

NEWSLETTER Animal Behavior Society

Vol. 30, No. 2
May 1985
A quarterly publication

Terry Christeneon, ABS Secretary Dept Psychology, Tulane University New Orleans, LA 70118

Section (Division) Animal Behavior and Sociobiology
American Society of Zoologists

ANIMAL BEHAVIOR SOCIETY 1985 ELECTION OF OFFICERS

The following have been nominated for office for terms beginning 29 June 1986:

Second President Elect:

John C.Fentress--Dept of Psychology, Delhousie Univ, Halifax, Nova Scotia Lewis W. Oring---Dept of Zoology, University of North Dekota, Grand Forks MD

Program Officer:

David A. Chiszar---Dept of Psychology, University of Colorado, Boulder CO
Susan E. Riechert--Dept of Zoology, University of Tennessee, Knoxville TN

Parliamentarian:

Edward H. Burtt, Jr.—Dept of Zoology, Chio Wesleyan University, Delaware OH Patricia DeCoursey——Dept of Biology, University of South Carolina, Columbia SC

Member-At-Large:

David Duvall-----Dept of Zoology, University of
Wyoming, Laramie WY
Janet A. Randall---Dept of Biology, Central Missouri
State Univ, Warrensburg MO

Additional nominations may be made by letter to the Nominations Committee (c/o Devra Kleiman, Dept of Zoological Research, National Zoological Park, Washington, D.C. 20008) signed by five or more ABS members in good standing. The ballot and brief resumes of the candidates will appear in the August 1985 ABS Newsletter.

NORTH CARCLINA STATE UNIVERSITY IN RALEIGH 23-28 JUNE

All members have received a booklet of meeting information and forms. In addition, meeting information can be found in the last two ABS Newsletters. Registration is in the McKimmon Center, beginning 12 noon on 23 Sunday. Housing is in the South and Bragaw Halls. Deadline for advanced registration is 15 May. For further information, contact the Local Host, George Barthalmus, Dept of Zoology, NC State, Raleigh NC 27650.

Program highlights:

ABS Fellow's Lectures: Edward Price (Univ of California at Davis) entitled "Domestic Animal Behavior: A New Challenge", and Irwin Bernstein (Univ of Georgia) entitled "The Study of Primate Aggression".

Plenary Lectures: Richard Wurtman (MIT) on dietary correlates of CNS neurochemistry and behavior, and John Garcia (UCLA) on how "Darwin Was a Learning Theorist".

Symposia:

"Risk-Sensitive Foraging" organized by Thomas Caraco (SUNY at Albany) with C. Barkan (Risk-sensitive foraging: some laboratory and field tests), L. Real (Uncertainty and pollinator-plant interactions), J.E.R. Staddon (Can risk sensitivity be deduced from general regulatory principles?), D. Stephens (Risk-sensitivity and information), and T. Caraco (Risk-sensitivity and foraging groups);

"Auditory Communication: Comparative and Developmental Aspects" organized by Gilbert Gottlieb (UNC-Greensboro) with H.C. Gerhardt (Vocal communication in treefrogs), D. Miller (Development of instinctive behavior: alarm call responsivity of mallard ducklings), M. West & A. King (Social guidance of male song development by female cowbirds), J. Werker (Assessing the role of experience in human cross-language speech perception).

Invited Sessions (see page 7 for titles of invited session papers):

"Behavior and Misbehavior of Companion Animals" organized by Peter Borchelt (Animal Behavior Consultants) and Victoria Voith (Univ of Penn) with M. Cappola, D. Craig, G. Hamilton, K. Houpt, K. McCrave, A. Marder, L. Myers, C. Penn, R.H. Polsky, D. Tortora, J. Ward, J. Wright, and M. Young;

"Ethology of Psychiatric Populations" organized by

"Ethology of Psychiatric Populations" organized by Jay Feierman (Univ of New Mexico) with A. Bouhuys. M. Chance, G.M. Dempsey, H. Dienske, R. Gardner, Jr. H. Harpending, J.S. Heisel, C. Littlefield, M. McGuire, G. Medicus, R. Nesse, R. Pitman, J. Price, R. Simons, L. Sloman, M. Surbey, and W. Ulwelling;

"Importance of Experimenter-Animal Interactions in the Development and Measurement of Learned Behavior: a Cross-Species Analysis" organized by Hank Davis (Univ of Guelph) with I. Pepperberg, D. Rumbaugh, E.S. Savage-Rumbaugh R. Schusterman, and J.P. Scott:

Numbaugh, R. Schusterman, and J.P. Scott;
"Comparative Studies of Play" organized by Maxeen
Biben (NIH) with G. Burghardt, R. Fagan, S. Friedman,
and K. Thompson.

Other Activities: Picnics, book display, film nights, socials, banquet. NSF and NIMH representatives, field trips, 160 contributed papers, Allee competition, $^{12}5$ poster papers, and more.

ANIMAL BEHAVIOUR

After 1 June 1985, all correspondence for the editorial office of $\underbrace{\text{Animal Behaviour}}_{}$ should be addressed to:

Dr. Charles Snowdon Editor, Animal Behaviour Dept of Psychology University of Wisconsin Madison WI 53706 USA

The new Editorial Assistant for Animal Behaviour will be Laura Dronzek-Henkes; the new number is (608) 262-5598 (as of 1 June).



IN MEMORIAM

Edwin Melvin Banks (b 3-21-26) died March 2^{μ} , 1985. Banks's career spanned the period in which behavior study became established as a recognized field in American biology, a goal to whose attainment he contributed so much.

He began as an undergraduate at the University of Chicago where early on he came under the influence of Warder Clyde Allee, earning a Bachelor of Philosophy in 1948, a Bachelor of Science in 1949, and a Master of Science in Zoology in 1950. In 1950, Allee retired from Chicago and moved to the University of Florida, Gainesville taking Banks along. He completed a PhD there as the last student of Allee who died in 1955. That year Banks came to the University of Illinois as an instructor of Biological Science. He was promoted to Assistant Professor in 1957 and to Associate Professor in 1960. He moved to the Zoology Department of the University of Toronto in 1963, but returned to Illinois in 1965, where in 1968 he advanced to Professor with appointments in Zoology, Psychology, and Animal Science. In 1973, when Zoology dissolved, he established the Ecology, Ethology & Evolution Department, serving as Head 1973-76 and again 1980-82.

Though his role in ABS and in establishing animal behavior as a discipline was important, first and foremost he was a scientist and teacher. From his student days at Chicago right up to his death, he maintained a vigorous and productive research program, with projects still remaining that students have now to complete. Allee's influence was strong and persisted; Banks studied social organization and behavior in more than a dozen vertebrate species, from birds and rodents to primates. He started summer research, first as a student then as an investigator, with the Division of Genetic and Social Behavior at Jackson Memorial Laboratory, Bar Harbor ME in 1949 and 1956. Here he met his wife Hilda. In addition, Banks did summer research at the Marine Piology Laboratory, Woods Hole MA in 1950.

In the 1960's and 70's, with support from the NSF tundra biome and Psychobiology Programs, he devoted several summers to field research in Canada and in Alaska, often bringing live samples (e.g. lemmings) back to breed subpopulations for intensive laboratory analysis. In 1970, he spent a sabbatical as an NIH Fellow studying rhesus social organization and behavior at Yerkes Regional Primate Research Center, Atlanta GA. In 1977, on another sabbatical with H.F. Guggenheim Foundation support, he studied chicken social behavior at the British Agricultural Research Council's Foultry Research Center at the University of Edinburgh.

During 1966-77 Banks and I co-directed the very successful NIMH supported Biopsychology Program providing research training for graduate students from anthropology, biochemistry, physiology, psychology, and zoology. I know of 17 biologists whose doctoral dissertations he supervised.

He was active in ABS since its inception and previously in the predecessor Section and Division of ESA and ASZ, respectively, serving as Chair of the Film Committee for eight years beginning in 1957, as first Program Officer 1964-68, as Assistant Editor when I was Editor of Animal Behaviour 1968-72, through the four stages of the Presidency 1970-73, and the Mominating Committee 1973-76. He chaired the Public Affairs Committee 1981-83 and served on that committee until 1984. In 1974, together we were Hosts at Illinois to the third independent ABS annual meeting. Since 1982, when I became Editor of the Journal of Comparative Psychology for the American Psychological Association, Eanks had been serving as an invaluable Consulting Editor.

Together with Colin Beer we served 1974-81 as the first three representatives to the International Ethological Conference Committee elected by the ABS membership, with Banks serving as Secretary in 1977. Since 1982 he had been a member of the U.S. National Committee for the International Union of Biological Sciences of the National Research Council. He also served on the advisory panel of the Psychobiology Program of the National Science Foundation 1972-75.

For several years at the University, he was a member of the Russian Folk Orchestra and he played violin in the Illini symphony.

Banks is survived by his wife, Hilda; two sons, Daniel Lewis of Washington D.C., and Ronald Alan of Charlottesville VA; and a daughter, Ellen Carrie of Champaign IL.

A memorial fund to support graduate students in animal behavior research has been set up. Checks should be mailed to UIF-Banks Memorial Fund and sent to the University of Illinois Foundation, 224 Illini Union, 1401 W. Green St., Urbana IL 61801.

---Jerry Hirsch, University of Illinois

ABS ANIMAL CARE GUIDELINES

I. FEDERAL, STATE, AND LOCAL REGULATIONS.

Members, their students, and research associates have an obligation to become thoroughly familiar with, and comply with the provisions of the Animal Welfare Act (1970), the Endangered Species Act (1973), 62 Statute 686 (1948), the Migratory Bird Treaty Act (1918), all subsequent amendments, rules, and regulations persuant to these Acts, and other applicable federal, state, and local regulations to which the researcher may be subject. In the case of animals trapped in foreign countries, researchers have an obligation to become familiar with, and comply with the relevant regulations of those countries.

II. STANDARDS OF RELATED ORGANIZATIONS.

Members and their affiliates should attempt to become familiar with standards of organizations, other than the ABS, which relate to the care, treatment, and use of animals in behavioral research.

III. ABS GUIDELINES FOR ANIMAL CARE.

A. Choice of Animals.

- 1. Species. The species chosen for study should be well-suited to answer the questions posed. When the research involves the use of procedures which are likely to cause unavoidable pain or discomfort to the animal, and when alternate species can be used, the researcher should employ the species in his/her opinion is least likely to suffer.
- 2. Number of individuals. In the case of 1) laboratory experiments involving non-optimal conditions (e.g. pain or discomfort), or 2) field studies involving manipulations potentially detrimental to the population, the researcher should utilize the smallest number of animals necessary to accomplish the research goals.
- 3. Status of natural populations. If the taxon or population is endangered or threatened, individuals should not be collected except in cooperation with a serious conservation endeavor and in compliance with the Endangered Species Act (1973) and other pertinent legislation. The researcher is responsible for ascertaining the status of the taxon or population in question and should uphold not only the letter but also the spirit of those laws dealing with endangered species both in the U.S.A. and in the foreign countries where the animals originate.

B. Observation of Natural Populations.

Observation of free-living animals in their natural habitat may involve disruption, particularly if feeding, trapping, or marking is involved. While field studies may further scientific knowledge and advance awareness of human responsibility toward animal life, the investigator should always weigh any potential gain in knowledge against the adverse consequences of disruption for the animals used as subjects and also for other animals in the ecosystem.

C. Procurement of Animals.

Researchers should obtain animals only from reliable and legal sources. As much as possible, the researcher should ensure that those responsible for handling of the animals en route to the research facility provide adequate food, water, ventilation, and space, and do not impose undue stress. If animals are field-trapped this should be done legally and in a manner which is as painless and humane as possible.

D. Housing and Animal Care.

Unless contraindicated by research protocol, animals should be maintained and cared for in such a manner as to meet their species-typical and individual needs. Minimal standards are specified in the Guide for the Care and Use of Laboratory Animals, DHEW Publications No. (NIH) 74-23.

E. Pain or Discomfort.

Since traumatic effects of experimental procedures are likely to vary from species to species, the researcher should attempt to ascertain how much his/her research species is likely to suffer as a result of the procedures employed. In general, researchers are urged to consider the use of alternative procedures before employing techniques which are likely to cause physical or psychological discomfort to the animal. In accordance with the existing animal welfare laws, pain or discomfort, even when unavoidable, should be minimized to the greatest extent possible under the requirements of the experimental design. Attention should be given to proper pre- and post-operative care in order to minimize preparatory stress and residual effects. Unless specifically contraindicated by the experimental design, procedures which are likely to cause pain or discomfort should be performed only on animals which have been adequately anesthetized.

F. Final Disposition of Animals.

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



Research on animal behavior is supported by several programs of the National Science Foundation:

The Psychobiology Program provides support for research on behavior and its genetic, environmental, hormonal, neural, and motivational determinants. The Program supports field and laboratory studies using a wide range of observational, experimental, theoretical, comparative, and quantitative approaches. Support is provided for research on such topics as animal learning and memory, conditioning and stimulus control, preferences and aversions, foraging and ingestion, migration and homing, communication, and the social and reproductive behavior of animals. Fred Stollnitz is Program Director; Kathie L. Olsen is Associate Program Director through July 1986. For further information, phone (202) 357-7949.

The Population Biology and Physiological Ecology Program provides support for studies of evolutionary, ecological, behavioral and population genetics; plant and animal demography; and evolutionary, behavioral and physiological ecology. Support is provided for research using theoretical, experimental, laboratory and field approaches to the analysis of populations. The focus is on the understanding of populations of single species with regard to genetic relationships, population dynamics, and physiological adaptation to specific environments. Mark W. Courtney is Associate Program Director. For further information, phone (202) 357-9728.

Review of proposals at the interface between these two programs is guided by the distinction between proximate and ultimate causes of behavior. Thus, proposals dealing with the mechanisms of development of behavior are reviewed by Psychobiology; proposals dealing with the adaptive functions or evolutionary basis of behavior are reviewed by Population Biology and Physiological Ecology. A proposal is reviewed jointly by both programs when its emphasis is nearly equally divided between proximate and ultimate causes.

Similar principles guide the review (and funding) of proposals at other interfaces among NSF programs. Some related programs, their directors, phone numbers (area 202), and examples of topics of interest to animal behaviorists: Anthropology, John E. Yellen, 357-7804 (animal behavior in relation to hominid evolution, primate locomotion and functional anatomy). Biological Oceanography, Edward D. Houde, 357-9600 (ecology, physiology, and life history of marine and Great Lakes organisms). Ecology, Patrick W. Flanagan, 357-9734 (interspecific competition and symbiosis, predator-prey relationships, co-evolution, multispecies interactions). Integrative Neural Systems, Nathaniel G. Pitts, 357-7471 (anatomical and physiological studies of nervous systems). Polar Biology and Medicine, Richard B. Williams, 357-7894 (sensory and behavioral adaptations of arctic and antarctic organisms). Regulatory Biology, Lewis Greenwald, 357-7975 (comparative physiology and endocrinology). Sensory Physiology and Perception, James O. Larimer, 357-7428 (anatomical, physiological, and behavioral studies of sensory systems and perception). Systematic Biology, James E. Rodman, 357-9588 (behavior as a taxonomic character or as a speciesisolation mechanism).

Both basic and applied research may be supported; however, clinical projects (including studies of animal models of clinical conditions) are not supported. In particular, NSF wishes to minimize overlap of proposals that fall within the health mission of NIH.

Support can also be granted for specialized conferences and workshops relating the areas described above. We encourage women and minority scientists to apply for NSF support. Scientists at smaller institutions are encouraged to apply for independent grants if their research facilities are adequate; if not, they may arrange to work with NSF-supported

researchers at larger institutions, who may apply for supplemental funds if necessary.

Proposals for doctoral dissertation research (not including stipends) are considered by most of the programs mentioned (see flier, "Grants for Improving Doctoral Dissertation Research").

The Foundation also awards graduate fellowships (357-7536), postdoctoral research fellowships in environmental biology (357-7332), visiting professorships for women (357-7734), grants for research on chemistry of life processes (357-7471), and small grants for psychobiological research (357-7949).

Proposals should be prepared according to instructions in the brochure Grants for Scientific and Engineering Research (NSF 83-57) which can be obtained from your institution's research office or from NSF's Publications Office.

Each proposal is sent to several reviewers selected for their knowledge of the research topic of the proposal. In addition, most proposals are reviewed by a program's advisory panel, whose members generally serve three-year terms. In selecting reviewers, NSF staff members try to choose scientists who can provide unbiased, balanced evaluations of the various aspects of the research areas and methods of the proposal. If you wish, you may suggest appropriate reviewers (or specify reviewers who you feel would be inappropriate) when you submit your proposal. We are extremely grateful for the invaluable help provided by the many scientists who have reviewed proposals for us in the past, and we welcome volunteers for future reviewing. The validity and reliability of our decisions about which projects to support depend largely upon the careful evaluations provided by reviewers.

The proposal should be written so that the broad scientific implications of the work are clear to all reviewers, including those whose own research is in a different specialty. The project description should not exceed 15 single- or 30 double-spaced pages. Reviewers appreciate concise proposals and are familiar with NSF's length guideline, so even if you feel that there are extenuating circumstances, it may not be wise to submit a longer proposal. In most cases, proposals exceeding the guideline will have to be shortened before they are sent out for review. Concentrate on presenting the proposed work in enough detail for reviewers to evaluate its scientific importance, the soundness of the design and methods, and the appropriateness of the time and budget requested. Additional details (e.g., more complete review of the literature, precise methods of behavioral observation) can be cited in the text and provided in judiciously chosen appendices attached to each copy of the proposal. Reviewers should not have to consult the appendices for a basic understanding of the research plan.

If your proposal involves the use of animals, sufficient information must be provided to allow evaluation of the experimental protocols with respect to the choice of species, the number of animal to be used, and any necessary exposure of animals to discomfort, pain, or injury.

Most awards are for two to three years, although you may request for up to five years. However, if you have not already obtained enough data to demonstrate the feasibility of the techniques you plan to use, your chances of support may be better if you request a small amount of money to collect pilot data that can be presented later in a larger-scale proposal. All items in the budget should be clearly explained on a page separate from the budget summary form. If the budget is padded, reviews are likely to be less supportive than they would otherwise be.

If you have questions after reading <u>Grants</u> for <u>Scientific and Engineering Research</u>, please feel free to write or phone any of the programs. The program staff will be happy to be of assistance.

--- Fred Stollnitz, NSF, Washington, D.C. 20550

NSF BUDGET

Fiscal year figures given in millions. Neuroscience figures from Fred Stollnitz, text and other figures from the AIBS Forum, Jan/Feb 1985.

Biotic Systems and Resources Ecology	
Actual 1984	7 00
Current 1985	7.92 9.07
Estimate 1986	10.05
Ecosystem Study	10.05
· · · · · · · · · · · · · · · · · · ·	16 27
Actual 1984	16.47
Current 1985	17.97
Estimate 1986	19.30
Systematic Biology	40.00
Actual 1984	10.93
Current 1985	12.01
Estimated 1986	13.02
Popul Biology & Physiol Ecol	
Actual 1984	8.99
Current 1985	9.77
Estimated 1986	10.67
Biol Research Resources	
Actual 1984	8.65
Current 1985	9.59
Estimated 1986	9.98
eurosciences	
Molecular & Cellular Neurobiol	
Actual 1984	4.80
Current 1985	5.20
Estimated 1986	5 • 55
Integrative Neural Systems	
Actual 1984	3.95
Current 1985	4.90
Estimated 1986	5.20
Developmental Neuroscience	
Actual 1984	4.58
Current 1985	5.27
Estimated 1986	5.65
Sensory Physiol & Perception	
Actual 1984	6.27
Current 1985	7.20
Estimated 1986	7.65
Psychobiology	
Actual 1984	4.52
0	1

Talk of a budget freeze circulated around the nation's capital and was recounted by the media long before the President released his proposed FY 86 budget on Feb 4. The \$1,026.6 billion proposed budget includes a \$300 billion increase in defense spending and a \$40 billion reduction in funds for domestic programs.

4.40

4.73

Current 1985

Estimated 1986

The research and development request (including facilities) is \$60 billion, an increase of \$6 billion or 12%. In accord with the President's philosophy of building a strong defense network, two-thirds of this R&D budget is allocated to defense.

Approximately \$8 billion of the R&D request is for basic research, primarily conducted at universities. The basic research request is up \$76 million or 1\$.

In a statement concerning the R&D budget, Dr. George Keyworth II, Science Advisor to the President and Director of the Office of Science and Technology Policy, stated that three areas of major concern were addressed: maintaining national security, ensuring economic progress in the face of world industrial competition and reducing the budget. He stated, "The 1986 budget quite adequately maintains the health of science. I would even say that, after such rapid growth, the fact that

science will share in the overall federal austerity may well stimulate sharper delineation of priorities."

Although level funding was proposed for non-defense budgets, there are shifts in agency and in funding for individual programs that reflect the Administration's priorities. In addition, all budget requests have included a 5% pay cut for civilian employees.

An increase in the overall budget, including R&D, is planned for DOD, EPA, NASA and NSF. Decreases are proposed for USDA, DOE, Interior, NIH and NOAA. While DOD would receive the largest increase in the R&D budget (22%), NOAA's R&D budget would be cut the most (34%).

No particular initiative was emphasized this year other than an increase in basic research support to universities as part of a 13% overall budget growth of DOD. Of particular concern to the research community is a moratorium on the construction of new research facilities, elimination of some research and training programs and moves by such departments as Health and Human Services to stretch spending of appropriated funds over two or three years, which decrease expenditures in the current fiscal year. In addition, a decline in staffing levels in many programs through attrition is likely to affect those operations.

No Executive reorganization plans, such as the creation of a Science Department, were included in the budget. Any proposals for creation, elimination or merger of agencies will be submitted to Congress at a later date.

NIH BUDGET

Figures are for fiscal year and are given in millions. Figures and text come from AIBS Forum, Jan/Feb 1985.

Neurological, Comm Diseases & Stroke	
Actual 1984	335.0
Current 1985	395.2
Estimated 1986	373.9
Child Health & Human Development	
Actual 1984	272.9
Current 1985	310.1
Estimated 1986	293.1
Aging	
Actual 1984	115.6
Current 1985	144.6
Estimated 1986	134.8

The \$4.85 billion NIH budget proposed for FY 86 is approximately 5.5% below the FY 85 level of \$5.14 billion. Reductions are made in almost all programs of each Institute and Division, and a freeze on indirect cost reimbursement to grantee institutions is proposed.

The \$2.6 billion requested for research project grants would support 16,888 grants, 11,242 of which would be non-competing continuation grants. As the biomedical community feared, support for only 5,000 new and competing research project grants is proposed. Budget documents claim 646 multi-year awards are being made in FY 85, which increases the finds obligated for the next two years. The biomedical community expected 6,500 new one-year awards for FY 85, but this was reduced to 4,354. The \$218 million for research training will support 9,900 trainees, the same as FY 85. (The NIMH research funding for FY 85 would be cut by 2.5%).

MEET REPRESENTATIVES OF NSF AND NIMH

Fred Stollnitz of the NSF Psychobiology Program and Niles Bernick of the NIMH Biobehavioral Section of the Neurosciences Research Branch will be at the Raleigh meetings to answer your questions.

OPPORTUNITIES

CURATOR OF PRIMATES— at the Chicago Zoological Park. The Curator will be responsible for day to day operations of a very large primate facility, management of a diverse collection, maintenance of large naturalistic, mixed—species exhibits, and supervision of a staff of 14. Starting salary \$30-40,000 depending on experience. Send curriculum vitae and statement of interest to Sanford Friedman, Chair Mammal Dept, Chicago Zoological Park, Brookfield IL 60513.

RESEARCH TECHNICIAN— for project on the genetic basis of thermoregulatory adaptation in mice, with emphasis on behavior. B.A. or B.S. in Biology or Psychology and experience in handling small mammals required; knowledge of statistics, genetics, and computers helpful. Available 1 Aug, but earlier starting date is possible. Starting salary \$12,000. To apply, send letter stating interest and experience, academic transcript, and 2-3 letters of recommendation to Carol Lynch, Dept Biology, Wesleyan University, Middletown CT 06457.

POST DOCTORAL POSITION— in reproductive biology and behavior to assist in the development of urinary hormonal assays and behavioral correlates. Position is tentative but likely to be available in summer or fall 1985. Send vitae and list of three references to C.T. Snowdon, Psychology Dept, Univ of Wisconsin, Madison WI 53706.

DESERT RESEARCH STATION- A 26 acre desert grassland reserve' in southwestern New Mexico with housing accommodations, team cooking, small wet-lab, desk space, and computing facilities. Contact Gary P. Bell, Dept of Biology, UCLA, Los Angeles CA 90024.

FIELD RESEARCH ASSISTANTS— behavioral ecology of birds in Papua New Quinea for Sept-Dec 1985. All expenses paid, but there is no salary. Work is strenuous and in remote areas. To apply contact S.G. Pruett-Jones, Dept of Biology, C-016, UC at San Diego, LaJolla CA 92093.

FIELD RESEARCH ASSISTANTS— at the Sandy Neck Preserve, Cape Cod in cooperation with Tufts Univ and the New School for Cape Cod, Inc. Current work focuses on reptiles and birds. Contact Research Sandy Neck, 121 Cap'n Lijah's Rd, Centerville MA 02632.

JERSEY WILDLIFE PRESERVATION TRUST- summer school 27 July- 17 Aug on breeding and conservation of endangered mammals. Contact Summer School Coordinator, Jersey Wildlife Preservation Trust, Trinity, Jersey, Channel Islands, British Isles.

MEETINGS

AAAS- 26-31 May, Los Angeles. Symposia on Star Wars, lasers, sign language and apes, Halley's comet, neuroscience, Hollywood and science, technology to aid the disabled, scientific freedom and national security, and hazardous wastes. Contact AAAS Meetings Office, 1101 Vermont Ave, N.W., Washington, D.C. 20005.

AMERICAN SOCIETY OF PRIMATOLOGISTS- 1-4 June, Niagara Falls NY. Contact Christine Duggleby, Dept of Anthro, SUNY at Buffalo, Buffalo NY 14260.

CONFERENCE ON REPRODUCTIVE BEHAVIOR- 2-5 June, Alisomar, Monterey CA. Contact Pauline Yahr, Dept of Psychobiology, Univ of Cal, Irvine CA 92717.

AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS-10-12 June, Knoxville TN. Featuring a symposium entitled "Community and Evolutionary Ecology of North American Stream Fishes" organized by David Heins.and William Matthews. Contact David Etnier, Dept Zoology, Univ of Tennessee, Knoxville TN 37916.

BEHAVIORAL GENETICS ASSOCIATION- 12-15 June, Univ Park PA. Contact Gerald McClearn, S211 Human Devpt Bldg, Penn State Univ, University Park PA 16802.

ECOLOGICAL SOCIETY OF AMERICA- 17-21 June, Minneapolis MN. Contact Robert McIntosh, Dept of Biology, Univ of Notre Dame, Notre Dame IN 46554.

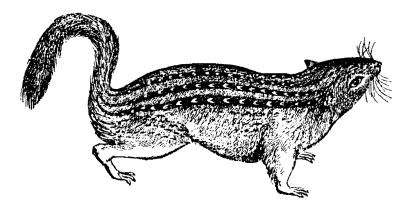
AMERICAN ARACHNOLOGICAL SOCIETY- 24-28 June, Los Angeles Contact Charles Hogue, Los Angeles County Museum of Natural History, 900 Exposition Blvd, Los Angeles CA 90007.

AMERICAN VETERINARY SOCIETY OF ANIMAL BEHAVIOR- 23-26 July, Las Vegas.

COMPETITION AND COEXISTENCE- Univ of Natal 23-26 July. Contact Graham Hickman, Dept Zool, Pietermaritzburg Natal 3200, Rep S Africa.

CHEMICAL SIGNALS IN VERTEBRATES- 27-30 July, Univ of Wyoming. Contact David Duvall, Dept of Zoology and Physiology, Univ of Wyoming, Laramie WY 82071.

HERPETOLOGISTS' LEAGUE & THE SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES- 4-8 Aug, Univ of South Florida. Contact Henry Mushinsky, Biol Dept, Univ of South Florida, Tampa FL 33260.



AIBS- 11-15 Aug. Univ of Florida. Theme is "Florida: The Diversity of the Tropics". Contact AIBS, 1401 Wilson Blvd, Arlington VA 22209.

SHRUB RESEARCH CONSORTIUM- 12-14 Aug offers a symposium on "Plant/Herbivore Interactions". Contact Theresa Bigbie, Conference and Workshops, Brigham Young Univ, 297 CONF, Provo UT 84602.

INTERNATIONAL THERIOLOGICAL CONF- 13-20 Aug, Univ of Alberta. Contact Secretariat, IV ITC, Box 632 Sub 11, Univ Alberta, Edmonton, Canada T6G 2EO.

AMERICAN PSYCHOLOGICAL ASSOCIATION- 23-27 Aug. Los Angeles CA. Contact Gloria Gottsegen, APA, 1200- 17th St., N.W., Washington DC 20036.

INTERNATIONAL ETHOLOGICAL CONFERENCE- 24 Aug- 2 Sept, Toulouse, France. Contact Ethologie 85, Departement de Biologie du Comportement, 118 route de Narbonne, 31062 Toulouse Cedex, France.

INTERNATIONAL SOCIETY FOR RESEARCH ON AGGRESSION- 3-7 Sept, Parma, Italy. Contact Prof. Danilo Mainardi or Dr. Stefano Parmiglani, Instituto Di Zoologia, Universita Degli Studi Di Parma, Via Dell'Universita 12, 43100 Parma, Italy.

AMERICAN ASSOC OF ZOOLOGICAL PARKS & AQUARIUMS- 8-12 Sept. Columbus OH.

AMERICAN ORNITHOLOGISTS' UNION- 7-10 Oct, Arizona State Univ. Symposia on biology and management of bald eagles, avian offaction, and the importance of competition in structuring avian communities. Thomas Schoener and John Wiens will offer overview papers. Contact Robert D. Ohmart, Center for Environmental Studies, Arizona State Univ, Tempe AZ 85287.

INTERNATIONAL SOCIETY FOR DEVELOPMENTAL PSYCHOBIOLOGY-17-20 Oct, Dallas. Contact Jane Adams, Conference Coordinator, Neurophysiology Research Laboratory, Children's Hospital Research Center, San Diego CA 92123.

NATIONAL ASSOCIATION OF BIOLOGY TEACHERS- 31 Oct- 3 Nov. Orlando FL.

ANIMAL BEHAVIOR SOCIETY- Northeast Regional 1-3 Nov, SUMY at Albany, Contact Ken Able, Dept Biol, SUNY, Albany NY 12222.

EVOLUTION OF SOCIAL BEHAVIOR: INTEGRATIVE LEVELS- THIRD T.C. SCHNIERLA CONFERENCE- 7-9 Nov., AMNH. Contact Ethel Tobach, American Museum Natural History, NY NY 10024.

1986 ABS MEETING- 8-13 June at the Univ of Arizona; Host is Astrid Kodric-Brown, Dept Ecol & Evol Biol, Univ of Arizona, Tucson AZ 85721. If you wish to present a symposium or invited session, contact Lee Drickamer, Dept Biol, Willams Coll, Willamstown MA 01267.

1986 INTERNATIONAL ORNITHOLOGICAL CONGRESS- 22-29 June, Ottawa. Contact Henri Ouellet, National Museum of Natural Sciences, National Museums of Canada, Ottawa, Ontario, Canada K1A OM8.

1986 ASZ MEETINGS- 27-30 Dec, Nashville. If you wish to organize a symposium, contact Lee Drickamer, Dept Biol, Williams College, Williamstown MA 01267.

1987 XXTH INTERNATIONAL ETHOLOGICAL CONFERENCE 7-16 August, Madison WI.

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

SYMPOSIUM PROPOSALS WANTED

If you are interested in organizing a symposium or invited paper session for the 1986 ABS meetings to be held at the University of Arizona in June, contact Lee Drickamer at the Dept of Biology, Williams College, Williamstown MA 01267. If you are interested in organizing a symposium for the 1986 Nashville ASZ meetings, contact Mary Wiley at the ASZ, FO Box 2739, California Lutheran College, Thousand Oaks CA 91360.

ABS RALEIGH MEETINGS 23-28 JUNE Titles of Papers in the Invited Sessions

1- Behavior and Misbehavior of Companion Animals-

Behavioral debarking (Tortora), Characteristics of dominance aggression in dogs (Capolla & Borchelt), Correlates of separation anxiety in the dog (McCrave), Utilization of species-typical behaviors for evaluation of sensory function in the dog (Myers), Meat and fruit detection training for dogs (Craig), The effects of declawing on the behavior of cats (Penn & Voith), Undesirable elimination in cats (Houpt & Olm), Diazepan for the treatment of spraying in castrated male and spayed female cats (Marder), The human factor in animal behavior problems (Hamilton & Robbins), Assessment of canine threat signals by different-aged humans (Wright), Semantic differential evaluation of dog breed stereotypes (Ward, Gilbert & Guin), A critical assessment of the use of EST in behavior modification programs for dogs (Polsky), and What do "puppy test" test? (Young).

2- Ethology of Psychiatric Populations-

Psychiatry's challenge to ethology (Feierman), Evidence for genetic determinants in psychiatric disorders (Dempsey), Gene-environment interaction: regulation theory and the deregulated state as a determinant of psychiatric disorder (McGuire), A functional bi-modality in the structure of primate societies (agonic/hedonic): an ethological contribution to the understanding of psychiatric disorders (Chance), Paranoia and obsessive compulsive disorder: behavioral response to predatory pressure from pathogens? (Heisel), Evolution of cyclic mood change (Ulwelling), Depressed mood and the pecking order (Price), An evolutionary perspective on panic disorder and agoraphobia (Nesse), Is anorexia nervosa an adaptive strategy? (Surbey), Sociopathy as an adaptation (Harpending & Draper), An ethological perspective on the disorders of self: effects of competitive loss (Sloman), Ethological quantification of the behavior of child psychiatric patients (Dienske), Directly observable behavioural components of the clinical concepts of psychomotor retardation and agitation in depressive patients (Bouhuys), Alpha behavior in manics as a model "communicational state" (Gardner, Gustavson & Gustavson), Facial behavior of schizophrenics during interview (Pitman, Kolb, Orr, Mohan), Gene-culture coevolution as a determinant of a specific psychiatric disorder: Latah in Malaysia (Simors), Gene-culture coevolution as the basis of psychiatric healing (Littlefield & Lumsden), and Conflicting theories in psychology from the phylogenetic viewpoint (G. Medicus).

3- Importance of Experimenter-Animal Interactions in the Development and Measurement of Learned Behavior: a Cross-Species Analysis.

The human-animal contract: the roots of cognition (Rumbaugh & Savage-Rumbaugh), The synthesis of ethology and psychology: effects of social interaction on learning in avian species (Pepperberg), Numerical discrimination training in rats using human-delivered social reinforcement (Davis), The dog-human relationship: social learning and learned performance (Scott), Artificial language comprehension by dolphins and California sea lions (Schusterman).

4- Comparative studies of play-

Individual strategies in squirrel monkey wrestling play (Biben), The influence of maternal bipolar depression and behavior on children's play (Friedman), Parent-offspring play (Fagen), Surplus resource theory: predictions and comparative evidence (Burghardt), and Social play in the South American punare: a test of play function hypotheses (Thompson).

ABS FELLOWS (Year of election in parentheses)

Active: Richard D. Alexander (1979) Stuart A. Altmann (1969) Lester R. Aronson (1967) George W. Barlow (1970) Frank A. Beach (1966) Irwin S. Bernstein (1979) Jerram Brown (1979) Charles C. Carpenter (1970) Nichelas E. Collias (1967) David E. Lavis (1967) Victor H. Denemberg (1977) Donald A. Dewsbury 1982) John F. Eisenberg (1977) Thomas Eisner (1970) Stephen T. Emlen (1979) Howard E. Evans (1982) Hubert W. Frings 1967: John L. Fuller (1967) Benson E. Ginsburg (1967) Gilbert Gottlieb (1982) Donald R. Griffin (1966) Edgar B. Hale (1968) Jack P. Hailman (1984) Eckhard H. Hess (1977) Jerry Hirsch (1973) Miles H. L. Keenleyside (1982) John A. King (1968) Peter H. Klopfer 1968) Masakazu Konishi, (1982) Peter R. Marler (1973) William A. Mason 1979) D. Frank McKinney (1979) Arthur A. Myrberg, Jr. (1982) Gordon H. Orians (1982) Edward O. Price (1984) Ernst S. Reese (1977) Jay S. Rosenblatt (1970) Martin W. Schein (1973) Wolfgang M. Schleidt (1977) John Paul Scott (1966) Paul B. Siegel (1979) Charles H. Southwick (1973) Herman T. Speith (1966) William N. Tavolga (1968) C. Richard Terman (1982) Ethel Tobach (1970) John G. Vandenbergh 1977) Edward O. Wilson (1968)

Jnactive:

George A. Bartholomew (1968)
John B. Calhoum (1966)
William Etkin 1967)
Viktor Hamburger (1970)
Arthur D. Hasler (1967)
Ernst Mayr (1968)
Charles D. Michener (1967)
David M. Rioch (1966)
Arthur J. Riopelle (1968)
George B. Schaller (1970)
Allen W. Stokes (1973)
William S. Verplanck (1969)
Sherwood L. Washburn (1968)

Deceased:

Margaret Altmann (1966)
Edwin M. Banks (1969)
James C. Braddock (1969)
Frank A. Brown (1969)
Leonard Carmichael (1969)
C. R. Carpenter (1966)
Lee R. Dice (1966)
Theodosius Dobzhansky (1969)
Alfred E. Emerson (1966)
A. M. Guhl (1966)
William T. Keeton (1977)
Z. Y. Kuo (1966)
Daniel S. Lehrman (1967)
Kenneth Roeder (1966)
T. C. Schnierla (1966)

1985 ABS OFFICERS (* New officer's terms begin 29 June 1985)

PRESIDENT: Colin Beer, Institute of Animal Behavior,
Rutgers University, Newark NJ 07102

ist FRESIDENT-ELECT: Jeanne Altmann, Dept Biology, Univ
of Chicago, Chicago IL 60637

2nd FRESIDENT-ELECT: Gordon Burghardt, Dept of Psych,
Univ of Tennessee, Knoxville TN 37916

*2nd PRESIDENT-ELECT: Sidney Gauthreaux, Jr., Dept of
Zoology, Clemson Univ, Clemson SC 29631

SECRETARY: (1984-87) Terry Christenson, Dept of Psychology, Tulane University, New Orleans LA 70118.

TREASURER: (1982-85) H. Jane Brockmann, Dept of 700logy,
Univ of Florida, Gainesville FL 32611

**TREASURER: (1985-88) H. Jane Brockmann
PROGRAM OFFICER: (1983-86) Lee Drickamer, Dept of
Biology, Williams College, Williamstown MA 01267

PARLIAMENTARIAN: (1983-86) Edward E. Bertt, Jr., Dept
Tool, Chio Wesleyan (bitv, Delaware OH 43015

MEMBER-AT-LARGE: (1982-85) Sarah Lenington, Institute of
Animal Benavior, Rutgers Univ, Newark NJ 07102

Entom, Colo State Univ, Fort Colins CO 80523

MEMBER-AT-LARGE: (1984-87) Joan S. Lockard, Dept Neurol
Surgery, Univ of Washington, Seattle WA 98195

*MEMBER-AT-LARGE: (1985-88) Gail Michener, Dept Biol Sci
Univ of Lethbridge, Lethbridge Alberta TIK 3M4

EDITOR: (1982-85) Patrick Colgan, Dept Biol, Queens
University, Kingston Ontario KSL 36

*EDITOR: (1985-88) Charles T. Snowdon, Dept Psycholology, Univ of Wisconsin, Madison WI 53706

ANIMAL BEHAVIOR SOCIETY DIRECTION OF CORRESPONDENCE

ANIMAL BEHAVIOUR——Manuscripts and editorial matters: Patrick Colgan, Editor Dept of Biology, Queens Univ Kingston, Ontario K7L 3N6 Canada

As of 1 June----Charles Snowdon, Dept of Psychology, Univ of Wisconsin, Madison WI 53706

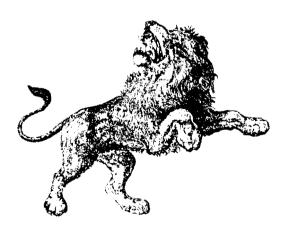
ANIMAL BEHAVIOUR---Missing, defective, or back issues:
H. Jane Brockmann, Treasurer
Dept Zoology, University of Florida,
Gainesville FL 32611

ABS NEWSLETTER & correspondence to the Society- deadline for August Newsletter is $5~{\rm Sulv}_{\rm T}$. Terry Christenson, Secretary

Dept of Psychology, Tulane University New Orleans LA 70118

ASZ DIVISIONAL NEWSLETTER- deadline for Fall issue is : Sept: Terry Christenson

The Secretary thanks Jay Hansche, Dept of Psychology, Tulane Univ, for his help in publishing the Newsletter.



REVIEWERS FOR ANIMAL BEHAVIOUR

The continuing success of ANIMAL BEHAVIOUR is dependent upon having a large body of reviewers who can provide critical, fair, and informed reviews of manuscripts and who will complete their reviews and return them promptly. So that we may direct manuscripts to the most appropriate reviewers with the least delay, I would like your cooperation in updating our reviewer files for 1985-86. Please complete and return this form if you fall into one or more of the following categories:

- 1. Have never reviewed for ANIMAL BEHAVIOUR, but would like to review.
- 2. Will have a change of address for all or part of 1985-86.
- 3. Have changed or expanded your range of research interests.
- 4. Will have periods of 4 or more weeks during 1985-86 when you cannot review manuscripts promptly, due to field work, press of other activities, etc.

PLEASE FILL	OUT THE FO	ORM AND RETURN	IT TODAY WH	ILE YOU ARE T	THINKING	ABOUT IT.
Name	William W	1			and the second of the second o	man and after the same after the own a warranter wrenter, was a
Address	-	No. The Three Control of the Control		in the state of th		anno anno anno anno anno anno anno anno
	Cit	7	St	ate/Province		Postal Code
Telephone:	Primary:			Secondary		
	Best Time	3:				
I am interes	ted in an	d competent to	revie w in t	he following	areas:	
		Topic			Taxon	
Primary						
Secondary						
Tertiary						
Other		*			,	***************************************
		from July 1,	•		-	it except for
Please check	:	New Reviewer				
		Change of add	ress	permanent		
				temporary:	From	to
	ether ethinologic bangs consequent and	Change or exp				
	*	Periods unabl	e to review	promptly		

RETURN COMPLETED FORM TO: C. T. Snowdon, Psychology Department, University of Wisconsin, Madison, WI 53706 USA.



LABORATORY EXERCISES IN ANIMAL BEHAVIOR

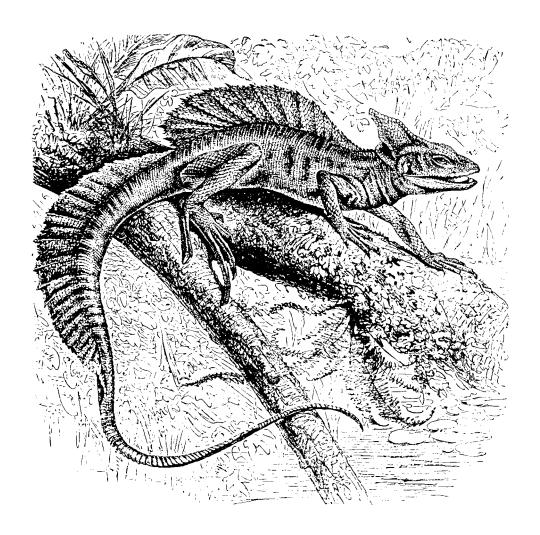
Do you have a favorite lab in Animal Behavior that you would like to share with colleagues in the Animal Behavior Society? If so, please participate in a clearing house for Animal Behavior Lab Experiments by completing the following form, and returning it to the Chair of the Education Committee, Robert Matthews.

When a number of replies have been obtained, a complete list will be published in the ABS NEWSLETTER; additional copies will also be available from Robert Matthews. If you decide to participate and an individual requests an exercise write-up from you, please have the exercise written in ready-to-use form similar to those in the Price & Stokes manual ANIMAL BEHAVIOR IN THE LABORATORY AND FIELD, including a complete, detailed list of directions, materials, and special considerations (i.e., animal care, maintanence, special solutions, etc).

Your cooperation will be appreciated by all those who need new animal behavior lab materials and ideas.

Fitle: $_$				
Level o	f presentation:	underclassmen	upperclassmen	graduate
Length	of lab:		······································	
	ental subject(s): and Latin names)			
	tion of lab object			
			•	
Special	equipment, skills	s, or habitat requ	ired:	
	inquiries for thi			
Address				
S UBM IT	THIS FORM TO:	Robert Matthews	. Dept of Entomol	.ogy,

University of Georgia, Athens GA 30602



AMERICAN SOCIETY OF ZCOLOGISTS BALTIMORE MEETING 27-30 DEC 1985

Several societies are participating in these meetings: American Microscopical Society, Animal Behavior Society, International Association of Astacology, Crustacean Society, Society of Systematic Zoology, and the American Society of Zoologists.

SYMPOSIUM: The Divisions of Animal Behavior and Ecology will sponsor a symposium organized by Lee Drickamer (Williams Colege) entitled "BEHAVIOR AS A FACTOR IN THE POPULATION BIOLOGY OF CRICETID AND MURICO RODENTS" to be held on Saturday, 28 Dec. Related papers will be Symposium speakers include: Frank Bronson presented on the 29th. (Environmental influences on growth and reproduction as factors in the population biology of house mice), Donald Dewsbury (Eehavioral interactions as generators of population phenomena in rodents), Lee Drickamer (Olfactory cues, behavior and population biology of house mice), D. E. Davis (Historical perspective on rodent population studies), Lowell Getz (Social and population biology of Microtus ochragaster and M. pennsylvanicus), Gale Haigh (Reproductive inhibition of female Peromyscus leucopus; behavioral and physiological effects), James Hill (Behavioral biology and population dynamics of Rattus), Dale Madison & W.J. McShea (Seasonal changes in reproductive tolerance and social organization in meadow voles; a microtine model), Robert Tamarin (Field studies of population and social biology of M. pennsylvanicus), C. Richard Terman (Laboratory and field investigations of population dynamics for P. maniculatus bairdi and P. leucopus), John G. Vandenbergh (Pheromones and population biology of Mus), and Stephen H. Vessey (Longterm demographic and behavioral data for Peromyscus leucopus).

Other symposia of interest include: "Pattern formation and recognition in complex biological systems" and "Speciation patterns in the southern Appalachian and Ozark regions of eastern North America". The Division is also co-sponsoring with the Divisions of Vertebrate Morphology and Comparative Endocrinology a workshop organized by Donald McEachron, Norman Adler and Olah Tretiak entitled "Computer-assisted analysis of 14C-2-deoxy-D-glucose autoradiographs".

The Abstracts for contributed papers are now available. Deadline for submission of Abstracts is 12 August. Papers on the Animal Behavior symposium topic are especially encouraged. The poster paper format is also encouraged.

For information about the Ealtimore meeting Wiley, American Society of Zoologists, College, Thousand Caks CA 91360.	•
Name:	Info brochure
Address:	Abstract Form
	<u> </u>



APPLICATION FOR MEMBERSHIP: ANIMAL BEHAVIOR SOCIETY

Name in full	Degrees
Address	
	Phone
Position	Institution
Student Member -\$17 Recei Spouse Member - \$9 Recei	ve Animal Pehaviour and Newsletter ve Animal Behaviour and Newsletter ve Newsletter Library) \$7 Receive Newsletter
My student membership application i or fellow):	s endorsed by (Dept Head, ABS member
NameSi	gnature
This application form should be sen to Animal Behavior Society or inclu or VISA #) to:	t with remittance (make check payable de your Mastercard #

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

OTHER ANNOUNCEMENTS

FOR SALE: SSR System 7C Event Recorder Keyboard with manuals (Semeiotic Systems Corporation, Madison WI). Never used- mint condition. Original cost \$1663 (1982 dollars). Will sacrifice to caring lab for \$1000 or best offer. David Dunham, Dept Zool, Univ of Toronto, (416) 978-3496.

FILM AVAILAPLE- "Granby's Primates: A Captive Life". Contact Steve Holloway at 8711-23 Hayshed Ln., Columbia MD 21045.

NOTEBOOK COMPUTER USERS— If you are using NEC PC-8201A, Epson HX-20 or Radio Shack Model 100 and wish to exchange information on the use of these computers for behavioral research, contact Peter W. Bergstrom, Dept Biology, Washington and Lee Univ, Lexington VA 24450.

CREATIONISM LEGISLATION IN LOUISIANA

Louisiana's Creationism Act, mendating equal text space for creationism and evolution, was held to be in violation of the U.S. Constitution by the Federal District Court in New Orleans. The State Attorney General is appealing this decision. He vows to continue the fight as long as the State legislature does not repeal the law; two previous attempts at repeal failed. A State Pill has been introduced which would prohibit State funds being used in his fight.

BROWN PELICAN

Effective ² March, the Fish and Wildlife Service removed the brown pelican (<u>Pelecanus occidentalis</u>) located in AL, FL, GA, SC and NC from the <u>List of Findangered</u> and Threatened Species. This change is based on evidence that the pelican is at or above historical breeding levels and that population numbers and productivity are stable. The brown pelican remains on the endangered list throughout the remainder of its range.

APPLICATIONS FOR ABS COMMITTEE APPOINTMENTS WANTED

Several appointments (about 14) will be made this year to ABS committees. If you are interested, write to Jeanne Altmann, Dept of Biology, Univ of Chicago, Chicago IL 60637.

VOLUNTARY CONTRIBUTIONS ACCEPTED

The Animal Behavior Society welcomes contributions. Members may make the ABS a beneficiary of an estate or name the ABS in a will. Contact the ABS Treasurer or President to discuss any possibilities you might have in mind. Consider this opportunity to help the Society formulate and attain short and long term goals.

RECEIPT OF JOURNAL AND ABS NEWSLETTER

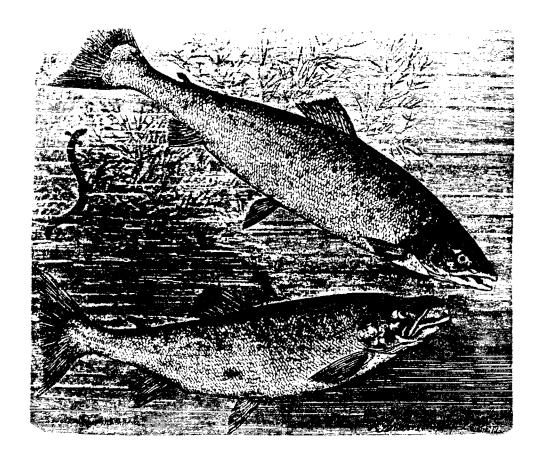
Please write to the Treasurer if you are having any problems whatever with your journal or newsletter subscription, including errors in the address label, non-receipt of an issue, late receipt of issues, receipt of damaged copies, receipt of duplicate issues, and so forth. Please check the mailing label on your journal and on this newsletter-- many postal delays are because of incorrect ZIP codes or addresses.

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

NEWSLETTER ANNOUNCEMENTS WELCOME

Items of interest to the membership-- news of positions, meetings, publications, events, people, etc. Send to:

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



TERRY CHRISTENSON
ABS SECRETARY
DEPT OF PSYCHOLOGY
TULANE UNIVERSITY
NEW ORLEANS, LA 70118

Non-Profit Organization U.S. Postage PAID New Orleans, La. Permit No. III6