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INTERNATIONAL SOCIETY FOR BEHAVIORAL ECOLOGY  
**ISBE NEWSLETTER**

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**FROM THE PRESIDENT**

In this, my first contribution to the Newsletter as President of the ISBE, I take special delight in noting the good performance of Behavioral Ecology in the journal rankings recently released by the Institute for Scientific Information (ISI). According to ISI's ratings of relative impact of journals, Behavioral Ecology, the journal sponsored by the ISBE, is well-placed among journals in the field of behavior (see "The Success of Behavioral Ecology" by Bob Montgomerie on page 4 of this Newsletter). This accomplishment is significant given the youth of the journal (volume 1 was published in 1990) and indicates that we are well on the way to one of the major goals of our young society -- the establishment of a journal of high quality that is affordable to individual subscribers. For making this happen, we must extend our heartfelt thanks to the founding editors, Don Kramer and Staffan Ulfstrand, and to the original editorial board members: Tim Clutton-Brock, Serge Daan, Mark Elgar, Alan Grafen, Mart Gross, Paul Harvey, Yoh Iwasa, Alex Kacelnik, Manfred Milinski, Anders Møller, Bob Montgomerie, Linda Partridge, Jon Seger, Dave Stephens, Bob Warner and Sandy Vehrencamp. Also, thanks are in order to all the authors who have sent their first-rate material to a fledgling journal. I trust that the recent ISI rankings will encourage others to do likewise!

The 1994 ISBE Conference in Nottingham was a stimulating and well-attended conference, which was also well organized and run by the local committee chaired by Chris Barnard. Due to research and personal conflicts, this was the first ISBE Conference I had been able to attend since Vancouver, so it was especially enjoyable to talk with friends and colleagues and to meet new people. One of the most resounding messages of the meeting was the absolute necessity of employing molecular techniques to establish genetic relatedness among individuals as a routine component of studies of sexual selection, social organization, and mating systems -- in short, in much of the work that is of current interest to behavioral ecologists. While it was obvious at the conference that many behavioral ecologists are currently conducting research involving molecular techniques, I wonder how to best insure that younger scientists, in particular, will be able to obtain access to molecular facilities to learn techniques, and/or have samples processed for them, as the demand for facilities and services continues to grow. I would be interested in hearing of readers' ideas and concrete plans in this regard, their own concerns, and their relevant experiences in various localities. Write to me at the address printed on page 2 of this Newsletter. If the response warrants it, I shall summarize and disseminate pertinent information. Included in this issue of the Newsletter is an announcement of the 1996 ISBE meeting in Canberra, A.C.T., Australia, and a circular you can mail in order to receive additional mailings of materials. This will be our Society's first meeting outside of Europe or North America, and I hope you will all make an extra effort to attend. Also included is a ballot regarding proposed changes in the terms of officers. Because many of you receive the Newsletter via surface mail, it is important to return the ballot (to Patty Parker) and conference circular (to Andrew Cockburn) quickly. Thank you.

  
Nancy Burley

**THE CURRENT EXECUTIVE**

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Members of the Council are asked to check this listing, and provide any corrections or additional information to the Newsletter editor.

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**SOCIETY NEWS**

**VITH INTERNATIONAL BEHAVIOURAL  
ECOLOGY CONGRESS  
Canberra, Sept. 29 - Oct. 4, 1996**

**Venue**

The Sixth International Behavioral Ecology Congress will be held at the Manning Clark Centre, Australian National University from 29 September to 4 October 1996. An evening reception will be held on 28 September.

**Conference Tours**

A number of pre- and post-conference tours are planned. These will be run by expert naturalists to some of Australia's most magnificent natural attractions including:

- the 'Top End', including Kakadu National Park
- the tropical rainforest of north Queensland
- Australia's Red Centre
- wilderness areas of southeastern Australia
- outback Australia.

**Scientific Content**

For further information on scientific organisation please contact Andrew Cockburn, Botany and Zoology, Australian National University, ACT, 0200, Australia (e-mail: isbe6@anu.edu.au).

**To receive the registration circular and call for papers, please complete and return the form on page 12**

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### From our correspondent ...

The next ISBE congress will take place between Sunday 29 September (opening reception) to Friday 4 October 1996 at the Australian National University (ANU) Canberra. I recently visited Australia and took the opportunity to look at ANU and the Manning Clark Conference Centre which we'll be using. Canberra is a planned town and has an English feel to it (except that there are parrots everywhere). The conference centre is new, modern and located just a few minutes walk from the halls of residence accommodation, and about 10 minutes walk from downtown Canberra. Andrew Cockburn, the conference organiser, assures me that the accommodation will be even better than that at Nottingham, and may even be better than at Princeton. The attractive ANU campus comprises a large number of well-spaced low-rise buildings set amongst lots of trees. There are several good eating places on the campus, and my impression was of good quality food at reasonable prices. Although Canberra is hardly the heart of rugged Australia, just a few minutes walk from the campus is the Botanic Garden which specialises in Australian flora and which is the site for several of ANU's behavioural ecology studies. For those wishing to see superb fairy wrens extrovertedly strutting their stuff, or white-browed scrub wrens introvertedly pretending to be dunnocks, this will be a great place for a break from the conference. The garden also has cockatoos, kookaburras, Australian magpies, currawongs, white-winged choughs and many more species. The conference will take place in the austral spring - the start of the breeding season for many birds, and at a time when temperatures (during the day at least) will be very pleasant. One of the planned excursions during the conference is to Tidbinbilla Nature Reserve about 30 km south of the city, where several marsupial and both monotremes occur - there are the essential kangaroos, wallabies and koalas, but I also saw a platypus, and a satin bower bird at its bower.

There are two points about the conference that you should note. First, for most Brits the conference will take place during our first semester and hence it might be necessary to rearrange teaching in good time to ensure that you can attend the conference (to say nothing of the pre- and post-conference tours - see below). Second, you cannot fly directly into Canberra from outside Australia, instead you must go via one of the larger cities such as Melbourne or Sydney. I say this only to avert the possible psychological

damage of finding after sitting on a plane for 24 hours that you've still got more travelling to do. Canberra is just one hour by plane from these two cities.

Providing there is sufficient interest, there will be 5-day natural history tours on either side of the conference to: (i) Kakadu, (ii) the Centre, (iii) the northern rainforest and (iv) south-eastern Australia. Having just been in some of these regions and been completely amazed by Australia's natural history, I think these tours will be well worth going on. Overall, I came away from Canberra feeling full of optimism and enthusiasm for what promises to be a great meeting in an excellent location. See you there in 1996.

Tim Birkhead  
(president elect)

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### DONATED SUBSCRIPTION PROGRAMME

Please help colleagues in need. Every donation will help increase scientific contacts across the world. In a time when nationalism is again raising its ugly head, this is more important than ever. For details, see the newest issues of our journal *Behavioral Ecology*.

### SPOUSAL MEMBERSHIP

For \$5 per year spouses of full members can become members of ISBE. Spousal members receive the annual newsletter and information concerning biannual meetings, but do not receive a subscription to the journal. Please see information in any issue of *Behavioral Ecology*.

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### ISBE ARCHIVES

Our archivist sends the following request to complete the archives. Please take a few moments to check if you can help. Main items still lacking in the archives are 1) a program in good condition from the Uppsala meeting 2) minutes, notes, correspondence, financial statements, etc. from years 1986-1988. Please could you look through your files to see if you have any of the relevant material or anything else you feel should be archived. A detailed list of what is presently catalogued is available from the address below. Thank you for your assistance.

Still needed are:

**Membership Lists - 1987, 1988, 1989**

- 1986 Albany Meeting - minutes, notes  
 1988 Vancouver Executive Meeting - agenda, notes, treasurer's report; Business Meeting - agenda, notes  
 1990 Uppsala Business Meeting - agenda, notes  
 1994 Nottingham Executive Meeting - minutes, notes, treasurer's report; Business Meeting - agenda, minutes, notes  
 Correspondence concerning 1988 search for B.E. Editors Staffan Ulfstrand, Donald Kramer  
 1988 Vancouver Meeting - 2nd circular  
 1990 Uppsala Meeting - program book (incomplete list of participants)  
 1994 Nottingham Meeting - 1st circular, program, abstracts

Please send whatever you might have to:

Wendy King  
 Département de biologie  
 Université de Sherbrooke  
 Sherbrooke, Québec  
 Canada, J1K 2R1  
 tel: (819) 821-7061  
 fax: (819) 821-8049  
 e-mail: wking@vm1.si.usherb.ca

**Thank you very much!!!**

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**Report from the Journal Editors  
 Behavioural Ecology 1993**

In 1993 *Behavioral Ecology* published 50 research articles and two Forum reports on conferences in four issues totalling 379 pages. We received a total of 173 submitted manuscripts, 100 to the North American and 73 to the European office. Of these, 31% have been accepted, 60% rejected, and 9% remain undecided. The number of submitted manuscripts is slightly down in comparison to the 184 received in 1992, and the acceptance rate is down slightly from the 37% acceptance in 1992. Nevertheless, we still accepted 18 more papers than we published in 1993.

Financially, the journal is continuing to improve its position. In 1993 membership continued to rise and now stands at 1150. Income is now higher than expenses before overhead, and the net annual loss is continuing to fall. With some luck and continued efforts by the Society to encourage both individuals and institutions to join, Oxford Press may begin to regain some of its

considerable investment in the journal next year. As an indication of its confidence, Oxford Press has agreed to expand each issue by 25% for 1994 and to not raise members' subscription rates for 1995. The increased size of the journal, along with an increasingly high standard of acceptance, should help us to reduce the backlog, which now stands at about two issues.

With the ending of the original editorial terms of Don Kramer and Staffan Ulfstrand, we have been fortunate to be able to recruit talented replacements. In 1993 Larry Wolf began to share the duties of the New World editorship with Don. In January 1994 Larry became the coordinating editor, receiving manuscripts from the New World and acting as the editorial contact for Oxford Press. Don Kramer stayed on as co-editor until the end of June 1994, when his replacement, Marc Mangel, began his term. In the European office, Staffan Ulfstrand will be stepping down in December 1994 to be replaced by Paul Schmid-Hempel. Paul will begin a gradual taking over of editorial responsibilities starting in October and his office will be the address for Old World manuscript starting in January 1995. Staffan and Don will both maintain responsibility for revised manuscripts which they handled originally.

A process for renewal of the Editorial Board has also been put into place. Every second year, at the time of the Conference, one third of the Board will be replaced.

In the four years since the first issue appeared at the Uppsala meeting of the Society, the journal seems to be achieving the goals set for it at the Vancouver meeting. It has become a high quality but affordable journal bringing together all aspects of behavioral ecology. With the transition to new editors, it really seems to have come of age.

Don Kramer  
 Staffan Ulfstrand  
 Larry Wolf

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**The Success of Behavioral Ecology  
 by Robert Montgomerie**

At the last meeting of the editorial board of *Behavioral Ecology* (BE), in Nottingham, there was much jubilation over preliminary reports that BE had been ranked at the top of behavioral journals by the institute of Scientific Information (ISI). This is the first time that ISI has included BE in its analysis - 3 years of data are required to calculate an "Impact Factor". Impact Factor is the ratio of current citations (in 1993 in this case) for

papers published in the previous 2 years to the number of papers published in those same 2 years. It is thus a measure of the average number of citations per paper, 1-2 years after publication.

This analysis has now been published in *Journal Citation Reports* (Garfield 1994a) and places *Behavioral Ecology* number 1 among 32 Behavioral Sciences journals and number 2 among 96 Zoology journals. BE is reported to have an Impact Factor of 5.0 for the 1991 and 1992 papers cited in 1993. This would put BE well ahead of any other journal publishing research in animal behavior and second only to *Systematic Zoology* in all of zoology.

While I was delighted about the success of BE, this amazing citation rate did not fit my perception (nor that of my students and postdocs) of the frequency with which BE papers (especially our own) were getting cited. To evaluate the JCR data, I went to the information source (Garfield 1994b) which is, thankfully, now on easily accessible CD-ROM.

As we had expected, JCR got it wrong, attributing many papers actually published in *Behavioural Ecology and Sociobiology* (BES) to BE. The 260 citations attributed to BE for papers published in 1991 were largely (200 of them) for papers actually published in BES that year. This presumably happened because of the similarity in journal titles.

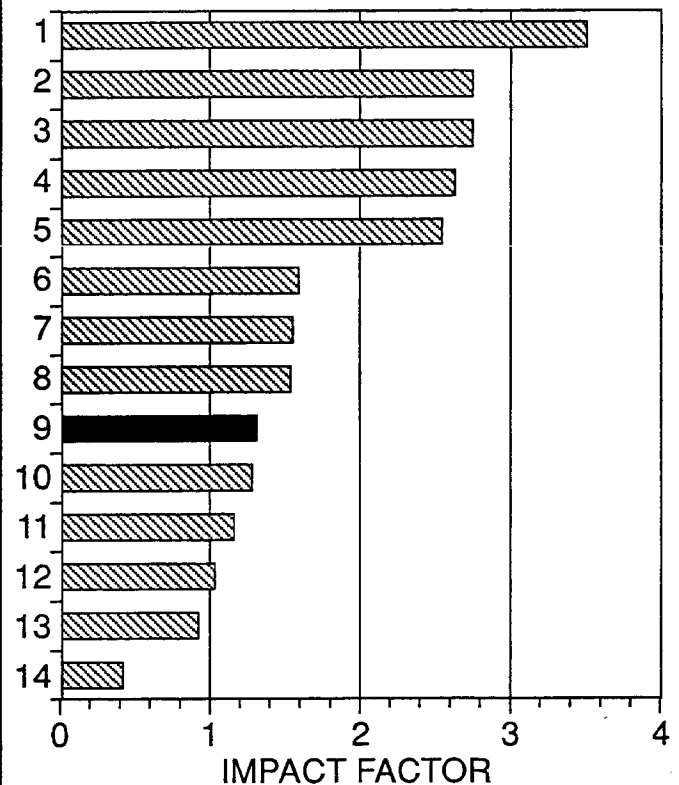
While this error is unfortunate and will presumably be corrected by ISI in future publications, it does not take away from the fact that BE has had an incredibly successful start under the stewardship of our founding editors, Staffan Ulfstrand and Don Kramer. The correct figures for the 1993 Impact Factors are shown in Figure 1 and put BE right in the middle of the pack of journals in animal behaviour, not a bad record for a fledgling. More than half of the papers appearing in 1991 and 1992 had already been cited by 1993.

The very respectable Impact Factor for BE should encourage all of you to send your best stuff to our journal. The journal has clearly an excellent international reputation and one that will undoubtedly grow.

Garfield, E. 1994a *SCI Science Citation Index 1993*. Philadelphia; Inst. Sci. Info., Inc.

Garfield, E. 1994b *SCI Journal Citation Reports; a bibliometric analysis of science journals in the 1993 ISI database*. Philadelphia; Inst. Sci. Info., Inc.

Robert Montgomerie  
 EMAIL: montgome@biology.queensu.ca



1. Tree, 2. Evolution, 3. Adv. Stud. Behav., 4. Am. Nat., 5. Ecology, 6. Anim. Behav., 7. Oikos, 8. Bes., 9. Behav. Ecol., 10. Evol. Ecol., 11. Ethol. Sociobiol., 12. Ethology, 13. Behaviour, 14. Ecol. Ethol. Evol.

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**FROM THE SECRETARY**

**Proposed Changes to the ISBE Constitution**

As a result of discussion in the Executive Council Meeting and the Business Meetings of the International Society for Behavioral Ecology in Nottingham, U.K., on August 16 and August 18, 1994, the following changes are proposed to the Constitution of the ISBE. The intention of the proposed changes is to increase continuity among offices and to increase support available to the new officers. Here we present the two constitutional articles affected by the proposed changes as they currently stand, followed by the suggested revisions. We request that all interested members vote on the proposed changes using the ballot provided on page 7 of this Newsletter.

**CURRENT VERSION:** Article 3: OFFICERS. The officers of the Society shall be President, President Elect, Treasurer, and Secretary.

Each will serve a term of two years commencing at the biannual meeting. The President Elect will become President two years after being elected and the President may therefore not serve two consecutive terms. The Secretary and Treasurer may be re-elected.

**PROPOSED VERSION: Article 3: OFFICERS.** The officers of The Society shall be President, President Elect, Past President, Treasurer, and Secretary. All terms commence at the biannual meeting. The President Elect will become President two years after being elected and will serve a term of two years as President: the President therefore may not serve two consecutive terms. At the end of the term of President, the former President will serve as Past President for a term of two years. The Secretary and Treasurer will serve terms of four years, with elections staggered to allow an overlap of two years by those officers. The Secretary and Treasurer may be re-elected.

**NOTES to electorate regarding Article 3:**

(1) If the office of Past President is created, we would like to offer the post immediately to the only currently eligible past president, Larry Dill.

(2) If the motion to change the terms of secretary and treasurer passes, along with the staggering of these offices, in order to accomplish the staggering of the offices of Secretary and Treasurer, we propose that the office of Treasurer be the first to serve a four-year term (because the Treasurer's duties may include moving the Society bank account). The 1996 elections would be for a 4-year Treasurer and a 2-year Secretary. Afterward, all elections for Secretary and Treasurer would be for terms of four years, one being elected at each biannual election (at the time we elect a new president-elect and two councillors) in an alternating fashion.

**CURRENT VERSION: Article 5: ELECTIONS.** The President, in consultation with the Council, will appoint a Nominating Committee at the biannual meeting and shall designate one of its members as Chairperson. This committee will invite proposals for nomination from the Society's membership no less than one year before the next biannual meeting. It will then nominate two willing candidates for each of President Elect, Treasurer and Secretary, and four for Councillor. Elections will take place by mail ballot no less than six months before the biannual meeting. The nominating committee will arrange for the Secretary to mail ballots and brief biographies of the candidates to the membership; ballots should be returned to the Secretary. The Secretary will

inform newly elected officers of their election before the biannual meeting and will inform the membership of election results either via the Newsletter or at the meeting.

**PROPOSED VERSION: Article 5: ELECTIONS.** The President, in consultation with the Council, will appoint a Nominating Committee at the biannual meeting and shall designate one of its members as Chairperson. This committee will invite proposals for nomination from the Society's membership no less than one year before the next biannual meeting. It will then nominate two willing candidates for each of President Elect, Treasurer or Secretary (alternating elections), and four for Councillor. In special circumstances a single nomination may be made for any office. Elections will take place by mail ballot no less than six months before the biannual meeting. The nominating committee will arrange for the Secretary to mail ballots and brief biographies of the candidates to the membership; ballots should be returned to the Secretary. The Secretary will inform newly elected officers of their election no less than four months before the biannual meeting and will inform the membership of election results either via the Newsletter or at the meeting.

**Please complete and mail the ballot provided on page 7.**

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**FROM OUR MEMBERS**

**Talking About People?**

Probably with the idea of bringing some human examples into their lectures, a number of people asked if I would provide a list of some key references to evolutionary psychology, cultural inheritance theory and human behavioural ecology, in the spirit of my plenary talk at Nottingham.

Here they are, with a few comments:

**Evolutionary Psychology**

Symons, D. (1979) *The Evolution of Human Sexuality*. New York: Oxford University Press. [Provocative in places, and a good early statement of how and why sex differences exist].

Tooby, J. and L. Cosmides (1989) *Evolutionary psychology and the generation of culture, Part I. Ethology & Sociobiology* 10: 29-49.

**BALLOT**

**BALLOT FOR PROPOSED CHANGES TO CONSTITUTION OF INTERNATIONAL SOCIETY FOR BEHAVIORAL ECOLOGY**

(please use this ballot to vote on proposed changes and return by March 15, 1995, to address below).

1. That the office of Secretary of ISBE be extended to four years (from two years):

yes

no

2. That the office of Treasurer of ISBE be extended to four years (from two years):

yes

no

3. That the office of Past President be created as an advisory post to the current officers as stipulated in the proposed article 3:

yes

no

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Tooby, J. and L. Cosmides (1990) The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology* 11: 375-424. [Both are complex and tightly argued statements about the assumptions and research goals of evolutionary psychology].

Buss, D.M. (1988) Sex differences in human mate preferences: evolutionary hypothesis testing in 37 cultures. *Behavioral and Brain Sciences* 12: 1-49. [Empirical tests of hypotheses from Symons, and elsewhere].

Daly, M. and M. Wilson (1984) A sociobiological analysis of human infanticide. In *Infanticide: Comparative and Evolutionary Perspectives*, G. Hausfater and S.B. Hrdy, eds., pp. 487-502. New York: Aldine.

Daly, M. and M. Wilson (1988) *Homocide*. New York: Aldine de Gruyter. [Both represent strong use of evolutionary psychology, based no on interviews/questionnaires but on behavioural outcomes].

Perusse, D. (1992a) Cultural and reproductive

success in industrial societies: Testing the relationship at the proximate and ultimate levels. *Behavioral and Brain Sciences*. [The wealthy no longer have higher reproductive success than the poor, but do have more frequent intercourse].

**Cultural Inheritance Theory**

Boyd, R. and Richerson P.J. (1985) *Culture and the Evolutionary Process*. Chicago: University of Chicago Press. [Classic modelling of the effects of biases generated by cultural transmission].

Durham, W.H. (1991) *Coevolution: Genes, Culture, and Human Diversity*. Stanford: Stanford University Press. [Rich ethnographic case studies on various hypothesized relationships between biological and cultural evolutionary processes].

Flinn, M.V. and R.D. Alexander (1982) *Culture theory: The developing synthesis from biology*. *Human Ecology* 10: 383-400. [A critique of early dual inheritance models, from the perspective of behavioural ecology].

Please return ballots to the Society Secretary at the address below no later than March 15, 1995:

Return ballots to:

Patricia Parker  
Secretary, ISBE  
Department of Zoology  
1735 Neil Avenue  
The Ohio State University  
Columbus, Ohio 43210  
USA

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Blurton Jones, N.G. (1990) Three sensible paradigms for research on evolution and human behavior? *Ethology and Sociobiology* 11: 353-359. [How evolutionary psychology, cultural inheritance theory, and behavioural ecology should be integrated].

#### Behavioural Ecological Anthropology

Chagnon, N. and W. Irons, eds. (1979) *Evolutionary Biology and Human Social Behavior: An Anthropological Perspective*, North Scituate, Massachusetts: Duxbury. [An early collection of studies and position papers].

Betzig, L., M. Bergerhoff Mulder, and P. Turke, eds. (1988) *Human Reproductive Behaviour: A Darwinian Perspective*. Cambridge: Cambridge University Press. [A collection of quantitative empirical studies].

Smith, E.A. and B. Winterhalder, eds. (1992) *Evolutionary Ecology and Human Behavior*. New York: Aldine de Gruyter. [Excellent collection of reviews and prospectives on foraging, food sharing, social hierarchies, reproductive decisions, collective action, and other topics].

Blurton Jones, N.G. (1986) Bushman birth spacing: a test for optimal interbirth intervals. *Ethology and Sociobiology* 7: 91-105. [Classic simple early application of optimality models to humans].

Kaplan, H. and K. Hill (1985) Food sharing Ache foragers: Tests of explanatory hypotheses. *Current Anthropology* 26: 223-245. [Testing of alternative hypotheses - kin selection, risk avoidance, reciprocal altruism, etc.].

Hurtado, A.M. and K. Hill (1992) Paternal effects on offspring survivorship among Ache and Hiwi hunter-gatherers: Implications for modelling pair-bond stability. In *Father-Child Relations: cultural and Biosocial Contents*, B. Hwelett, ed. Hawthorne, New York: Aldine de Gruyter. [Supports desertion models].

Betzig, L. (1992) Roman polygyny and monogamy. *Ethology and Sociobiology* 13: 309-383. [Broad but novel application of behavioural ecological principles to changes in marriage and inheritance rules in historical societies].

Symons, D. (1989) A critique of Darwinian anthropology. *Ethology and Sociobiology* 10:



131-144. [Evolutionary psychologist's view of behavioural ecology].

Happy reading!

Monique Borgerhoff Mulder  
Department of Anthropology  
University of California at Davis  
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USA

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**Vigilance behavior in human adolescents: Anti-predatory behavior or male-male competition?**

Frank A. von Hippel  
Department of Integrative Biology  
University of California  
Berkeley, CA 94720

On a recent flight out of Newark I was seated at the end of a row of testosterone-primed adolescents (*Homo sapiens*) when I was struck by the disunity of teenage conformity. Each teen wore a baseball cap, but all of a different logo; some caps faced forward, others backward. (A constant ratio of three forward for every two backward was assiduously maintained; whenever one hat rotated one-hundred-and-eighty degrees, another immediately followed suit in the opposite direction.) Each teen wore a pair of headphones attached to a portable stereo; some stereos were cassette walkmen, others compact disc. All were of a different brand or type. Each teen sported a stellar pattern of pimples on his face, some in the pattern of Virgo, others Aquarius.

Despite this high level of individuality, a degree of uniformity was evident. Each walkman was turned to a volume where the level of sonic distortion masked any talent evident in the music. Each teen chewed a piece of gum, all derived from a common mega-pack, and each mouth chomped opened and shut in a remarkably similar manner during the exercise, much like cows chewing their regurgitant.

I was curious how both individuality in some variables and uniformity in others was maintained simultaneously. Clearly the variation in skin condition had a physiological basis, but the behavioral differences and similarities deserved further consideration. I observed the group of teens closely, and discovered that they engaged in constant vigilance behavior. They raised their heads and shifted their eyes at a mean rate of 14 scans per minute. Was their heightened vigilance due to unusually high predation pressure, or due

to male-male competition?

The teens appeared to engage in much more vigilance behavior than would be necessitated by predation alone. Indeed, their vigilance was directed at one another, each adjusting his behavior accordingly as he observed the behavior of the others. If predation were the stimulus for vigilance, then one would expect decreasing vigilance by individuals as group size increases, because more eyes are watching at any given moment. However, if male-male competition were the stimulus, then one would expect increasing vigilance by individuals as group size increases, because a larger number of males must be monitored.

Unlike ostriches (*Struthio camelus*), where the level of vigilance displayed by each individual decreases with increasing group size (Bertram. 1980. *Anim. Behav.*, 28, 278-286), it seems likely that the level of vigilance displayed by each teenage male must increase with group size. My group of male teens was large and spent a great deal of energy on vigilance behavior. In addition, my group employed chromatic displays, much like the red coloration seen in male ostriches during the breeding season (Bannerman. 1964. Ostrich. In: *A New Dictionary of Birds* (Ed. by Sir. A.L. Thomson). These chromatic displays, which were restricted to the facial area, were transient and closely tied to the vigilance behavior: when two teens observed each other simultaneously, they invariably changed color, turning bright red in the face. This probably serves as a threat display used in the initial stages of a contest. It appears to be an honest signal of male quality because contests did not escalate beyond the chromatic display. In addition, males with a brighter display consumed more resources by turning their portable stereos to a higher volume. Because higher stereo volumes are achieved through greater energy supplies, these males were honestly advertising their energy reserves. Perhaps males with brighter coloration have a lower parasite load (Hamilton and Zuk. 1982. *Science*, 218(4570), 384-387).

Whether vigilance behavior among human adolescent males is positively correlated with both group size and reproductive success deserves further study, but the pattern of vigilance is consistent with male-male competition. In addition, although similar to ostriches in form, with a long neck and lanky thighs, the human adolescent male rarely reaches a height of 2.4 m, or a weight of 157 kg, and prefers a habitat of solid-state electronics to one of desert or scrub. Despite this disparity in size and habitat preference<sup>1</sup>, the human adolescent male employs a remarkably similar threat display. These observations demonstrate the value of the

comparative method in animal behavior. Clearly, similar mechanisms have evolved in response to similar selection pressures in disparate taxa.

#### Footnotes

<sup>1</sup> Although the distribution of the ostrich has been shrinking in recent times, with the extinction of many populations, including those of the entire subspecies *S. c. syriacus* in Arabia (Bannerman 1964), the distribution of the human adolescent male has been on the increase. In addition, feral populations of human adolescent males have been established, and are now flourishing, where none existed previously, such as in grunge clubs. Perhaps the convergent threat displays employed by the males of the two species are leading to this change in distribution. In their acquisition of breeding territories, human adolescent males may be outcompeting male ostriches for space by displaying more vigorously. A similar convergence in chromatic threat display has also occurred in the threespine stickleback (*Gasterosteus aculeatus*) where it is sympatric with the Olympic mudminnow (*Novumbra hubbsi*) (Hagen and Moodie. 1979. *Evolution*, 33(2), 641-648). The human adolescent male appears to be expanding its realized niche to take advantage of habitat vacancies left by the ostrich. A conservation plan for the ostrich should consider the threat posed by the human adolescent male. A program of darting human adolescent males with testosterone antagonists could ameliorate this problem.

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### CONFERENCES

#### COLONIAL WATERBIRD SOCIETY and PACIFIC SEABIRD GROUP MEETING 1995.

The Colonial Waterbird Society and Pacific Seabird Group will hold a joint meeting in **Victoria, British Columbia, Canada, 8-12 November 1995.** The scientific meetings will be held in the new Conference Centre in downtown Victoria. The theme will be "Behavioural mechanisms of population regulation". Invited plenary speakers, workshops, paper and poster sessions are planned for three days. Special symposia can be arranged. Victoria is located in one of the best locations for birds in Canada and November is one of the best months to see them. Seabirds, seaducks, and marine mammals abound along the shores of Victoria. Field trips to see wildlife and take in the scenery are planned. For more information regarding the scientific program contact **JAMES KUSHLAN**, Department of Biology, University of Mississippi,

MS 38677, USA (601) 232-7203 (fax (601) 232-5144) or **WILLIAM EVERETT**, Department of Birds and Mammals, San Diego Natural History Museum, San Diego, CA 92112, USA (619) 589-0480. For information on other matters contact local Committee Chairpersons **Rob Butler, Pacific Wildlife Research Centre, Canadian Wildlife Service, PO Box 340, Delta, BC V4K 3Y3 Canada (604) 946-8546 (fax (604) 946-7022, e-mail BUTLERR@CWSVAN.DOTS.DOE.CA)** or **Ron Ydenberg, Department of Biosciences, Simon Fraser University, Burnaby, B.C., V5A 1S6 (604) 291-4282.**

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**The 24th International Ethological Conference** will be held in Honolulu, Hawaii, from August 10-17, 1995. The conference is open to all who are interested in Ethology and allied fields and is sponsored by the University of Hawaii. Organization of the scientific content of the conference is undertaken by the Local Organizing Committee with help from the Science Committee. Travel, hotel and logistic arrangements are made by the professional conference organizers, Travel Planners, Inc. (TPI).

#### LOCAL ORGANIZING COMMITTEE

George S. Losey	Ernst S. Reese
Dept. Zoology & HIMB	Dept. of Zoology
Univ. of Hawaii	Univ. of Hawaii
<b>Co-Chair</b>	<b>Co-Chair</b>
<b>E-Mail to IEC@ZOOGATE.ZOO.HAWAII.EDU</b>	

#### CONFERENCE SECRETARIAT

Travel Planners, Inc.  
Suite 150, GPM Building  
San Antonio, Texas 78216-5674  
Phone: (210) 341-8131 Fax: (210) 341-5252

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### OPPORTUNITIES

**SOUTHWESTERN RESEARCH STATION STUDENT SUPPORT FUND** - The American Museum of Natural History awards several grants each year of approximately \$400-\$800 to graduate students or postdoctoral students pursuing research at its Southwestern Research Station in the Chiricahua Mountains, Portal, Arizona. Information and application forms for this program and other Museum grant programs can be obtained by writing:

Office of Grants and Fellowships,

American Museum of Natural History,  
Central Park West at 79th Street,  
New York, N.Y. 10024-5192

**Application due date: February 15, 1995**

Address questions concerning the Station to:

Dr. Wade C. Sherbrooke,  
Director, Southwestern Research Station,  
Portal, AZ 85632 USA;  
telephone 602-558-2396

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**VOLUNTEERS** - Approximately 30 volunteer positions are open in 1995 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 scientists doing field research. Food and lodging are provided to volunteers in exchange for twenty-four hours per week of routine chores, with the remaining time available for research activities.

The program is open to both undergraduate and graduate students; the latter may pursue their own research projects. Faculty knowing of promising students should alert them to this opportunity for professional experience toward, development of, and evaluation of their career goals.

Volunteers are needed between March 15 and November 1. Appointments are for part of this period, with a minimum appointment of six weeks. Applicants for spring positions (March-May) should submit applications by February 15, summer volunteers (June-August) by April 1, and fall volunteers (September-November) may apply any time.

For applications, write:

Dr. Wade C. Sherbrooke,  
Director,  
Southwestern Research Station,  
American Museum of Natural History,  
Portal, AZ 85632 USA;  
telephone 602-558-2396

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**SEASONAL OFFICE ASSISTANT** - Assist in operations of biological research station office and nature shop: taking reservations, answering phones, greeting guests, supervising volunteers, etc. Begin March 15, 1995, through September 1995. Five-day week; salary \$190/wk, plus room

(shared) and board. Applicant must be punctual, organized, enjoy people, and be interested in living in a remote setting (Chiricahua Mountains) and working with biological researchers. Biological training an asset. Call and send résumé to: Dr. Wade C. Sherbrooke, Director, Southwestern Research Station, American Museum of Natural History, Portal, AZ 85632. Phone and fax: 602-558-2396.

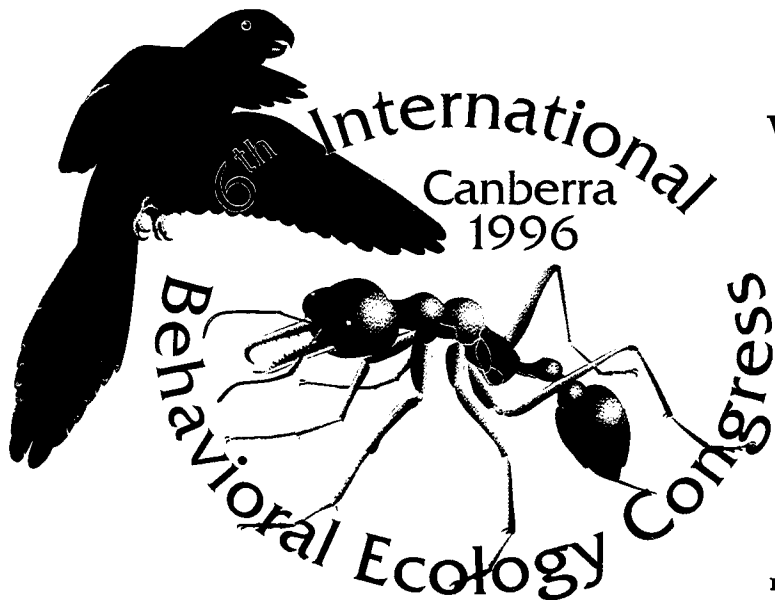
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**GRADUATE AND POST-GRADUATE RESEARCH GRANTS**

The Biological Research Station of the Edmund Niles Huyck Preserve offers grants (max.=\$2,500) to support biological research which utilizes the 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 located on the Helderberg Plateau, 30 miles 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 = February 1, 1995. Application material may be obtained from Dr. Richard L. Wyman, Executive Director, E.N. Huyck Preserve and Biological Research Station, P.O. Box 189, Rensselaerville, NY 12147.

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**Ph.D. Assistantships (2)** will be available in Wildlife at Louisiana State University (LSU) to study effects of fall/winter burning on a Gulf Coast marsh ecosystem (Rockefeller Refuge). Funding is available to conduct a comprehensive study of soil/water nutrients, vegetation and waterbird responses to fire. Future funding is anticipated for studies of aquatic invertebrates. Initial stipend is \$15,000/yr plus waiver of non-resident tuition, beginning spring/fall semesters 1995. Room and board will be provided by Rockefeller Refuge during field seasons. Send letter of application, copy of transcript(s), GRE scores, resume, and names/phone numbers of 3 references to the following co-supervisors: Dr. Alan D. Afton, Louisiana Cooperative Fish & Wildlife Research Unit, LSU, Baton Rouge, LA 70803, (504) 388-4212; and Dr. Richard M. Kaminski, Department of Wildlife & Fisheries, Mississippi State University, Box 9690, Mississippi State, MS 39762, (601) 325-2623.



**VENUE**

The Sixth International Behavioral Ecology Congress will be held at the Manning Clark Centre, Australian National University from 29 September to 4 October 1996. An evening reception will be held on 28 September.

**CONFERENCE TOURS**

A number of pre and post-conference tours are planned.

These will be run by expert naturalists to some of Australia's most magnificent natural attractions including:

- the 'Top End', including Kakadu National Park
- the tropical rainforests of north Queensland
- Australia's Red Centre
- wilderness areas of southeastern Australia
- outback Australia.

**SCIENTIFIC CONTENT**

For further information on scientific organisation please contact Andrew Cockburn, Botany and Zoology, Australian National University, ACT, 0200, Australia (e-mail: isbe6@anu.edu.au).

**To receive the registration circular and call for papers, please complete and return the enclosed form to ACTS.**

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 PLEASE RETURN TO SIXTH BEHAVIORAL ECOLOGY CONGRESS, c/- ACTS, GPO BOX 2200, CANBERRA, ACT, 2601, AUSTRALIA - FAX 61.6.257.3256.

Title ..... Family Name .....

Given Names .....

Institution Address .....

.....

Country ..... Telephone no. .... Facsimile no. ....

E-mail .....

Tour Interest	Pre-conference	Post-conference
Top End		
Rainforest Nth Qld		
Red Centre		
South-eastern Australia		
Outback Australia		

Signature .....

Date .....