



NEWSLETTER

Animal Behavior Society

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Harleigh E. Willmott, Editorial Assistant

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VOTE, VOTE, VOTE!!!! 1994 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.

A MESSAGE FROM THE PRESIDENT, HUGH DINGLE

Much is made these days of the virtues of diversity. In the social arena we try to work toward diversity of representation and participation so that persons of differing ethnicity, both genders and varying ages can all contribute to society and gain access to jobs, benefits, and learning. In the biological arena we generally accept the value of biodiversity, even if it is often less clear in what currency this value should be measured, and try to work toward its preservation and even enhancement. I should like to consider briefly here the role of the Animal Behavior Society in promoting both kinds of diversity.

First a success story. It should be obvious that we have reached gender equality, both with respect to total representation in the Society and with respect to its governing structure. A perusal of office holders and committee memberships reveals that we probably come as close to exactly equal gender representation as unbiased sampling will allow. Similarly we come very close to equal representation of the sexes in our membership. I think we can take considerable pride in this, for we certainly stand out if we compare ourselves to our peer societies or for that matter to the university faculties. I suspect, in fact, that we may be the first to reach what ought to be a universal objective. Zuleyma Tang-Martinez gave a very nice perspective on what gender equality means to members of our Society in her Presidential message in last February's Newsletter.

Unfortunately, however, we have had little success with raising our level of ethnic diversity. In this we are no different from other scientific societies nor different from academic institutions. For assorted social and historical reasons far beyond our scope here, an increase in our ethnic diversity will be far more difficult to achieve than attaining gender equality. Nevertheless, to be true to our goals as a Society, I know we all agree that we must make a sincere effort. As a first simple step we have started an Ethnic Diversity Fund, and I urge all of you to contribute. You can do this with your dues payment or directly to the Treasurer. We need your help; please be as generous as you can but even small contributions of five or ten dollars will go a long way. Frankly, our response so far had been underwhelming, and we can do better.

A second step we have taken is to appoint an *ad hoc* Latin American Affairs Committee chaired by Zuleyma Tang-Martinez. This committee will have the dual purpose of not only trying to increase the diversity of our membership, but also of reaching out to the many countries to the south with which we share our hemisphere. This should broaden our perspective as a Society and hopefully benefit animal behaviorists in Latin America by providing them added opportunities for communication with English speaking compatriots. Zuleyma welcomes ideas and suggestions.

Ultimately, however, if we are to increase our ethnic diversity, it is up to each of us. There are things we can do as individuals, especially in reaching out to young people in schools and colleges to assure them that they do indeed have career options in behavior. We can also do more to make our Society welcoming to biologists of ethnic minorities. At my assumption of the Presidency at the banquet in Seattle I asked for your suggestions for how we as a Society could increase our diversity. Some of you responded in conversation there, but I have heard nothing since in spite of my request that you contact me in writing with thoughts and suggestions. Please do let me hear

from you. The road will be long, so we should waste no time in starting along it.

Finally, a brief word on biodiversity. The most cursory glance at our journal or at the abstracts for our annual meeting reveals that around 90% of our studies are directed at animals in taxa representing only a tiny fraction of the earth's faunal diversity. Enormously variable groups such as beetles, crustaceans, and molluscs are represented by a paper or two at most. At a time when we are becoming increasingly concerned with the preservation of the world's biodiversity, is it wise to focus so heavily on the "charismatic megafauna?" What are we missing by ignoring so much? Can we justify the relatively high costs of the relatively small sample sizes we must perforce be limited to if we use only vertebrates? What are we missing about general laws of behavior by our focus on so small a sample of animal diversity? If we are to be a truly problem oriented discipline, as I think we are, then it seems to me, these are questions that need pondering.

**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 in order of application receipt. 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.

**ANIMAL BEHAVIOUR CHANGES
FORMAT:
GOODBYE SHORT FORMAT, HELLO
COMMENTARIES**

Beginning with the September issue of Animal Behaviour, the Short Communications format has been discontinued. Manuscripts that have already been accepted as Short Communications will be published as such in future issues until there are more of them. In the future, manuscripts that are

submitted as Short Communications will be handled as follows:

1. Manuscripts that are presently under review as Short Communications and that are accepted for publication may be published in either the 'old' format (as Short Communication) or as a full-length manuscript, at the Editor's discretion.

2. Manuscripts that are submitted as Short Communications after 17 October 1994, excepting those that qualify as Commentaries (see below), will be returned to the author. The author may then modify and resubmit the manuscript as a regular paper. A resubmitted manuscript would have abstract, headings, and probably additional material.

This change in policy does not mean that Animal Behaviour will cease to accept short papers. We are willing to consider papers of any length, but all submissions should be in the format of full-length papers, and all will be judged on a single scale of scientific importance.

With the demise of Short Communications, Animal Behaviour is introducing a new category for publications, Commentaries. As stated in Instructions for Authors beginning in the September 1994 issue:

The Commentary section of the journal provides a forum for constructive critiques of previously published papers, including comments on statistical analysis, theory, methodology or nomenclature. Contributions should be brief (not normally more than two printed pages) and should not contain subheadings or an abstract. Contributions will be subject to the same refereeing process as standard papers and four copies should be submitted.

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.

ERRATUM

The name of the senior author on the poster that won the **John L. Fuller Founders' Memorial Award** was inadvertently misspelled. The statement should have read: "The ninth annual Founders' Memorial Award for the best poster presentation at the annual meeting was won by **J. Cully Nordby, S. Elizabeth Campbell and Michael D. Beecher**, University of Washington, for their poster presentation "Song learning strategies in the song sparrow". The President and Secretary apologize.

DIRECTION OF CORRESPONDENCE

ABS Newsletter and general correspondence concerning the Society: Susan Foster, Dept. of Biological Sciences, University of Arkansas, Fayetteville, AR, 72701, USA. Deadlines are the 15th of the month preceding each Newsletter. Next deadline is January 15, 1995.

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: Michael Beecher, *Animal Behaviour*, NI-25, University of Washington, Seattle, WA 98195, 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, USA.

ABS OFFICERS

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

First President-elect: Lee Drickamer, Dept. of Zoology, Southern Illinois University, Carbondale, IL, 62901, USA. E-mail: ga3687@siucvmb.

Second President elect: Susan Riechert, Dept. of Zoology, University of Tennessee, Knoxville, TN, 37996-0810, USA. E-mail: pa34628@utkvmb.

Past President: Zuleyma Tang-Martinez, Dept. of Biology, University of Missouri, St. Louis, MO, 63121, USA. E-mail: szthalp@umslvma.

Treasurer: Randall Breitwisch, Dept. of Biology, University of Dayton, 300 College Park, Dayton OH, 45469, USA.

Secretary: Susan Foster, Dept. of Biological Sciences, University of Arkansas, Fayetteville, AR, 72701, USA.: E-mail: sfoster@uafsysb.uark.edu.

Program Officer: John Byers, Dept. of Biological Sciences, University of Idaho, Moscow, ID, 83843, USA. E-mail: jbyers@idu1.csr.v.uidaho.edu.

Parliamentarian: George Waring, Dept. of Zoology, Southern Illinois University, Carbondale, IL, 62901, USA. E-mail: ga3609@siucvmb.

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

Members-at-Large: Patricia Gowaty, Institute of Ecology, University of Georgia, Athens, GA, 30602, USA. E-mail: gowaty@zookeeper.zoo.uga.edu.

Christine Boake, Dept. of Zoology, University of Tennessee, Knoxville, TN, 37996-0810, USA. E-mail: boake@utkvx.utk.edu.

Katherine Wynne-Edwards, Dept of Biology, Queen's University, Kingston, Canada, K7L 3N6. E-mail: wynneedw@qucdn.queensu.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	George Waring (PLM)
Animal Care	Joy Mench (1996)
Public Affairs	Irene Pepperberg (1996)
Film	Neil Mercado (1997)
Research Grants	Patricia Gowaty (ML1)
Ethics	Stuart Altmann (1996)
Applied Animal Behavior	Ben Hart (1996)
Board of Prof. Cert.	Suzanne Hetts (1997)
Career Awards	Zuleyma Tang-Martinez *
Endowments	Ira Perelle
Nominations	Zuleyma Tang-Martinez*

*Past President

NSF ANNOUNCEMENT

Ronald J. Barfield and Alan C. Kamil are working together as Acting Program Directors for Animal Behavior on a part-time basis. Fred Stollnitz is on sabbatical as Senior Visiting Research Scientist at the National Zoological Park, Smithsonian Institution.

OTHER NSF ANNOUNCEMENTS

The National Science Foundation has many programs of interest to animal behaviorists. A partial list follows, with program officers' names, e-mail addresses, and phone numbers (Area Code 703).

The NSF "Grant Proposal Guide" (NSF 94-2) should be followed for all programs. Some programs have additional guidelines, available from NSF or your research office; publication numbers are listed below.

The following programs have June 15 and December 15 target dates for regular research proposals, and February 1, 1995, and October 13, 1995, deadlines for dissertation research proposals (NSF 94-146):

Animal Behavior (Ronald Barfield, rbarfiel@nsf.gov, 306-1419). Ecological and Evolutionary Physiology (David Vleck, dvleck@nsf.gov, 306-1421). Population Biology (Mark Courtney, mcourtne@nsf.gov, 306-1481). **Physical Anthropology** has July 1 and December 1 target dates for regular research proposals (NSF 94-64); dissertation research proposals (NSF 92-114) may be submitted at any time (Jonathan Friedlaender, jfriedla@nsf.gov, 306-1758).

The following programs have July 15 and January 15 target dates, and usually do not consider dissertation research proposals:

Behavioral Neuroscience (Chris Comer, ccomer@nsf.gov, 306-1416). **Sensory Systems** (Christopher Platt, cplatt@nsf.gov, 306-1424). **Neuroendocrinology** (James Koenig, jkoenig@nsf.gov, 306-1423).

All NSF programs consider proposals for **Research in Undergraduate Institutions** (NSF 94-79), including faculty research projects, research instrumentation grants (reviewed on the same schedule as research proposals in the disciplinary programs), and **Research Opportunity Awards** for faculty members (no deadline or target date).

Other special competitions cut across the disciplinary programs listed above. Some of these are:

Faculty Early Career Development (NSF 94-101) combines research and educational activities in a single proposal, to be reviewed on the same schedule as research proposals in the disciplinary programs.

International Opportunities for Scientists and Engineers (NSF 93-51), including support for the following activities: research collaboration between U.S. and foreign scientists (cooperative research; joint seminars and workshops; planning visits) and international research experiences for junior scientists and engineers (postdoctoral and junior-investigator research fellowships; dissertation

enhancement awards; summer institutes for graduate students in Japan). Submission dates vary by region. **Computational Biology** (NSF 92-62), including support for: software and algorithm development; development of new tools and approaches; workshops and conferences. No deadline or target date (Peter Arzberger, parzberg@nsf.gov, 306-1466).

Research Training Groups (NSF 93-173), November 17 preproposal deadline; March 1 proposal deadline (Gerald Selzer, gselzer@nsf.gov, 306-1469). **Presidential Faculty Fellows** (NSF 93-114); November 30 deadline (Sonia Ortega, sortega@nsf.gov, 306-1697).

Postdoctoral Research Fellowships in Biosciences Related to the Environment (NSF 94-114) provide an opportunity for the Fellows to gain additional scientific training beyond the doctoral degree and to pursue innovative and imaginative research into the fundamental mechanisms underlying the interactions between organisms and their environment at the molecular, cellular, organismal, population, community and/or ecosystem level in any area of biology supported by NSF. (Includes work in animal behavior by scientists of any discipline. December 2 deadline (Carter Kimsey, ckimsey@nsf.gov, 306-1469).

Research Planning Grants and Career Advancement Awards for Women Scientists and Engineers (NSF 93-130), December 15 deadline (LaVerne Paige, lpaige@nsf.gov, 306-1422).

Minority Postdoctoral Research Fellowships (NSF 94-133); January 6 deadline (Carter Kimsey, ckimsey@nsf.gov, 306-1469).

Instrument Development; Multi-user Equipment and Instrumentation Resources (NSF 92-126); June 15 deadline (Michael Lamvik, mlamvik@nsf.gov, 306-1472).

Collaborative Research at Undergraduate Institutions (NSF 94-90) provides support for undergraduate faculty to develop multidisciplinary research programs that enhance undergraduate education through hands-on research experiences. September 1 preproposal deadline (Charles Keith, ckeith@nsf.gov, 306-1469).

Research Experiences for Undergraduates (NSF 93-112), including Sites (September 15 deadline; LaVerne Paige, lpaige@nsf.gov, 306-1422) and Supplements (February 1 deadline; disciplinary program officers).

Basic Research in Conservation and Restoration Biology (NSF 90-66); Sept. 29 deadline (Scott Collins, scollins@nsf.gov, 306-1479).

Visiting Professorships for Women (NSF 93-88); October 15 deadline (Margarete Klein, mklein@nsf.gov, 306-1697).

You can get information fast through NSF's electronic dissemination system, the Science and Technology Information System, described in NSF 94-4, "STIS flyer." For an electronic copy, send an e-mail message to stisfly@nsf.gov. Electronic versions of NSF publications may be obtained by sending a message in the form of "get nsf942" to stisserv@nsf.gov. The NSF mailing address is 4201 Wilson Boulevard, Arlington, VA 22230.

Obituary for Walter Heiligenberg (1938-1994)

By T.H. Bullock

Walter was the most alive person I have ever known. Not frenetic or hyperactive but the most keenly and widely aware - of all the sensations and meanings of the moment and especially the good and the beautiful ones. One felt there was inexhaustible, high voltage energy but controlled, channeled and efficiently spent. His lab looked chaotic but was actually carefully organized; everything belonged where you could reach it when you needed it. Walter led by example; instead of urging the discouraged student by words to keep at it and to go for the next-to-impossible, by probing with hyperfine microelectrodes for the rare single cell that ought to be there but had never been found, he simply sat all day at the "rig," the mountain of electronic-optical-hydraulic gear surrounding the tiny fish and himself probed by the hour until, perhaps on the third straight day he heard the telltale pop-pop-pop in his audio monitor and he literally screamed "Look, look, that's it; there it is!" He transmitted motivation by showing his own sensuous delight with every little milestone. His style in the field was similar. He fell in love with the tropics and led many expeditions, reveling in every sensation and even in vicissitudes with local officials and bad weather.

Walter was born in Berlin January 31, 1938, and lived during the war in a series of towns around Münster, being bombed out of one home in March 1945. During his school days his home aquaria led him repeatedly to visit a small Max Planck Society research group in an old castle in Buldern where an Austrian named Lorenz kept a lot of fish. He had 4 semesters at the University of Münster and then followed Lorenz to Munich where he finished his doctoral work on motivation in fish in 1963. Captivated by the goals of his mentor, Konrad Lorenz, he learned rigor and quantitation under the stimulus of Hansjochem Autrum, his official chairman at the University. One accomplishment was the invention of an ingenious way to measure the drive for aggression in a fish, again and again, without dissipating or changing it!

In 1972 he came to the U.S.A. as a postdoc in my lab, fell in love with electric fish and stayed with them the rest of his life. He successively mastered and used the techniques of psychophysics, electrophysiology, microsurgery, anatomy, electron microscopy, intracellular molecular markers, pharmacological magic bullets and mitochondrial DNA phylogeny - all focused on the neural mechanisms of species-characteristic behavior. Identifying the cell classes, connections and dynamic properties that mediate a full, normal social behavior from receptors to effectors through more than 14 orders of neurons, he gave us the most fully accounted for example of vertebrate behavior. At the time of his tragic death in the air crash near Pittsburgh, September 8, 1994, he was President-Elect of the International Society for Neuroethology, an Editor of the Journal of Comparative Physiology A and had been elected to the American Academy of Arts and Sciences and the Deutsche Akademie der Naturforscher Leopoldina -the latter two, characteristically, without even telling his wife.

Obituary for Gerard J. FitzGerald

By Susan A. Foster

Gerry FitzGerald died Monday, March 15, 1994 after a nine month illness. He was born in Newfoundland, Canada, 44 years earlier. After receiving a Bachelors degree at Memorial University, he received his M.Sc. from the MacDonald campus of McGill University where he worked with Roger Bider. He received his Ph.D. from the University of Western Ontario, working with Miles Keenleyside, and then joined the faculty of the Department of Biology at Laval University in 1976 where he was promoted to Full Professor in 1985.

The subject of Gerry's best known research was the threespine stickleback. Although there existed an extensive literature on this diminutive fish, Gerry recognized that little was known about its behavior or ecology in the natural environment, and thus he set about rectifying the deficiency. The salt marsh in which he worked was perfect for behavioral and ecological research because the fish became isolated in separate pools between tides, and he and his students could manipulate densities and sex ratios in the pools to evaluate effects on behavioral interactions among the fish. Much of the research conducted by Gerry and his students in the early years of his research program focused on understanding how density, sex ratio and interspecific interactions (mostly with other species of stickleback, but also with predators) influenced the aggressive behavior and population structure of threespine stickleback in the pools.

As Gerry and his students learned more about the threespine stickleback, the focus of research in his laboratory shifted. Emphasis was placed on factors influencing reproductive success. One such factor was cannibalism, and Gerry became internationally known for his work on the subject. In recent years, the diversity of research topics in his laboratory had expanded into studies of kin recognition, alternative reproductive strategies, and the effects of parasites on behavior, to name only a few.

Gerald FitzGerald was still a young man, and his star was still rising. This was evident in recent discussions of his work in *Nature* and in the *New Scientist*. He had in the last few years completed a number of prestigious invited reviews in both popular and scientific publications. Those of us who worked with Gerry, and whose research was so strongly influenced by his, will miss him deeply. He loved his research, he was creative and productive, and he cared very much about his students and their successes. There is little to add, except to say again, that we will miss him.

PROFESSIONAL ETHICS 5. THE BIOLOGICAL BASIS OF MORALS AND ETHICS

by **Stuart Altmann**
Chair, ABS Ethics Committee

In philosophy, a sharp distinction is made between what is and what ought to be. The former is the province of science, whereas the latter is the domain of law, of religion, of moral and ethical principles. Yet, attempts to bridge this chasm have been made by several philosophers and by numerous scientists, particularly evolutionary biologists. Students of animal behavior are well represented, e.g. Alexander (1 and citations therein), Allee (2), Emerson (4), J. Huxley (5), Lack (7), Wickler (12), and Wilson (13). Several past members of my own department at the University of Chicago have written on this topic, e.g., Allee, Emerson, and Ravin (9).

Three quite distinct approaches have been taken to this problem. The first is to assume that a form of behavior cannot be evil if it is "part of human nature," which is generally taken to mean that the behavior is a consequence of natural selection and is genetically constrained. By this line of argument, human homosexual behavior would be ethically acceptable if it occurs "naturally," or in nonhuman animals. If nature is "red in tooth and claw" and natural selection is primarily a process by which competition selects for fit individuals while weeding out the weak, then untrammelled capitalism is justifiable. Aside from the inadequacies in the evolutionary components of these rationales, they are

examples of the so-called "naturalistic fallacy," of assuming, without justification, that what ought to be is the same as what is. If that were so, we would have no need for laws, ethical principles, or moral standards. If murder never occurred, we would have no laws prohibiting it. For a spirited defense of a derivation of ethical norms from evolutionary facts, see Richards (10).

The second approach is to derive, perhaps from consideration of evolutionary processes, a few primary values that can serve as the basis of ethics. For Herbert Spencer (11), these consist of promoting the welfare (survival and happiness) of three classes of agents: the self, one's offspring, and others in society. For Wilson (13) the basic principles are survival of the human gene pool, preservation of human genetic diversity, and universal human rights. For Leake (8), survival of our species is the fundamental principle. For Darwin (3), the cardinal principle was the Golden Rule: "To do good unto others--to do unto others as ye would that they should do unto you--is the foundation-stone of morality." Attempts to derive complex moral systems from a minimal set of assumptions are laudatory but the basic assumptions are nonetheless arbitrary. If, when their implications are well-understood, they are universally accepted, fine, but if not--and the history of ethical systems suggests that to be the likely outcome--then what?

A third approach, one taken by several evolutionary biologists, is to attempt to account for the evolution of an ethical creature, and for certain common characteristics of moral conduct, particularly its altruistic aspects. On this topic, Darwin (3) was insightful as always: "It must not be forgotten that although a high standard of morality gives but a slight or no advantage to each individual man and his children over other men of the same tribe, yet an increase in the number of well-endowed men and advancement in the standard of morality will certainly give an immense advantage to one tribe over the other." For a version of this scenario from the perspective of contemporary evolutionary theory, I recommend Alexander's lucid volume, "The Biology of Moral Systems." Alexander, like several other evolutionary biologists, sees nepotism and reciprocity as the primary sources of altruistic behavior in human society. Like Darwin, he argues that "...the rules of morality and law alike seem not to be designed explicitly to allow people to live in harmony within societies but to enable societies to be sufficiently united to deter their enemies." That is, "within-society harmony is the means not the end" (*ibid.*, p. 174). Similar ideas were proposed by Keith (6). To the extent that this approach depends on empirical verification, it abandons the attempt to deduce principles of morals and ethics from evolutionary processes. It may not be the worse for that.

References: (1) Alexander, R. D. 1987. *The Biology of Moral Systems*. N.Y.: Aldine de Gruyter. (2) Allee, W. C. 1943. Where angels fear to tread: a contribution from general sociology to human ethics. *Science*, 97:517-525. (3) Darwin, C. 1871. *The Descent of Man and Selection in Relation to Sex*. N.Y.: Appleton. (4) Emerson, A. E. 1953. *The biological foundations of ethics and social progress*. In: *Goals of Economic Life*, A.D. Ward ed. N.Y.: Harpers. (5) Huxley, T. and J. Huxley. 1947. *Touchstone for Ethics*. N.Y.: Harper. (6) Keith, A. 1947. *Evolution and Ethics*. N.Y.: G.P. Putnam's Sons. (7) Lack, D. L. 1957. *Evolutionary Theory and Christian Belief*. London: Methuen. (8) Leake, C. D. 1945. Ethicogenesis. *Scientific Monthly*, 60:245-253. (9) Ravin, A. 1975. An evolutionist's ethics. *Journal of Religion and Science*, 10:431-438. (10) Richards, R. J. 1987. *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior*. Chicago: University of Chicago. (11) Spencer, H. 1893. *The Principles of Ethics*. Indianapolis: Liberty Classics. (12) Wickler, W. 1972. *The Biology of the Ten Commandments*. N.Y.: McGraw-Hill. (13) Wilson, E. O. 1978. *On Human Nature*. Cambridge MA: Harvard Univ.

This is one in a series of columns devoted to issues of professional ethics that affect members of the Animal Behavior Society. Your comments and questions about these issues are welcome, and will be answered. Address them to Stuart Altmann, University of Chicago, 1507 E. 56 St., Chicago IL 60637; tel. 312-702-8919; fax 312-702-0988; e-mail alts@midway.uchicago.edu.

MEETINGS

1996 Meeting of the Animal Behavior Society will be held at Northern Arizona University, Flagstaff, AZ, Aug. 3-8, 1996. For information, contact Con Slobodchikoff, Department of Biological Sciences, Northern Arizona University, Flagstaff, AZ 86011, USA.

1994 Meeting of the American Society of Zoologists with the American Microscopical Society, the Animal Behavior Society, the Crustacean Society, & the International Association of Astacology. January 4-8, 1995 at the Adam's Mark Hotel, St. Louis, Missouri. Hosted by the University of Missouri, St. Louis. Contact: Laura Jungen, Executive Director, American Society of Zoologists, 401 North Michigan Ave., Chicago, IL 60611-4267. Tel: (312) 527-6697; Fax: (312) 527-6640.

1995 Midwest Animal Behavior Conference will be held April 28-30, 1995 at Miami University, Oxford, OH. For information contact: Doug Taylor, Department of Zoology, Miami University, Oxford, OH, 45056. Tel: (513) 529-3103; E-mail Taylor@mssmail.muohio.edu.

ANNOUNCEMENTS

Wanted: Brown-headed Cowbird mounts, skins or specimens preserved by any means for nest parasite recognition study. Will pay or trade for other species. Contact: Michael Armstrong, Dept. of Biological Sciences, PO Box 6000, Binghamton University, Binghamton, NY 13902-6000. Questions? Contact Anne B. Clark ACLARK@BINGVAXA.BITNET

A scholarship fund in honor of Dr. John T. Emlen, Professor Emeritus at the University of Wisconsin, has been set up under the auspices of the Wisconsin Foundation. The Fund will express appreciation to John for his decades long contributions to the field of Animal Behavior. Small research grant awards will be made annually to outstanding graduate and undergraduate students in behavioral ecology at the University of Wisconsin. Contributions should be sent to the Wisconsin Foundation, C/O Ms. C. Kahn at the University of Wisconsin, Madison, WI 53706 or to Dr. Warren Porter, Chair of the Department of Zoology, University of Wisconsin, Madison, WI 53706

A joint symposium and contributed paper session entitled "Behavior and Conservation in the Wild," will be held at the 1995 ABS meeting in Lincoln, Nebraska, July 8-13. Organizers of the symposium are Janine Clemmons and Richard Buchholz. Papers will address 1) the importance of behavior studies in the conservation of wild populations, 2) how the discipline of ethology can contribute uniquely to conservation biology, and 3) current methods and applications of behavioral research for conserving wild, as opposed to captive or reintroduced, populations. Graduate students, postdocs, and more experienced scientists from all behavioral subdisciplines are encouraged to submit abstracts to the contributed paper session. When submitting abstracts to the Program Officer, indicate the desire to participate in the special conservation paper session. For more information, contact Janine Clemmons, internet: jrcllemmo@facstaff.wisc.edu, Fax: (414) 472-5633, Ph.: (414) 472-5140.

**CANDIDATES FOR THE
1994 ELECTION OF OFFICERS**

SECOND PRESIDENT ELECT

David Duvall

Birthdate: March 14, 1948
Education: A.B., 1973, Univ. of California, Berkeley
M.A., 1975, San Jose State Univ.
Ph.D., 1980, Univ. of Colorado, Boulder
Present Position: Associate Professor of Zoology,
Arizona State Univ. West Phoenix, AZ.
Research Interests: Ecology and evolution of mating
systems, sexual selection and movement/
dispersal patterns; sociochemical
communication; conservation biology.
ABS and related activities: Chair and member, ABS
Policy Committee, 1989-1994; Chair, Division
of Animal Behavior, American Society of
Zoologists, 1993-1995; NSF Graduate
Fellowships Panelist, 1990-1994; ABS
meetings: Hosted meeting and co-edited
"Chemical Signals in Vertebrates 4".

Joy A. Mench

Birthdate: August 29, 1950
Education: B.A. 1976, San Francisco State
Ph.D., 1982, Univ. of Sussex
Present position: Associate Professor, Department of
Poultry Science, University of Maryland.
Research interests: Avian social behavior, behavior-
neuroendocrine interactions in farm animals,
environmental enrichment, animal welfare and
ethics of animal care and use.
ABS and related activities: Chair, Animal Care and
Use Committee, 1990-1994. Organized
Symposium for 1995 meeting, member of
USDA Panel on Animal Health and Well-Being.

PARLIAMENTARIAN:

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.

Kimberly M. Sullivan

Birthdate: January 12, 1957
Education: B.A., 1979, Univ. of Pennsylvania
Ph.D., 1984, Rutgers University
Present position: Associate Professor of Biology,
Utah State University
Research interests: Behavioral ecology, social
foraging, energetics, behavior of juvenile
animals.
ABS and related activities: Member, Career Awards
Committee, 1992-1994, Founders Poster Award
judge 1992, Allee Award judge 1993, editorial
board, *Ecology*, 1994-1996.

PROGRAM OFFICER:

Anne B. Clark

Birthdate: December 30, 1949
Education: B.A., 1971, Univ. of Chicago
Ph.D., 1975, Univ. of Chicago
Present Position: Assistant Professor, Binghamton
University (SUNY)
Research Interests: Parent-offspring relations,
hatching asynchrony and development in birds;
individual differences; prosimian behavior.
ABS and related activities: Organizer (with Hilary
Box) symposium on individual differences ABS
1983; Co-host 1990 ABS meetings; Allee
Award judge ABS meetings 1994.

Jeffrey R. Lucas

Birthdate: January 31, 1953
Education: B.S., 1975, Florida Institute of
Technology
M.S., 1978, Univ. of Florida
Ph.D., 1983, Univ. of Florida
Present Position: Associate Professor, Purdue
University
Research Interests: Behavioral ecology, foraging
behavior, dynamic optimization.
ABS and related activities: ABS Constitution, By-
laws and Policy Committee 1988-1991; ABS
Assistant Program Officer 1991-1994.

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

MEMBER-AT-LARGE:

Jean-Guy J. Godin

Birthdate: September 25, 1951

Education: B.Sc., 1973, St. Francis Xavier Univ.

Ph.D., 1979, Univ. of British Columbia

Present Position: Professor of Biology, Mount Allison University

Research Interests: Behavioural ecology, decision-making and trade-offs, foraging, antipredation, fish shoaling, sexual selection and mate choice

ABS and related activities: Allee Award judge 1991; Member (1988-90) and Chair (1990-91) of NSERC Canada Scholarships and Fellowships Committee (1988-90); Member, NSERC Advisory Committee on Tenure of Postgraduate Scholarships Abroad (1988-89); Member, NSERC/Fisheries & Ocean Canada Science Subvention National Review Committee (1994-97)

John C. Wright

Birthdate: May 25, 1947

Education: B.A., 1970, Wittenberg University

M.A., 1972, Miami University

Ph.D., 1976, Miami University

Present Position: Professor of Psychology, Mercer University

Research Interests: Applied animal behavior: Aggression to people and conspecifics in domesticated dogs and cats kept as companion animals; the behavioral effects of gonadectomy in dogs and cats.

ABS and related activities: Member, Ad Hoc Committee on Certification of Applied Animal Behavior, 1985-1986; Member, Committee on Issues in Applied Animal Behavior Committee, 1987-1994 (Chair, Subcommittee on Requirements for Certification Program, 1989); Chair, Board of Professional Certification, 1990-1994

PROPOSED CHANGE IN THE ABS CONSTITUTION:

A vote of the ABS membership is required to change the Constitution or By-Laws of the Society. The following changes were approved by the Executive Committee at the Annual Meeting in August. For these changes to take effect, the membership must vote in favor of the changes. Otherwise the Constitution and By-Laws are not changed.

Proposed deletions shown in [brackets] and proposed additions are underlined.

Article 8. Elections:

Section 1. General Elections-- (to clarify and simplify the voting method)

Whenever an office becomes vacant or is scheduled to fall vacant, the Nomination Committee shall, through the Secretary, present to the membership by mail at least thirty days before distribution of ballots the name(s) of qualified individuals willing to serve who are members in good standing. Additional nominations may be made in letters to the Executive Committee signed by five or more members in good standing and submitted by the deadline announced in the NEWSLETTER. Elections shall be held by mail ballot, with provision for write-in votes. The Secretary shall tabulate and record the vote, and notify the candidates and the Executive Committee of the results of the election. [The election ballot shall include spaces for the voter to indicate a first and a second choice from among the candidates. A simple majority of those voting for that office is necessary for election. Failing a simple majority, the two candidates receiving the greatest numbers of first choice votes shall receive the second choice votes in their names on the ballots for the unsuccessful candidates.] The candidate receiving the [higher combined total] highest number of votes cast for that office shall be elected; in case of a tie, a run-off election shall occur. The results shall be announced in the next NEWSLETTER.

voled
11/28/94

**BALLOT: 1994 GENERAL ELECTION OF
THE ANIMAL BEHAVIOR SOCIETY**

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

**SUSAN A. FOSTER, ABS SECRETARY
DEPT. OF BIOLOGICAL SCIENCES
UNIVERSITY OF ARKANSAS
FAYETTEVILLE, AR. 72701**

**BALLOTS POSTMARKED AFTER
JAN 6, 1995 CANNOT BE COUNTED**

You may cast write-in votes. We are electing four officers of ABS (terms to begin August 14, 1995). We are also voting on one change to the Constitution. 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 a 1 in the blank following your first choice, and a 2 in the blank following your second choice.

FOR SECOND PRESIDENT-ELECT:

David Duvall _____

Joy A. Mench _____

Write-in _____

OPPORTUNITIES

Biodiversity graduate fellowships. The Univ. of Connecticut seeks outstanding Ph.D. candidates in ecology, animal behavior, evolutionary biology, systematics, and conservation biology. NSF Graduate Research Training fellowships provide a \$14,000 annual stipend plus up to \$7500 cost of education allowance. Although the graduate program accepts and supports highly qualified applicants from any country, NSF support is limited to U.S. Citizens and Permanent Residents. Write or fax (203-486-6364): Biodiversity Graduate Fellowships, Dept. of Ecology and Evolutionary Biology; Univ. of Connecticut, U-43; Storrs, CT 06269-3043; or call Ellie DeCarli at (203) 486-4319.

FOR PARLIAMENTARIAN:

Deborah M. Gordon _____

Kimberly M. Sullivan _____

Write-in _____

FOR PROGRAM OFFICER:

Anne B. Clark _____

Jeffery R. Lucas _____

Write-in _____

FOR MEMBER-AT-LARGE:

Jean-Guy J. Godin _____

John C. Wright _____

Write-in _____

PROPOSED CONSTITUTION CHANGE

Vote YES (in favor of change) or NO (opposed to change)

ARTICLE 8, Section 1. General Elections

YES _____ NO _____

The University of Florida and the Makerere University of Uganda are offering a summer field course in tropical ecology and conservation. The six-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 course will be taught by Dr. Lauren Chapman, Dr. Colin Chapman, and Dr. Tom Crisman (and possibly others) who between them provide expertise in a number of fields. The six-week course will include: both intensive introductory lectures and field trips and a period when the students can conduct independent research projects of their own design. For application forms contact Overseas Studies, 123 Tigert Hall, University of Florida, Gainesville, FL 32611 (Phone (904) 392-5206 or (904) 392-7474; e-mail: cachapman@zoo.ufl.edu, or ljchapman@zoo.ufl.edu

Opportunities continue on page 19.

**THIRTY-SECOND ANNUAL MEETING OF THE ANIMAL BEHAVIOR SOCIETY
8-13 JULY 1995, UNIVERSITY OF NEBRASKA, LINCOLN**

The School of Biological Sciences, and the Department of Psychology of the University of Nebraska, Lincoln, and the Nebraska Behavioral Biology Group, a collaborative program including the University of Nebraska at Omaha and at Lincoln and Creighton University, cordially invite you to attend the 32nd Annual Meeting of the Animal Behavior Society.

SETTING AND FACILITIES

The campus is located near downtown Lincoln (population 191,000), the State Capitol Building, and the historic Haymarket District. The University campus is nicely suited to host the meetings. Sessions will be held in several lecture halls in the same or nearby buildings, all within easy walking distance of on-campus residence halls and downtown hotels. Numerous restaurants are close to the conference site.

University Housing Services can accommodate all who wish to stay on campus. The residence hall rooms are air-conditioned and comfortable. On-campus parking is free and guests have access to the residence halls' swimming pool. In addition, rooms will be available at several local hotels. However, hotel rooms may be in short supply, so we suggest making reservations early.

TRAVEL ARRANGEMENTS

Lincoln is located in southeastern Nebraska, about 50 miles southwest of Omaha. Interstate 80 runs through Lincoln, which is about equidistant from Chicago and Denver. Lincoln's airport is served by United, TWA, Northwest and other airlines. The airport is located 3 miles from campus. Continuous shuttle bus service (\$3.00) will be available Saturday 8 July, and Friday 14 July.

PLANNED ACTIVITIES

We will kick-off the conference Saturday evening with a barbecue and a Sunday morning keynote address. There will be two Fellows Lectures and a Thursday morning keynote address. The conference will conclude with a banquet held at the Henry Doorly Zoo's Lied Jungle in Omaha (transportation provided) following a reception at the University's Morrill Hall (Natural History).

CONFERENCE TRAVEL AGENT

The official conference travel agent is "Tour and Transport" in Lincoln, Nebraska (phone: 800/228-4395; fax: 402/474-4336). The official airline is United, which has the best connections to Lincoln (through Denver and Chicago) from most parts of the US. If you arrange travel through Tour and Transport on United, you are guaranteed a fare at least 5% below the lowest discounted fare, and it will help defray some of the costs of the meeting.

CHILD CARE

Child care is available on or near campus. For children ages 6 weeks to six years, call either the University Child Care Project (402/472-2101) or YWCA Child Care (402/476-2802) for information. Mention that you will be attending ABS. Children ages 6 years to 12 years can attend the Husker Kids program, run by the University's Campus Recreation department (402/472-3467). We will have a list of private baby sitters for evening child care available at the meetings. Since space may be limited, please make reservations early.

TOURS AND OUTINGS

Day Trip to Omaha

Busses will leave at 8:30 AM, Tuesday 11 July, for the Joslyn Art Museum in Omaha (one hour trip). The Joslyn has a collection that spans the Renaissance through the 20th Century, with a brand new addition including 7 new galleries, and a collection of watercolors by Karl Bodmer. During July, there will be two special exhibits, "Journey to Hindoostan" featuring romantic views of India, and "Time Dust", a graphics art presentation by James Rosenquist. After visiting the Joslyn, busses will go to the Old Market, an old warehouse district which has been renovated for shopping and dining. The afternoon will be spent getting lunch (good Oriental, Cajun, French, Indian and other restaurants), walking around, shopping, etc., with busses returning to Lincoln in time for dinner. Total Cost (including museum tour, but not including lunch): \$25.00.

Local Tours

Several guided tours of local attractions in the Lincoln area will be offered, including tours of the State Museum (natural history, including spectacular Elephant Hall), the Sheldon Art Gallery (modern art), several other museums, the State Capitol (panoramic prairie view and mosaics) and the Governor's Mansion, several parks and gardens, and Nine Mile Prairie Reserve. These will be available free of charge, on a space available basis, with sign-up sheets at the registration desk when you arrive.

Day Trip to Konza Prairie

On Friday 14 July, the day after the meeting ends, there will be a day trip to Konza Prairie Research Natural Area, an 8,616 acre native tallgrass prairie reserve owned by The Nature Conservancy and managed by Kansas State University, located in the Flint Hills of Kansas, about a 2.5 hour drive South of Lincoln. The Reserve has over 450 species of wildflowers, shrubs and trees, and many species of vertebrates and invertebrates, including a herd of bison. We will use vans to travel to Konza for a guided tour of the Preserve, taking box lunches along, returning to Lincoln by 5 PM. Total Cost (including lunch): \$28.00.

REGISTRATION FORM
1995 Annual Meeting - Animal Behavior Society
University of Nebraska, Lincoln
8-13 July 1995

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

Name for name tag _____

Institution _____

Mailing address _____

City/State or Province/Zip or Postal code _____

Telephone _____ Fax _____ Email _____

Names of other adults attending _____

REGISTRATION FEE (US \$ only)

	<u>ABS Member</u>	<u>Student Member</u>	<u>Nonmember</u>	<u>Guest</u>
Advance (until 1 March)	\$75.00	\$40.00	\$ 80.00	\$35.00
Late (until 30 June)	\$85.00	\$45.00	\$ 90.00	\$40.00
On-site (after 30 June)	\$95.00	\$50.00	\$100.00	\$45.00

Registration Fee: US \$ _____

OPTIONAL ACTIVITIES

Barbecue: Saturday 8 July @US \$ 10.00 each X _____ # of tickets = _____

Banquet: Thursday 13 July @US \$ 30.00 each X _____ # of tickets = _____

Day Trip to Omaha @US \$ 25.00 each X _____ # of tickets = _____

Day Trip to Konza Prairie @US \$ 28.00 each X _____ # of tickets = _____

Optional activity subtotal: US \$ _____

T-SHIRT

The logo for the 1995 meeting is a group of sandhill cranes along the Platte River, drawn by noted Nebraska ornithologist and artist, Paul Johnsgard. Shirts are available in S, M, L, XL, and XXL.

Indicate size and quantity:

Size	Quantity	
_____	_____	X US \$10.00 = _____
_____	_____	X US \$10.00 = _____

T-shirt subtotal: US \$ _____

HOUSING

We encourage all guests to stay on campus using the package described in the separate housing reservation form. The finest hotel in Lincoln is the Cornhusker Hotel, a 10 minute walk from the meeting site (Phone: 402-474-7474). Another nearby hotel is the Ramada (402-475-4011). Other hotels near the airport but further from campus, that would probably require a car include Best Western, Days Inn, Holiday Inn and Motel 6. Hotel rooms may be limited, so we suggest making reservations early. Camping is available at Twin Lakes (7 miles West of Lincoln, 402-795-2175) and Camp-A-Way (5 miles from campus, 402-476-2282). Information on State Game and Park areas can be obtained by calling 402/471-5479.

SUMMARY

REGISTRATION SUBTOTAL	US\$ _____
OPTIONAL ACTIVITIES SUBTOTAL	US\$ _____
T-SHIRT SUBTOTAL	US\$ _____
<u>GRAND TOTAL</u>	US\$ _____

Make checks or money orders payable in US DOLLARS to ABS 1995. The ENTIRE amount must accompany the registration form. Refunds, less US \$10 administrative fee, will be made if written notification is received by 1 May 1995. Refunds after 1 May will be handled on a case-by-case basis. DEADLINE FOR SUBMITTING ABSTRACTS IS 1 MARCH 1995. ENTIRE REGISTRATION FEE MUST ACCOMPANY ABSTRACT SUBMISSION

Mail to: ABS 1995
School of Biological Sciences
University of Nebraska
Lincoln, NE 68588-0118

If you require a receipt prior to the meeting, please include a self-addressed envelope bearing required postage.

UNIVERSITY OF NEBRASKA-LINCOLN
ANIMAL BEHAVIOR SOCIETY HOUSING RESERVATION, July 8-13, 1995
Mail to: ABS 1995, School of Biological Sciences
University of Nebraska
Lincoln, NE 68588-0118

PACKAGE DESCRIPTION

Two different packages are available to provide campus housing and food services for delegates attending the 1995 ABS conference. Additional nights are also available, if needed. Please complete and return this form along with full payment no later than June 16, 1995. Upon receipt of your reservation and prepayment, a confirmation including a campus map and travel directions will be sent.

RESERVATION INFORMATION

Please use 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.

FEE CALCULATION

Your scheduled arrival date: _____ Your scheduled departure date: _____

Package 1 (6 nights: July 8,9,10,11,12,13 + breakfast & lunch July 9,10,11,12,13)

DOUBLE OCCUPANCY: number of people _____ @ \$106.50 = \$ _____

SINGLE OCCUPANCY: number of people _____ @ \$138.00 = \$ _____

Package 2 (as Package 1, plus dinners July 9,10,11,12)

DOUBLE OCCUPANCY: number of people _____ @ \$127.00 = \$ _____

SINGLE OCCUPANCY: number of people _____ @ \$158.50 = \$ _____

Extra Nights (Available July 7 & 14. Does not include meals)

DOUBLE OCCUPANCY: number of people _____ X number of nights _____ @ \$12.00 = \$ _____

SINGLE OCCUPANCY: number of people _____ X number of nights _____ @ \$17.25 = \$ _____

HOUSING TOTAL ENCLOSED \$ _____

METHOD OF PAYMENT: Deadline for reservation and prepayment is June 16, 1995.

____ Check payable to University of Nebraska - Lincoln

1995 ANNUAL MEETING
ANIMAL BEHAVIOR SOCIETY
8-13 JULY
UNIVERSITY OF NEBRASKA
LINCOLN, NEBRASKA

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, John A. Byers, Dept. Biological Sciences, Univ. Idaho, Moscow, ID 83844-3051 U.S.A.

FINAL DEADLINE FOR RECEIPT OF ABSTRACTS: 1 MARCH 1995. ONLY SUBMISSIONS ON THE PROPER FORM WILL BE ACCEPTED. LATE SUBMISSIONS WILL BE RETURNED. NO FAX SUBMISSIONS.

NOTE: YOU MUST PAY FOR MEETING REGISTRATION WHEN YOU SUBMIT YOUR ABSTRACT. Registration forms are included in this ABS Newsletter, and a separate copy also will be sent to each member.

SEND ALL MATERIALS: REGISTRATION FORM AND PAYMENT, TWO COPIES OF THE ABSTRACT, AND THE ABSTRACT TRANSMITTAL FORM, TO THE LOCAL HOST, DR. AL KAMIL, SCHOOL OF BIOLOGICAL SCIENCES, MANTER HALL, UNIVERSITY OF NEBRASKA, LINCOLN, NE 68588-0118, U.S.A. ONLY THOSE ABSTRACTS ACCOMPANIED BY PAID REGISTRATION WILL BE FORWARDED TO THE PROGRAM OFFICER.

POSTER PAPERS will be on display throughout the meetings, with hours for author attendance scheduled during two evenings. Poster papers are highly recommended: posters can facilitate more discussion, perusal of data and one-to-one exchanges of ideas. The ABS sponsors a competition, the **FOUNDERS AWARD FOR POSTER PAPERS**. 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 form 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, above address, by 1 March 1995. The written manuscript must not exceed 7 pages of double-spaced typewritten text; it may include no more than 4 tables and figures and should be completed in the Animal Behaviour format. A single page update may be submitted to the Program Officer between 1 March and 30 June.

SYMPOSIA AND INVITED PAPER SESSIONS: ABS encourages those who wish to plan a session of invited papers or a symposium. Plan now for the 1996 meetings (to be held in late July in Flagstaff, AZ). 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 1996 meetings is 1 May 1995.

ABSTRACT PREPARATION:

1. Your abstract will be photographed just as you submit it; you must follow the specified format.
2. Use plain bond or good photocopy paper
3. Single-space throughout
4. Print the abstract within a space 3" high x 7" wide: leave no top or left margins, and no blank lines.
5. Use letter quality print or comparable text produced by an electric typewriter. Use black ink to draw symbols not available on your computer or typewriter.
6. The format of your abstract must be as follows:
 - FIRST LINE: Title - use capital letters; titles on the abstract and on the Transmittal Form must be identical.
 - SECOND LINE: Authors and complete mailing address.
 - THIRD AND FOLLOWING LINES: Text of abstract, organized as follows:
 - a. Specific objectives - include a brief statement unless this is clear from the title.
 - b. Methods - include a brief description as necessary.
 - c. Results - provide a clear, specific summary of findings.
 - d. Conclusions.
7. Please print or type your abstract near the top of a page, so that the page will not be folded across text.
8. An example of correct format for the first two abstract lines is shown below.

Example:

SATELLITE MALE GROUPS IN HORSESHOE CRABS, LIMULUS POLYPHEMUS
H. Jane Brockmann, Department of Zoology, University of Florida, Gainesville, FL 32611

THE DEADLINE FOR ALL ABSTRACTS IS 1 MARCH 1995. NO EXCEPTIONS.
FAX copies are unacceptable.

ALONG WITH YOUR ABSTRACT, PLEASE INCLUDE AND SIGN THE FOLLOWING STATEMENT:

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:

1. The entire abstract (including title and author lines) fits within a 3"x7" space.
2. Only the title is in all CAPS.
3. TWO copies of the abstract are submitted.
4. The page is not folded across the abstract text.
5. Guidelines and laws statement included, with signature.
6. Items 1 through 11 in the Abstract Transmittal Form answered.

ABSTRACT TRANSMITTAL FORM
1995 ANNUAL MEETING OF THE ANIMAL BEHAVIOR SOCIETY
8-13 JULY, UNIVERSITY OF NEBRASKA, LINCOLN

RETURN, WITH TWO COPIES OF THE ABSTRACT, REGISTRATION FORM, AND PAYMENT TO:
DR. AL KAMIL
SCHOOL OF BIOLOGICAL SCIENCES
MANTER HALL, UNIVERSITY OF NEBRASKA
LINCOLN, NE 68588-0118, U.S.A.

1. TITLE OF PAPER PLEASE TYPE OR PRINT.

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

3. INSTITUTIONAL AFFILIATION

4. MAILING ADDRESS OF PRESENTING AUTHOR

5. E-MAIL

6. TELEPHONE NUMBERS OFFICE

HOME

7. PLEASE CIRCLE ONE CATEGORY (ABSTRACT REQUIRED OF ALL CATEGORIES)

General Poster Session

Founders Award Poster Session

Regular 20-minute Paper

Allee Award Paper

Symposium or Invited Paper Session

8. PLEASE CIRCLE THE ABS MEMBERSHIP CATEGORY OF THE PRESENTING AUTHOR

Regular

Student

Visiting Foreign Scientist

Non member, Sponsored by

9. WOULD YOU LIKE TO CHAIR A SESSION?

Yes No

10. IS THIS PRESENTATION BASED UPON RESEARCH SPONSORED BY AN ABS RESEARCH GRANT?

Yes No

11. IS THIS TO BE YOUR FIRST PRESENTATION AT A NATIONAL ABS MEETING?

Yes No

12. SPECIAL REQUESTS, THAT THE PROGRAM OFFICER WILL TRY TO ACCOMMODATE

13. SPECIAL A-V REQUESTS (A standard 2x2" slide projector and overhead projector will be provided)

Note: electricity will not be available for poster sessions

Animal Behavior: interdisciplinary training at the University of California, Davis:

Opportunities are available for Graduate Training and Undergraduate Summer Fellowships through the Research Training Group in Animal Behavior, supported by the National Science Foundation. The aim of the program is to provide broadly interdisciplinary training for outstanding students to address problems in the study of animal behavioral and biological sciences. Selection will be based on academic accomplishment and promise of ability to benefit maximally from interdisciplinary training. GRADUATE training: 4 years of support, annual 9-month stipend of \$9,324 plus payment of tuition and educational fees (applicants must apply separately to a graduate program at UC Davis).

DEADLINE: December 15, 1994.

UNDERGRADUATE SUMMER FELLOWSHIPS:

2-Month research internships, \$750 stipend plus room, board and roundtrip transportation to Davis.

DEADLINE: January 15, 1995. All applicants must be US citizens or permanent residents. The University of California is an Equal Opportunity/Affirmative Action Employer. To receive an application contact: Jeni Tevitt, Animal Behavior Program, University of California, Davis, CA 95616, Phone (916) 752-4863, fax (916) 752-8391, e-mail jmtrevitt@ucdavis.edu (please specify graduate or undergraduate application).

Field Assistant in Behavioral Ecology and Conservation

needed for a study of effects of loss of keystone carnivores on behavioral phenomena and life histories. The assistant will be responsible for gathering data on distribution, anti-predator behavior, and social interactions in female moose in Alaska. Help needed from April until early August.

Approximately \$1000/ month is available in salary along with a small travel stipend. Radio-telemetry experience, mechanical and outdoor skills, own vehicle, and self-reliance are all on my wish list. One or two volunteers may also be acceptable. Send letter, resume, and 3 letters of recommendation to Joel Berger, Ecology, Evolution, and Conservation Biology, University of Nevada, Reno, NV 89512.

Postdoctoral position in Animal Behavior:

The Zoological Society of San Diego announces availability of the J. Dallas Clark postdoctoral position in animal behavior, to investigate effects of captive living on mating behavior and reproduction in solitary mammals. Includes archival analyses and observational studies under semi-free ranging conditions. Candidate must be willing to spend up to 6 months in a 3rd world country. Two year position, with third year renewal optional. Start date, between January 1-March 1, 1995. Stipend, \$25,000. Interested applicants should send curriculum vitae, a

statement regarding current and future research interests, and names of three references by December 1 to: Postdoctoral Search Committee, Center for Reproduction of Endangered Species, Zoological Society of San Diego, PO Box 551, San Diego, CA 92112. Equal Opportunity Employer.

Volunteer field assistants: needed for a study of the mating system of the California ground squirrel near Pleasanton, California. Volunteers will monitor behavior and assist in collecting blood samples. The study will last for 5 months beginning in early January. Assistants must provide their own food, camping gear and transportation to the field site. If possible, academic credit will be provided. Contact Lisa Cody, Dept. of Psychology, Young Hall, University of California, Davis, CA 95616; e-mail: lecody@ucdavis.edu.

Field assistant needed April through mid-June 1995 for a study of the dispersal behavior of the Fender's blue butterfly, a rare butterfly endemic to the Willamette Valley in Oregon. Research will be conducted at the Nature Conservancy's Willow Creek Natural Area, a prairie preserve in Eugene, OR. Work will include mapping butterfly flight paths, censusing butterflies and sampling vegetation. Previous field experience desired, but not a necessary. Expenses in the field and a small stipend will be provided. For further information or to apply, contact Cheryl Schultz, Dept. of Zoology, NJ-15, University of Washington, Seattle, WA 98195 Phone: (206) 685-6893; e-mail: schultzc@zoology.washington.edu.

Opportunities available for several highly-motivated students in Ph.D. program, interested in using molecular methods to address outstanding questions in behavioral ecology. Current questions being addressed include the evolution of social behavior and mating systems. Methodology being used includes PCR and DNA sequencing for phylogeny reconstruction and comparative analysis, and allozyme and DNA analyses of relatedness and population structure. Projects may involve fieldwork in Australia.

Successful candidates will be joining an active Behavioral Ecology Research Group, which includes, among others, Dr. Fred Cooke, Dr. Larry Dill, Dr. Bernie Roitberg, Dr. Mark Winston, Dr. Niko Verbeek, and Dr. Ron Ydenberg. Please send CV and brief description of research interests to: Dr. Bernard J. Crespi, Dept. of Biological Sciences, Simon Fraser University, Burnaby, BC, Canada, V5A 1S6, email: Crespi@sfu.ca. Inquiries concerning Post-Doctoralwork are also welcome.

APPLICATION FOR MEMBERSHIP: ANIMAL BEHAVIOR SOCIETY

Name in Full _____ Degrees _____

Address _____

_____ Phone _____ E-Mail _____

Position _____ Institution _____

_____ Member - \$41 (US) Receive Animal Behaviour and Newsletter

_____ Student Member - \$20 (US) Receive Animal Behaviour and Newsletter

_____ Joint Member - \$28 (US) Receive Newsletter

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

Name _____ Signature _____

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

Mastercard # _____ or VISA # _____

Expiration Date _____ Card Holder's Signature _____

**Send the application to: Randall Breitwisch, ABS Treasurer
Department of Biology
University of Dayton
300 College Park
Dayton, OH 45469**

Animal Behavior Society
S. Foster, Secretary
Dept. of Biol. Sci.
SCEN 601
Univ. of Arkansas
Fayetteville, AR 72701

Non-Profit
Organization
U.S. POSTAGE
PAID
FAYETTEVILLE, AR
PERMIT NO. 882

ADDRESS CORRECTION REQUESTED