*Supplement to Behavioral Ecology*

ISBE International Society for Behavioral Ecology

# Newsletter

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www.behavecol.com

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# Editorial

## New ISBE website!

The ISBE conference in Cornell was a great opportunity to reconnect with the community of behavioural ecologists, find out what everyone has been up to, and to brain-storm new ideas. One of these ideas was to re-design the ISBE website.

During and after the conference I had plenty of opportunities to workshop various ideas with other behavioural ecologists. The outcome of these discussions is a new, more functional website that, I hope, will service the needs of the community and promote the exciting research in behavioural ecology.

I am immensely grateful to Richard Peters (Australian National University) who has dedicated many hours in the website design and update. Without him the outcome would have been far less spectacular and practical. Read more about the new website on page 13.

For those who missed the conference, read all about it on page 8, and prepare yourself for the next ISBE conference in Perth, Australia in 2010 (page 13).

**Mariella Herberstein**
*Newsletter Editor*

## *Contents of this Issue*

# From the President

## A question of attitude

The 12th ISBE conference at the University of Cornell was undoubtedly a resounding success. Over 1100 delegates, a simulating programme, a vibrant atmosphere. Even the footballers seemed in good form. A particularly noticeable feature, remarked upon by many people, was the high proportion of enthusiastic young people, much higher than one sees in many other scientific meetings. So, our discipline looks to be in a healthy state, its foundations stable, its future secure. This seems a good time for a little navel gazing, i.e. to reflect on the role of the ISBE itself.

ISBE is a discipline-specific scientific society. Scientific societies like ours (often more broadly termed 'Learned Societies') play a crucial role in academic life. ISBE gives behavioural ecology a base and an identity. It provides the glue that helps to hold the discipline together, which would otherwise be difficult to achieve since the subject overlaps with many other areas. It is a young society, founded in 1986 by a group of academics who recognised that behavioural ecology had become a scientific discipline in its own right, and needed a Learned Society to put it on the scientific map. Like other such societies, many much older of course, ISBE exists to promote and develop the discipline, and to provide society members with enjoyable opportunities to meet, interact and communicate with each other. It binds together a community of like-minded people, with a similar positive attitude and enthusiasm for the subject. In the case of ISBE, this is done by a combination of a scientific conference every two years, a society Newsletter, and publication of the highly regarded journal *Behavioral Ecology*. In all its activities, ISBE tries to be fair, forward looking, non-political and non-discriminating (except perhaps in its attitude to football).

The biennial conference is a key part of ISBE's activities. Without the auspices of the society, the conference probably would not happen. For some disciplines, for example pharmacology, commercial sponsors might well be falling over themselves to organise a meeting, and of course also to set an agenda that suits the sponsor. Not so for behavioural ecology; there are no commercial sponsors waiting in the wings to take over the organisation of meetings should the society falter. Our meetings, and indeed the society itself, rely on society members, who put in an enormous investment of their precious time, for which they receive no financial remuneration. They do it for the society members and the discipline. At the 2008 meeting, we tried to ensure that those attending the meeting also joined the society, and thereby became part of the community. From a few people, there was hostility to this. This negative attitude is surprising, and most likely comes from a lack of appreciation of the voluntary basis on which ISBE works. Asking people to join the society (which is extremely cheap) is not in any sense trying to be exclusive, but is rather trying to get those who benefit from attending the society's meetings to join and support the community that makes these meetings happen.

The publication of the society journal is also a major part of ISBE's activities. *Behavioral Ecology* is published on our behalf by Oxford University Press. It is the most highly regarded of the journals in our field. In addition, journal subscription revenues provide the society with a major source of income that can then be used to support the meetings and provide travel grants that enable young people in particular to attend. Members can join the society with or without subscribing to the journal. However, the journal is not always identified with the society to the extent that it should be. We therefore need to encourage a sense of ownership, loyalty and responsibility for the society's journal amongst society members. As mentioned in the Business Meeting Report, *Behavioral Ecology* should come very high on members' lists of journals to which they submit their best work.

Challenging times lie ahead for Learned Societies, but also great opportunities to set the agenda in scientific publishing. We must not let scientific publishing drift entirely under the control of commercial publishers. We need to protect the integrity and quality of the peer review system, since we want our papers to be dealt with by experts in the discipline as well as experts in publishing and marketing. The kind of partnership arrangement that we currently have with OUP works extremely well for our society. However, scientific publishing is undergoing substantial changes, not least being the move towards more open access publishing, funded by an 'author pays' (usually a lot - in the region of $2000 per paper) in contrast to the 'reader pays' system most common at present. We recognise that open access has many advantages, and indeed that some funders and institutions now insist on this. ISBE is working with OUP to develop the best system that suits our discipline. At present, we operate a mix within the journal; where desired or required, instant open access via 'author pays' publishing is available in *Behavioral Ecology*. It is offered to all authors whose papers are accepted. Currently, this option is used rather little, probably because behavioural

ecologists generally do not have access to the large sums of money that are needed to pay for it.

The existence of a discipline-specific society is not something that we can or should take for granted. We need to ensure that existing members continue to find the society worth supporting. We also need to ensure that new members stay members, understand the importance of learned societies, experience the benefits of belonging, and eventually contribute to the society governance, operation and development. The great scientific and social experience we all had at the Cornell meeting undoubtedly influences how we feel about the discipline and its future.

The continuing success of ISBE largely depends on maintaining this positive attitude amongst its members. I for one am trying to develop a more positive attitude to sweaty men in shorts running after a ball, but if anyone can think of an additional activity that we could add to the 'free-afternoon' conference programme (preferably one with slightly less need for a Y chromosome), then send your suggestions post haste to Rob McGrath.

**Pat Monahan**
*ISBE President*

The presidential trio at ISBE2008: Kate Lessells, Pat Monaghan, Marlene Zuk

## Contributing to the ISBE Newsletter

The ISBE Newsletter publishes Book Reviews, Conference and Workshop Reviews and Commentary Articles of interest to the *International Society for Behavioral Ecology*. *The ISBE Newsletter will only consider work that is not already published or intended to be submitted for publication elsewhere.*

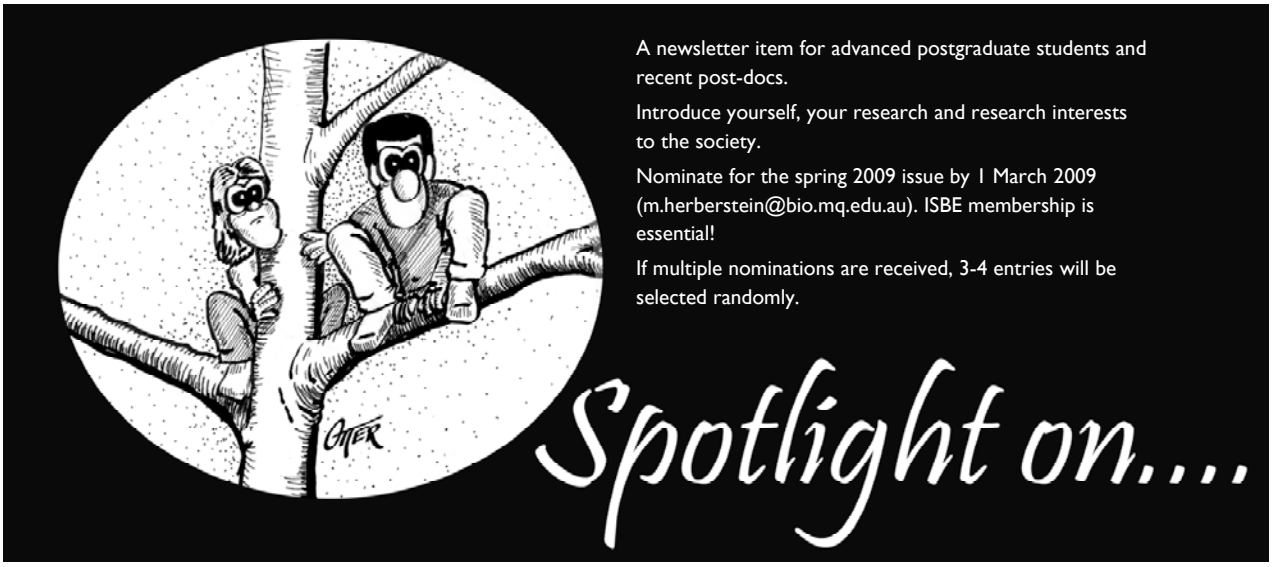
**Book Reviews:** Reviews are generally solicited by the Editor as new books arrive at the office, and are deemed to be of interest to the society. Persons involved in the publishing of books who would like these to be considered for review in the Newsletter may contact the Editor and arrange for their publisher to forward a review copy to this office. Authors may submit a list of possible reviewers. Alternately, members who wish to review a particular text should contact the Editor. The Editor will provide reviewers with instructions and a style sheet. Reviews are typically 1500-2000 Words.

**Workshop/Conference Reviews:** Workshop and/or Conference reviews should be prepared in one of the following two formats. ***Brief synopses*** (max 1500 words) may be submitted by either participants or conference organizers at the regular newsletter deadlines. These can include synopses of workshops that will be published in more detailed accounts (book or special journals), and should include information as to where the information will be published. ***Longer reports*** (max 3000 words) will be considered from large workshops/conferences for which other publications are not stemming. The purpose of the latter format is to provide a venue to disseminate information and discussions that would otherwise not be available to non-conference participants. Anyone attending such a workshop and wishing to publish in the Newsletter should contact the Editor at least ***one month*** prior to submission deadlines. Reports should aim at a critical assessment of the conference, as well as a synthesis of the convergent ideas presented. A synopsis of future directions of research that were reached at the end of the conference should also be included. Anyone attending the workshops may submit reports, but preference will be given to submissions not authored by conference organizers. A single application for a workshop will be considered, so it may be appropriate to agree upon a reporter at the conference. Graduate students and postdocs are strongly encouraged to consider contributing to writing these reports.

**Commentaries:** Responses to commentary articles published in the newsletter or articles eliciting discussion on topics relevant to the society will be considered for publication. Authors of such articles should contact the Editor at least ***one month*** prior to regular submission deadlines to outline the content of the article. The Editor may request submission of the article earlier than regular deadline should outside reviewing be deemed necessary.

**Cartoons:** Cartoonists and other artists are encouraged to submit artwork, either in hardcopy, or as TIFF or high resolution (300 dpi) GIF files. All cartoons published in the newsletter will be credited to the illustrator, and will appear on the Newsletter's website (*www.isbe.com*).

***Deadlines for submission to the spring newsletter will be 1 March 2009.***



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# Society News

Most Society News – workshops, conferences and job postings – are publicised on our website (www.behavecol.com). This allows ads and announcements to be posted shortly after receipt so that deadlines falling between newsletter distributions can be advertised. If you would like to advertise workshops, conferences or job postings of interest to the society, contact Mariella Herberstein (m.herberstein@bio.mq.edu.au).

**AMERICAN ACADEMY OF ARTS & SCIENCES**

Congratulations to Prof Joan Strassmann and Prof David Queller (Ecology and Evolutionary Biology, Rice University) who have been inducted into to the American Academy of Arts & Sciences on October 11th 2008. Joan and David have been members of the society since its inception.

**OBITUARY: PAUL WARD**

In April 2008 Paul Ward (ISBE secretary, conference organiser and long-term society member) died at the age of 49. See page 6.

**ISBE2008 CONFERENCE T-SHIRT & BAGS STILL FOR SALE**

For those who have missed out at ISBE2008, conference T-shirts and bags are still for sale. To pick up a bargain visit: www.sapsuckerwoods.com/category/isbe.html

**NEW ISBE WEBSITE**

The new ISBE website is now live on www.behavecol.com. Please contact Mariella Herberstein (m.herberstein@bio.mq.edu.au) if you want to post jobs or PhD positions or advertise a conference or meeting.

**ISBE 2010 CONGRESS**

The thirteenth congress of the International Society for Behavioral Ecology will be held in Perth, Australia, September 26th to October 1st 2010. http://isbeperth2010.com

**WORKSHOPS AND MEETINGS**

Conferences of other societies or workshops that may be of interest to the Society's members can be advertised on the Newsletter website (contact Mariella Herberstein for posting). Titles and dates of conferences are listed on page 18 and will be posted on the webpage (www.behavecol.com).

**MEMBERSHIP AND SUBSCRIPTION OPTIONS**

Subscription to *Behavioral Ecology* is no longer required to be a member of the *International Society for Behavioral Ecology*. Everyone now has the option to join the society without taking a subscription to the journal. Such memberships will receive the Newsletter and announcements for the biennial conference. For those who wish to continue their subscription to *Behavioral Ecology* as well as be a member of the society, this option is also available. Information on how to join the ISBE can be found on the ISBE website (www.behavecol.com) and Oxford University Press' *Behavioral Ecology* webpage (beheco.oupjournals.org).

**DONATED SUBSCRIPTION PROGRAMME**

Please help colleagues in need. Every donation will help increase scientific contacts across the world. For details, see the advertisement on the inside back cover of *Behavioral Ecology* volume 12(4).

**JOB AND STUDENTSHIP POSTINGS**

As the newsletter is only published twice a year, it is unsuitable to publish current job or student postings. Instead, these are published on the society's webpage: **www.behavecol.com**

If you wish to post an advertisement for faculty, postdoc, graduate student, or field assistant positions please email Mariella Herberstein (m.herberstein@bio.mq.edu.au).

# In Memoriam Paul Ward

With great sadness I must report the premature death from cancer of our friend and colleague Paul Ward, Professor of Evolutionary Biology at the Zoological Museum of the University of Zurich, Switzerland, on 19 April 2008, aged 49.

Paul Ward was born in Scotland on 25 October 1958. He studied for his BSc at the University of Glasgow, Scotland, and moved on to pursue a PhD with Geoff Parker at the University of Liverpool, England, completed in 1984. After post-doctoral positions at the Max Planck Institute for Behavioral Physiology in Starnberg, Germany, the University of Liverpool, and the University of Edinburgh, Scotland, he became Assistant Professor of Zoology at the University of Zurich. He stayed there ever since, moving up the ranks, to finally assume the position of director of the Zoological Museum in 2002.

Paul Ward is probably best known for his early work on sexual and natural selection in *Gammarus* and Sepsid flies, but particularly for his later work on sperm competition and cryptic female choice mechanisms in the yellow dung fly. Paul was a long-standing member of ISBE and the main organizer of the memorable millennium 8th Behavioral Ecology Congress in Zurich in 2000. Paul also served as the Secretary of the ISBE from 2002 to 2006.

As a final tribute to Paul's scientific legacy, we have organized a symposium on sexual selection, sperm competition and cryptic female choice that took place in Zurich on 25 October 2008, the day of his 50th birthday.

We all miss Paul, as a colleague and a friend.

**Wolf Blanckenhorn**
*Zoologisches Museum, Zurich*
*October 2008*


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**Selected papers:**

*Belloni V,* Alleva E, Dessì-Fulgheri F, Zaccaroni M, Santucci D. 2007. Effects of low doses of atrazine on the neurobehavioral development in mice pups. Ethol Ecol Evol. 19: 309-322.

Della Seta D, Minder I, *Belloni V,* Aloisi AM, Dessì-Fulgheri F, Farabollini F. 2006. Pubertal exposure to estrogenic chemical affects behavior in juvenile and adult male rats. Horm Behav. 50: 301-307.

Giusi G, Facciolo RM, Canonaco M, Alleva E, *Belloni V*, Dessì-Fulgheri F, Santucci D. 2006. The endocrine disruptor atrazine accounts for a dimorphic somatostatinergic neural pattern in mice. Toxicol Sci. 89: 254-267.

**Name:** Jessica L. Ward
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**Selected papers:**

*Ward JL*, McLennan DA. in press. Historical and ecological correlates of body shape in the brook stickleback, *Culaea inconstans*. Biol J Linn Soc.

McLennan DA, *Ward JL.* 2007. Conservation and diversification of agonistic displays of the brook stickleback *Culaea inconstans*. Environ Biol Fishes. 82:377-384.

*Ward JL*, McLennan DA. 2006. The relative influences of sexual and natural selection upon the evolution of male nuptial colouration in the brook stickleback, *Culaea inconstans*. Behaviour 143:483-510.

**Name:** Nathan Morehouse
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**Research interests:** Evolution of sexual dimorphism, visual signalling, optical mechanisms of bright colour production, nutrient limitations and life history evolution, stoichiometry of sexually-selected characters.
**Selected papers**:

Shawkey M, Morehouse NI, Vukusic P. 2009. A protean palette: Color materials and mixing in birds and butterflies. J R Soc Interface.

Rutowski RL, Macedonia J, Merry J, Morehouse NI, Yturralde K, Taylor-Taft L, Gaalema D, Kemp DJ, Papke RS. 2007. Iridescent ultraviolet signaling in the Orange Sulphur butterfly (*Colias eurytheme*): Spatial, temporal and spectral properties. Biol J Lin Soc. 90: 349-364.

Morehouse NI, Vukusic P., Rutowski RL. 2007. Pterin pigment granules are responsible for both broadband light scattering and wavelength selective absorption in the wing scales of pierid butterflies. P Roy Soc B. 274: 359-366.

**Name:** Rindy C. Anderson
**Education:** BSc (1994) Arizona State Univ.; MSc (2000) Univ of San Diego, San Diego; PhD (2006), Univ of Miami.
**Current address:** Dept of Biology, Duke Univ, Durham, NC, USA; rca9@duke.edu
**Research interests:**
Evolution of animal communication, sexual selection, cognitive mechanisms of signal perception and mate choice, aggressive behavior.
**Selected papers:**

*Anderson RC*, Searcy WA, Peters S Nowicki S (2008). Soft song in the song sparrow: acoustic analysis and implications for signal function. Ethology 114: 662-676.

*Anderson RC*, Nowicki S, Searcy WA. (2007). Soft song in song sparrows: response of males and females to an enigmatic signal. Behav Ecol Sociobiol. 61:1267-1274.

Searcy WA, *Anderson RC,* & Nowicki S. (2006). Bird song as a signal of aggressive intent. Behav Ecol Sociobiol. 60: 234-241.

12th Biennial ISBE Congress

# Review of ISBE2008 Cornell University: Cornell was gorge-ous

This conference had some stiff competition with two other major and far-flung American conferences just before and after. Despite this, it was the most well attended meeting in ISBE history, partly because of the prestige of Cornell perhaps, but also its proximity to New York made it an attractive and accessible location for the European hordes. The conference committee handled the 1,000+ delegates well. Almost everyone stayed in the reasonably priced and mostly brand new accommodation on the North Campus, which added to the feeling of togetherness, and the dining area and beer tent were located conveniently nearby. The South Campus had the plenary auditorium and meeting rooms, accessed by a pleasant stroll across the bridge over the beautiful Triphammer falls. Cornell has a sumptuous, elegant campus, neatly delineated with ivy-covered stone buildings (the origin of the name 'ivy league school', trivia fans) and a gloriously Hogwarts-esque building right next to Barton Hall. This endearingly creaky structure was perfect as the central feature of the conference. It was once an aircraft hangar but has since been converted into a gym with full running track, and had acres of space for posters, vendors, refreshment stations and tables. The tasty lunches and coffee were served here which kept everyone together and lent the meeting a pleasant, cozy atmosphere. The beer tent proved a popular place to hang out in the evening, though many people took the option of going into Ithaca as the organizers had kindly produced a very helpful guide to local dining and drinking. As an added bonus the weather was mostly kind to us, even during one memorable evening when diners on the 3rd floor of Purcell Hall were treated to a spectacular lightning storm. Panic spread among the delegates that the lightning would cause the beer tent to close for the evening, but mercifully the weather passed and the tent stayed open.

The record number of talks (402) required no fewer than six concurrent sessions. Getting between them was easy however because the rooms were close together and well signposted with a snazzy computer system synchronizing parallel talks. The warning calls are getting more imaginative every year, and this time we had soothing Bluegrass music to relax us during the interval between talks. There was quite a bit of grouching over the decision by the ISBE committee to allow only one person per lab to give a talk, presumably to give people from smaller research groups a chance to be heard. This was an admirable though controversial decision, partly because it was not always followed.

The poster sessions went smoothly and proved just as popular as the talks. Despite the huge number of posters (465!) the organizers had shrewdly managed to fit them all into one end of Barton Hall through the cunning tactic of insisting everyone print theirs in portrait format. Another great innovation was that the posters were allowed to remain in place for the whole meeting so that people were free to browse through them at their leisure during coffee breaks etc. There were minor grumblings that the poster sessions were too short at 1½ hours, and major grumblings that people weren't allowed to buy any more beer or wine once they had used up their ticket for a freebie which led some to leave earlier than they probably would have done. Some thought it a mistake to have the poster session straight after the late afternoon oral session, but to be fair to the organizers, the dining area and the posters were in different parts of the campus meaning that well-fed and relaxed delegates might not have found their way back down, particularly if they had happened to call in at the beer tent on the way 'just for a quick one'.

The standard of the posters was generally high, although there is a curious creeping trend towards the use of psychedelic colour schemes and elaborate picture backgrounds, which usually makes it impossible (or painful) to read the text. Other puzzling trends are the random section placement and distractingly interchangeable font sizes. Maybe we are being old fashioned, but the time-honoured sequence of Introduction, Methods, Results and Discussion is hard to beat.

We followed standard conference review protocol by dividing presentations according to taxon and as usual, birds were by far the most common study organism (43%) followed by insects (17%) and fish and mammals (both 12%). Yet again, there were hardly any presentations on reptiles and amphibians (3%) which never ceases to amaze us given the range of behaviours, signals and unusual life history traits these animals exhibit.

Among the reasons people give for studying birds is their visibility and ease of study in their natural habitat, and the fact that 81% of bird studies were in the wild reinforces this perspective. One of the reasons people give for studying insects is their ease of study in the lab, particularly regarding sperm competition and trait heritabilities, and indeed, 72% of insect studies were performed in the lab (the figures for wild studies of mammals and fish were 65% and 37% for fish respectively). This is not to say one is inherently better than the other of course, and in fact some of the best

presentations we saw involved captive birds and wild insects. Furthermore, several of the more impressive presentations measured several behavioral traits of individuals in captivity before releasing them back into the wild and measuring how these translate across contexts. We got the feeling during the meeting that more bird studies were now being performed in captivity, but the equivalent figure for the 2000 Zurich meeting was basically the same (16%).

We divided the talks into 14 subject categories, defined by what we considered to be the primary focus of the presentation (Table 1). This was not a simple task since some presentations involved aspects of two or more categories and the distinction between a few of the topics is blurred. Given these caveats, the two dominant themes were *sperm competition* and *communication* (both vast fields admittedly). 'Communication' does embrace the gamut of vocal, visual and chemical signals, but even allowing for its breadth it is obviously a very active area, particularly concerning plumage colouration in birds. The significance of plumage variability in birds has long been a popular subject of course, but we got the definite feeling that large strides are currently being taken on several fronts towards understanding the mechanisms responsible for this variation. The other two popular presentation categories were life history (featuring some strong sessions on condition-dependent patterns of development and maternal effects on offspring performance), and behaviour (another broad field). There were several excellent presentations concerning personality, which is clearly a blossoming field and widely predicted to be even more prominent at the next ISBE meeting. A quick comparison with the millennium meeting in Zurich showed that the popularity of most topics has actually remained reasonably constant during the last 8 years (Table 1).

The state of the field of behavioural ecology was highlighted in the excellent plenary talks and the contributions of those presenters to our field. Specifically, Suzanne Alonzo encouraged the integration of multiple levels of theory and analysis, and demonstrated how the interactions of resource levels, sexual conflict and cooperation, and life-history combine to produce new insights into the patterns observed in nature. Ben Hatchwell gave a tidy talk on kinship and population structure in long-tailed tits which nicely illustrated the rewards that can be reaped from the intense, long-term study of a single model system and also provided an enviable example of how to fit several sub-projects undertaken with a series of co-workers into one large conceptual framework.

Behavioural Ecology in general has also been improved by the advancement of technology, which has provided exciting ways to collect and analyse data using new molecular approaches, computer programs, and robotics. Although several people expressed the opinion that the thrust of the meeting was more heavily biased toward the behaviour end of the spectrum than the ecology, most presenters tried to place their results in an ecological context. Finally, we cannot help but comment on the multiple dimensions of this field and how many researchers are successfully and innovatively integrating several approaches to arrive at a more complete understanding of both new and old questions in behavioural ecology.

Table 1. Percentage of presentations listed by topic at ISBE 2000 (Zurich) and ISBE 2008 (Cornell)

| | 2000 (%) | 2008 (%) |
|---|---|---|
| Sperm competition, mating systems and sexual selection | 30.6 | 27.1 |
| Personality | 0 | 2.2 |
| Cognition | 1.7 | 3.9 |
| Communication & signals | 17.6 | 24.5 |
| Predator-prey | 3.8 | 2.1 |
| Parental Care | 5.3 | 4.2 |
| Life history | 11.9 | 12.5 |
| Host-parasites | 3.2 | 2 |
| Population structure | 4.6 | 1.3 |
| Sex ratios | 2.6 | 1.2 |
| Behaviour | 14.2 | 13.6 |
| Conservation | 0.2 | 1.2 |
| Foraging ecology | 4.3 | 4.2 |

Tuesday afternoon was left open to allow people to recharge their intellectual batteries by either kicking around footballs (soccer balls to Americans) or enjoying one of four relaxing and diverse excursions. All the excursions were well supported and voted a success, with the biggest smiles being present on the faces of those staggering off the winery tour buses. Bird-brains were thrilled to be able to visit the 'Mecca' of North America bird-lovers, the Cornell Lab of Ornithology, located just a short distance from Cornell's campus. The football tournament has long been a simmering source of unease with mutterings of a few people taking it too seriously to the detriment of all. To counter this, the ISBE sub-branch of FIFA has decided to ban cleated football boots so hopefully the tournament will attract players of both sexes as well as all ages and skill levels in Perth in 2010 (the organizers assure us that the tournament will still be soccer and not Australian 'no rules' football!). Still, the games were played in a friendly atmosphere with a team from Norway winning, and any hard feelings were soon

washed away by some cold beers that evening while listening to an entertainingly unpredictable steel drum band at the barbecue.

The conference dinner was tremendously impressive. Barton Hall was transformed into the classiest aircraft hangar/gym most of us will ever see, and the food and locally-produced beer and wine were superb. Dinner was accompanied by an intriguing mix of wildlife sounds courtesy of the Cornell bioacoustics lab, ranging from some impressive elephant trumpeting calls to a series of baffling farting noises. Sandra Vehrencamp was given a well-deserved and prolonged standing ovation in appreciation of her considerable role in the conference's success, and we also got a stirring speech from the incoming president, Pat Monaghan.

The conference did end on a slightly flat note when the excited delegates streamed over to the post-dinner 'disco' to find only a small dark room with an iPod and a dodgy speaker system. This was a real opportunity missed, because a big disco or barn dance is guaranteed to send everyone home happy: the dancers get to let off some steam and the graduate students get to laugh at their inebriated supervisors attempting to Macarena their way across the dance floor. It would be churlish to dwell on such a minor hiccup however. This was a memorable conference and the Cornell crew did an outstanding job of organizing 850 presentations and keeping over 1,000 people happy throughout. The scenery was beautiful, the accommodation was good, the food and drinks were great, and despite the mammoth size of the conference, it still managed to retain a contented community atmosphere. The science was impressive, the talks were professionally presented and handled, and there was, as always, a stunning diversity of invigorating research on display. The biennial ISBE conference has genuinely become something that we all look forward to, and Cornell 2008 was a perfect illustration of why!

**Ian Stewart**
**Dan Wetzel**
**Sarah Martin**
*Department of Biology, University of Kentucky*
*Lexington Kentucky USA*

# Pitelka Prize and ISBE2008 Poster winners

## Pitelka Prize winner

This year's Pitelka Prize was awarded to the best oral presentation at the ISBE conference in Cornell. The winner was Nathan Morehouse (Arizona State University) for the talk entitled: "Female choice for a nitrogen-rich color ornament in a nitrogen limited butterfly".

## Poster Prize winners

*First prize: $500 cash from Springer*
Martina Boerner
Department of Zoology
University of Cambridge, UK
Poster title: When to evolve into a cheat: begging at an early stage of a parasite-host arms race

*Second prize: $200 voucher from Springer*
Topi Lehtonen
Department of Biology
University of Konstanz, Germany
Poster title: Fitness benefits from close proximity to another species of cichlid fish

*Third prize: $200 voucher from Springer*
Candace Low,
Ecology, Evolution, & Marine Biology
University of California, USA
Poster title: Grouping increases visual detection risk by specialist parasitoids

*Runners-up: $100 voucher from Wiley-Blackwell*

Dagmar Clough
Dep. Behavioural Ecology and Sociobiology
German Primate Centre, Goettingen, Germany
Poster title: Parasite infections in red-fronted lemurs and their effect on sexual selection

David Gilley
Department of Biology
William Paterson University, USA
Poster title: The scent of the dance: honey bee waggle dancers produce volatile compounds that affect foraging behavior

Palestina Guevara Fiore
Department of Animal and Plant Sciences
University of Sheffield, UK
Poster title: Behavioral plasticity in male guppies: how males change strategies to find receptive females

# Business Meeting
# ISBE, Cornell 2008

The Business Meeting was a roaring success, with a one-hundred-fold increase in attendance compared to the meeting at the ISBE conference in Tours. This year there were over 1000 eager attendees, compared to about 10 in Tours. Never in the history of human endeavour has a "Business Meeting" attracted such a large crowd, and never has a committee-initiated change in strategy had such a large effect on anything. The trick? Well, the Executive considered replacing the numbing name "Business Meeting" with something like "Free Wine and Grants", but opted for taking hostages (serendipitously befitting Barton Hall, which was adorned with military posters). Instead of being held in a room away from the action, we stormed Wednesday lunch.

An inevitable consequence of the hostage strategy was that the meeting was brief. Our new President, Pat Monaghan, welcomed delegates and thanked the local organizing committee, particularly Sandy Vehrencamp, the overall chair, and Jack Bradbury, who was in charge of IT, for a wonderful and well-organized meeting. Pat explained the rationale for having the meeting over lunch, emphasizing that we wanted as many people involved in Society decisions as possible.

Pat raised three issues on which members could provide feedback. First, the Website was being re-vamped, and Pat asked anyone to send ideas for changes to Mariella Herberstein, the Newsletter Editor and coordinator of the web upgrade. Second, the Society could do with a new logo, and again any designs could be sent to Mariella. Finally, the location of the 2012 Conference had not been resolved, so she invited suggestions.

Walt Koenig gave the Treasurer's report. The Society was in a sound financial position, with income, primarily from the Journal, of over $50,000 US per year. Previously the income had been banked (mercifully not invested in Wall Street), but this year for the first time we offered travel grants which were open to applications from throughout the world. We received 171 applications, and were able to fund 68, primarily senior PhD students and recent post-doctoral researchers. The Executive thought this was a good use of Society resources, and so intended to double the money available for the next meeting, partly because it was in Perth, Australia, and so will be expensive for many participants. Walt asked for any ideas on other uses of Society funds.

Rob Brookes reported on the fortunes of *Behavioral Ecology*, the Society's journal, because Mark Elgar, the Editor-in-Chief, was unable to attend. Submissions continue to rise, as does the Impact Factor, which is now about 3.0. Rob emphasized that *Behavioral Ecology* is **our** journal, and all profits return to the Society and therefore help members by providing travel grants and other benefits such as this Newsletter. Over the last two years, 30% of papers were accepted, with an identical success rate for papers with women and men as first authors, which may in part be attributed to the double-blind editorial process. Rob urged everyone to consider *Behavioral Ecology* as their journal of choice, and in particular the Editors would like to see more reviews and forum articles.

Pat Monaghan again asked for questions. She was greeted by the sounds of foraging, digestion and contented social murmur. A delightful Business Meeting.

**Rob Magrath**
*ISBE Secretary*

# Editor in chief report

What keeps an Editor-in-Chief awake in the small hours of the night? *Behavioral Ecology* is one of two formal mechanisms by which the International Society for Behavioural Ecology promotes research in behavioural ecology (the other being the biennial international conference). While it is undoubtedly true that the success of the journal depends upon the vigour of the field, the converse is also true. Our capacity to conduct research in this fascinating branch of biology is partly determined by the generosity of the funding agencies: winning grants means publishing in reputable journals, and often. So an Editor-in-Chief, mindful of the aims of the Society, often frets over ways in which the reputation of the journal can be improved, which can be a welcome distraction from mulling over how to appease irate authors of rejected manuscripts.

*Behavioral Ecology* is arguably the leading journal in the field, enjoying a reputation for publishing interesting and scientifically rigorous manuscripts. The meaning of *ISI Impact Factors*™ is debatable, but their commercial significance is not, so it is important that the journal consistently has the highest metric in the discipline. In 2007, *Behavioral Ecology* registered an *Impact Factor* of 3.018, its highest on record. It would be nice to take credit for this metric, but this achievement reflects the stewardship of Andrew Bourke, who completed his term as Editor-in-Chief in 2006. My view is that part of the journal's success derives from the lean editorial structure of the journal, together with the process of manuscript allocation, which favours consistency in editorial decisions and ensures that the papers we publish are of broad interest. These are significant points of difference between *Behavioral Ecology* and our discipline rivals, *Animal Behaviour* and *Behavioral Ecology and Sociobiology*.

*ISI Impact Factors*™ are influenced by a combination of citations per paper and the number of papers published. A key difference between *Behavioral Ecology* and journals with higher *Impact Factors*™ (such as *Evolution* and *American Naturalist*) is that the latter have relatively fewer papers with less than two citations and many more with citations exceeding 14. Thus an important strategic focus for the journal is to explore ways of publishing more papers that are likely to attract substantial attention. The Forum section of the journal is currently underutilised, and we are planning a program of vigorously soliciting papers likely to increase the journal's reputation, and create additional features to distinguish Behavioral Ecology from our 'rivals'.

Another measure of impact is the frequency with which published papers are reported in the general media, including *New Scientist* and other bookstand magazines and newspapers. Many publications in *Behavioral Ecology* have attracted global attention, and our publisher (Oxford University Press) provides support from their media office to promote papers in *Behavioral Ecology*. This has proved successful, with a recent paper on butterfly 'eyespots' attracting considerable attention. We will continue to adopt this more pro-active approach to ensuring that the general public gain access to the science published in *Behavioral Ecology*.

The Editors of the journal, appointed by the Executive of ISBE on advice by the serving Editors, are wholly responsible for deciding whether their allocated manuscripts are suitable for publication. The workload of Editors is not trivial: submissions to the journal have grown from 1329 in the two-year period 2004–2006, to 732 from August 2006 to July 2007; and 914 from August 2007 to July 2008. Manuscripts have been submitted from across the globe, with variation in the outcomes according to the domicile of the lead author (Table 1). While some regions remain under-represented in terms of published papers, substantial change has occurred and in the right direction. The mean time to make a decision over the two-year period August 2006 to July 2008 was 47 days, but has declined markedly to 35 days in the period August 2007 to July 2008.

Editors serve terms of up to five years, and four Editors completed their terms over the past two years, including Göran Arnqvist (2007), Ian Owens (2007), Anne Houde (2008) and Naomi Pierce (2008). The generous contributions of these Editors, through their editorial decision-making and wise counsel on issues relating to the journal, should not be underestimated and is greatly appreciated. We have appointed six new Editors since 2006: Jeremy Field (2012), Sue Healy (2012), Hans Hofmann (2012), Daiqin Li (2012), Candy Rowe (2013) and Iain Couzin (2013). Members of the Editorial Board provide advice on manuscripts, and serve for terms of four years, and I thank Anders Berglund, Scott Forbes, Rufus Johnstone, Liselotte Sundström and Joost Tinbergen for their generous support of the journal. We are grateful to Sigal Balshine, Daniel Blumstein, Hanna Kokko, David Queller and Kerry Shaw who kindly agreed to join the Editorial Board. The composition of the editorial team is increasingly representative of the community of behavioural ecologists, including a broad range of expertise, increasing international representation, and credible gender balance.

**TABLE 1. Outcome of submissions according to domicile of lead author**

| Continent | Submissions | Outcome | | | Proportion accepted |
|---|---|---|---|---|---|
| | | Accept | Immediate reject | Reject | |
| Africa | 12 | 4 | 4 | 4 | 0.33 |
| Australia & NZ | 84 | 30 | 22 | 32 | 0.36 |
| Canada & USA | 320 | 119 | 87 | 114 | 0.37 |
| Europe[§] | 452 | 141 | 111 | 200 | 0.31 |
| Latin America | 31 | 6 | 12 | 13 | 0.19 |
| South Asia[†] | 8 | 1 | 5 | 2 | 0.13 |
| South East Asia | 36 | 9 | 16 | 11 | 0.25 |

[§] includes Israel and countries east to Russia; [†] includes India, Pakistan and Sri Lanka

The journal has responded to the increase in the number of submissions in two ways. First, we will increase the number of Editors to twelve, which should keep the number of manuscripts each Editor handles to a manageable level. Second, a higher proportion of manuscripts will be rejected without benefit of the advice of referees. Such editorial decisions will be made when it is clear that the manuscript is very unlikely to receive positive reviews or if it fails to address conceptual issues of broad interest to our readership. While disappointed authors will receive less feedback, we think this initiative will reduce the journal's impost on the busy schedules of our referees, whose good advice is critical for the reputation of the journal and to whom we are immensely grateful.

Some years ago, *Behavioral Ecology* adopted a double-blind reviewing process, in which both the manuscript authors and referees remain anonymous. It was thought that this process was more equitable, in the context of both the gender and 'experience' of authors, and there is ongoing interest in whether double-blind reviewing removes any potential bias in the referees' evaluation of manuscripts. Comparisons across journals with different reviewing processes are hampered by a lack of information on relative acceptance rates for males and females. My preliminary analysis of editorial decisions for the period 2002–2005 reveal some good news: there is no evidence of systematic gender bias in the acceptance rates of manuscripts submitted to *Behavioral Ecology*. Males and females are similarly likely to have their manuscript accepted (female 30%, male 31%: $c^2 = 1.41$, $p = 0.24$). However, there is a significant gender affect when a distinction is made between immediate rejection and rejection after review ($c^2 = 11.36$, $p = 0.003$), apparently because the percent of manuscripts rejected without being reviewed is almost twice as high for males (39%) than females (21%). However, more extensive analyses are required before drawing too many conclusions from these differences.

The journal is in excellent shape, and many people have worked extremely hard to maintain the journal's high standards of production and scientific quality. I thank the Editors, Members of the Editorial Board, and the numerous referees for their substantial contributions. I should also thank Caitlyn Haase, Simone Larche, Elizabeth Gardner and their colleagues in the OUP Production Office in Cary, North Carolina, as well as Cathy Kennedy, who is Senior Journals Editor at OUP in Oxford. Finally, I thank my Editorial Assistant, Jenny Fulford, whose organisational skills and good humour have been invaluable. Finally, may I remind members of the Society that the journal will remain in good shape if they continue to submit their most interesting manuscripts to *Behavioral Ecology*, thereby promoting the journal, the Society and the discipline.

**Mark A. Elgar**
*Editor-in-Chief,* Behavioral Ecology
*October, 2008*

# 13th Biennial ISBE Congress
# September 26th to October 1st 2010, Perth, Australia

September 2010 is fast approaching and Perth, Western Australia is the place you will want to be!

Perth has a strong and active community of biologists engaged in Behavioural Ecology research. The Centre for Evolutionary Biology at the University of Western Australia, hosts over 25 faculty and research students. The Perth Organising Committee is preparing a stimulating programme with a difference, and the meeting will be memorable for both its social and scientific content.

The Perth Convention Exhibition Centre has been confirmed as the venue for the Congress. The Centre is purpose built and located in the heart of the city. With the Centre's advanced technical facilities and communications infrastructure as well as first class catering and service, it meets all the requirements needed for an enjoyable and productive working environment.

Western Australia is adored for its brilliant blue skies, warm sunny climate and white sandy beaches. It is a land blessed with some of the world's most precious natural phenomena including the dolphins of Monkey Mia within the World Heritage Area of Shark Bay, the 350-million-year-old Bungle Bungle range, and the towering Karri forests of the South West.

The South West of Western Australia is one of the world's biodiversity hotspots. Our meeting is to be held in spring, at the peak of the wildflower season and coinciding with the King's Park wildflower festival. Our logo depicts Mangle's Kangaroo Paw, the State's flower emblem, and host to an endemic pollen feeding bushcricket that has been used as a model system in behavioural ecology research. Both species will be at the peak of their reproductive seasons during the congress, providing the opportunity to view these biological systems at first hand in the city's bushland reserve of King's Park. For more adventurous delegates, there are countless other outstanding biological systems in the wider environs of Western Australia.

Perth, the capital city of the State, is home to 1.38 million people and enjoys more hours of sunshine than any other capital city in Australia. Sophisticated yet uncomplicated, the lifestyle in Western Australia is a relaxed one. Perth offers visitors a variety of multi-cultural restaurants, cafes, bars and nightclubs. Free time can be spent shopping, cruising on the Swan River, relaxing on a secluded beach, sampling some of the world's finest wines, or playing a round of golf on one of Perth's many courses.

You will be glad you came to Perth, the most isolated city in the world and Australia's safest and sunniest.

We look forward to welcoming you and your families to Perth in September 2010 for what promises to be an exciting International Congress with a difference!

**Leigh Simmons & the organising committee**
*http://isbeperth2010.com*
*info@eecw.com.au*

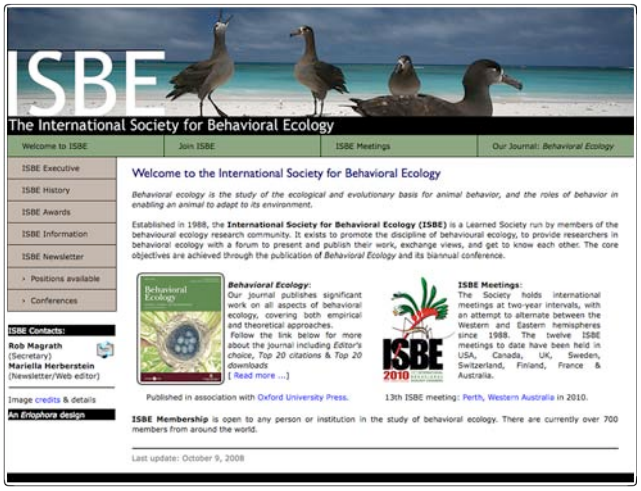
## The new ISBE website is live: www.behavecol.com

The ISBE conference in August was the catalyst to bring about the new ISBE website. The old website simply needed a facelift and to include some new functions to better serve the society and its members.

Discussions with the executive and the editorial board identified that the website should contain pages that highlight the excellent research published in the society's journal *Behavioral Ecology*.

Other new features include bringing the list of conferences and postings (job, fellowships and scholarships) right to the start page. This will make this information more accessible to visitors to the website.

Obviously the ISBE website will only be as good as the input from members. So, please send us information about upcoming conferences and jobs. If your research published in the journal *Behavioral Ecology* has received media coverage, we would love to report it. If you have high quality photos, please send them to us and we can incorporate them into the website.




Visit www.behavecol.com and let us know what you think!

**Mariella Herberstein**
*ISBE Newsletter editor & webmistress*
*Macquarie University, Sydney Australia*

**Richard Peters**
*ISBE website designer*
*Australian National University, Canberra Australia*

## Call for International Input

### The Netherlands Ornithologists' Union would greatly appreciate your input

The Netherlands Ornithologists' Union (NOU) is a platform for people interested in behaviour and ecology of birds and research that focuses on these aspects. Ardea, ranking 6th on the list of twenty ornithological journals, is the scientific journal of the NOU, and has been published since 1912.

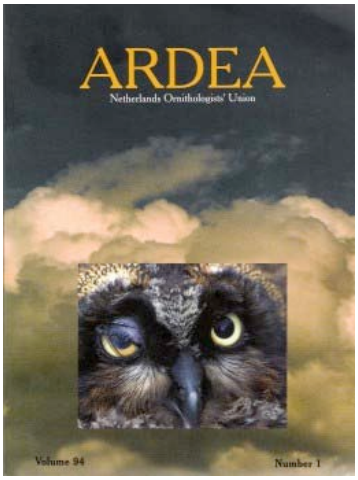
Ardea publishes original research papers, short notes, book and dissertation reviews. In addition to the regular two issues per year, Ardea publishes special issues that contain conference or workshop proceedings.

Please check the website at WWW.NOU.NU for all Ardea contents or search all freely accessible downloads from 1912 to 2001!

The NOU would like to know how familiar international ornithologists are with Ardea and requests your feedback on the quality of its journal and website.

We kindly ask you to please give us a few minutes of your time and visit our website at **WWW.NOU.NU** to fill in the questionnaire. On behalf of the NOU, many thanks,

Joost Tinbergen, NOU President
Corine Eising, NOU Surveys



# Book Reviews

## Measuring Behaviour An Introductory Guide 3rd Edition

Paul Martin & Patrick Bateson. Cambridge University Press, 2007. 187 Pp.
ISBN 978-0-521-82868-0 (hardcover), ISBN 978-0-521-53563-2 (softcover)

The first and second editions of *Measuring Behaviour* firmly established this book as a must have reference for undergraduate and graduate students embarking on studies of behaviour. For the 3rd edition of their book, Martin and Bateson have updated and re-organised the text while maintaining its brevity and clarity. Flicking through the contents pages of this edition next to its predecessor, it is clear that the authors have reconsidered its structure. The new organization is most apparent in the early chapters and represents a more logical order of topics. Most of the content from the 2nd edition remains, albeit in a different chapter and in some instances under a new heading. Compared with previous editions, there is stronger emphasis on non-experimental research and expanded discussion on research design. Missing from the new edition is the further reading sections at the end of each chapter, although suggested references are now incorporated into the text. The annotated bibliography has also been expunged, but remains available for download from the world-wide-web. Small changes throughout the new edition reflect the 14-year publication gap from the 2nd edition. For the most part, however, the book retains its focus on the principles of studying animal behaviour, which according to the authors (see Preface), are as similar today as they were 20 years ago when the 1st edition of *Measuring Behaviour* was released.

For those new to this book, this is a concise and easy-to-read introduction to all aspects related to the study of animal behaviour. It begins with a description of Tinbergen's four questions that leads to a discussion on the different approaches to studying behaviour and explain why "an essential part of biology … [is] the description and analysis of behaviour" (p.9). Sporting coaches are often heard proclaiming the 5 P's – *proper preparation prevents poor performance* – and, in chapter 2, Martin and Bateson continue this important piece of advice by encouraging behavioural biologists to 'Think before you measure'. This chapter describes the types of decisions that must be made in the lead up to any behavioural project including the appropriate level of analysis, when to observe and the likely impact on the behaviour of focal animals attributable to the presence of observers. Deciding what behaviours to record, and the level of detail required is the focus of chapter 3, while the next chapter considers the different approaches required when individual animals or groups are to be the focus of study. Chapters 5 and 6 discuss the strategies available for recording behaviour, addressing the different sampling and recording rules, and how the data will be recorded, describing simple pen-and-paper approaches to more sophisticated event recorders on PDAs.

Ensuring that measurements are repeatable and consistent (reliability), and that you are measuring what you intend to (validity) is discussed in detail in chapter 7, with useful suggestions and simple worked examples for assessing the various levels of each. Martin and Bateson then prompt the reader to consider critically their research design (chapter 8). They discuss different designs and the potential problems of confounding variables, random effects and more specialised topics such as pseudoreplication. Some discussion is paid to particular issues for studies of development, as well as investigating preferences and differential responsiveness (choice tests). Deciding what to do with the data that have been collected is the focus of chapter 9 – statistical analysis. This is not a textbook on data analysis, yet the authors do a nice job of describing the various approaches for quantifying and summarising the data. An annotated list of statistical textbooks is presented in Appendix 3. This chapter is likely to be a refresher for students who have covered issues surrounding data analysis in undergraduate courses. It provides discussion about what type of test is appropriate, how and when to transform data, as well as the more commonly used methods including ANOVAs, correlations, regressions and general linear models, as well as circular statistics. Consideration of behavioural data analysis is extended in Chapter 10 to more specific examples that are relevant to studies of animal behaviour. The authors consider issues of time, analysing sequences of behaviours and rhythms, and analysing choice test data. Indices of association and dominance hierarchies are then treated within a broader discussion of social behaviour. A glossary of statistical terms is provided in Appendix 2 for easy reference.

The final chapter (11) deals with the appropriate interpretation of the results obtained, and how to present a study's findings. Martin and Bateson concede that although well designed experiments avoid many problems of interpretation, it is sometimes difficult to avoid various issues arising, and that the best thing to do is acknowledge such problems. They discuss issues surrounding floor and ceiling effects, the important

difference between statistical significance and biological significance, and common pitfalls of interpreting correlation coefficients. They encourage readers to look at individual differences and not focusing entirely on p-values, to make use of prior knowledge (a *brief* introduction to Bayes' Theorem), and how modelling approaches can take the results of the present study to assist in the design of future studies. The format of typical reports and presentations is presented (Abstract, Introduction, Methods, Results, Discussion etc) before a brief, final word on 'Science and the public interest'.

This is a review of methodology that will be relevant to all who study the behaviour of animals. One of the book's strengths is that it is concise, and I am pleased that Martin and Bateson have resisted the temptation to expand it. Readers of this edition, as was the case in the past, may be disappointed with the lack of detailed examples and only brief descriptions of methods. However, suggested references are made throughout the book to direct readers to a more thorough discussion of certain topics. I was able to freely access some references from the world-wide-web (thanks to my institution having paid relevant fees), which makes clarifying particular issues only a few key presses away.

I was a fan of the previous edition and believe that the 3rd edition of *Measuring Behaviour* is an important reference for students, which should find a place on the shelf of all graduate student offices.

***Richard Peters***
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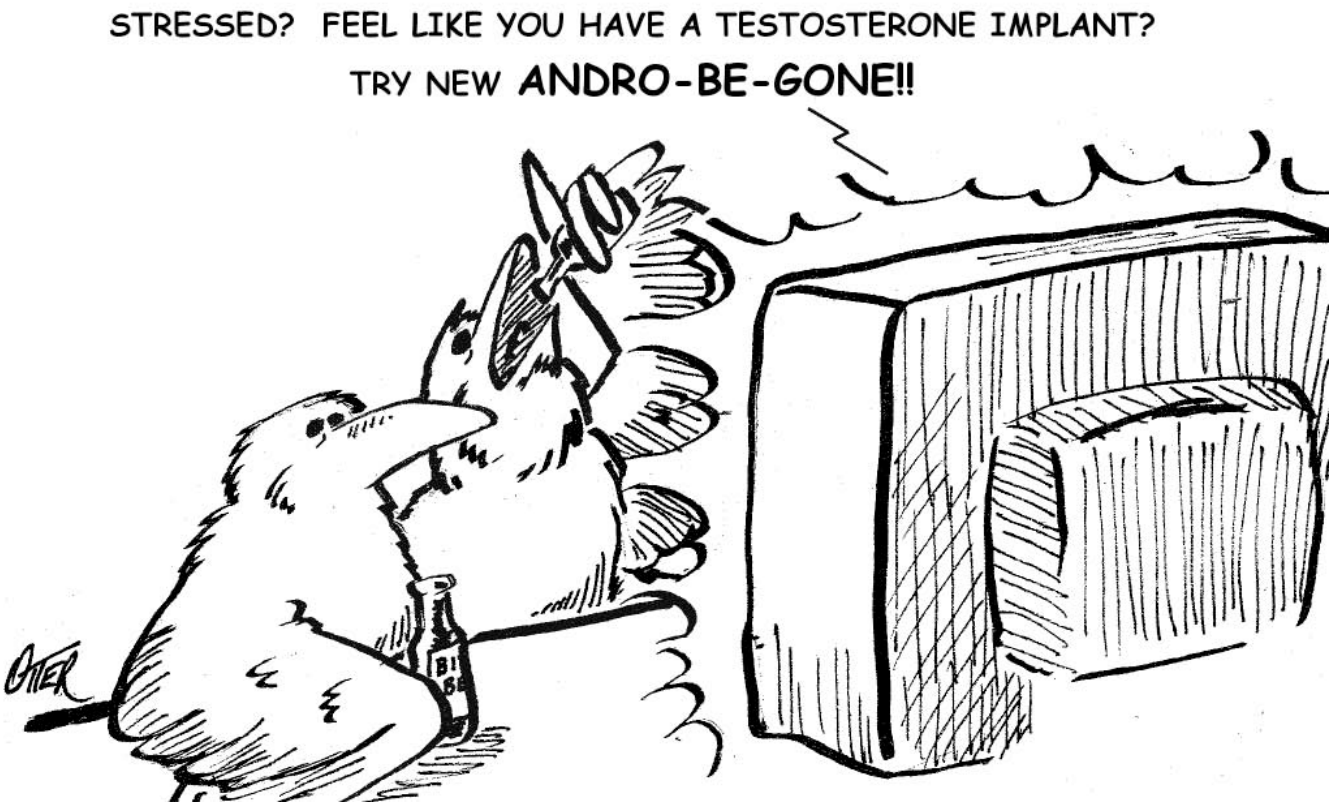
*Research School of Biological Sciences*
*Australian National University*
*Canberra ACT 0200*
*Australia.*



## **Modelling for Field Biologists, and other interesting people**.

Hanna Kokko. 2007. Cambridge University Press. 229 pp.
ISBN 978-0-521-53856-5 Softcover

I have always had mixed feelings about modelling. I tend to love models when the predictions clearly match the empirical data that I collect. Often, however, when reading a theoretic paper, I find myself frustrated by feeling the modeller has left out a number of life-history variables that tend to make the predicted patterns unrealistic for the species I happen to be working on. My rejoinder in these situations probably typifies that of many people who work more in the empirical realm – models can be made to predict anything you want, simply because you control the variables going in and the equation that predicts the answer. Whether it matches reality sometimes seems questionable.

So when Hanna Kokko's new book crossed my desk, the title intrigued me. I felt I should give Hanna the chance to convince me my preconceived bias was incorrect, and I am happy to report that she did exactly that. The first chapter of this introduction to modelling outlined the theory behind modelling exercises. Modelling is more about exercises in investigating the validity of our own thinking (does *x* follow logically from *y*, given *a*), rather than necessarily setting out to explain all the subtly of nature. All models will have to omit some contributing variables for the sake of clarity. The goal of models, and modellers, is not to recreate all aspects of nature that affect an individual system, but rather to test whether general assumptions about patterns in nature hold true when all else is equal. Hanna makes the case that modellers should not be considered "arrogant" simply because the generality of the idea might not perfectly match the ecology of an individual species. Rather the goal is to determine the validity of the verbal models that most of us produce whenever we start making predictions and deriving hypotheses, which we then set out to test empirically. Modelling is simply a method of formalising this process to test whether our predictions hold true when we actually test them with actual numbers. Littered throughout the text are cautionary notes from Kokko to cross check models against reality, such as "do not feel too smug about your first model……be prepared to accept that some assumptions do not capture reality as well as they should. In the process, both the modeller and empiricist will learn something if assumption *x* led to the wrong prediction, but *y* works much better in producing the observed pattern *z*; it is important to go out and see if the conditions *x* or *y* prevail where *z* is found" (pp 110).

From this introductory chapter, Kokko sets off on a mission to introduce readers to the main categories of models used in the literature. Chapters 2 and 3 introduce basic models used in population and quantitative genetics, respectively. Chapter 4 introduces models based around cost/benefit analysis and optimality (the latter is essentially defined as where the derivative *dy/dx* is neither increasing nor decreasing, but has reached a zenith of a climb and is starting to descend. Thus it is the local maximum of a trait, or the optimal level for fitness). Chapter 5 takes this one step further, introducing Dynamic Optimisation Models in which decisions on how to behave or react can change over the course of time, or future steps can depend on the past steps that brought you to the current state. Chapter 6 focuses on Game Theory, and starts with a great example on whether the use of public transit versus driving one's own car to work can reach stable equilibriums in Finnish cities. This example is going to become the one I use in introducing game theory in my undergraduate classes in the future, due to both the elegance of the modelling and the tractability of the example to the average student! From there, Kokko introduces population dynamics back into game theory ideas by investigating Evolutionary Invasion Analysis (Chapter 7) and the concept of whether different strategies can invade populations. She finishes the discussion with a chapter (8) on Individual-based Simulation Models. Kokko argues in this chapter that some biological patterns can either involve a lot of interacting variables that make deriving predictive equations difficult, or the patterns are potentially influenced by stochasticity and random events that the modeller wants to consider. In such circumstances, creating a "virtual world" and allowing individuals to "play out their lives" and see what the outcomes are. A beauty in this approach is that it can help validate more formal models by convincing the modeller that the theoretical argument works when run in simulations.

Throughout the book, Kokko uses a very informal style that is likely to be easily digestible to math-phobic undergrads (or non-modelling biologists, like myself). She builds models slowly and thoroughly explains the thought process underlying each variable. Within each chapter, there are side boxes that contain MatLab exercises for deriving the models. Not familiar with MatLab, personally, I found myself using the extensive notation in these boxes to see how the same kinds of analyses could be easily run with Excel or other programs – such was the generality and tractability of her approach. Further instructions on MatLab are provided in an extensive appendix, which would be extremely beneficial to anyone wanting to adopt this text for undergrad courses in

Modelling (as the computer labs are built right in). The text itself is designed specifically for this kind of undergraduate introduction, and every chapter ends with a section called "Got Interested?", which gives directions for more detailed reading and investigation on the particular subject matter at hand. This is a great stepping-stone book for getting people interested in modelling and then pointing them in the direction of more detailed material on the subject.

The book itself is concise and easy to read (which is a pretty significant achievement for a book largely about math), and the witty writing style keeps one engaged even when the material tends to get dense. An excellent effort that I highly recommend!

***Ken A. Otter***
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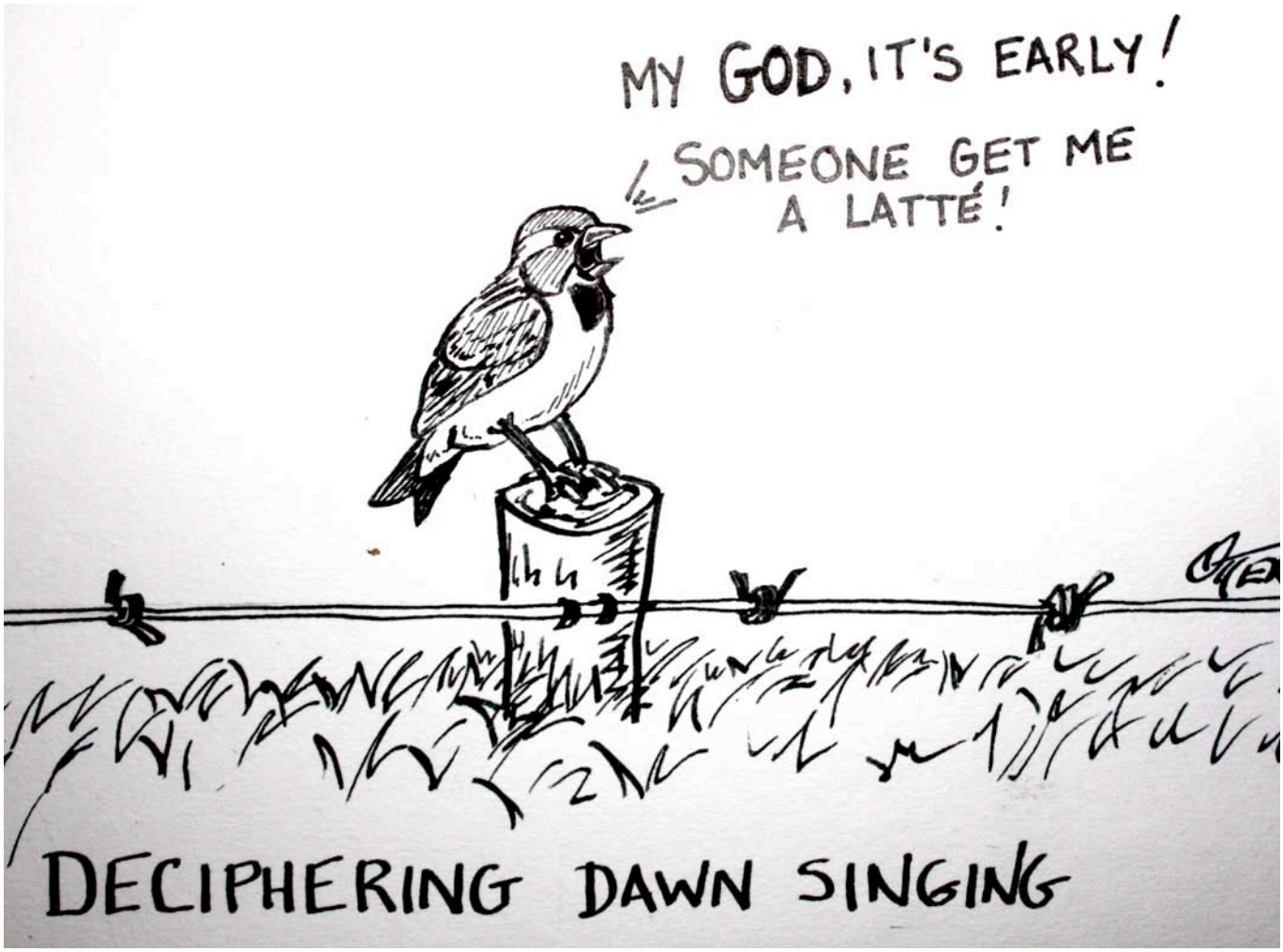
*University of Northern British Columbia*
*Prince George, BC, Canada*



# The Ecology and Behaviour of Amphibians.

Kentwood D. Wells. 2007. Chicago University Press. 1148 pp.
ISBN: 9780226893341 hardcover

*The Ecology and Behaviour of Amphibians* is an impressive coverage of amphibian biology that has taken Kentwood Wells more than thirty years to compile. The book is a 1148 page academic masterpiece. While a handful of publications have previously covered the topic of amphibian ecology, the content of *The Ecology and Behaviour of Amphibians* undoubtedly stands as the definitive guide to amphibian biology. Most of what we currently know about frogs, toads, salamanders, newts and caecilians (those weird snake like animals that live underground) has been documented in this book. The depth of literature reviewed is overwhelming. Perhaps the only negative comment is that the literature is a little biased towards research conducted pre 1990's, which is to be expected given the books long gestation period.

*The Ecology and Behaviour of Amphibians* has been carefully organized into 16 chapters that follow a logical progression. The book begins with a detailed overview of the origin of amphibians and the sequence of morphological changes that amphibians have experienced since crawling out of their primordial swamp. This chapter also dissects phylogenetic relationships between extant families and provides a wealth of taxonomic source material. Succinct, yet detailed, descriptions of each family leave the reader with a strong appreciation for amphibian diversity. This appreciation is reinforced by the presentation of a suite of high quality photos that are effectively used to illustrate a variety of amphibian morphologies. However, readers with a penchant for vibrant colours may be disappointed to discover that the photos are only printed in black and white. Hopefully, colour pictures will appear in future editions! In chapters 2-6, the reader is presented with a comprehensive review of amphibian physiology. These chapters cover a diversity of topics, ranging from metabolism to navigation. What is clear from these chapters is that amphibians possess a fascinating array of adaptations that have permitted them to conquer many of the earth's extreme environments. However, for those readers specifically interested in behavioural ecology, Chapters 7-12 is where the action is. If you ever doubted that amphibians are behaviourally spectacular, these chapters are sure to enlighten.

Chapter 7 is devoted entirely to anuran vocal communication and must come close to reviewing the entire literature. However, communication enthusiasts may be disappointed to discover that little attention has been paid to visual and chemical communication, despite these modes being used in a number of frog species. Nevertheless, the information presented is captivating and many readers will be astonished to discover the level of sophistication involved in anuran calling. Even specialists will probably be surprised by the diversity of strategies used by frogs to deter rivals and attract mates. Chapter 7 is a perfect prelude to chapters 8-12, where things really get interesting. With respect to the sex lives of amphibians, Charles Darwin noted that "their passions are strong", but after examining chapters 8-12 the reader will be sure to consider this an understatement. Wells provides readers with a tantalizing insight into a diverse array of sexual behaviours, ranging from group sex to sexual piracy. Importantly, however, Wells also provides a clear categorical overview of amphibian mating patterns and highlights the key role that these animals have played in the development of sexual selection theory. These chapters also cover a range of contemporary theoretical issues in behavioural ecology (e.g. genetic benefits of mate choice) and effectively draw attention to topics that require further investigation.

Chapters 13-15 continue to provide in-depth insights into the fascinating world of amphibian ecology, with a specific focus on the topics of metamorphosis, amphibian predation and community structure. The taxonomic coverage is extensive and the overall amount of information provided is staggering. The book appropriately concludes with a chapter (chapter 16) on amphibian conservation. This chapter alerts readers to the alarming decline in amphibian populations worldwide and outlines some of the biological, ecological and behavioural traits of amphibians that may make them susceptible to population declines. Wells also reviews the expansive literature on the environmental factors linked to amphibian decline and considers what it might mean if this amazing group of vertebrates were to vanish. The message from this chapter is clear; amphibians are on the brink and "what we need now is a realistic assessment of what the future holds for amphibians, what conservation measures can be taken and which species can be saved" (page 854).

*The Ecology and Behaviour of Amphibians* will be attractive to a wide audience, and is a must have for anyone that is serious about vertebrate ecology, animal behaviour or conservation.

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**References**

Darwin C. 1874. The Descent of Man and Selection in Relation to Sex. London: John Murray

# Conferences and Workshops 2008/2009

**ASAB Winter meeting: Maternal Effects: Evolution, physiology and implications for health and fitness**
4-5 December 2008, London, UK
www.biology.ed.ac.uk/winterasab2008/

**Society for Integrative and Comparative Biology**
3-7 January 2009, Boston, MA, USA
www.sicb.org/meetings/2009/

**Evolution – The Experience**
An international conference organized in celebration of the Darwin Bicentennial
8-13 February 2009, Melbourne Australia
www.evolution09.com.au

**29th Symposium on Sea Turtle Biology & Conservation**
17-19 February 2009, Brisbane, Australia
www.turtlesbrisbane2009.org

**4th Meeting European Human Behaviour and Evolution**
6-8 April 2009, St Andrews, Scotland, UK
http://biology.st-andrews.ac.uk/ehbe2009

**Australasian Society for the Study of Animal Behaviour**
15-18 April 2009, Auckland, New Zealand
contact: j.j.weihong@massey.ac.nz

**Cooper Ornithological Society**
16-18 April 2009 Tucson, Arizona, USA
www.birdmeetings.org/cos2009

**Human Behaviour and Evolution Society**
May 27-31, 2009, Fullerton, CA
http://www.hbes.com

**International Behavioral Neuroscience Society**
June 9-14, 2009, Manzanillo, Mexico
http://www.ibnshomepage.org/

**Animal Behavior Society Annual Meeting of 2009**
June 22-26, 2009, Pirenópolis, Brazil
www.animalbehavior.org

**12th European Society for Evolutionary Biology Congress**
20-25 August 2009, Torino, Italy
www.eseb2009.it/uk/

**7th Conference of the European Ornithologists' Union**
21-26 August 2009, Zurich, Switzerland
www.eou2009.ch/

**XXXI International Ethological Conference**
19-24 AUGUST 2009, Rennes, Brittany, France
http://iec2009.univ-rennes1.fr

**10th International Congress of Ecology**
16-21 August 2009, Brisbane, Australia
www.intecol10.org/default.asp

**ASAB Summer meeting: The Descent of Man and Selection in Relation to Sex**
2-5 September 2009, Oxford, UK
www.darwin200.org/index.html

**Darwin 2009: 150 years of evolutionary biology**
5-8 November 2009, Stony Brook Univ, NY, USA
http://darwin09.org/

**International Union for the Study of Social Insects**
9-11 October 2009, Chiemsee, Germany
foitzik@biologie.uni-muenchen.de