

# ASAB Newsletter

Winter 2013



## *A note from the Newsletter Editor...*

Dear ASAB member,

Welcome to the Winter 2013 edition of the ASAB Newsletter! What a year 2013 has been. We've had two fantastic meetings in Lincoln at Easter, and at the amazing Sage Centre in Newcastle Gateshead in the Summer. The Winter meeting, being held at London Zoo on December 5-6<sup>th</sup> will showcase recent research on The Evolution of Behavioural Mechanisms, with plenary lectures by Prof. Melissa Bateson, Prof. Reuven Dukas and Prof. Simon Laughlin FRS. The full scientific program is available to download from the conference website (<https://sites.google.com/site/winterasab2013/>). Remember that the Winter meeting is free registration to all ASAB members, and there's no need to book your place in advance – just turn up!

We are also fast approaching the December 1<sup>st</sup> deadline for nominations for the 2014 Christopher Barnard Award for Outstanding Contributions by a New Investigator. Nomination forms can be downloaded from the ASAB website (<http://asab.nottingham.ac.uk/awards/cba.php>).

Finally, you can receive all the latest ASAB news on grants, awards, conferences and interesting research by following us on Twitter. I hope you enjoy catching up on all the news from ASAB. Wishing you all a very merry Christmas and a happy and productive new year.

With all best wishes,

*Lisa Collins*

## **\*In this edition...**

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## \*In the news...\*

### A brief look at some of the animal behaviour coverage in the social media this Winter

A study published in *Animal Behaviour* recently found that **chimpanzee personalities are like humans'** (Weiss et al 2013, *Anim. Beh.* 83:1355-1365). The study showed that chimpanzees share all five of the dimensions of human personality, and that this cannot simply be explained by observer bias and anthropomorphism.

Cornell researchers studying Australian social huntsman spiders have discovered that **younger siblings thrive when raised in nests with older siblings**. Bigger brothers and sisters capture bigger, juicier prey, which they – at least occasionally – share with their younger siblings (Yip & Rayor 2013, *Anim. Beh.* 85: 1161-1168).

By manipulating colony size and the ability to communicate location information in the dance, Donaldson-Matasci at the University of Arizona in Tucson and her team showed that **larger colonies of honeybees benefit more from communication than small colonies**. In fact, colony size and dance communication worked together to improve foraging performance; the estimated net gain per foraging trip was highest in larger colonies with unimpaired communications (Donaldson-Matasci et al 2013, *Anim. Beh.* 85: 585-592; covered in *Nature* 496:8).

## \*New logo for CCAB\*

We are proud to announce that we have a new logo for CCABs (Certified Clinical Animal Behaviourists). We hope to increase recognition of the accreditation scheme using this new visual symbol. The use of a specific CCAB symbol will also help to differentiate CCABs from members of ASAB. The logo was commissioned from Northern Irish artist Bernie Campbell.



## \*Animal behaviour podcasts available

Dr Hannah Rowland of Cambridge University presents a series of podcasts on the newest and most interesting research on the evolved behaviour of animals, featuring interviews with emerging and established experts in animal behaviour from all over the world.. A new podcast is released each month and include interviews with speakers from the ASAB/IEC Behaviour 2013 conference.



## \*Ethics Matters: ASAB Ethics Committee\*

### The Ethical Reviewing Process for Animal Behaviour

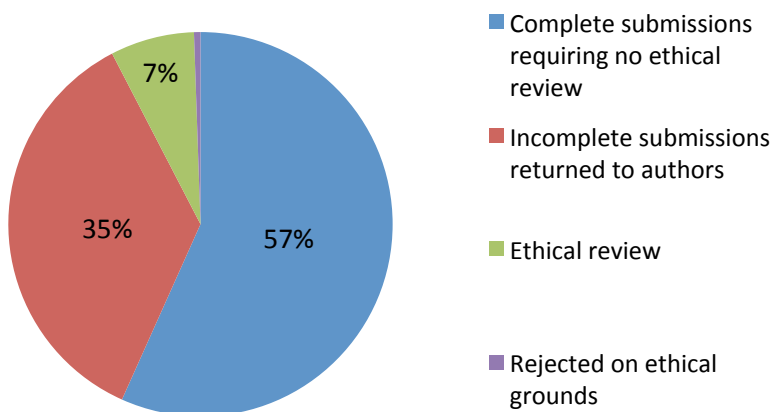
Our main role is to inform and facilitate the ethics reviewing process for *Animal Behaviour*. Given that ASAB is internationally recognised as leading the way in the ethical treatment of animals in experimentation we are also asked to comment upon any ethical issues as they arise and provide expert advice to ASAB council and the *Animal Behaviour* editorial team. In the period from 1<sup>st</sup> May 2012 to 30<sup>th</sup> April 2013, 552 papers were submitted to *Animal Behaviour* and each paper is initially scrutinised by the editorial team for any obvious omissions. It's very important that authors are aware that the ASAB ethics guidelines were updated by the committee and published in early 2012. We also now comply with the National Centre for 3Rs (NC3Rs) ARRIVE guidelines which ensure we provide a full account of our experimental approach. Out of the 552 papers considered for publication 239 were returned to authors to supply missing information further delaying the submission process as they did not report fully on the ethics and experimental details. This can be disappointing for authors so it is wise to read the ASAB ethics guidelines and the ARRIVE guidelines to confirm that your manuscript does contain the necessary information. Only 42 of these papers were sent to an ethics committee member for an ethics review where we provide an evaluation of the treatment of the animals and determine whether the protocol complies with our high standards. However, this does not automatically preclude experiments where invasive techniques are employed as *Animal Behaviour* does publish mechanistic studies where genetic, genomic, physiological and neurobiological techniques are used to understand the causes and consequences of behaviour. We apply intelligent thinking to our ethics reviewing; if an invasive approach has been utilised, it is the most humane method and the scientific outcomes are valuable and could not be achieved by any other means then the experiment is justified from an ethical perspective. So out of the 42 papers subject to ethical reviewing only three were rejected on ethical grounds (although this may not have been the sole reason) with two using an invasive technique that was not the most humane and a third employed an invasive tagging method that was not necessary for the experiment. Therefore, only a small number of papers are actually rejected by our committee and we hope that this does encourage authors to consider *Animal Behaviour* for publishing their work when they are addressing proximate and functional questions in understanding the mechanisms of behaviour. However, the ethics committee do wish to highlight that often the reviewing process is delayed for a large proportion of manuscripts thus we hope prospective authors will refer to the ASAB guidelines and the NC3Rs ARRIVE guidelines and incorporate the necessary details prior to submission.

For information:

ASAB Ethics Guidelines: [http://cdn.elsevier.com/promis\\_misc/ASAB2006.pdf](http://cdn.elsevier.com/promis_misc/ASAB2006.pdf)

NC3Rs ARRIVE Guidelines: <http://www.nc3rs.org.uk/page.asp?id=1357>

**Lynne Sneddon, Ethics Secretary to ASAB Council**



**Pie chart showing the number of percentage of submissions that were complete, with missing information, sent for ethical review or rejected on ethical grounds (<1%)**

## \*Grant deadlines for 2014\*

Please remember that the grant deadlines are changing for 2014 to:

1st February

1st June

1st October

Please mark these dates in your diaries.

## \* Summer Undergraduate project reports\*

**Bethan Jones, University of East Anglia**

### **Behavioural divergence in Mediterranean fruit flies under ecological adaptation**

My project considered the effect of ecological adaptation (to larval diet) upon the mating behaviour and development of *Ceratitis capitata*, the Mediterranean fruit fly. During my placement I assisted with mating experiments, which involved both observation and filming of groups of 4 flies (2 males and 2 females) from different dietary backgrounds. The treatments compared were the maize based media (ASG) and a second starch based media. As well as this, reciprocal dietary crosses were included to determine the immediate effect of nutrition compared to long term selection. These tests were aimed at determining the effect on mate choice and copulation duration as well as on courtship behaviour. The main work I carried out aimed to quantify the effect of multi-generational adaptation to a specific diet (one of either the ASG or starch treatments), on offspring survival rates (to pupation and adulthood), the sex ratio of eclosing adults and the timing of each developmental stage. Equally I aim to investigate these under the two-fold effect of current larval nutrition and long term selection.

**Angharad Thomas, University of Exeter**

### **Juvenile memory of predation threat following embryonic experience in the pond snail, *Lymnaea stagnalis*.**

The ability to remember about past experience of predators and enhance inducible defences are common in aquatic species; however, the effects of exposure to predation cues during the embryonic period on defence traits have thus far only been tested in vertebrates. Here I show that an invertebrate, the pond snail, *Lymnaea stagnalis*, is able to demonstrate developmental plasticity in response to predation risk early in life. Embryonic snails from six populations, three high risk (experiencing fish predation) and three low risk (predatory fish absent), were exposed to kairomones from a predatory fish, tench (*Tinca tinca*), during their development up to the day of hatching. They were then tested for behavioural responses to tench kairomones 1 day and 7 days post-hatching. Avoidance behaviour in response to tench kairomones, movement towards and above the waterline, differed between 1 day and 7 day old snails. At 1 day old snails primarily remained at the water line, whereas 7 day old snails exhibited crawl-out behaviour previously seen in older juveniles, possibly due to an increased risk of desiccation in 1 day old individuals. Overall snails from high-risk environments demonstrated a greater level of avoidance behaviour; however, snails from all populations increased their avoidance behaviour 1 day and 7 days post-hatching following embryonic exposure to predator kairomones demonstrating pre-natal learning and memory about predation threat. Therefore, hatchling snails are able to respond to embryonic predator cue exposure, but this does not fully compensate for innate population differences.

## \* Research Grant reports\*

**Tom Smulders, Newcastle University**

**Recollection or familiarity: how do food-hoarding birds recall spatial locations?**

We developed a novel protocol for testing spatial memory in tits that will allow us to determine the contributions of recall and familiarity to spatial memory retrieval. This protocol was adapted from a rat study, which in turn was an adaptation of a human experimental protocol. In brief, birds are presented with feeders in a number of different locations (one feeder at a time), which they have to memorize. At memory retrieval, they are again presented with a number of feeders in different locations (one at a time). They have to determine whether these feeders are in the same location as they have memorized before (“old” response) or in a new location (“new” response). Once this task had been trained, the bird’s bias level towards “old” and “new” responses was manipulated by manipulating the relative costs and benefits of making the “old” and “new” responses. We found that we can manipulate these bias levels and thus build an ROC curve. By fitting a function to these data, the relative contributions of recall and familiarity in the memory retrieval process can be determined, something that to date has been impossible in birds.

**Felicity Muth, University of Arizona**

**How do animals persevere with learning?**

Many animals learn to solve extractive foraging tasks that have high payoffs eventually but require a period of learning during which the net rate of energy intake is low. As generalists, bumblebees visit flowers that vary in how much time is required to learn how to access the nectar in them and in their nectar reward value (volume or concentration). Using the bumblebee *Bombus impatiens*, I addressed how individuals decide whether to persevere with learning to handle ‘complex’ flowers that require more time initially to gain nectar from (often with no rewards) when there are simpler options available that require much less learning. Specifically I addressed whether there were unlearned preferences for more complex flowers and whether the reward value (sucrose concentration) affected individuals’ tendency to persevere with learning. I presented individual bees with mixed arrays of simple and complex flowers, either containing the same value of reward, or where the concentration of the sucrose in the complex was twice that of the simple flower. The tendency of individuals to persevere with learning how to handle complex flowers was affected by the reward value (nectar concentration): Bees presented with purple complex and pink simple flowers where the complex contained higher rewards than the simple flowers were more likely to specialise on the complex flowers than when rewards were equal between flower types. However, while the concentration of the nectar rewards influenced the bees’ decision to persevere with learning how to effectively handle the complex flower, it did not affect the speed of learning. Foragers did not show any unlearned preferences towards the complex ones, but instead preferred the simple flowers, with the strongest initial preferences being for flower colour (preferring purple over pink).

## **\*Zoo Research Handbook\***

Many of you who have undertaken behavioural research in zoos, or have supervised students doing zoo-based projects, will be aware of the Research Guidelines published by BIAZA (the British and Irish Association of Zoos and Aquariums). These have now been extensively revised, up-dated and collated into a single **Handbook of Zoo Research**, a fantastic resource which is freely available through the BIAZA website at: <http://www.biaza.org.uk/uploads/Committees/RC/Research%20Guidelines/BIAZA%20Handbook%20of%20Zoo%20Research%202013.pdf>

Or by going to the BIAZA main page and following the links through 'Research'. This contains guidance on project planning, design and statistical analysis appropriate for all zoo-based projects, not just behavioural ones (so please tell your non-behavioural colleagues who are interested in zoo research as well). It also contains more specific guidance about topics like questionnaire-based studies, use of zoo records, measuring adrenal response, and aquarium-based research, as well as giving information about legal and ethical issues. The previous guidelines series was very well used, and we hope that the new Handbook will be even more successful in supporting and promoting good quality zoo research, so please use them, and direct your students towards them.

**Geoff Hosey**

**BIAZA Research Committee**

**gh2@bolton.ac.uk**

## **\*3Rs Prize 2013: Call for 2013 nominations\***

***International prize for excellence in 3Rs research - Championing the 3Rs globally***

The annual 3Rs Prize is awarded to recognise an outstanding primary research paper reporting an original scientific or technological advance with the potential for significant impact on one or more of the 3Rs (replacement, reduction and refinement of the use of animals in research).

Sponsored by GlaxoSmithKline, the 3Rs Prize consists of a £18k grant, and a £2k personal award. Papers published in a peer-reviewed journal in any discipline between September 2010 and September 2013 are eligible. The main focus of the research paper does not have to be the 3Rs. Nominations are accepted from authors, colleagues and journal editors and will be considered by a prestigious judging panel. The Prize will be awarded in February 2014.

The NC3Rs leads the discovery and application of new technologies and approaches to minimise the use of animals in research and improve animal welfare. We fund research, support training and development, and stimulate changes in regulation and practice.

Further information: [www.nc3rs.org.uk/3rsprize](http://www.nc3rs.org.uk/3rsprize)

Application deadline: 11 December 2013

## \*All Royal Society content - back to 1665 - freely available to access online until 30<sup>th</sup> November 2013\*

Royal Society Publishing has just published Tool use as adaptation, compiled and edited by Dora Biro, Michael Haslam and Christian Rutz. See <http://bit.ly/16P5aCC> for further details or you can go straight to the issue contents at <http://rstb.royalsocietypublishing.org/content/368/1630.toc>.

Also of interest to ASAB members, Royal Society Publishing has recently published Female competition and aggression, compiled and edited by Anne Campbell and Paula Stockley. See <http://bit.ly/17NTmS1> <<http://bit.ly/ZOA8Ib> for further details or you can go straight to the issue contents at <http://rstb.royalsocietypublishing.org/content/368/1631.toc>.

Both issues are FREE to access online - along with ALL Royal Society content until 30<sup>th</sup> November 2013. A print version is also available at the special price of £35.00. You can order online via the above web page (enter special code TB 1630 when prompted) or, alternatively, you can contact [debbie.vaughan@royalsociety.org](mailto:debbie.vaughan@royalsociety.org)

## \*Audioslides service for Animal Behaviour\*

Animal Behaviour now offers a new, free service called AudioSlides. These are brief, webcast-style presentations that are shown next to published articles on ScienceDirect. This format gives you the opportunity to explain your research in your own words and promote your work. For more information and examples, please visit <http://www.elsevier.com/audioslides>

## \*ASAB and the Biochemical Society are jointly hosting an interdisciplinary meeting\*

**Behaviour meets Biochemistry: *Animals making sense of molecules making scents.***

The meeting will be held in London from the 18<sup>th</sup> (pm) to the 20<sup>th</sup> (am) of February, 2014. We are hoping that this meeting will bring together experts and neophytes in the fields of semiochemistry, behavior and protein polymorphism, in a relaxed and enthusiastic environment. The total attendance is planned to be less than 90, appropriate for a highly focused meeting that encourages discussion and sharing of ideas.

Speakers have agreed to write papers that will be published in either *Animal Behaviour* or *Biochemical Society Transactions*.

Further details of the meeting and invited speakers can be found at

<http://www.biochemistry.org/Conferences/AllConferences/tabid/379/Page/1/MeetingNo/SA159/view/Conference/Default.aspx>

Please note that there are both oral communication and poster slots available at this meeting.

**Earlybird registration deadline:** 6 December 2013

Please note that after the earlybird registration deadline has passed, all fees will be increased by £50.

### **Non-residential fees (no accommodation)**

Full/Early Career/Associate Member (ASAB or Biochemical Society): £145

Non Member (of both societies): **£245**

Student Member (ASAB or Biochemical Society): £110

*Note: Full/Early Career/Associate Members and Student Members must be members of the Biochemical Society or ASAB*

Student members can apply to ASAB or Biochemical Society for a travel grant to help with costs of attendance.



# ASAB Winter Conference

## 5–6 December 2013



Zoological Society of London  
meeting rooms



# THE EVOLUTION OF BEHAVIOURAL MECHANISMS

*Plenary speakers*

**Melissa Bateson** Newcastle University

**Reuven Dukas** McMaster University

**Simon Laughlin** University of Cambridge

*Tinbergen Lecture*

**Marlene Zuk** University of Minnesota

[tinyurl.com/winterasab2013](http://tinyurl.com/winterasab2013)

**ABSTRACT DEADLINE: 16 August**

*Organisers*

**Modelling Animal Decisions group** University of Bristol

[madorganiser@gmail.com](mailto:madorganiser@gmail.com)





## VII EUROPEAN CONFERENCE ON BEHAVIOURAL BIOLOGY



Prague, July 17 – 20, 2014

[www.ecbb2014.agrobiolgy.eu](http://www.ecbb2014.agrobiolgy.eu)

[ecbb2014@gmail.com](mailto:ecbb2014@gmail.com)



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## CALL FOR SYMPOSIUM AND SCIENCE MARKET PROPOSALS

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Dear colleague,

### Submission of proposals for Symposia and Science Markets is now open

**Deadline: 31 December 2013**

**Symposia** will host most oral contributions. We expect to host about 24 symposia. Each symposium will have a duration of 01h:45m, with 5 speakers. A symposium proposal is submitted by **two Conveners from different countries**. The conveners select two Keynote Speakers (one or both Conveners can be a Keynote Speaker) whereas the remaining three speakers will be selected later among the abstracts submitted for oral presentations.

**Science Markets** will have a duration of 01h:45m, and can have any format (workshop, round table, technical meeting, etc.). We expect to host about 10 Science Markets. Proposal should be submitted by at least **two Conveners from different countries**. Priority will be given to proposals which are likely to be interesting for a large number of participants.

**Plenary lectures** will be given by **Christine J. Nicol** (University of Bristol), **Alexander Roulin** (University of Lausanne), **Tecumseh Fitch** (University of Vienna), **Hynek Burda** (University Duisburg-Essen & Czech University of Life Sciences Prague).

Please go to <http://ecbb2014.agrobiolgy.eu> to find further conference info and instructions for preparing your proposal and submit your proposal. Submission of Abstracts for Symposia, Science Markets, Oral and Poster contributions will open on February 1, 2014 and close on March 31, 2014.

*The Scientific Programme Committee ECBB 2014*

## **\*ASAB Easter meeting 2014\***

**University of Sheffield, UK, 7-9 April 2014**

As usual, there will be a postgraduate workshop at this meeting, which will take place on April 7th. The meeting will be organised by Penny Watt and Tim Birkhead. Further details will be posted in due course. Contact [ASABEaster14@sheffield.ac.uk](mailto:ASABEaster14@sheffield.ac.uk)

## **\*ISBE 2014\***

International Society for Behavioral Ecology: the ISBE 2014 conference takes place July 31st-August 5th 2014, in New York City. Morning chorus (early bird!) registration is now open!  
<http://www.isbe2014.com/registration.html>

Register for the conference by November 30, 2013, for a discounted, morning chorus rate of \$495 for most participants, including post-docs; the reduced early bird rate is \$245 for any current students and for students and other researchers based in developing-world countries.

## **\*Behaviour 2015\***

**34th International Ethological Conference**  
**Cairns Convention Centre, Tropical North Queensland, Australia, 9th – 14th August 2015**

[www.behaviour2015.org](http://www.behaviour2015.org)