

## Supplement to Behavioral Ecology

**ISBE**

**International Society for Behavioral Ecology**  
**Newsletter**  
Editor: Mariella Herberstein  
Macquarie University, NSW 2109, Australia  
Phone: +61 2 9850 6276 Fax: +61 2 9850 8245  
Email: m.herberstein@bio.mq.edu.au  
www.behavecol.com  
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## Editorial

### Evolution Rap

One of the biggest challenges of teaching first year biology is to ensure students understand evolution and its mechanisms before they head into higher-level biology. So I am constantly looking out for new and interactive ways to teach evolution. Michael Jennions (Australian National University, ANU) alerted me to the 'Rap Guide to Evolution' by Baba Brinkman ([www.babasword.com/index/rgecd.html](http://www.babasword.com/index/rgecd.html)). Baba was also highlighted by *Science* and his songs are free to download. He visited the ANU in April this year and performed his evolution stage show to students and staff. From all accounts, evolution by rap was well received and I look forward to using Baba's songs in my own lectures and practicals.

**Mariella Herberstein**  
*Newsletter Editor*

### Contents of this Issue

|   |           |
|---|-----------|
| <b>Editorial</b>  |           |
| <b>Newsletter Editor</b>  | <b>1</b>  |
| <b>Contributing to the ISBE Newsletter</b>                                      | <b>2</b>  |
| <b>Current Executive</b>  | <b>3</b>  |
| <b>ISBE Election results</b>  | <b>4</b>  |
| <b>Books available for review in the ISBE newsletter</b>                        | <b>4</b>  |
| <b>Society News</b>   | <b>5</b>  |
| <b>In memoriam Ross Crozier</b>   | <b>6</b>  |
| <b>Spotlight on....</b>   | <b>8</b>  |
| Research profiles of <b>Nikolai Tatarnic, Thomas Ryder and Juliana Rangel</b>   |           |
| <b>ISBE Conference 2010</b>   | <b>9</b>  |
| <b>Forum section in Behavioral Ecology</b>                                      | <b>10</b> |
| <b>Book Reviews</b>   |           |
| <b>Vibrational Communication in Animals</b>                                     | <b>11</b> |
| (Peggy S.M. Hill, Harvard University Press)                                     |           |
| Review by Anne Wignall  |           |
| <b>Animal Behavior: An Evolutionary Approach, 9th edition</b> (Alcock, Sinauer) | <b>13</b> |
| Review by Peter Bednekoff   |           |
| <b>Conferences and Workshops 2010</b>   | <b>14</b> |

### 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 should 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](http://www.isbe.com)).

*Deadlines for submission to the Autumn newsletter will be 1 September 2010.*



A newsletter item for advanced postgraduate students, recent post-docs and faculty. Introduce yourself, your research and research interests to the society. Nominate by February 1 or September 1 2010 by emailing [m.herberstein@bio.mq.edu.au](mailto:m.herberstein@bio.mq.edu.au) ISBE membership is essential! If multiple nominations are received, 3-4 entries will be selected randomly.

# Spotlight on....

## Current Executive

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### *President*

#### **Patricia Monaghan**

Division of Environmental & Evolutionary Biology  
Graham Kerr Building University of Glasgow, Glasgow  
G12 8QQ Scotland, UK  
Tel: +141 330 6640  
Fax: +141 330 5971  
Email: p.monaghan@bio.gla.ac.uk

### *Past-President*

#### **Marlene Zuk**

Department of Biology  
Spieth Hall 3344  
University of California  
Riverside, CA 92521 USA  
Tel: +1 951 827 3952  
Fax: +1 951 827 4286  
E-mail: marlene.zuk@ucr.edu

### *President-elect*

#### **Kate Lessells**

NIOO-KNAW  
Centre for Terrestrial Ecology  
P.O. Box 40  
6666 ZG Heteren  
The Netherlands  
Tel: +31 (0)26 4791 230  
Fax: +31 (0)26 472 32 27  
Email: k.lessells@nioo.knaw.nl

### *Secretary*

#### **Robert Magrath**

School of Botany and Zoology  
Australian National University  
Canberra 0200, Australia  
Tel: +61 2 6125 3060  
Fax: +61 2 6125 5573  
Email: robert.magrath@anu.edu.au

### *Treasurer*

#### **Walt Koenig**

Lab of Ornithology  
159 Sapsucker Woods Rd.  
Ithaca, NY 14850 USA  
Tel: +1 607 254 2151  
Fax: +1 607 254 2904  
Email: wdk4@cornell.edu

### *Councilors*

#### **Rebecca Kilner**

Zoology Department  
University of Cambridge  
Downing Street, Cambridge CB2 3EJ, UK  
Tel: +44 (0) 1223 331 766  
Fax: +44 (0) 1223 336 676  
Email: rmk1002@hermes.cam.ac.uk

#### **Michael Jennions**

School of Botany & Zoology  
The Australian National University  
Canberra ACT 0200, Australia  
Tel: +61 2 6125 3540  
Fax: +61 2 6125 5573  
Email: michael.jennions@anu.edu.au

#### **Maydianne Andrade**

Department of Biological Sciences  
University of Toronto Scarborough  
1265 Military Trail  
Scarborough, ON M1C 1A4 Canada  
Phone: +1 416-287-7425  
Fax: +1 416-287-7676  
Email: mandrade@utsc.utoronto.ca

#### **Bart Kempenaers**

Max Plank Institute for Ornithology  
Behavioural Ecology and Evolutionary Genetics  
Haus Nr. 5, Postfach 1564  
82305 Starnberg/Seewiesen, Germany  
Tel: +49 (0) 8157 932 - 334  
Fax: +49 (0) 8157 932 - 400  
Email: b.kempenaers@orn.mpg.de

## ISBE 2010 ELECTION RESULTS

The results of the 2010 elections for the executive positions of president and councillors have been compiled. **Gunilla Rosenqvist** is the new incoming president and the elected Councilors are **Bruce Lyon** and **Roxana Torres** who will replace **Michael Jennions** and **Rebecca Kilner**.

Congratulations to all newly elected ISBE executive officers and many thanks to all outgoing executive officers.

At the 2010 ISBE conference, the outgoing president **Pat Monaghan** will hand over the presidency to **Kate Lessells**.

### Books available for review in the ISBE newsletter

Several books have recently arrived at my desk, and I am now looking for reviewers, who will receive the book in exchange for a review to be published in the next edition of the newsletter (due September 2010).

Reinmar Hager & Clara B. Jones (Eds). 2009. Reproductive skew in vertebrates: Proximate and ultimate causes.

Stephen J. Mullin & Richard A. Seigel (Eds). 2009. Snakes: Ecology and conservation.

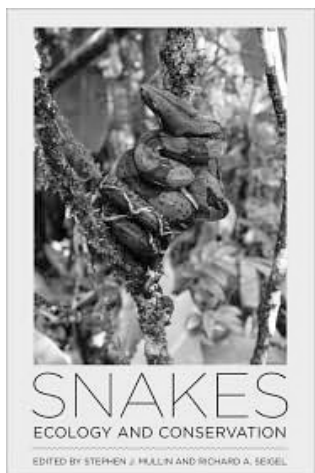
Von Hippel. 2010. Tinbergen's Legacy in Behaviour: Sixty Years of Landmark Stickleback Papers.

Please email me if you are interested in reviewing these books and I will send you a copy.

**Mariella Herberstein**

Macquarie University

Email: [m.herberstein@bio.mq.edu.au](mailto:m.herberstein@bio.mq.edu.au)



<http://assets.cambridge.org>



<http://img.tesco.com>



<http://www.brill.nl>

## Society News

Most Society News – workshops, conferences and job postings – are publicised on our website ([www.behavecol.com](http://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](mailto:m.herberstein@bio.mq.edu.au)).

### IN MEMORIAM ROSS CROZIER

Ross Crozier (James Cook University, Australia) has suddenly died on November 12<sup>th</sup> 2009. See page 6.

### NEW ADDRESS

**Jane M. Waterman** has moved to the Department of Biological Sciences, University of Manitoba  
Winnipeg, MB R3T 2N2  
Tel: (204) 272-1678  
Fax: (204) 474-7604  
Email: [jane\\_waterman@umanitoba.ca](mailto:jane_waterman@umanitoba.ca)

### ISBE 2010 CONGRESS

The thirteenth congress of the International Society for Behavioral Ecology will be held in Perth, Australia, September 26<sup>th</sup> to October 1<sup>st</sup> 2010. <http://isbep Perth2010.com> See page 9 for details.

### MASTERS OF ARTS DEGREE IN NEW YORK CITY: CONCENTRATION AND CERTIFICATE PROGRAM IN ANIMAL BEHAVIOR AND CONSERVATION (ABC)

This Concentration within the Master's Program in Psychology at Hunter College is designed to provide students with skills that will facilitate entry through course work, research, and practical experience, into the fields of animal behavior cognition, communication, conservation, animal welfare, and zoo science. Coordinator: Prof. Sheila Chase: [abcpsych@hunter.cuny.edu](mailto:abcpsych@hunter.cuny.edu)  
[http://maxweber.hunter.cuny.edu/psych/04\\_Masters/01D\\_AnimalBehavior.html](http://maxweber.hunter.cuny.edu/psych/04_Masters/01D_AnimalBehavior.html)

### NEW MASTERS IN ANIMAL BEHAVIOUR AT NEWCASTLE UNIVERSITY

The Centre for Behaviour and Evolution at Newcastle University is starting a new MRes degree in Animal Behaviour beginning September 2010. This is a one-year program designed to give intensive training in contemporary animal behaviour research, as a preparation for PhD programs or working in a related area. For further details check out [www.ncl.ac.uk/cbe](http://www.ncl.ac.uk/cbe) or contact Daniel Nettle ([daniel.nettle@ncl.ac.uk](mailto:daniel.nettle@ncl.ac.uk)).

### 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 14 and will be posted on the webpage ([www.behavecol.com](http://www.behavecol.com)).

### 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](http://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](mailto:m.herberstein@bio.mq.edu.au)).

### 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](http://www.behavecol.com)) and Oxford University Press' *Behavioral Ecology* webpage ([beheco.oupjournals.org](http://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).

## In Memoriam Rossiter Henry Crozier (1943 - 2009)

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On 12 November 2009 after a typically happy morning, Ross Crozier collapsed in his office and despite the efforts of many, could not be revived. He passed away in the company of his wife Ching and numerous members of his laboratory and School. He is survived by Ching, his two sons Ken and Michael, granddaughter Madeleine and siblings Brian and Judy. His passing sent a shock wave around the world.

While Ross's research efforts were embedded in the study of social insects and social evolution, they had a much wider impact on the areas of evolutionary genetics and conservation biology, and included a diversity of additional non-social taxa such as fig wasps, fish, crocodiles, birds, bats and even octopus. With a strong background in population genetics and the theory underpinning this area, Ross pushed the newly developing molecular technique to answer critical questions of social and evolutionary biology.

The breadth of his significant contributions and influence are immense: over 70 Honours, postgraduate and postdoctoral researchers trained in his laboratory, he coauthored papers with 75 different colleagues in the last three years alone, from a career total of over 200 papers generating over 5000 citations. In addition to membership in the Australian Academy of Science and the American Association for the Advancement of Science, Ross was the first recipient of the Hamilton Award from the IUSI. The appearance of testimonials in journals such as *Science*, *Ecology Letters* and *Evolution* (with more to come) further highlights the breadth and depth of his achievements.

For those not familiar with Ross' path, he was born to an Australian family in India during the Second World War, and spent most of his early years in Burma and Malaya. Ross' father worked in the mining industry and traveled extensively, and each of his siblings, Brian and Judy, were born in different countries. And while Watson and Crick were working on the structure of a potentially interesting chemical called DNA, Ross had already made his first entree into the world of social insects (he opened a nest of termites: alas, we never did ask Ross what species), an area he would pursue passionately for the rest of his life. He completed his school education as a boarder at Geelong Grammar School in Victoria, then studied genetics at the university of Melbourne, influenced by the evolutionary geneticists Michael J.D. White, himself a student of J.B.S. Haldane. It was here that Ross met his future wife and research colleague, Ching Kok.

Ross completed his PhD at Cornell under the supervision

of the renowned ant biologist William L. Brown, and then moved on to the University of Georgia as a demonstrator in Genetics, before returning to Australia as a lecturer at the University of New South Wales, where he rose to the rank of Professor. In 1990 Ross moved to La Trobe University as the Chair of the Department of Genetics and Human Variation, and in 2000 made his final move to the James Cook University, where he took up a personal Chair as Professor of Evolutionary Genetics in the School of Marine and Tropical Biology.

Some of the most notable achievements to become evident after Ross' passing, in addition to the recognition of his scholarly contributions, were the high personal esteem in which Ross was held, and the breadth and scope of his contributions to the life of his family and colleagues. There was a universal acceptance that Ross was a scholar and gentleman, who played a significant role as mentor and colleague. Testimonials flowed in from those who had known Ross at many stages in his life, from one of his school teachers at Geelong Grammar who remembers meeting Ross on the day he arrived in Australia, to graduate school office mates and recent PhD students. Many commented on Ross' love of Macintosh computers and gadgets, and even within his family, his love of 'pockets full of pens and a good pair of shorts' is still a point of discussion.

Ross managed to keep in contact and continue to support many of his students long after they left his laboratory. And although the Crozier lab will close at the end of this year with completion of the final graduate students and postdocs (from Germany and China), the spread and success of so many 'Crozierites' throughout the world means that the critical and enthusiastic study that so typified Ross, will continue unabated.

It is difficult to end a discussion of Ross' achievements confident that his accomplishments and impacts on both a professional and a personal level have been appropriately acknowledged. So I will simply end by borrowing a statement from Barry Bolton, who summed up the feeling of many when he noted "You were a good bloke Ross, and I shall miss you."

**Simon KA Robson**

*School of Marine & Tropical Biology  
James Cook University*

Next page: A now famous photo of Ross in the insect collections of the Chicago Field Museum, taken the week before he passed away (Alex Wild).



Rossiter Henry Crozier (1943 - 2009)

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**Name:** Nikolai Tatarnic

**Education:** BSc (1998) Univ Toronto; MSc (2003) Univ Alberta; PhD (2008) Univ Sydney

**Current address:** Evolution & Ecology Research Centre, University of New South Wales, Sydney 2052 Australia  
n.tatarnic@unsw.edu.au

**Research interests:** Sexual selection & evolution of mating systems; sexual conflict & male-female coevolution, genital evolution and speciation; the evolution of bizarre morphology; biodiversity and systematics of True Bugs (Heteroptera)

**Selected papers:**

Tatarnic NJ, Cassis G, Hochuli DF. 2006. Traumatic insemination in the plant bug genus *Coridromius* Signoret (Heteroptera: Miridae). *Biol Lett* 2: 58-61.

Tatarnic, NJ, Cassis G. 2008. Revision of the plant bug genus *Coridromius* Signoret (Insecta: Heteroptera: Miridae). *Bull Am Mus Nat Hist* 315: 1-95

Tatarnic NJ, Cassis G. (in press). Sexual coevolution in the traumatically inseminating plant bug genus *Coridromius*. *J Evol Biol*

**Name:** Juliana Rangel

**Education:** Postdoctoral Research Associate

**Current address:** Postdoctoral Research Associate  
Department of Entomology Box 7613, North Carolina State University Raleigh, NC 27695, USA  
jrangel@ncsu.edu

**Research interests:** behavioral ecology and group decision-making mechanisms of honey bees

**Selected papers:**

Rangel J, Griffin SR, Seeley TD (2010) An oligarchy of nest-site scouts triggers a honey bee swarm's departure from the hive. *Behav. Ecol. Sociobiol.* Published online. DOI 10.1007/s00265-010-0913-4

Rangel J, Mattila HR, Seeley TD (2009) No intracolony nepotism during colony fissioning in honey bees. *Proc. R. Soc. B* 276: 3895-3900.

Rangel J, Seeley TD (2008) The signals initiating the mass exodus of a honey bee swarm from its nest. *Anim. Behav.* 76:1943-1952

**Name:** Thomas B. Ryder

**Education:** BSc (1999) Unity College, Maine; PhD (2008) Univ Missouri-St. Louis

**Current address:** Smithsonian Migratory Bird Center and Center for Conservation and Evolutionary Genetics, Washington DC 20012, USA, pipridae@gmail.com

**Research interests:** Behavioral ecology, social networks, sexual selection, reproductive skew, leks

**Selected papers:**

Ryder TB, McDonald DB, Blake JG, Parker PG, Loiselle BA. 2008. Social networks in the lek-mating wire-tailed manakin. *P Roy Soc B* 275:1367-1374.

Ryder TB, Parker PG, Blake JG, Loiselle BA. 2009. It takes two to tango: reproductive skew and social correlates of male mating success in a lek-breeding bird. *P Roy Soc B* 276: 2377-2384

Ryder TB, Tori WP, Blake JG, Loiselle BA, Parker PG. 2010. Mate choice for genetic quality: a test of the heterozygosity and compatibility hypotheses in a lek-breeding bird. *Behav Ecol* 21: 203 - 210



## ISBE Conference 2010

The organisers of the 13<sup>th</sup> International Behavioral Ecology Congress have announced a blockbuster of plenary speakers including **Nick Davies** (University of Cambridge, UK) who will present the Hamilton Lecture, **Mats Olsson**, University of Sydney, Australia) **Nina Wedell** (University of Exeter, UK), **Louise Barrett** (University of Lethbridge, Canada), **Mariana Wolfner**, (Cornell University, USA), **Jens Krause** (Humbolt University, Berlin), and **Stuart West** (University of Oxford, UK).

Details on the conference program including the social events will be released soon.

Several symposia will run concurrently on the morning of October 2<sup>nd</sup> 2010:

- **Integrating Nutritional and Behavioral Ecology: Recent Insights and Future Directions**
- **Are Humans Co-operative Breeders?**
- **Impact of Symbionts on Behavior**
- **The Ecology of Sex Roles**
- **Why Behavioral Ecologists Should Care About Individual Variation in Responsiveness**
- **Statistical tools for Behavioral Ecologists**
- **How Can Sexual Selection be Measured?**

Abstract submission has already closed, but conference registration will open soon: earlybird registration closes May 28<sup>th</sup> 2010 and late registration on August 27<sup>th</sup> 2010.



## Revamped *Forum* Section in *Behavioral Ecology*

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Behavioral Ecology has just revamped its *Forum* section. We will now publish two kinds of pieces: 'Ideas' and 'Invited Reviews', both of which are to be peer-reviewed. 'Ideas' will be short pieces (normally less than 2000 words), and containing new ideas, approaches and perspectives of current or emerging interest. These pieces will be commissioned, following a review of the author's brief (300 word) proposal by the Forum Editor and one Member of the Editorial Board.

'Invited Reviews', which will take the form of reviews, syntheses and meta analyses that are both forward-looking and of exceptional significance. Broad, generic reviews, especially of an established or stagnant area, and reviews focusing on an author's own work will not be commissioned. The Forum Editor, drawing on advice from Members of the Editorial Board, will identify areas appropriate for review or synthesis and suitable authors from whom to commission a review.

Authors can suggest a review article by submitting a brief (500 word) proposal; the Forum Editor and one Member of the Editorial Board will evaluate the proposal and decide whether to commission the review. The usual deadline for submissions will be two months from date of commission.

'Invited Review' articles will be accompanied by 3-5 short (500-700 word) commentaries from leading researchers in the field, published at the end of the article with a short rejoinder (500-700 words total) if necessary from the 'Invited Review' author/s.

If you are interested in writing an Ideas piece or Invited Review, please send to the Forum Editor (Rob.Brooks@unsw.edu.au) a short proposal explaining not only the main points of your proposed piece, but the target audience and the main research groups or authors whose work you will be reviewing. If you would like to nominate an area that you would like to see reviewed, please notify the Forum Editor.

### **Rob Brooks**

*Behavioral Ecology, Forum Editor*  
*University of New South Wales*  
*Email: rob.brooks@unsw.edu.au*

## Book Reviews

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### Vibrational Communication in Animals

Peggy S.M. Hill, Harvard University Press, 2008. 261 Pp.  
ISBN 978-0-674-02798-5 (hardcover)

This book provides a broad overview of the vibration communication channel. While acoustic, visual and chemical communication in animals has been studied in increasing detail for many decades, vibrational communication is still a comparatively new area of study in behavioural ecology. The surprising number and range of taxa that communicate via vibrations is beginning to be realised, and Hill uses this to her advantage by drawing on examples from arachnids, crustaceans, insects, amphibians, reptiles, mammals and even birds throughout her book.

The book begins with a brief introduction on the history of vibrational communication research (Chapter 1). Hill suggests that the vibration channel is an ancient means of communication in the vertebrates. This is supported by studies comparing the morphology of early amphibians, in particular the structure of the lower jaw. By coupling the lower jaw to the substrate, vibrations are conducted through the bones of the jaw to the ear. The claim that vibratory communication is an ancient sensory modality is further supported by evidence that vibrations are the primary channel of communication in some animal groups and is ubiquitous in vertebrates and arthropods. Also included are some fascinating, although at present largely anecdotal, accounts of animals responding to earthquakes in ways that suggest they can detect the vibrations caused by the disturbance prior to the earthquake arriving at the area.

Chapter 2 introduces signalling theory and what constitutes 'communication' and a 'signal'. The distinction between sound and vibration is a difficult one, hampered by the different terminology used between disciplines, and this is discussed in addition to a very useful clarification of how the terms are employed throughout the rest of the book. In this section Hill includes a brief primer on vibration physics, outlining the different types of waves that may be generated by a signalling animal and detected by the receiver. A more detailed section describes how vibrations behave in common media for vibrational communication, such as plants, soil, sand and spider webs. Each medium is thoroughly illustrated by examples from a range of species. However, this chapter could benefit in future editions from a more comprehensive introduction into the terminology, as some prior knowledge is assumed (e.g., spectrum, carrier frequency, harmonics, resonance). As a result this section, and some of the examples discussed in

later chapters may prove heavy going for readers new to the subject.

The next two chapters provide a review of the structures for receiving (Chapter 3) and generating (Chapter 4) vibrational signals. Covered in depth are auditory-vestibular structures (i.e., the 'ear') and associated adaptations for transferring vibrations through to the ear, including the previously discussed specialisations of the lower jaw that transmit vibrations to the ear bones. Hill also covers somatosensory adaptations (i.e., 'touch' receptors), including human cutaneous receptors and arthropod mechanoreceptors. By presenting the different mechanoreceptors together, Hill has allowed the reader to mentally compare their structure and sensitivities. This opens up many avenues for future research on their evolution and signal structure. Most of the major mechanoreceptors appear to be most sensitive to changes in stimuli levels (i.e., on or off, or changes in structure) rather than constant pressure. It is in this section that a working definition to distinguish between sound and vibration is suggested by the author (Chapter 3). She proposes that these forms of communication are truly distinct only at the perception level, and processing and analysis of the signals occurs in the same or adjacent brain regions.

Chapter 4 changes the focus from receiving signals to how animals generate vibration signals. Hill suggests that animals began by passively detecting vibrations (e.g., from detecting the movements of passing prey) before developing the ability to actively send a vibratory signal to another individual. Common signalling behaviours that are described include drumming (with various body parts against a substrate), stridulation (moving body parts against each other to produce both an air-borne and substrate-borne vibration), tremulation (oscillation of a body part) and buckling of the tymbals (thin membranes, such as in cicadas). The majority of examples used are of vertebrate and arthropod taxa, although the chapter ends by explaining that our information at present is preliminary and many more taxa are probably yet to be discovered using vibrations.

Chapters 5 to 7 concentrate on how vibrations are used during interactions between individuals. Interactions are divided into those between predators and prey, between potential mates and between groups of animals. Hill identifies three main ways in which vibrations are used to

mediate predator-prey interactions (Chapter 5): predators that exploit vibrations that are generated by prey as they move about their environment and predators that eavesdrop on the communication behaviour between individuals of their prey, both of which are passive mechanisms. The third form occurs when prey signal in response to the presence of a predator in order to deter the predator, to warn conspecifics, or use vibrations to attract other individuals to help defend them from the predator. Prey may also detect the vibrations generated by the predator's movements to identify the presence of an enemy and hence escape.

The 'Mating' chapter (Chapter 6) is the most detailed as a consequence of the majority of known examples of vibrational communication focusing on mating interactions. Vibrational communication in a mating context is used to advertise the presence of a potential mate, to court the other individual, as a mechanism for mate location and attraction, and also in male-male contests. The breadth of examples included in this chapter is amazing in both range of taxa and in detail. Arthropods, in particular insects, are well covered, and Hill includes detail on the use of vibrations in mating interactions of 13 different groups. Many of these groups include possible model organisms of the future.

Chapter 7 focuses on the use of vibration signals among groups of animals. Similar to airborne songs and calls, vibrations can be used by territorial animals to distinguish neighbours and strangers. Vibrational communication is also observed in animals that live in colonies where vibrations are used to inform others of a nearby food source (as in honeybees), to warn nest-mates of intruders and even communicate the presence of disease in termites. Animals that tend to aggregate in groups of related individuals (such as treehoppers and

sawfly larvae) use vibrations to recruit others to food sources as well as to maintain contact with each other. Maternal and sibling groups use vibrations in similar ways to keep the group together, as well as for alarm signalling.

In the final chapter, 'Why Vibration' Hill discusses why animals have evolved vibrational communication. Some of the main arguments proposed are that vibrations are more efficient, practical, less likely to be eavesdropped on or less expensive than other modes of communication. Here there is some contradiction, as earlier Hill discusses predators eavesdropping on the vibrational communication of their prey, and given the apparent prevalence of the vibration sense, it seems odd that this modality would be less prone to exploitation than any other. Further, the advantages between this and other communication channels will vary from species to species, and are probably influenced by phylogenetic history.

Peggy Hill's *Vibrational Communication in Animals* is the first textbook to focus on this exciting emerging field in behavioural ecology. One of the main strengths of this work is the broad taxonomical focus that allows the reader to discover the general principals behind this mode of communication, which will help to guide future avenues of research. As the number of researchers studying vibrational communication increases, it is unlikely that such a complete review, as is provided in this book, will again be possible. It is an excellent introduction to the field and is to be recommended for anyone working or interested in vibrational communication.

**Anne E. Wignall**

*Department of Biological Sciences  
Macquarie University  
NSW, 2109, Australia*

## **Animal Behavior: An Evolutionary Approach, 9<sup>th</sup> edition**

John Alcock, Sinauer Associates. 2009. 606 Pp.

ISBN-10: 0878932259 ISBN-13: 9780878932252 (hardcover)

This is not a behavioral ecology textbook, yet can be used as one. Last term I taught behavioral ecology using this textbook and I had used previous editions to teach animal behavior courses.

The book contains a great deal of behavioral ecology, and goes beyond the scope of behavioral ecology. Chapter 1 introduces the approach based on Tinbergen's 4 questions and includes an extended example on monogamy by voles. Chapter 2 follows up on integrating proximate and ultimate causes to our understanding bird song. Chapter 3 is a beautiful exposition of development including gene by environment interactions and adaptively specialized learning. This précis on functional ontogeny is too much for the start of a behavioral ecology class, but might be increasingly important to the future of behavioral ecology. Chapter 4 considers the control of behavior and Chapter 5 the organization of behavior. Although these are chapters about mechanisms, the emphasis is clearly on adaptive mechanisms of behavior. Chapter 14 examines human behavior.

The behavioral ecology heart of the book - direct links between behavior and fitness - comes in chapters 6 through 13. The topics for the chapters are survival, feeding, habitat selection, communication, reproductive behavior, mating systems, parental care, and social behavior. The text clearly gives the leading role to functional questions, but phylogeny is considered regularly and neurons, hormones, and development are considered when needed to understand Darwinian puzzles. Is this behavioral ecology? All I will say is that this reminds me a lot of what I saw at the last ISBE conference.

Alcock originally wrote a textbook to convey the insights of W.D. Hamilton and G.C. Williams to students of animal behavior. The first edition came out in 1975 and subsequent editions have tracked the emergence and evolution of behavioral ecology as a field. The Preface of this edition also reflects on changes in teaching across from 1969 (Alcock's first job) to 2008 (his retirement from the classroom). The technical packaging has certainly changed. This edition is available as an e-book and instructors can get a supplementary DVD-ROM with figures and tables

from the textbook, video collection, instructor's manual, and laboratory manual - so that new instructors do not have to reinvent every wheel for themselves.

What remains across editions is a book gets that students excited about behavior and aids them in thinking like scientists. The text has a directness and accessibility that students and I enjoy reading. Sections start with Alcock or one of his many friends observing behavior, and leads to thinking and generating hypotheses. Quite naturally this leads to gathering data and exploring the literature. Photographs of actual animals abound and Alcock himself took many of these photos. Methods - everything from Q-tips to gene chips - follow questions as needed. More than any other textbook I know, Alcock's reveals that science is exciting, social, and often downright fun.

Next time I teach behavioral ecology with this text, I want to supplement it with papers from the primary literature. I plan to use 9 chapters (1 plus 6-13) that total roughly 350 pages. This frees the students to read and discuss papers. First I would like an overview of behavioral ecology, since the textbook seems to avoid ever mentioning "behavioral ecology" by name. From then on, I will look for exciting papers related to each of the general themes in behavioral ecology. This textbook does make some traditional pedagogical roles redundant: It does a better job conveying the basics, modeling scientific thought and building excitement than my lectures ever manage. Therefore I plan to concentrate on helping students connect between the textbook and primary literature, and to guide them in scientific investigations of animals. Thus my nearly ideal behavioral ecology class may depend on a book that is not labeled behavioral ecology at all.

**Peter A. Bednekoff**

*Biology Department*

*Eastern Michigan University*

*Ypsilanti, MI 48197, USA*

## Conferences and Workshops 2010

**Canadian Society for Ecology & Evolution**  
10-12 May 2010, Université Laval, Canada  
[www.ecoevo.ca/en/meeting.htm](http://www.ecoevo.ca/en/meeting.htm)

**5<sup>th</sup> International Frugivory and Seed Dispersal Symposium & Workshop (FSD 2010).**  
10-13 June 2010, Montpellier, France  
[www.fsd2010.org](http://www.fsd2010.org)

**90<sup>th</sup> Annual Meeting of the American Society of Mammalogists**  
11-15 June 2010  
[www.uwyo.edu/asm2010/](http://www.uwyo.edu/asm2010/)

**22<sup>nd</sup> Annual meeting Human Behaviour and Evolution Society**  
June 16 - 20 2010, Eugene, USA  
<http://www.hbes.com/>

**Annual Meeting of the Society for the Study of Evolution & Society of Systematics Biologists**  
June 25-29, 2010 in Portland, Oregon, USA  
[www.evolutionarysociety.org/awards.asp](http://www.evolutionarysociety.org/awards.asp)

**Annual Meeting of the Society for Molecular Biology and Evolution**  
July 4-8, 2010, Lyon, France  
<http://smbe2010.univ-lyon1.fr/en>

**XVIII International Congress of Arachnology**  
11-17 July 2010, Siedlce, Poland  
[www.arachnologia.edu.pl/congress.html](http://www.arachnologia.edu.pl/congress.html)

**European Societies for Behavioural Biology (ECBB)**  
18 – 20 July 2010, Ferrara, Italy  
<http://asab.nottingham.ac.uk/meetings/asab.php>

**Society for Behavioral Neuroendocrinology**  
18 – 21 July 2010, Toronot, Canada  
[www.sbne.org/meetings/2010/](http://www.sbne.org/meetings/2010/)

**International Union for the study of Social Insects XVI Congress**  
August 8-14 2010, Copenhagen, Denmark  
[www.iussi.org/IUSSI2010/index.htm](http://www.iussi.org/IUSSI2010/index.htm)

**25<sup>th</sup> International Ornithological Congress**  
22-28 August 2010, Campos do Jordão, SP, Brazil  
[www.ib.usp.br/25ioc/](http://www.ib.usp.br/25ioc/)

**New Directions in Sexual Selection Research**  
September 1-4, 2010, University of Bath, UK  
[www.ert-conservation.co.uk/Conference\\_home.htm](http://www.ert-conservation.co.uk/Conference_home.htm)

**International Primatological Society XXIII Congress**  
12-18 September 2010, Kyoto, Japan  
[www.ips2010.jp/](http://www.ips2010.jp/)

**14<sup>th</sup> Evolutionary Biology Meeting**  
21-24 September 2010, Marseilles, France  
<http://sites.univ-provence.fr/evol-cgr/>

**13<sup>th</sup> Congress of the International Society for Behavioral Ecology**  
26 September - 1 October 2010, Perth, Australia  
[www.isbperth2010.com](http://www.isbperth2010.com)

**Association for the Study of Animal Behaviour, Winter Meeting: Interspecific communication**  
2 - 3 December 2010, London, UK  
<http://asab.nottingham.ac.uk/meetings/asab.php>

*.....and beyond 2010*

**Society for Integrative and Comparative Biology**  
January 3-7 2011  
<http://www.sicb.org/meetings/index.php3>

**International Ethological Conference**  
25-30 July 2011. Bloomington IN, USA  
[www.indiana.edu/~behav11](http://www.indiana.edu/~behav11)

**13<sup>th</sup> European Society for Evolutionary Biology Congress**  
August 2011, Tübingen in Germany  
[www.eseb.org/](http://www.eseb.org/)

**International Congress of Entomology**  
19-25 August 2012  
[www.ice2012.org/](http://www.ice2012.org/)

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| <p><b>14<sup>th</sup> Congress of the International Society for Behavioral Ecology</b><br/>Aug 11-17, 2012, Lund, Sweden</p> |
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# Strangling Figs

By Antje Engelhardt

