

NEWSLETTER

Animal Behavior Society

Vol. 40, No. 4
November, 1995

A quarterly publication

Susan A. Foster, Secretary

Cristin Hulslander, Editorial Assistant
Department of Biology, Clark University, 950 Main St., Worcester, MA 01610 USA

VOTE, VOTE, VOTE!!!! 1995 ABS ELECTIONS

Only a small percentage of ABS members vote in the annual election. This is not a good showing for an organization that takes pride in its democratic style. Election information and the ballot are enclosed.

MESSAGE FROM THE ABS PRESIDENT, LEE DRICKAMER

It has become customary for the ABS President to pen a few remarks to the membership at mid-year. I am happy to do so and prefer this vehicle over some long-winded speech at our banquet at the Annual Meeting. I hope that most members will take the time to look through the items I have addressed below. I also invite all members to bring to my attention any issues or concerns that they feel that we need to address. By doing so now, these matters can be discussed in sufficient detail prior to the Annual Meeting next summer in Flagstaff so that we can hope to resolve them.

I begin with a few 'historical' observations. It was interesting and exciting this past August to witness a strong resurgence of mechanism papers at the International Ethology Conference. I have seen a smattering of this at the ABS meetings the past several years, but not in the quantity that was on the IEC program. The awarding of the Nobel Prize in 1973 to three distinguished animal behaviorists coupled with the explosion of interest in behavioral ecology and sociobiology in the last part of the 1970's and through the 1980's gave animal behavior a strong presence and recognition in the life sciences. During this period there were also, of course, major new findings in areas pertaining to hormones and behavior, neuroscience, developmental psychobiology, and behavior genetics. Much of this work was reported at more specialized meetings and

not at ABS. What I think we may be witnessing in the next decade is a true integration of approaches involving proximate and ultimate causation of animal behavior. This should be an exciting time, for both the younger scientists who are just entering our field and those of us who have been a part of the discipline for 25 years or more.

At our 1995 Annual Meeting, the Executive Committee adopted a proposal establishing a new Service Award. Up to three such awards can be made in any given year. The proposal for these awards grew out of the need to have a form of recognition for those individuals who provide the ABS with outstanding and extended service, but who might not be considered for election as a Fellow. The latter honor is intended to recognize contributions in terms of research and scholarship. I hope that ABS members will look for the announcement of these new ABS Service Awards in the Newsletter and that you will give consideration to nominating people who have provided outstanding service.

At the 1995 Meeting we established an ad hoc Conservation Committee. I have asked Jim Ha to Chair this group. The charge to the Committee involves finding ways to educate all of us about the integration of conservation issues into our thinking and teaching. I note that at both the ABS this year and at the IEC in Hawaii, there were symposia on conservation and behavior. At present, when finding financial resources to conduct investigations of behavior is evermore difficult, this may be another avenue worth exploring. We should also recognize the extremely important role that behavior can and is playing in terms of the conservation efforts already underway for a number of animal species, including both invertebrates and vertebrates.

Let me take this opportunity to offer a collective THANKS from all of the officers of the ABS to the many individuals who serve on our standing and ad hoc committees. Our organization has a well deserved reputation for the manner in which many people become involved in the operation and governance. If there are any members who read this

and would like to become more involved, they should let me know their preferences with regard to committee service. I will forward this information to Dr. Susan Riechert; she will succeed me at next summer's meeting and in the process will be making a number of important committee assignments.

Lastly, let me mention another project that is in the development stage. As part of the archival history of our organization it would be quite helpful for current and future scholars to have some record of each of us, in the form of mini-biographies. You should look for a more formal announcement with details concerning this project in an upcoming issue of the Newsletter.

VENDORS FOR ABS MEETINGS

Have you written or participated in writing a book in animal behavior recently? Do you know of any company that sells equipment pertinent to the study of animal behavior (tracking equipment, video systems, event recorders), or artists whose work focuses on animals? If you know of any publishers or other vendors who might be interested in displaying materials at the annual ABS meetings, please contact Emilia Martins, Department of Biology, University of Oregon, Eugene OR 97403, phone: 503-346-4562, email: emartins@oregon.uoregon.edu.

ETHNIC DIVERSITY FUND STUDENT REGISTRATION FEE AWARDS

A limited number of awards will be made from the Ethnic Diversity Fund to cover registration fees for graduate students attending ABS annual meetings. Applicants must be enrolled in a graduate program at the time of application and must be members of under-represented minorities, including those living in North America who are of African, Asian, or Latin American descent and those who are of Native American heritage, citizens of Latin American countries, and non-white citizens of African countries. Awards will be made by a lottery including all valid applications received before 1 March 1996. A letter of application and a signed statement from the student's major professor confirming the student's graduate status should be directed to Randall Breitwisch, Department of Biology, University of Dayton, 300 College Park, Dayton, OH 45469.

PLEASE RENEW MEMBERSHIPS ON TIME!

1996 dues must be mailed on or before December 1, 1995 to avoid the late fee, which was raised to \$10.00 this year to cover costs associated with late renewal. PLEASE take a moment now to renew your membership for 1996. You may use the form on the back of this Newsletter if you have not yet received a Renewal Reminder. Reminders were mailed in late October. If you are uncertain whether or not your dues are paid for 1996, please consult your Newsletter mailing label. The upper right-hand corner states the month and year through which you have paid your dues. If Dec. 95 is imprinted, you must renew now.

NOMINEES FOR ABS CAREER AWARDS

Past President Hugh Dingle seeks suggestions for nominees for ABS Career Awards. Currently the Society has five classes of awards (Quest, Exemplar, Distinguished Animal Behaviorist, Outstanding New Investigator and Service Award). The criteria and previous recipients are as follow:

Distinguished Animal Behaviorist- outstanding lifetime achievement in animal behavior. J.P. Scott, W.D. Hamilton, P. Marler, J. Maynard Smith, G. Woolfenden, L. Brower.

Exemplar Award- major long-term contribution. J.A. Stamps, D. Mock, J. Altmann.

Quest Award- outstanding seminal contribution. K. Sullivan, M. Zuk.

Outstanding New Investigator- outstanding contribution by a new investigator. L.A. Dugatkin, A. Basolo.

Service Award- extraordinary service to the Animal Behavior Society. New award.

Please send nominations (accompanied by a short description of the individual's contributions to animal behavior and, if possible, a curriculum vitae) by 15 January 1996 to:

Hugh Dingle, Department of Entomology, University of California, Davis, CA , 95616, USA. rdhdingle@ucdavis.edu

**SYMPOSIA AND INVITED PAPER
SESSION PROPOSALS
1997 ANNUAL MEETING**

Proposals for symposia and invited paper sessions to be held at the 1997 annual ABS meeting in College Park, Maryland are invited. The deadline for proposals is April 30, 1996. For additional information and guidelines, contact Anne B. Clark, ABS Program Officer, Dept. Biological Sciences, Binghamton University, Binghamton, NY 13902, USA (email: aclark@binguns.cc.binghamton.edu)

**WILLIAM C. BROWN ANIMAL
BEHAVIOR TEACHING AWARD**

Thanks to the generosity of William C. Brown Publishers, the Animal Behavior Society solicits nominations for the William C. Brown Animal Behavior Teaching Award for 1996, to be awarded at the 1996 ABS meeting in Flagstaff. The awardee will receive a \$500 personal stipend and a grant of \$500 to enhance undergraduate instruction in animal behavior at the awardee's institution. Nominees for the award must show evidence of effective and innovative teaching and have a reputation among peers and students for excellence in undergraduate animal behavior instruction maintained over a number of years. Persons wishing to make a nomination must submit a one-page nomination letter and names, addresses and phone numbers of at least two additional references. Selection will be made by the ABS Education Committee; upon receipt of a nominating letter, the committee will solicit supporting materials such as course syllabi, student evaluation summaries, letters from students or peers, documentation of teaching awards and teaching innovations, textual or laboratory materials, and other indicators of superior undergraduate teaching. Nominators and nominees must be members of the Animal Behavior Society; current officers and committee chairs of the Animal Behavior Society are not eligible for nomination. Nominations must be submitted by **January 15, 1996**, to: Dr. Theodore Burk, Chair of the ABS Education Committee, Dept. of Biology, Creighton University, Omaha, Nebraska 68178-0103, U.S.A.

IN SEARCH OF MEETING SITES

Sites for future ABS meetings are needed. Anyone wishing to host one of our meetings should contact Susan Riechert to discuss requirements and to receive further information. We are especially interested in meeting sites in the eastern USA and in Canada given the recent geographic locations of our meetings.

DIRECTION OF CORRESPONDENCE

ABS Newsletter and general correspondence concerning the Society: Susan Foster, Dept. of Biology, Clark University, 950 Main St., Worcester MA 01610-1477, USA. Deadlines are the 15th of the month preceding each Newsletter. The next deadline is January 15, 1996.

Articles submitted by members of the Society and judged by the Secretary to be appropriate are occasionally published in the ABS newsletter. The publication of such material does not imply endorsement by the ABS of the opinions expressed.

Animal Behaviour: manuscripts and editorial matters: *Animal Behaviour* Editorial Office, University of Washington, 119 Guthrie Hall, Box 351525, Seattle, WA 98195-1525, USA.

Change of Address: missing or defective issues of *Animal Behaviour*: Randall Breitwisch, Dept. of Biology, University of Dayton, 300 College Park, Dayton, OH, 45469-2320, USA.

ABS OFFICERS

President: Lee Drickamer, Dept. of Zoology, Southern Illinois University, Carbondale, IL, 62901, USA. E-mail: drickamer@zoology.siu.edu.

First President-elect: Susan Riechert, Dept. of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN, 37996-1610, USA. E-mail: pa34628@utkvm1.utk.edu

Second President-elect: David Duvall, Zoology Department, Oklahoma State University, Stillwater, OK 74074, USA. E-mail: duvald@okway.okstate.edu.

Past President: Hugh Dingle, Dept. of Entomology, University of California, Davis, CA, 95616, USA. E-mail: rdhdingle@ucdavis.edu

Treasurer: Randall Breitwisch, Dept. of Biology, University of Dayton, 300 College Park, Dayton, OH 45469, USA. E-mail: breitwis@udavxb.oca.udayton.edu

Secretary: Susan Foster, Dept. of Biology, Clark University, 950 Main St., Worcester, MA 01610-1477, USA. E-mail: sfoster@vax.clarku.edu.

Program Officer: Anne Clark, Department of Biological Sciences, Binghamton University, Binghamton, NY 13901, USA. E-mail: aclark@binguns.cc.binghamton.edu.

Parliamentarian: Kimberly Sullivan, Department of Biology, Utah State University, Logan, UT 84322-5305, USA. E-mail: yejunco@cc.usu.edu.

Editor: Michael Beecher, Dept. of Psychology NI-25, University of Washington, Seattle, WA 98195, USA. E-mail: journal@u.washington.edu

Members-at-Large: Christine Boake, Dept. of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN, 37996-1610, USA. E-mail: boake@utkvtx.utk.edu.
 Katherine Wynne-Edwards, Dept of Biology, Queen's University, Kingston, Canada, K7L 3N6. E-mail wynneedw@qucdn.queensu.ca.
 Jean-Guy Godin, Department of Biology, Mount Allison University, Sackville, N.B. E0A 3C0, Canada. E-mail: jgodin@mta.ca.
Historian: Donald Dewsbury, Dept. of Psychology, University of Florida, Gainesville, FL, 32611, USA. E-mail: dewsbury@webb.psych.ufl.edu.

ABS COMMITTEE CHAIRS

Membership	Diane Chepko-Sade (1996)
Policy	Michael Renner (1997)
Education	Ted Burk (1996)
Organization & Bylaws	Kimberly Sullivan (PLM)
Animal Care	Joy Mench (1996)
Public Affairs	Linda Rayer (1998)
Film	Neil Mercado (1997)
Research Grants	Christine Boake (ML1)
Ethics	Stuart Altmann (1996)
Applied Animal Behavior	Patricia McConnell (1997)
Board of Prof. Cert.	Suzanne Hetts (1997)
Career Awards	Hugh Dingle (PP)
Endowments	Ira Perelle
Nominations	Hugh Dingle (PP)

UPDATE ON THE ACTIVITIES OF THE ANIMAL BEHAVIOR PROGRAM AT THE NATIONAL SCIENCE FOUNDATION

By Ronald J. Barfield

As many of you know, I will be stepping down from the position of Program Director for Animal Behavior on January 2, 1996. My successor has been selected, but as the appointment is not official, we cannot make an official announcement at this time. We have made progress in identifying Visiting Scientists ("Rotators") who can serve as Program Directors for Animal Behavior in the future. This roster is very impressive and assures that the program will have outstanding leadership in years to come.

The Animal Behavior Program is healthy and has been funding a good number of grants. The applications have been of high caliber and we wish we could fund more, but it is important that we continue to receive a large number of proposals so that we can demonstrate that there is a significant demand for grants in the field of Animal Behavior.

There are new target dates for receipt of proposals for IBN, January 10 and July 10. This change will allow greater flexibility for the PI, but should not affect the timing of the panel meetings or the activation of awards. It does mean, however, that proposals received after the target dates may not be considered at the upcoming panel, so it is important to adhere to these dates. Up-to-date information and forms, can be obtained by accessing **STIS@NSF.GOV**. The program office can be reached at (703) 306-1419 or by e-mail until the end of the year at **rbarfiel@nsf.gov**. A new e-mail address for the program director will be available after the first of the year. During the transition, you may contact our Senior Program Assistant, Rochelle Ray at **rray@nsf.gov**.

I have enjoyed my stint at NSF, especially renewing acquaintanceships and getting to know so many new colleagues. I want to thank Al Kamil for his invaluable service to the program as co-program director for the Fall '94 and Spring '95 panels. We all owe him a debt of gratitude. But most of all, Al and I want to thank you for your support, encouragement, and most of all, your timely reviews.

Obituary for Howard E. Winn

By Robert D. Kenney

Professor Howard Elliott Winn, 69, died suddenly and unexpectedly on Sunday, August 13, at his home in North Kingstown, Rhode Island. He was stricken while in the gardens which were his passion.

Howard was hired as full Professor of Oceanography at the University of Rhode Island in 1965, and was granted tenure and appointed Professor of Zoology in 1967. He came to Rhode Island from ten years at the University of Maryland, where he was Professor of Zoology. He earned a B.A. in biology from Bowdoin College in 1948, and went on to graduate study in zoology at the University of Michigan, where he earned an M.S. in 1950 and Ph.D. in 1955. During his academic career at Maryland and Rhode Island, he was major professor for 22 master's students and 27 doctoral students, and currently was supervising seven graduate students, with an eighth scheduled to begin study in September. Many of his former students had been planning a surprise party for the spring of 1996 to celebrate both his 70th birthday and his many contributions to science.

Howard authored over 120 scientific publications during his career. His first papers, based on research conducted while a Bowdoin undergraduate, were on the birds of Kent Island in the Bay of Fundy, and he originally intended to study ornithology at Michigan. His graduate studies turned to ichthyology,

however, and much of his early research was on the behavior, ecology, and communication of fishes. He made many significant contributions to the science of fish behavior, and served as the president of the Animal Behavior Society in 1966. His research on acoustic communication of fishes led to similar studies of the acoustics of marine mammals, and he did some of the pioneering work on humpback whale song. The acoustics research soon expanded into wide-ranging studies of marine mammals, and he became an internationally recognized authority on whale biology. He was scientific director of the Cetacean and Turtle Assessment Program, a landmark study in 1978-1982 of the whales, dolphins, and sea turtles off the northeastern United States. Much of his research over the last 15 years focused on the right whale, the world's most endangered whale species. He was the lead investigator of the South Channel Ocean Productivity Experiment, a large program which advanced our understanding of right whale habitat requirements, and he served as a member of the national right whale recovery team. Recently he had returned in part to his scientific "roots" and was conducting a study of the ecology and behavior of coral reef fishes in Belize, Central America.

Howard is survived by his wife, Susan L. Hammen-Winn, and four sons. Condolences may be sent to the family at 1545 Boston Neck Road, North Kingstown, RI 02852. Donations may be made toward a fund to plant a garden on the University of Rhode Island Narragansett Bay Campus as a memorial to Professor Howard Winn. Checks should be made out to "Howard E. Winn Memorial Fund" or "URI Foundation" and should be sent to the attention of Jane Miner.

MEETINGS

1997 Meeting of the American Society of Primatologists will be in San Diego CA, June 27-30, 1997. Contact Dr. Nancy Caine, Dept of Psychology, California State University, San Marcos, CA 92096, for information. Email: nancy_caine@csusm.edu.

The International Society for Comparative Psychology will hold its seventh meeting August 14-16, 1996 at Concordia University in Montreal, Canada. Program submissions (symposia, papers, and posters) which may deal with any aspect of comparative psychology, should be received by February 15, 1996. Contact Dr. Nancy K. Innis, ISCP Program Committee, Department of Psychology, University of Western Ontario, London, Ontario, Canada N6A 5C2. E-mail: innis@uwo.ca.

Conference on Integrative Neurobiology of Affiliation, sponsored by the New York Academy of Sciences, will be held at the Georgetown University Conference Center, Washington D.C., March 14-17, 1996. The conference will examine the physiological and neural substrates of affiliation and social behavior. Conference chairs are C. Sue Carter, Brian Kirkpatrick and I. Izja Lederhendler. For information contact: Conference Department, New York Academy of Sciences, 2 East 63rd Street, New York, NY 10021, (212) 838-0230, Ext. 324, Fax: (212) 838-5640. E-mail: conference@nyas.org.

Forum on wildlife telemetry at which research biologists and telemetry engineers can discuss new technology, field evaluations of equipment and techniques and directions for future developments. The forum will feature discussion sessions and demonstrations; it will include topic overviews by invited speakers and submitted presentations. It will be held 21-23 Sept. 1997 at Snowmass, Colorado, in association with the 1997 Annual Conference of the Wildlife Society. For information: Jane Austin (jane_austin@nbs.gov) or Pamela Pietz (pam_pietz@nbs.gov), National Biological Service, Northern Prairie Science Center, Jamestown, ND 58401; phone (701)252-5363, fax (701)252-4217.

ANNOUNCEMENTS

House in Gamboa, Panama, 2 bedroom house for rent to researchers. Adjacent to Parque Nacional Soberania. Weekly and monthly rentals. Gene Moron (202) 673-4828, nzpemo34@sivm.si.edu.

Tropical Ecology & Conservation Course is being offered by the University of Florida and the Makerere University of Uganda. The five-week course will be held in June and July in the Kibale Forest National Park of western Uganda at the Makerere University Biological Field Station. The 1996 course will be taught by Dr. Lauren Chapman, Dr. Colin Chapman, and Dr. Tom Crisman who provide expertise in limnology and in fish, primate, wetlands, restoration, and conservation ecology. The course has two parts: a series of introductory lectures and field trips designed to orient students to tropical ecology and a period in which students conduct independent research projects. For applications contact Overseas Studies, 123 Tigert Hall, Univ. of Florida, Gainesville, FL 32611. Phone (904) 392-5206, e-mail jellis@nervm.nerdc.ufl.edu or Colin or Lauren Chapman, Dept. of Zoology, Univ. of Florida, Gainesville, FL 32611. Phone (904) 392-1196 or 392-7474; e-mail cachapman@zoo.ufl.edu or ljchapman@zoo.ufl.edu.

OPPORTUNITIES

Fellowships in animal cognition at the National Zoological Park, Smithsonian Institution. Pre- and post-doctoral fellowships are available for research on animal cognition in the Zoo's new Think Tank, an exhibit on animal thinking. Think tank has an age-graded group of five orangutans, a stable age-graded group of Sulawesi black macaques, a colony of leaf-cutter ants, and a colony of terrestrial hermit crabs. Proposed research must focus on cognition, be non-invasive, and must incorporate animal care and public education. Other species are available for comparative studies. Stipends are \$25,000/yr for post-doctoral fellows and \$14,000/yr for pre-doctoral fellows, plus a research and travel allowance. Send a 3 page research proposal, a CV, and three letters of recommendation (including your thesis supervisor for pre-doctoral applicants) to Lisa Stevens; Curator, Think Tank, National Zoological Park, Washington, D.C. 20008 by 15 Jan. 1996. Phone: (202) 673-4783, e-mail nzpem009@sivm.si.edu.

Volunteer Field Assistant needed for a study of vocal dialects and genetic structure in the Mexican Spotted Owl. Must work at night in spring and summer in mountain ranges in New Mexico. Field conditions are beautiful, but rigorous. Camping and backpacking experience is required; experience with birds is helpful. A small per diem will be provided. Assistance is needed from 15 March to 30 July. Please send letter of application, resume, and names and phone numbers of three references to Peter Stacey or Wendy Kuntz, Program in EECB, University of Nevada, 1000 Valley Road, Reno, NV 89512.

Graduate and post-graduate research grants. The Biological Research Station of the Edmund Niles Huyck Preserve offers grants (max = \$2,500) for biological research using resources of the Preserve. Among the research areas supported are basic and applied ecology, animal behavior, systematics, evolution, and conservation. The 2000 acre Preserve is on the Helderberg Plateau, 30 mi southwest of Albany. Habitats include northeast hardwood-hemlock forests, conifer plantations, old fields, permanent and intermittent streams, 10 and 100 acre lakes and several waterfalls. Facilities include a wet and dry lab, library and houses/cabins for researchers. Deadline = Feb. 1, 1996. Applications: Dr. Richard L. Wyman, Executive Director, E.N. Huyck Preserve and Biological Research Station, P.O. Box 189, Rensselaerville, NY 12147.

Research Support. The Andrew W. Mellon Foundation has awarded the Smithsonian Tropical Research Institute (STRI) and the Organization for Tropical Studies (OTS) a three year grant to foster

comparative studies at the La Selva Biological Station in Costa Rica, and at sites under the auspices of STRI in the Republic of Panama. Research exploration grants will be awarded by a joint STRI-OTS committee for each of three years. Awards are open to all levels and nationalities. Fewer senior-level awards for three years of summer salary are also available. Contact: Office of Education, Smithsonian Tropical Research Institute, Unit 0948, APO AA 34002-0948 or STRI, Apdo. 2072, Balboa, Republic of Panama, email; stri.tivoli.dealbag@ic.si.edu or Mellon Comparative Research Grants, La Selva Biological Station, Interlink 341, P.O. Box 02-5635, Miami FL 33152, e-mail: laselva@ns.ots.ac.cr.

Field Assistants needed for research on the behavior, life history and ecology of threespine stickleback in the Cook Inlet region of Alaska from 15 May - 15 July, 1996. Tasks include long hours of snorkelling in lakes, collection of specimens, data entry and analysis. For additional information on the research see: *Natural History* 11/90:52-61. Applicants should have a strong interest in field biology. Travel, food and lodging will be covered. Send a resume, statement of interest, transcript and three references to Susan A. Foster, Dept. of Biology, Clark University, 950 Main St., Worcester MA 01610. email: sfoster@vax.clarku.edu.

Field assistants needed for a study of energy supply and male mating success in 13-lined ground squirrels from mid-March through May. We will begin in Oklahoma, and end in high altitude meadows of the Sierra Nevadas of California. Routine duties include radio tracking, behavioral observations, trapping and handling squirrels. Physical fitness is required, as is a current driving license and auto insurance. Preference given to those interested in academic careers in the field. Assistants will learn to estimate energy expenditure, assess body composition and design experiments. A stipend is provided. Before Feb. 1, send a CV and letter stating reasons for applying, and name and phone numbers of 2-3 references. Dr. Gwen Bachman, Dept. of Biology, Univ. of California, Los Angeles, CA 90095-1606, phone (310)825-6459, (805)245-1884; email rgibson@ucla.edu.

Volunteers - approximately 30 volunteer positions are open in 1996 at the American Museum of Natural History's Southwestern Research Station in Portal, Arizona. The volunteer program is run annually and offers students in biological sciences outstanding opportunities to observe and become involved with field research. Food and lodging are provided in exchange for 24 hr per week of routine chores, with the remaining time available for research. The program is open to undergraduate and graduate

students; the latter may pursue their own research. Volunteers are needed between March 15 and November 1. Appointments are for part of this period, with a minimum of six weeks. Applicants for spring (March-May) should submit applications by February 15, summer volunteers (June-August) by April 1 and fall volunteers (September - November) may apply any time. Dr. Wade C. Sherbrooke, Director, Southwestern Research Station, American Museum of Natural History, Portal AZ 85632, USA. Phone (520) 558-2396.

Assistant Professor, Animal Behavior. The Department of Biology at the College of William & Mary in Virginia invites applications for an entry-level, tenure track faculty position. The person must be qualified to teach Animal Behavior plus Behavioral Ecology or Population Ecology at the undergraduate level and should develop advanced undergraduate or graduate courses in their area of expertise. In addition to a commitment to excellence in teaching, the successful applicant will be expected to establish a vigorous research program that could attract extramural funds. The College has an enrollment of 7,700 students among five schools of which 5,400 are undergraduate. The department has 20 faculty and offers training through the master's level. Participation in graduate training is expected. Extensive laboratory animal and field facilities are available. Preference will be given to applicants with significant postdoctoral experience. Applicants should include curriculum vitae with publication list, a statement of teaching and research interests, and the names, addresses, telephone and fax numbers of three individuals willing to submit letters of reference on request. Application materials should be sent to: C. Richard Terman, Chair, Search Committee, Department of Biology, College of William & Mary, Williamsburg, VA 23187. Evaluation of applications will begin December 15, 1995 and will continue until the position is filled. The College of William & Mary is an Equal Opportunity/Affirmative Action Employer. Members of underrepresented groups (including people of color, persons with disabilities, Vietnam veterans, and women) are encouraged to apply.

Animal behavior Ph.D. The Department of Biology, Swarthmore College is seeking applicants for a one year leave replacement position at the assistant professor level in the area of Animal Behavior starting September 1996. Applicants should have teaching experience and a strong commitment to undergraduate education. Recent research experience is required and should include field work, preferably with insect or primate social systems. Teaching duties will include participation in a team taught introductory biology course, a one

semester course in general animal behavior with two laboratory sections and an advanced course/seminar with one laboratory section in the area of the applicant's interest. Interested persons should submit a curriculum vitae, three letters of recommendation and a statement of teaching and research interests relevant to the position to Animal Behavior Search, Timothy C. Williams, Department of Biology, Swarthmore College, Swarthmore, PA 19081. Materials must be received by January 19, 1996. An equal opportunity employer.

Evolutionary Ecology. The Univ. of Kentucky has funds from the NSF Graduate Research Training program for postdoctoral and graduate fellowships to support training and research in ecology, evolution or behavior. Faculty participants are: E. D. Brodie III., P. H. Crowley, S. K. Gleeson, K. F. Haynes, A. J. Moore, D. N. McLetchie, R. C. Sargent, A. Sih, D. F. Westneat and D. Wise. Graduate fellowships provide a stipend for one year, renewable for a second. Funds are available for research expenses. Post-doctoral fellowships provide a \$25,000 stipend for one year. Applicants must be US citizens or permanent residents. Applicant evaluation begins Jan. 15, 1996. For information see our WWW site: <http://darwin.ceeb.uky.edu/ceeb/grt.html>. Postdoctoral applicants send a CV and a letter describing your background, research interests and the name of the faculty you are most interested in working with to Craig Sargent, c/o Center for Ecology, Evolution and Behavior, 101 Morgan Building, University of Kentucky, Lexington, KY 40506-0225. Graduate applicants send the above information directly to the faculty member. Women and minorities are particularly encouraged to apply. An Equal Opportunity/ Affirmative Action Employer.

Behavioral ecology and comparative neurobiology. The University of Kentucky has a NIMH Research Training Grant program for post-doctoral and graduate fellowships to support a training program emphasizing research on the interface between behavioral ecology and neurobiology. Fellowships include stipends and funds to support research expenses. Send a CV and a summary of your background and research interests to: Bert Peretz, Dept. of Physiology, 40536-0084; Andrew Sih, School of Biological Sciences, 40506-0225; or Ken Haynes, Department of Entomology, 40546-0091; University of Kentucky, Lexington, KY. Further information can be obtained from our WWW site: <http://darwin.ceeb.uky.edu/ceeb/beacon.html>. Applications will be considered as they arrive. Women and minorities are particularly encouraged to apply. An Equal Opportunity/ Affirmative Action Employer.

**THIRTY-THIRD ANNUAL MEETING OF THE ANIMAL BEHAVIOR SOCIETY
AUGUST 3-8, 1996, NORTHERN ARIZONA UNIVERSITY, FLAGSTAFF.**

The Bilby Research Center, the College of Arts and Sciences, the Department of Biological Sciences, the College of Social and Behavioral Sciences, and the Department of Psychology at Northern Arizona University cordially invite you to attend the 33rd Annual Meeting of the Animal Behavior Society. We also invite you to attend a pre-meeting Symposium: A Synthetic Approach to Studying Animal Cognition: Examples From Specialized Domains, to be held from July 31 to August 2, 1996.

Information about the meetings will be available on the World Wide Web. Check periodically at address <http://www.nau.edu/~biology/abs.html>. For additional information about the ABS meetings, contact Con Slobodchikoff, phone: 520-523-7231, fax 520-523-7500, e-mail: Con.Slobodchikoff@nau.edu. For additional information about the Pre-Meeting Symposium, contact Russ Balda, phone: 520-523-4307, fax 520-523-7500, e-mail: Russell.Balda@nau.edu.

FACILITIES AND SETTING

Northern Arizona University is located in Flagstaff, Arizona, the largest city in the northern portion of the state. Flagstaff is at the base of the San Francisco peaks in the midst of the largest continuous ponderosa pine forest in the country. The 7000 foot elevation provides for a clean, crisp, relatively cool summer climate. Afternoon thunderstorms and showers are to be expected at this time of the year, our "monsoon" season. However, the climate is unpredictable, so bring both shorts and sweaters. Daytime temperatures range from 65-90 degrees F, and minimum temperatures at night can range from 40-60 degrees F. Flagstaff is located at the junction of Interstates 17 and 40, and is accessible by plane, train, car or bus. Entrances to the campus are well-marked on all major highways leading into Flagstaff. Directional signs will be posted on campus. An ideal plan for travel would include a flight to Phoenix and then a rental car drive up to Flagstaff, a change in elevation of 6,000 feet and a change in four of C. Hart Merriam's Life Zones. The drive can include a short side trip through Sedona and Oak Creek Canyon, one of the most scenic drives in North America. Airline passengers should book early if they plan to fly into Flagstaff, as the flights are few and the planes are small. Local airport pickup will be provided. All airline travel is routed through Phoenix. Please note that Flagstaff is a resort destination for tourists in the summer months, so motel and hotel prices are expensive at this time of the year. Also, because of the elevation (7,000 feet), anyone with medical problems is advised to check with his or her physician before traveling to Flagstaff.

Housing will be available on campus in dormitories. Single rooms are extremely limited, so make your reservations early if you want to have a single; single rooms will be made available on a first-come-first-served basis. Please be advised that all public buildings on campus, including the dormitories, are non-smoking facilities. A variety of motels are available within walking distance of campus. Two motels that are near the edge of the campus are: Quality Inn Flagstaff, 2000 S Milton Road, 1-800-228-5151, and Fairfield Inn by Marriott, 2005 S Milton Road, 520-773-1300. A hotel that is approximately a 10-minute walk from campus is the Best Western Woodlands Plaza Hotel, 1175 W Route 66, 1-800-528-1234.

TRAVEL ARRANGEMENTS

The designated travel agent for the meetings is Grand Canyon Travel. We encourage everyone to book their air tickets, rental automobiles, or train travel through this travel agency, since they have a considerable amount of experience in making reservations into and out of Flagstaff. The contact person at Grand Canyon Travel is Adam Clark, phone (800)-544-0362, fax (520)-779-3314. Please note that Flagstaff's area code has changed: 520 rather than the former 602, which now serves the Phoenix area only. The designated airline is America West, which is waiving the penalty for non-Saturday travel for these meetings (please quote agreement number 788DX if you make reservations on America West through another travel agent). Similar arrangements might be made with other airlines that fly from destinations not served by America West -- check with Grand Canyon Travel about this possibility. Grand Canyon Travel has arranged a special price with Hertz for rental automobiles.

There will be limited bus service from the Phoenix Sky Harbor Airport to Flagstaff during the initial Saturday of the meetings, and limited service back to Phoenix on the Friday after the meetings. Round-trip cost is expected to be around \$50. Grand Canyon Travel can help with these bus reservations.

PLANNED ACTIVITIES

The meetings will start with a Saturday evening barbeque and a Sunday morning keynote address. There will be two Fellows Lectures, and two lectures that will be open to the general public. The meetings will end with a banquet. Two symposia are planned: one on referential communication, organized by Con Slobodchikoff and Don Owings, and one on play behavior, organized by Marc Bekoff and Robert Fagen.

CHILD CARE

The University has no child care facilities. A list of suggested child-care providers will be furnished upon request.

TOURS AND OUTINGS

There will be three tours available, which must be booked directly through Grand Canyon Travel (the travel agency can accept a variety of credit cards, but NAU does not have that capability). These will go to scenic or historic places in northern Arizona. The tours and the dates are as follows:

August 5, 1996 (Monday). Sedona, Oak Creek Canyon, Jerome, and Montezuma Castle. Approximately 8 hours, lunch (not included in the cost) in Sedona. Sedona and Oak Creek Canyon have some of the most spectacular scenery in Arizona. Jerome is an old copper-mining town perched on the side of a hill, now the site of many arts and crafts shops. Montezuma Castle is a National Monument that contains a Sinagua cliff dwelling used by prehistoric Native Americans. Price per person \$36.00.

August 7, 1996 (Wednesday). Wupatki, Sunset Crater National Monument, and Museum of Northern Arizona. Approximately 6 hours, box lunch is provided. Wupatki is a partially-restored pueblo-type dwelling used by the Sinagua-Anasazi Native Americans approximately 900-1200 A.D. Sunset Crater is a volcanic cinder cone and lava field from a volcano that was active around 1300 A. D. The Museum of Northern Arizona has a variety of exhibits dealing with archeology, anthropology, geology, and biology of the Colorado Plateau area. Price per person \$45.00, which includes entrance fees to all sites.

August 9, 1996 (Friday). Grand Canyon train and East Rim. Approximately 9 hours, box lunch is provided. Bus transportation to Williams, AZ (30 miles west of Flagstaff), then a trip on the restored Grand Canyon Railway to the South Rim of the Grand Canyon, and a tour of the East Rim by bus, with a stop at the historic Cameron Trading Post, one of the original trading posts established to trade with Navajo Native Americans. Price per person \$85.00. This trip will return Friday evening, after the conference has ended, so dormitory rooms will not be available. Reservations for a motel stay on Friday night can be arranged through Grand Canyon Travel Agency.

**Pre ABS Meeting Symposium
A SYNTHETIC APPROACH TO STUDYING ANIMAL COGNITION: EXAMPLES FROM
SPECIALIZED DOMAINS
31 July-2 August 1996
Russell P. Balda, Alan C. Kamil, Irene Pepperberg, Organizers**

Rationale for the symposium:

In recent years, scientists have come to appreciate the behavioral complexity used by animals to solve problems and resolve conflicts in their natural environment. This appreciation has developed because earlier, simple models of behavior could not explain many phenomena seen in nature and in the laboratory. Clearly, new, more complex models are needed to account

for the observed behavior patterns. One such class of models addresses the cognitive abilities of animals.

This symposium will be organized into four sections. In the first three, we will systematically explore prominent areas of study in which cognition likely places a dominant role: foraging and spatial memory, avian communication, and map-compass navigation. For each area a synthetic approach will be used to examine the biological and psychological importance of ontogeny, learning and memory, evolution and ecology, and the neural/hormonal/sensory components of behavior. The fourth area includes domain specific cases that are not yet clearly conceptualized or explored in depth, but that show promise for future research. Two keynote addresses are also planned.

Speakers (n=18) have been selected based on their expertise in one of these areas (i.e. the evolution of cognitive capacities in avian communication). Each participant will be challenged to present the most contemporary data, develop a synthetic model to explain the behavior, and address potentially fruitful areas of future research.

Speakers

The following is a list of speakers who have agreed to attend and make presentations:

R. P. Balda-Evolution of spatial memory
L. Baptista, S. Gaunt, D. Nelson-How birds learn what to sing and when they learn it
V. Bingman-Neuroethology of vertebrate spatial navigation
L. Jacobs- Sexual selection and the evolution of spatial cognition
N. Clayton- Ontogeny of foraging & caching in parids
T. De Voogd- Neurobiology of bird song production
F. Dyer- Navigation\learning in bees
A. Kamil-Keynote address
D. Kroodsma-Evolutionary approach to bird song repertoires
I. Pepperberg- Social context and vocal learning in Grey parrots
S. Shettleworth-Learning and memory in seed caching birds
D. Sherry- Neuroethology of foraging behavior
J. Smith-Keynote address
N. Strausfield- Brain architecture and arthropod phylogeny
D. Todt-Hierarchical learning in nightingales
S. Wilcox-Mimicry and use of webs as a predator
W. & R. Wiltschko-Evolution of navigation\orientation systems in birds

Posters

Attendees at the symposium will be given the opportunity to make a poster presentation on the evening of 30 July. Poster subjects must deal with topics of animal cognition. Space is limited, however, so all requests may not be honored. It is planned to collectively publish these abstracts as an appendix to the anticipated proceedings volume. Please submit abstract materials on the forms provided herein.

Timetable

On Wednesday evening, 31 July, the symposium will commence at 8 PM with a welcome from the organizers and a plenary address by Dr. Al Kamil. Thursday morning (8-12 noon) will feature the section on foraging and cache\recovery. Thursday afternoon's (1:30-5:30) presentations will deal with navigation\orientation. There will be a reception with poster presentations Thursday evening (8-10:30). On Friday morning (8-12 noon), the symposium will continue with the section on avian communication. Friday afternoon (1:30-5:30) will feature the "special" section. Friday evening at 8 pm Dr. John Smith will present the second plenary address. On Saturday the participants will have the opportunity to take an old fashion steam engine ride to the Grand Canyon. Those who plan to stay for the Animal Behavior Society Meeting will return in time for the annual barbeque.

REGISTRATION FORM
1996 Annual Meeting
Northern Arizona University, Flagstaff

Name _____ Female _____ Male _____
 (Last) (First) (M)

Name for Name Tag _____

Institution _____

Mailing Address _____

Telephone _____ FAX _____ Email _____

Names of other adults attending _____

Meeting(s) to be attended (please check):

 ABS Only (see table 1) _____ Arrival Date/Time _____
 Cognition Symposium Only (see table 2) _____ Departure Date/Time _____
 ABS & Cognition Symposium (see table 3) _____

REGISTRATION FEES (US\$ ONLY)

TABLE 1 (ABS Meeting Only)

	<u>ABS Member</u>	<u>Student Member</u>	<u>Nonmember</u>	<u>Guest</u>
Advance	\$110.00	\$55.00	\$120.00	\$40.00
(Until 1 March)				
Regular	\$135.00	\$65.00	\$145.00	\$50.00
(Until 27 July)				
On-site	\$150.00	\$75.00	\$160.00	\$60.00
(After 27 July)				

TABLE 2 (Cognition Symposium Only)

Advance	\$70.00	\$50.00	\$70.00	\$70.00
(Until 1 March)				
Regular	\$80.00	\$60.00	\$80.00	\$80.00
(Until 27 July)				
On-site	\$90.00	\$70.00	\$90.00	\$90.00
(After 27 July)				

TABLE 3 (ABS Meeting Plus Cognition Symposium)

Advance	\$150.00	\$80.00	\$160.00	\$90.00
(Until 1 March)				
Regular	\$210.00	\$120.00	\$220.00	\$140.00
(Until 27 July)				
On-site	\$240.00	\$140.00	\$250.00	\$150.00
(After 27 July)				

Registration Fee (US \$ \$ Only) _____

OPTIONAL ACTIVITIES

Barbecue: Saturday, 3 August @US \$\$ 15.00 each X _____ # of tickets=_____
Banquet: Thursday, 8 August @US \$\$ 25.00 each X _____ # of tickets=_____

Optional Activities (US \$\$ Only)_____

T-SHIRT

The logo for the 1996 meeting is a montage of rock art designs found in the Northern Arizona area. Shirts will be available in S, M, L, XL, & XXL.

Indicate size and quantity: Size Quantity
S, M, L _____ X US\$\$ 10.00 = _____
XL, XXL _____ X US\$\$ 12.00= _____

T-Shirts (US \$\$ Only)_____

SUMMARY

REGISTRATION FEES.....US\$\$ _____
OPTIONAL ACTIVITIES.....US\$\$ _____
T-SHIRTS.....US\$\$ _____
GRAND TOTAL.....US\$\$ _____

Make checks or money orders payable in US DOLLARS to NAU Bilby Research Center.. The entire amount must accompany the registration form. Refunds, less US\$ 10 administration fee, will be made if written notification is given by 1 June 1996. Refunds after this date will be handled on a case-by-case basis.

DEADLINE FOR SUBMITTING ABSTRACTS IS 1 MARCH 1996. ENTIRE REGISTRATION FEE MUST ACCOMPANY ABSTRACT SUBMISSION.

MAIL TO: Dr. Con Slobodchikoff
BOX 5640
Department of Biological Sciences
Northern Arizona University
Flagstaff, AZ 86011

If a receipt is required before the meeting, please enclose a self-addressed stamped envelope with registration materials.

NORTHERN ARIZONA UNIVERSITY RELEASE FORM

We are required to obtain this release form from every registrant. Please read this form, fill in your name and sign at the bottom. We apologize, but we will not be able to process your registration without this signature.

Participant's Name (Please Print)_____

I, (signature)_____, being at least eighteen (18) years old and in sound mind, in consideration of being permitted to participate in the above listed activity, do for myself, my heirs, executors, administrators and assigns, being thereunto duly authorized, hereby release and forever discharge the State of Arizona, the Arizona Board of Regents, Northern Arizona University, their officers, employees and agents, and their heirs, administrators and executors, of and from any and every claim, demand, action or right of action, of whatever kind or nature, either in law or equity arising from or by reason of any bodily injury or personal injuries known or unknown, death or property damage resulting or to result from any accident which may occur as a result of participating in the above described activity in connection with the above described activity, whether by negligency or not. I further release the State of Arizona, the Arizona Board of Regents, Northern Arizona University, their officers, employees, and agents, and professional personnel obtained by them from any claim whatsoever on account of first aid, treatment, or service rendered to me during my participation in the above described activity or any other activity in connection therewith. I have carefully read this Release Form, and fully understand its contents. I am aware this is a release of liability, a waiver of claims, an agreement not to sue, and a contract between myself and the State of Arizona, the Arizona Board of Regents, and Northern Arizona University, and for the benefit of others described herein. I sign it of my own free will.

**Northern Arizona University Housing Reservation
Animal Behavior Society – August 3-8, 1996
Pre-Meetings Symposium, July 31- August 2, 1996**

Mail to: Dr. Con Slobodchikoff
Department of Biological Sciences
Northern Arizona University
Flagstaff, AZ 86011

PACKAGE DESCRIPTION

Three different packages are available for housing on-campus in a dormitory. Each package includes a room, breakfast, and lunch. The packages are as follows: 1) room and two meals per day during the pre-meetings Cognition Symposium only (31 July - 2 August, 1996); 2) room and two meals per day during the Animal Behavior Society meetings only (3 - 8 August, 1996); 3) room and two meals per day during both the Cognition Symposium and the Animal Behavior Society meetings (31 July - 8 August, 1996). Rooms for shorter stays are available on a case-by-case, space-available basis.

RESERVATION INFORMATION (DEADLINE: JULY 1, 1996)

Please use a separate form for each room reserved.

Name (Last/First/Initial) _____ Male _____ Female _____

Mailing Address _____

City/State-Province-Zip-postal code/Country _____

Phone _____ Fax _____ E-mail _____

Double Occupancy Roommate Request _____

Only mutual roommate requests will be honored. If no request is made, a roommate will be assigned. Please note that all dormitory rooms are non-smoking rooms by state law.

Special Meals or Diet Required _____

ARRIVAL/DEPARTURE DATES

Your scheduled arrival time _____

Your scheduled departure time _____

FEE CALCULATION

Package 1 (Cognition Symposium only: 3 nights, July 31, August 1, 2; breakfast, lunch)

Double Occupancy (per person) \$115.00 \$\$ _____

Single Occupancy (per person) \$150.00 \$\$ _____

Package 2 (Animal Behavior meetings only: 6 nights, August 3, 4, 5, 6, 7, 8; breakfast, lunch on August 4, 5, 6, 7, 8)

Double Occupancy (per person) \$230.00 \$\$ _____

Single Occupancy (per person) \$300.00 \$\$ _____

Package 3 (both the Cognition Symposium and the Animal Behavior meetings, 9 nights (July 31, August 1, 2, 3, 4, 5, 6, 7, 8, breakfast, lunch)

Double Occupancy (per person) \$345.00 \$\$ _____

Single Occupancy (per person) \$450.00 \$\$ _____

Extra Nights (Available August 1, 2, with breakfast, lunch)

Double Occupancy (per person) \$38.33 per night x _____ nights \$\$ _____

Single Occupancy (per person) \$50 per night x _____ nights \$\$ _____

HOUSING TOTAL ENCLOSED \$\$ _____

Make check payable to NAU Bilby Research Center. Payment is in US dollars only. Payment through credit cards is not available.

**1996 ANNUAL MEETING
ANIMAL BEHAVIOR SOCIETY
3-8 AUGUST
NORTHERN ARIZONA UNIVERSITY
FLAGSTAFF, ARIZONA**

CALL FOR PAPERS: Abstract preparation instructions and the Abstract Transmittal Form are included here. There are two types of contributed papers: 20 minute (15 minutes for presentation and 5 minutes for discussion) and poster papers. ABS members may present or sponsor only one contributed paper at an Annual Meeting. When a member is a co-author with a non-member who is presenting, the member sponsors the paper. A member also may show one film and may 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. Inquiries concerning the program should be directed to the ABS Program Officer, Anne Clark, Department of Biological Sciences, Binghamton University, Binghamton, NY 13902-6000, USA, e-mail address: aclark@binghamton.edu.

FINAL DEADLINE FOR RECEIPT OF ABSTRACTS: MARCH 1, 1996. ONLY SUBMISSIONS ON THE PROPER FORM WILL BE ACCEPTED. LATE SUBMISSIONS WILL NOT BE ACCEPTED. NO FAX SUBMISSIONS, PLEASE.

NOTE: YOU MUST PAY FOR MEETING REGISTRATION WHEN YOU SUBMIT YOUR ABSTRACTS. ABSTRACTS WILL NOT BE ACCEPTED WITHOUT THE REGISTRATION PAYMENT.

POSTER PAPERS will be scheduled for two evenings. Poster papers are highly recommended: posters can facilitate extensive discussion and exchanges of ideas. The ABS sponsors a competition, the **FOUNDERS AWARD FOR POSTER PAPERS**, in honor of Howard Winn. All members of the ABS are eligible to compete. If you wish your poster to be considered for this award, please circle the appropriate category on the Abstract Transmittal Form. Details of the competition and some suggestions for poster 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 Meeting. Any independent student research that largely is unpublished at the time of submission for the competition is eligible for this cash and book award, provided that 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 registration for and payment, the Abstract Transmittal Form, two copies of the Abstract, and four copies of a written version of the paper to the Local Host, by March 1, 1996. The written manuscript cannot exceed 7 pages of double-spaced typewritten text; it may include no more than 4 tables and figures and should be completed in the Animal Behaviour format. A single page update may be submitted to the Program Officer between 1 March and 30 June.

SYMPOSIUM AND INVITED PAPER SESSIONS: ABS encourages those who wish to plan a session of invited papers or a symposium. Plan now for the 1997 meetings. At the earliest opportunity in your planning, please contact the Program Officer for proposal format and additional information. The deadline for submission of proposals for invited paper sessions or for symposia to be held at the 1997 meetings is May 1, 1996.

**ABSTRACT TRANSMITTAL FORM
1996 ANNUAL MEETING OF THE ANIMAL BEHAVIOR SOCIETY
AND PRE-MEETING COGNITION SYMPOSIUM**

Return with three paper copies and 3.5 disk, registration form and payment to:
Dr. Con Slobodchikoff
Department of Biological Sciences, Box 5640
Northern Arizona University
Flagstaff, AZ 86011

1. TITLE OF PAPER (PLEASE TYPE OR PRINT)

2. AUTHORS (First Name, Middle Initial, Last Name; please place asterisk to left of presenting author's name).

3. INSTITUTIONAL AFFILIATION

4. MAILING ADDRESS OF PRESENTING AUTHOR

5. E-MAIL:

6. PHONE: OFFICE:

HOME:

7. CATEGORY OF PAPER (Please circle)

ABS Poster Session

Cognition Symposium Poster Session

ABS Founders Award Poster Session

ABS Regular 20-minute Paper

ABS Allee Award Paper

ABS Symposium or Invited Paper Session

8. CATEGORY OF ABS MEMBERSHIP OF PRESENTING AUTHOR

Regular

Student

Visiting Foreign Scientist

Sponsored Non-Member

9. WOULD YOU BE WILLING TO CHAIR A SESSION? YES NO

10. Is this presentation based upon research sponsored by an ABS research grant? Yes No

11. Is this your first presentation at a National ABS meeting? Yes No

12. A-V Equipment: A standard 2x2 projector, an overhead transparency projector, and a VHS tape player will be available. If you have any other A-V needs, please arrange to bring your own equipment.

13. Please note that IF you should be unable to present your paper at the meetings, you should contact BOTH the Program Officer and the local hosts BEFORE THE START OF THE MEETINGS.

ABSTRACT PREPARATION INSTRUCTIONS

1. Type your abstract on a 3.5 disk, using either Word or Word Perfect (any version is acceptable).
2. The format for your abstract must be as follows:
 - FIRST LINE:** Title – Use capital letters. Titles on the abstract and the Transmittal form must be identical.
 - SECOND LINE (Can continue to third line):** Authors and complete mailing address.
 - FOLLOWING LINES:** Text of abstract, organized as follows:
 - a. Specific objectives – include a brief statement.
 - b. Methods – include a brief description as necessary.
 - c. Results – provide a clear, specific summary of findings.
 - d. Conclusions
3. Example:

SYNTAX IN SOCIAL CHATTERS OF GUNNISON'S PRAIRIE DOGS.
C. N. Slobodchikoff, S. H. Ackers, J. Johnson, V. Gilbert, and J. Kinazis. Department of
Biological Sciences, Northern Arizona University, Flagstaff, AZ 86011.
Gunnison's prairie dogs have 9 different types of chatter vocalizations that are
used in social contexts such as agonistic encounters, play, and amicable behaviors.
4. Your abstract must be a **MAXIMUM** of 200 words, including the title and authors.
4. Label your disk in ink with the last name of the presenting author and the title of the abstract.
5. Along with your disk, submit three hardcopies of your abstract. Each must be printed within a space 3 inches high and 7 inches wide near the top of a page, on good quality bond or photocopy paper. The hardcopies must be of laser printer quality.
6. On one of the hardcopies, please include and sign the following statement (please do not include this statement in the abstract that you submit on disk):

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.

CHECKLIST FOR SUBMITTING AN ABSTRACT

- _____ A 3.5 disk, with abstract written in Word or Word Perfect
- _____ Three hard copies, one with the above signed statement
- _____ Only the title is in all CAPITAL LETTERS
- _____ Your abstract does not exceed 200 words
- _____ The page is not folded across the abstract text on the hard copies
- _____ Items 1 through 11 are answered in the Abstract Transmittal Form
- _____ Registration Forms and Payment in US\$\$ are included

CANDIDATES FOR THE 1995 ELECTION OF OFFICERS

SECOND PRESIDENT ELECT

Meredith West

Birthdate: October 31, 1946
 Education: B. S. , 1968, Tufts University
 Ph. D., 1975, Cornell University
 Present Position: Professor of Biology and
 Psychology, Indiana University, Bloomington
 Research Interests: Developmental processes, social
 and communicative systems, learning
 mechanisms, and cultural transmission of
 behavior.
 ABS and related activities: Member, Ethics
 Committee, 1987-90; Editorial Board, 1988-
 1991; Editor, *Animal Behaviour*, 1991-1994;
 Editorial Board, Journal of Comparative
 Psychology, 1989-93, Developmental
 Psychobiology, 1986-94; NSF Psychobiology
 Panel, 1983-1986; NSF BBS Panel, 1991-92;
 NIH, Psychobiology, Behavior, and
 Neuroscience Study Section, 1995-1999.

George Losey

Birthdate: June 30, 1942
 Education: B.S., 1964, Univ. Miami, Coral Gables
 Ph.D., 1968, UCSD, Scripps Inst. Oceanog.
 Present Position: Professor of Zoology, Univ.
 Hawaii, Honolulu
 Research Interests: Fish ethology, especially how
 proximate causes satisfy ultimate demands.
 ABS and related activities: Member since 1968, Co-
 organizer 1995 International Ethological
 Conference

SECRETARY:

Thomas C. Rambo

Birthdate: August 28, 1940
 Education: B.A., 1962, College of Wooster
 M.Sc., 1963, Ohio State University
 Ph.D., 1967, Ohio State University
 Present Position: Professor of Biological Sciences,
 Northern Kentucky University, Highland
 Heights, KY
 Research Interests: Insect-plant interactions, avian
 social groups, educational methods in teaching
 animal behavior.
 ABS and related activities: Education, animal care and
 film committees. Chair, Film Committee,
 1992-1994. Co-host, 1989 ABS meetings.
 Organized film sessions for I.E.C. 1995.

Susan A. Foster

Birthdate: February 13, 1953
 Education: B.A., 1975, University of Wisconsin,
 Madison.
 Ph.D., 1984, University of Washington
 Present Position: Associate Professor of Biology,
 Clark University, Worcester, MA
 Research Interests: Evolution of behavior and life
 history; phylogenetic and comparative
 approaches to the study of behavioral
 homoplasy, emancipation and ritualization.
 ABS and related activities: Organized symposium for
 the 1991 ABS meeting, Member, ABS
 Research Grants Committee 1991-1992; ABS
 Secretary 1993-present; recipient, NSF
 Presidential Faculty Fellowship, Member,
 Advisory Panel for Presidential Faculty
 Fellowships (NSF, 1993), for Dissertation
 Awards (NSF 1993), for Population Biology
 and Physiological Ecology (NSF 1995), for
 Leadership Opportunities in Science and
 Humanities Education (NEH, NSF, FIPSE,
 1994), Member, Committee of Visitors for
 Physiology and Behavior Cluster (NSF 1994).
 Copeia editorial board 1994-present.

MEMBER-AT-LARGE:

Ken Yasukawa

Birthdate: September 7, 1949
 Education: B.S., 1971, State Univ. New York, Stony
 Brook
 M.A., 1975, Indiana University, Bloomington
 Ph.D., 1977, Indiana University, Bloomington
 Present Position: Professor and Chair of Biology,
 Beloit College, Beloit, WI.
 Research Interests: Ecology and evolution of mating
 systems, sexual selection, reproductive
 strategies, parental care, vocal
 communication/bird song.
 ABS and related activities: Member, ABS Education
 Committee, 1991-1994; Editorial Board,
 Animal Behaviour, 1988-1991; Organized
 symposium for 1988 meeting; Contributor to
 workshop at 1994 meeting; Editor, *Journal of*
 Field Ornithology, 1990-1995; Member,
 Advisory Panel for Animal Learning and
 Behavior, National Science Foundation, Animal
 Behavior Program, 1992-1995

Emilia P. Martins

Birthdate: February 4, 1964

Education: A.B., 1987, Univ. of California, Berkeley
M.S., 1991, Univ. of Wisconsin, Madison
Ph.D., 1992, Univ. of Wisconsin, Madison

Present Position: Assistant Professor of Biology,
University of Oregon

Research Interests: behavioral evolution,
communication and social behavior, the
phylogenetic comparative method, biometry

ABS and related activities: Member, ABS Ethics
Committee 1990-present; ABS Assistant
Program Officer 1994-present; Organized
symposium for the 1994 ABS meeting.

The order of listing of candidates may influence voting. Please avoid this bias in making your choices. This year, the candidates are listed in reverse alphabetical order.

CANDIDATES FOR THE 1995 ELECTION TO MEMBERSHIP ON THE U.S.E.C.C.

Only U.S. members of ABS may vote in this part of the election. The U.S.E.C.C. has six members, three of whom serve as delegates to the IEC Council. The U.S.E.C.C. term is six years and the terms of two members expired in August 1995. Two new members will be elected. The candidate with the most votes becomes a member of the U.S.E.C.C. and a delegate to the IEC Council. The runner-up also becomes a member of the U.S.E.C.C. and will serve as an alternate to the IEC Council in the event the delegate is unable to attend.

Fred Singer

Birthdate: Nov. 13, 1952

Education: B.A., 1975, University of Michigan
Ph.D., 1987, University of Minnesota

Present Position: Associate Professor of Biology,
Radford University

Research Interest: Behavioral Ecology and
Communication in Arthropods

ABS and related activities: Proxy Delegate 1995
IECC, NSF Travel award to 1991 IEC.

Deborah M. Gordon

Birthdate: December 30, 1955

Education: B.A., 1976, Oberlin College
M.S., 1977, Stanford University
Ph.D., 1983, Duke University

Present Position: Assistant Professor of Biological
Sciences, Stanford University

Research interests: Behavioral ecology, colony
organization in social insects, foraging ecology
of ants.

ABS and related activities: Organized invited paper
session at 1993 annual meeting; member,
Ethics Committee, 1993-present.

Lee A. Dugatkin

Birthdate: July 8, 1962

Education: B.S., 1985, State Univ. of New York,
Albany
M.S., 1988, State Univ. of New York, Albany
Ph.D., 1991, State Univ. of New York,
Binghamton.

Present Position: Assistant Professor of Biology,
University of Louisville

Research Interests: Evolution of cooperative and
altruistic behavior, cultural evolution and sexual
selection and the structuring of dominance
hierarchies.

ABS and related activities: Recipient, ABS Young
Investigator Award, 1995, Organized symposia
for the 1990 and 1995 ABS meetings, IEC
Young Scientist Travel Grants; 1991 & 1993.

Jerry F. Downhower

Birthdate: October 25, 1940

Education: B.A., 1962, Occidental College
M.S., 1964, Univ. of Kansas
Ph.D., 1968, Univ. of Kansas

Present Position: Professor of Zoology, The Ohio
State University

Research Interests: Sexual selection, evolution of
mating systems and life history phenomena

ABS and related activities: Member, Advisory Panel
for Population Biology and Physiological
Ecology (NSF, 1979-1980); Program Director,
Population Biology and Physiological Ecology
(NSF, 1980-1981).

**BALLOT: 1995 GENERAL ELECTION OF
THE ANIMAL BEHAVIOR SOCIETY**

**MAIL BALLOTS IN AN ENVELOPE
BEARING YOUR NAME TO:**

**Lee Drickamer, ABS President
Department of Zoology
Southern Illinois University
Carbondale, IL 62901 USA**

**BALLOTS POSTMARKED AFTER
JAN 15, 1996 CANNOT BE COUNTED**

You may cast write-in votes. We are electing three officers of ABS (terms to begin August 9, 1996). All ABS members (regular members, student members, joint members and active Fellows) are eligible to vote in the ABS election. Results will be announced in the February Newsletter.

ABS OFFICERS

Rank the candidates for each office by placing an X in the blank following your choice. The candidate with the most votes will win the election. In case of a tie, a run-off election will be held.

FOR SECOND PRESIDENT-ELECT:

Meredith West _____

George Losey _____

Write-in _____

FOR SECRETARY:

Thomas C. Rambo _____

Susan A. Foster _____

Write-in _____

FOR MEMBER-AT-LARGE:

Ken Yasukawa _____

Emilia P. Martins _____

Write-in _____

MEMBERS OF U.S.E.C.C.

(Only U.S. Members of ABS may vote)

Place an X in the blanks following your two choices. The candidate with the largest number of votes will become the Council member and the runner up the alternate.

Fred Singer _____

Deborah M. Gordon _____

Lee A. Dugatkin _____

Jerry F. Downhower _____

OPPORTUNITIES CONTINUED

Field Assistants needed for study of behavioral ecology of Utah prairie dogs. Topics of research include variance in male and female reproductive success, alarm calling, infanticide, communal nursing, and levels of inbreeding. Study site is in Bryce Canyon National Park, Utah. Field season starts 1 March and ends 10 July. Bryce Canyon provides free lodging. The only requirement is a genuine interest in field research in behavioral ecology. Academic credit is possible and several previous assistants have applied research toward senior theses or a Master's degree. John L. Hoogland, The University of Maryland, Appalachian Environmental Laboratory, Frostburg, Maryland, 21532. Phone (301)689-3117 or 689-8076.

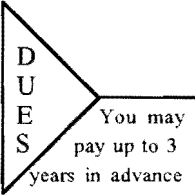
Two Ph.D. fellowships available. One successful candidate will study landscape ecology of neotropical migrant landbirds breeding in forest-dominated landscape. Requisite skills include field identification, mist netting, and GIS. The other candidate will study behavioral ecology of gray jays, focusing on food-hoarding behavior and evolution of delayed dispersal. Interests should include modeling, learning theory, cooperative breeding and DNA fingerprinting. Send cover letter stating research interests and career goals, CV, copies of GRE scores and transcripts, and names of three references to: Tom Waite, Forestry, Michigan Tech Univ., Houghton, MI 49931-1295, U.S.A. Phone (906)487-3417; fax (906) 487-2915; e-mail; tawaite@mtu.edu.

APPLICATION / RENEWAL for ANIMAL BEHAVIOR SOCIETY MEMBERSHIP

This is a (please check one):

- ☐ RENEWAL - make any corrections beside mailing label at bottom of page.
☐ NEW MEMBERSHIP. Print or type full name and mailing address at bottom of page.
☐ Begin my membership for current year (send back issues). ☐ Begin my membership next January.

Phone: _____ Fax: _____ E-Mail: _____

MEMBERSHIP CLASS		VOLUNTARY CONTRIBUTIONS		TOTAL PAID
(1) Regular Member	\$41 <input type="checkbox"/>		Ethnic Diversity Fund _____	
(2) Student Member*	\$20 <input type="checkbox"/>		Research Awards Fund _____	
(4) Multiple (Joint) Member†	\$28 <input type="checkbox"/>		Unrestricted Fund _____	
(5) Emeritus Member	\$20 <input type="checkbox"/>			
(6) Fellow	\$41 <input type="checkbox"/>			
(8) Newsletter Only	\$ 8 <input type="checkbox"/>			

Donations are tax deductible

RENEWALS ARE DUE BY DECEMBER 1st. THEREAFTER, INCLUDE A \$10 LATE FEE.

- ☐ Check or Money Order
☐ Visa or ☐ Master Card Acct: _____ Expires: _____

Signature of card holder: _____

Members are reminded it costs ABS \$1-2 to process credit card payments. Please consider adding this much (or more) to your total.

- ☐ please add \$_____ to my total to help ABS offset credit card processing costs.
☐ Please send a receipt for tax purposes.

* My **Student Membership** is endorsed by _____
 Dept. Head, ABS Member or Fellow Print Name Signature
YOU MUST INCLUDE THIS (RENEWING Members may send photocopy of current ID instead)

† My **Multiple (Joint/Spouse) Membership** is with _____
YOU MUST SPECIFY a FULL MEMBER with whom you share a copy of the journal.

send this form with payment to: **Randall Breitwisch, Treasurer**
Animal Behavior Society
Dept. of Biology, Univ. of Dayton
300 College Park
Dayton, OH 45469-2320

EMAIL: svrsul@aol.com
to report Journal Delivery errors
ADDRESS CHANGES, or other
membership problems.

Animal Behavior Society
 S. Foster, Secretary
 Dept. of Biology
 Clark University
 950 Main St.
 Worcester MA 01610-1477

Non-Profit
 Organization
 U.S. POSTAGE
 PAID
 WORCESTER, MA
 PERMIT NO. 1886

ADDRESS CORRECTION REQUESTED