasion. Sunday will be devoted to field trips to observe the spring migration of waterfowl.

Everyone with an interest in birds or conservation is encouraged to attend. You may register for the symposium only or for the entire meeting. For information on registration and accommodations, contact: Dr. Edward H. Burtt, Jr., Dept. of Zoology, Ohio Wesleyan University, Delaware, OH 43015. Phone: 614-368-3886.

**CARE AND USE OF AMPHIBIANS, REPTILES AND FISH IN RESEARCH.** The Scientist's Center for Animal Welfare and the Louisiana State University will co-sponsor a conference on April 8-9, 1991 in New Orleans, LA. The first day's program will be on the use of amphibians and reptiles in both laboratory and field studies. The second day of the conference will focus entirely on fish used in aquaculture and as models in animal research. For information, contact SCAW, 4805 St. Elmo Avenue, Bethesda, MD. Phone: 301-654-6390. FAX: 301-907-3993.

**RESOURCE MANAGEMENT AND BEHAVIORAL ECOLOGY:** A conference in celebration of the 60th birthday of Colin Clark. The conference will be held during 24-26 July, 1991, at the University of British Columbia, Vancouver, BC. The program includes invited hour lectures, contributed talks, and poster sessions as well as social functions. Registration and accommodation information are available from: Miss Nancy Oikawa, Secretary, Institute of Applied Mathematics, University of British Columbia, 222-1984 Mathematics Road, Vancouver, BC, CANADA V6T 1Y4. Phone: 604-228-4584. FAX (c/o Math. Dept. Fax) 604-228-6074.

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#### OPPORTUNITIES

EDITOR'S NOTE: Opportunities and announcements are published in the next issue of the Newsletter after they are received. However, because of the timing of the Newsletter, sometimes a position is

filled between the time that the Editor receives the advertisement and the next issue of the Newsletter. The Editor apologizes for any inconvenience this causes, and recommends that interested persons call to determine if a position is still available before making a formal application.

**POSTDOCTORAL RESEARCH ASSOCIATE** position in comparative and developmental psychobiology is available at Princeton University. The project focuses on the orienting response in the rat and related species. Change in heart rate, recorded either through telemetry or fixed wires, is the primary measure. Interest in the evolution and development of attention and information processing is essential. Experience in any of the following disciplines is desirable: developmental psychobiology, animal learning or perception, infant perception, learning, or memory, psychophysiology or similar discipline. Please contact: B.A. Campbell, Dept. of Psychology, Princeton University, Princeton, NJ 08544-1010. Phone: 609-258-4446.

**VOLUNTEER FIELD ASSISTANT** wanted from May 15 - August 15, 1991. A summer volunteer is needed to assist in a study of the behavior and ecology of Kentucky Warblers. This is a 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 in the Blue Ridge Mountains near Front Royal, Virginia. Duties will include nest finding and monitoring, behavioral observations using a laptop computer, banding, and computer data entry and analysis. Field experience with birds will be helpful, but not essential. Most important is an eagerness to learn and participate, a willingness to rise early and work independently in the field five mornings a week, and a commitment to stay the entire summer. Housing, including laundry and a comfortable private room, will be provided free. However, the volunteer assistant must provide his or her own food and other personal supplies. Call or write for more information. To apply, send a letter describing your qualifications and interests, your resume, and the names of two references by May 1, 1991 to: Mary Victoria McDonald, Dept. of Biology, University of Central Arkansas, Conway, AR 72032. Phone: 501-450-3146.

**GRADUATE AND POSTDOCTORAL FELLOWSHIPS IN ANIMAL BEHAVIOR.** The Depts. of Biology and Psychology at Indiana University announce a new NSF-supported Center for the Integrative Study of Animal Behavior. We are seeking outstanding candidates for interdisciplinary training in mechanistic and evolutionary approaches to the study of behavior. Focal areas for research include (1) mate choice and sexual behavior, (2) orientation and migration, (3) communication, (4) parental behavior and development, and (5) learning. Graduate students should request application forms. Postdoctoral candidates should send vita, statement of research interests, and three letters of recommendation. Reply to: Research Training Group in Animal Behavior, Dr. Ellen D. Ketterson, Biology, or Dr. William D. Timberlake, Psychology, Indiana University, Bloomington, IN 47405.

**VOLUNTEER FIELD ASSISTANT** is needed from early May to late August 1991 to aid a Master's degree study on the natural history and reproductive behaviors of treefrogs in Jamaica, West Indies. This study seeks to detail the reproductive behaviors of an arboreal bromeliad-breeding species, so comfort with heights is a must. Research includes long hours observing behaviors, censusing plants, recording water chemistries, and collecting adult and larval anurans. Looking for an enthusiastic and motivated person willing

to work in the Jamaican countryside under relatively primitive conditions. Field experience and outdoor, climbing skills preferred. Transportation from Miami and room and board provided. Send resume and references to **Rebecca Thompson, 223 Bartram Hall, Dept. of Zoology, Univ. of Florida, Gainesville, FL 32611. Phone: 904-392-1107.**

**SOPHIE DANFORTH CONSERVATION BIOLOGY FUND.** The Sophie Danforth Conservation Biology Fund was established to protect the world's threatened wildlife. All grants are for a maximum of \$1000. Projects and programs that are appropriate for funding include field studies in conservation biology, programs that seek to enhance biodiversity and maintain ecosystems, development of techniques with captive animals that can be applied in a natural environment, captive propagation programs, and environmental education programs. Proposals are due April 1, 1991. Grants will be awarded in July, 1991. For information, contact: **Dr. Anne Savage, Director of Research, Roger Williams Park Zoo, Elmwood Ave., Providence, RI 02905.**

**FIELD ASSISTANTS NEEDED.** 1 April-15 August to aid in a field study of avian mating systems at Mountain Lake Biological Station in southwestern Virginia (some flexibility in starting date). Activities include mist-netting, blood sampling, radiotelemetry, behavioral observations, data entry and analysis. Transportation allowance and small stipend provided. Successful applicants need to be energetic, intelligent, resistant to cold and damp, and cheerful when tired. Experience is preferred but not essential. The work is very rewarding if you are interested in animal behavior and like to be outdoors. Send letter of interest including a summary of background and objectives in applying, and names, addresses and telephone numbers of three references to: **Ellen D. Ketterson and Val Nolan, Jr., Dept. of Biology, Indiana University, Bloomington, IN 47405. Phone: 812-855-6837.**

**RESEARCH ASSISTANTSHIPS AND FELLOWSHIPS** are available to support qualified students pursuing the MS or PhD in behavioral ecology of insects. Faculty (and areas of research interests) include Kenneth F. Haynes (chemical communication, mating behavior), Allen J. Moore (behavior genetics, sexual selection), Daniel A. Potter (insect-plant interactions, behavior of spider mites), and Kenneth V. Yeargan (predator-prey interactions). The stipend is current \$9200/year for MS students and \$10,000/year for PhD students. Students awarded an assistantship or a fellowship do not pay out-of-state tuition. Applications accepted at any time. **Contact one of the faculty listed above or the Director of Graduate Studies, Dept. of Entomology, S-225 Ag.Sc.Center North, University of Kentucky, Lexington, KY 40546-0091. Phone: 606-257-7450.**

**RESEARCH AND FIELD ASSISTANTSHIP.** A research assistantship is available at Manomet Bird Observatory beginning 15 March 1991. Year-round, full-time position studying colonial bird ecology with MBO's Harbor Herons Project. Possible renewal for subsequent years. Job entails field work in New York City (April-August) and data analysis at MBO (September-March). Salary range \$16,000-\$18,000 plus benefits (including housing at MBO) depending upon experience. Field assistantships are also available seasonally both in New York and Massachusetts. Please send resume, course listing, names and phone numbers of two references, and description of research interests and experience to: **Katherine C. Parsons, Manomet Bird Observatory, Box 936, Manomet, MA 02345. Phone: 508-224-6521.**

**FIELD ASSISTANT NEEDED** mid-April through July for an ongoing mate choice study on the polymorphic White-throated Sparrow. Research will be conducted at the Cranberry Lake Biological Station in the Adirondack Mountains of northern New York. Work will include netting, banding, sampling blood, manipulating plumage, and performing behavioral observations. Previous experience desirable but not required; only prerequisites are patience and persistence. Expenses at the field station will be paid. For further information or to apply, contact **Elaine M. Tuttle, Department of Biological Sciences, State University of New York at Albany, 1400 Washington Avenue, Albany, NY 12222.**

**VOLUNTEER BALD EAGLE OBSERVER.** The US Forest Service, Hebgen Lake Ranger District, located in West Yellowstone, Montana needs an assistant observer in a bald eagle habitat study. The study is located on Hebgen Lake and Earthquake Lake, west of Yellowstone National Park. The applicant must work 5 to 8 hours per day, 4 to 5 days per week observing bald eagle behavior. Limited experience is necessary. Position available March through September 1991. Apply for all or part of this time period. Housing provided and possible \$10 daily subsistence. Vehicle available for work. Please mail a resume and letter of interest to **J. T. Stangl, Wildlife Technician, P.O. Box 520, West Yellowstone, Montana 59758** or call **Dan Trochta, District Wildlife Biologist: 406-646-7369.**

**SUMMER VOLUNTEER RESEARCH ASSISTANTS** are needed to assist with our continuing long-term research on seasonal populations of fin and humpback whales in Massachusetts Bay. Research centers on the distribution, habitat use and photo-identification of individuals and includes extensive behavioral observations. Applicants must be willing to work long hours in the field. Fall and winter positions are also available to assist with data analysis. Send a letter of interest, a resume and two letters of recommendation to **Steven Frohock, c/o Atlantic Cetacean Research Center, P.O. Box 1413, Gloucester, MA 01930.** For information, call **508-283-2708.** Interviews will be conducted during the last week of March.

**ZOOLOGIST 12 - DEPT. OF REPTILES AND AMPHIBIANS, DALLAS ZOO.** The City of Dallas Park and Recreation Dept. is seeking applicants for the position of Zoologist 12 in the Bird Dept. of Reptiles and Amphibians of the Dallas Zoo. Responsibilities include research program development and coordination and assisting department curator. Salary range is \$22,344 to \$25,812 depending upon education and experience. Qualified applicants must be well-versed in herpetology, including the behavior, ecology and reproductive physiology of reptiles and amphibians. A doctoral degree and extensive technical publications in the life sciences are strongly desired. Please submit letter of intent and resume by Friday, Feb.15, 1991 to : **Staffing Manager, Personnel Dept., City Hall, Room 6AN, Dallas, TX 75201.** Indicate on the application/resume that you are applying for the Zoologist 12 position at the Dallas Zoo.

## ANIMAL BEHAVIOR SOCIETY ANNUAL MEETING

1 - 6 JUNE 1991

### UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington cordially invites you to attend the 1991 meeting of the Animal Behavior Society. The Wilmington area has a wide range of attractions which make a vacation before or after the ABS meeting worth considering. Wilmington was founded on the Cape Fear River before the Revolutionary War and was the last port open to the confederacy during the Civil War. There are a number of historic sites within twenty-five miles of Wilmington, and a self-guided walking tour of the city's historic district is available. Wrightsville Beach, one of the state's more popular beaches, is located on a barrier island five miles east of the UNCW campus. Sailing, scuba diving, fishing, and golf are just a few of the popular local pastimes. There is an undeveloped barrier island south of Wrightsville Beach, and alligators can be found in some of the local creeks. People who like outdoors activities can find much to enjoy in the Wilmington vicinity.

UNCW has grown considerably since the ABS meeting in 1975. Pleasant, modern dormitories are available for all who want to stay on campus, and there is a new cafeteria. There is also a wildflower preserve in a wooded area on campus for those who want/need a change of pace. The university is no longer isolated on the edge of town. About a dozen restaurants, ranging from fast food to moderately nice, are now within easy walking distance of campus, and there are a number of motels nearby. There are campgrounds in the area (but none of them are outstanding).

Weather at the beginning of June should be quite pleasant, but it can get a bit hot. An "average" day will have a low in the mid-sixties and a high in the low-eighties. Rain is quite possible at some time during the week.

The OFFICIAL TRAVEL AGENT is Adams World Travel and US Air is the Official Air Carrier. Use of Adams World Travel will guarantee the lowest rates possible (i.e., 5% below the lowest supersaver rates or 35% below normal coach fare). Even those who cannot use the designated carrier can expect considerable savings if they book through Adams World Travel. The NATIONWIDE TOLL FREE NUMBER IS 1-800-444-6810 (900-530 Monday-Friday and 900-100 Saturday). Be certain to tell them that you are coming for the ABS meeting. Those calling from outside the United States can reach them at 919-256-6810. They will be happy to help with plans for add-on vacations, accommodations for those who want to stay off campus, etc. Most people who drive to Wilmington will arrive via I-40 which empties into College Road (NC 132) about three miles north of the campus. UNCW is very easy to find.

**By request, the traditional schedule has been advanced one day (i.e., papers will begin Sunday morning and end Thursday afternoon with registration beginning on Saturday.)** There will be a barbecue on Saturday night and the banquet on Wednesday night. Field trips will include one to Orton Plantation (an antebellum rice plantation which is usually a good place for birding) and one to the aquarium at Fort Fisher (where a beach walk will be included). T-shirts will feature the brown pelican which is now common locally after having been endangered.

**NOTE: The REGISTRATION DEADLINE for those who want to present papers is FEBRUARY 15; payment for housing, meals, etc. must be made by MAY 1 to guarantee availability. For additional information, call John Williams at 919-395-3371, Kate Bruce at 919-395-3374 or Kim Sawrey at 919-395-3091.**



**MEALS AND SPECIAL EVENTS**

Saturday Evening Barbecue \_\_\_\_\_ tickets X \$10.00 = \$ \_\_\_\_\_

Wednesday Evening Banquet \_\_\_\_\_ tickets X \$15.00 = \$ \_\_\_\_\_

MEAL PLAN: (Indicate number of tickets requested)

Sunday	Breakfast (\$3.75)	_____ = \$ _____
	Lunch (\$4.75)	_____ = \$ _____
	Dinner (\$6.50)	_____ = \$ _____
Monday	Breakfast (\$3.75)	_____ = \$ _____
	Lunch (\$4.75)	_____ = \$ _____
	Dinner (\$6.50)	_____ = \$ _____
Tuesday	Breakfast (\$3.75)	_____ = \$ _____
	Lunch (\$4.75)	_____ = \$ _____
	Dinner (\$6.50)	_____ = \$ _____
Wednesday	Breakfast (\$3.75)	_____ = \$ _____
	Lunch (\$4.75)	_____ = \$ _____
Thursday	Breakfast (\$3.75)	_____ = \$ _____
	Lunch (\$4.75)	_____ = \$ _____
	Dinner (\$6.50)	_____ = \$ _____
Friday	Breakfast (\$3.75)	_____ = \$ _____

(The cost for all meals is \$97.25) **FOOD SUBTOTAL \$ \_\_\_\_\_**

**ABS MEETING T-SHIRTS** (Pelicans on front and back)

Sizes: S M L XL Colors: White Silver Aqua Light Blue

Indicate quantity/size/color below

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_      \_\_\_\_/\_\_\_\_/\_\_\_\_\_      \_\_\_\_/\_\_\_\_/\_\_\_\_\_

\_\_\_\_\_ T-SHIRTS @ \$7.00 = \$ \_\_\_\_\_

**GRAND TOTAL \$ \_\_\_\_\_**

**TOTAL AMOUNT ENCLOSED \$ \_\_\_\_\_**

Make check payable to **UNIVERSITY OF NORTH CAROLINA AT WILMINGTON** and mail to:

Office of Special Programs  
 University of North Carolina at Wilmington  
 Wilmington, NC 28403-3297

Payment in full must be received by May 1, 1991. Cancellations and/or refund requests should be received by May 15, 1991. Requests for refunds must be in writing.

**1990 ANNUAL MEETING**  
**ANIMAL BEHAVIOR SOCIETY**  
**1-6 JUNE 1991**  
**UNIVERSITY OF NORTH CAROLINA**  
**WILMINGTON, NORTH CAROLINA**

**CALL FOR PAPERS:** A Transmittal Form and Abstract Preparation Form for contributed papers are included here. There are two types of contributed papers: 20 min (15 min for presentation and 5 min for discussion) and poster papers. **ABS members may present or sponsor only one contributed paper at an Annual Meeting.** When a member coauthors with a nonmember who is presenting, the member is sponsoring the paper. A member may also show one film and participate in an invited paper session or symposium in addition to giving or sponsoring one contributed paper. The research reported at an Annual Meeting is expected to comply with all applicable laws concerning animal care and welfare. Transmittal and Abstract Forms, as well as inquiries concerning the program, should be directed to the ABS Program Officer, Lynne D. Houck, Dept. of Ecology & Evolution, University of Chicago, 940 E. 57th St., Chicago, IL 60637-1455.

**FINAL DEADLINE FOR RECEIPT OF ABSTRACTS: 15 FEB 1991. ONLY SUBMISSIONS ON THE PROPER FORM WILL BE ACCEPTED. LATE SUBMISSIONS WILL BE RETURNED.**

**NOTE: ABS REQUIRES THAT INDIVIDUALS MUST PRE-REGISTER FOR THE MEETING AT THE SAME TIME AS THE ABSTRACT IS SUBMITTED.** Registration forms are included in this Newsletter. They should be sent directly to the local host: Dr. John T. Williams, Jr., Dept. of Psychology, University of North Carolina, Wilmington, NC 28403-3297.

**POSTER PAPERS** are highly recommended. Poster papers can facilitate more discussion, perusal of data and one-to-one exchanges of ideas. We will continue the evening format for poster paper sessions. The ABS now sponsors a competition for the **FOUNDERS' AWARD FOR POSTER PAPERS**. If you are planning a poster paper submission and wish to be considered for this award, please check the appropriate box on the transmittal form. All member of ABS presenting poster papers are eligible for the award. Details of the competition and some suggestions for poster paper presentation will be mailed to those in the competition.

**ALLEE AWARD.** The W.C. Allee Award will be presented for the outstanding student paper at the 1991 Annual Meeting. Any independent student research that is largely unpublished at the time of submission for the competition is eligible for this cash and book award, as long as the student has not competed before and has not had the final defense of the doctoral dissertation prior to the preceding ABS Annual Meeting. Each paper must have a single author. To compete, send the Transmittal and Abstract Forms as well as four copies of a written version of the paper to the Program Officer by 15 FEB 1991. The written manuscript must not exceed 7 pages of double-spaced typewritten text; it may include no more than 4 tables and figures and should be completed in *Animal Behaviour* format. Note that a one page update may be submitted between 15 February and 1 June.

**INVITED PAPER SESSIONS.** ABS encourages those who wish to plan a session of invited papers or a symposium. The annual deadline for submission of proposals for invited paper sessions or for symposia is November 1 preceding the next annual meeting. At the earliest opportunity in your planning, please contact the Program Officer for proposal format and additional information.

**ADVANCE WARNING:** At the request of many who have attended the past several ABS meeting, we will enforce the original rule regarding 20 minute contributed papers. Namely, 15 minutes are for the paper presentation and 5 minutes are for discussion. **PLEASE PLAN ACCORDINGLY FOR THE 1991 MEETING.**

**ABSTRACT PREPARATION:**

1. Abstracts will be photographed just as you submit them; you must follow the suggested format.
2. Abstracts should be typed or printed within a 3" x 7" space. An example of this maximum abstract size is provided on the transmittal form. Do not type your abstract onto this example; use plain bond paper or good Xerox paper. Single space all typing, leaving no top or left margins.
3. If typed, use an electric typewriter with a good ribbon; make neat corrections. Elite type (12 pitch) is

preferred. Use black ink for symbols not on your typewriter. Be wary of abstracts printed by dot matrix printers - they usually do not reproduce well.

4. Your abstract should be organized as follows:

- a. Title - use CAPITAL LETTERS; check to be certain that Transmittal Form and Abstract titles match; when using a Latin name, please include the common name also; see example below.
- b. Authors - include departmental and institutional affiliations.
- c. Specific objectives - include a brief statement unless this is clear from the title.
- d. Methods - include a brief description as necessary.
- e. Results - provide a clear, specific summary of findings.
- f. Conclusions.
- g. Acknowledgments or References - as desired.

5. We provide an example of a title and byline below. DO NOT TYPE YOUR ABSTRACT ON THIS PAGE. Newsprint provides an inappropriate photographic background. Use plain bond paper. Please do not include any lines around your abstract.

SEND TWO COPIES OF THE ABSTRACT, ALONG WITH ONE COPY OF THE TRANSMITTAL FORM, TO THE PROGRAM OFFICER.

**DEADLINE FOR ALL ABSTRACTS IS 15 FEBRUARY 1991. NO EXCEPTIONS!**

BEHAVIORAL ISOLATION OF SALAMANDERS OF THE GENUS PLETHODON  
Nancy L. Reagan, Univ. of Chicago, Chicago IL.

Use this 3" x 7" box as a spacing guide.  
Please DO NOT type your abstract in this box.  
Do not put lines around your abstract.

Please print or type your abstract at the top of a page so that the text is not folded for mailing

Please include the following signed statement with your abstract.

By submission of this abstract to ABS, I declare that the research reported herein was conducted in compliance with the ABS Animal Care Guidelines and all laws applicable to my work.

Signed \_\_\_\_\_



Please identify your paper according to animal group and principal subject by circling the appropriate categories below. These are used by the Program Officer to assist in arranging the program. **Note that presentations will be assigned to these categories in the order in which the transmittal forms are received. Early submission of the form is strongly encouraged.**

<b>ANIMAL GROUP</b>	Humans	Carnivores	Crustaceans	Arachnids
	Ungulates	Rodents	Amphibia	Insects
	Other Mammals	Marine Mammals	Reptiles	Other Invertebrates
	Nonhuman Primates	Birds	Fishes	Molluscs
<b>SUBJECT</b>	Applied Ethology	Genetics	Social Behavior	
	Behavioral Ecology	Learning	Agonistic	
	Biological Rhythms	Methodology	Development	
	Altruism/Kinship	Natural History	Dominance	
	Courtship/Mating	Orientation/Navigation	Mate Choice	
	Physiology/Neuroethology	Intrasexual Competition	Theory	
	Competition	Self Maintenance	Territoriality	
	Predator/Prey	Play Behavior		
	Parent-offspring Relations	Human Ethology		

None of the above categories seems appropriate. I would best categorize my paper as dealing with

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I would prefer to have my presentation arranged by: Subject\_\_\_\_\_ Taxonomic Group \_\_\_\_\_

THE PROGRAM OFFICER WILL TRY TO ACCOMODATE ANY SPECIAL REQUESTS LISTED BELOW:

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This presentation is based on research sponsored by an ABS Research Grant:

Yes\_\_\_\_\_ No\_\_\_\_\_

**APPLICATION FOR MEMBERSHIP: ANIMAL BEHAVIOR SOCIETY**

Name in Full \_\_\_\_\_ Degrees \_\_\_\_\_

Address \_\_\_\_\_

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

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

\_\_\_\_\_ Member - \$36 (US) Receive Animal Behaviour and Newsletter

\_\_\_\_\_ Student Member - \$18 (US) Receive Animal Behaviour and Newsletter

\_\_\_\_\_ Spouse Member - \$15 (US) Receive Newsletter

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

Name \_\_\_\_\_ Signature \_\_\_\_\_

This application should be send with remittance (make check payable to Animal Behavior Society) or include your

Mastercard # \_\_\_\_\_ or VISA # \_\_\_\_\_

Card Holder's Signature \_\_\_\_\_

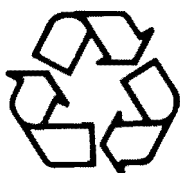
Send the application to: **Robert W. Matthews, ABS Treasurer**  
**Dept. of Entomology**  
**University of Georgia**  
**Athens, GA 30602**

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J. Driscoll, Secretary  
ABS Secretary  
2550 W. 43rd Avenue  
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