Dear all,

Please find attached the latest issue of BAH-Science. As usual an impressive amount of activity!

Some recent news:

**Institute podcast**

Do check out the new series of Institute podcasts accessible directly off the Institute webpage or here:

[http://naturallyspeakingpodcast.wordpress.com/](http://naturallyspeakingpodcast.wordpress.com/)

Many thanks to the podcast team (Shaun Killen, James Buckley, Zara Gladman, James Grecian, Rob Critchlow, and Sjurdur Hammer) for a great initiative.

**The Institute grants page**

In order that visitors can quickly check out our activities we have a webpage that lists our more substantially funded projects:

[http://www.gla.ac.uk/researchinstitutes/bahcm/ourfunding/](http://www.gla.ac.uk/researchinstitutes/bahcm/ourfunding/)

If your grant isn’t on here – please contact Lorna with details of the omissions. Each row should link to a summary page (which can simply be the (lay) summary from the original proposal). If your summary is missing – and there are many that are – please do provide this to Lorna.

**Congratulations to …**

Sarah Cleaveland on her election to the Royal Society of Edinburgh. (‘Posthumous’ congratulations to Graeme Ruxton also).

Michelle Bellingham for her recent paper in the *International Journal of Andrology* that has made a lot of news here and elsewhere:


**Head of Subject (Zoology and Marine and Freshwater Biology degrees)**

Many thank to Isabel Combs for taking on the role of Head of Subject. We look forward to working with her closely in the teaching we do.

**New Visiting and Honorary Professors**

The College has made the following appointments:

Rory Putman (Visiting Professor) Rory is one of the UK’s leading deer biologists with wide ranging interests in population and community ecology, as well as welfare issues. He currently works as a consultant advising in both the private and the public sectors on management and resolution of wildlife conflicts. Much of this work concerns analysis and management of the impacts of deer on agriculture, forestry or conservational systems or effects of deer on other interests (vectors of disease, involvement in road traffic accidents etc). Rory has published 12 books and over 100 technical articles on deer, their behaviour and ecology, their impacts on natural and semi-natural systems, and on management.

(Rory is visiting on Wednesday 30th May if anyone would like to meet him)

Markus Borner (Honorary Professor) Markus is a world-leading conservation biologist with decades of experience working in biodiversity hotspots, most particularly in the strategically important area of East Africa. Markus has directed all the conservation programs of the Frankfurt Zoological Society (FZS) across
Africa since the mid 1980s. FZS is one of the most famous and respected conservation organizations in the world, and it is in Africa that they are most active. Markus has been at the centre of its affairs for 30 years, and his name is linked to many of the Society’s most significant conservation achievements.

John McCauley (Visiting Professor) John is one of the UKs leading influenza virologists, and Director of the World Health Organization Collaborating Centre for Reference and Research on Influenza, at the MRC National Institute for Medical Research (NIMR). The WHO Collaborating Centre on Influenza is one of six laboratories in the world that carries out and integrates influenza surveillance and research with the onerous responsibility of ensuring that influenza vaccines for humans are optimally selected. He played a key role in global policy development during the recent H1N1 ‘flu pandemic. He has run a research group in Virology for over 25 years focusing on human and animal influenza viruses, swine vesicular disease virus, and bovine viral diarrhoea virus.

A quick REF update:

Research staff will be all too familiar with the Research Excellence Framework (REF). However it might be useful to briefly recap what this is all about for those fortunate enough to be have so far escaped.

The REF is used to decide how much money the government will contribute to our Institute. For BAHCM the REF generates about £45K per year for each member of staff submitted – i.e. the majority of most of our salaries. A reduction in this income could obviously lead to serious problems. It is also one of the measures used to determine where our subject area (and our university more generally) ranks amongst our competitors in the UK, and so effects our ‘standing’ and subsequent income generation. Each member of staff submitted is assessed on their four best papers between 2008 and the end of 2013, there is therefore some incentive to publish those papers currently in the pipeline by the end of 2013. The REF applies directly to you only if you are a permanent member of staff or research fellow. However, PRDAs and PhD students are obviously massively important in generating the outputs on which we are assessed (for example, I don’t think I’ve published a paper in recent years that hasn’t been with one of my PhD students or post-docs) and this community is in a very real sense the ‘engine-room’ of our scientific productivity.

More details are available here:

http://www.gla.ac.uk/researchinstitutes/bahcm/studentstaff/ref/

As an Institute we will most likely be divided between Units 5 (Biological Sciences) and 6 (Agricultural Sciences). The remit for Unit 6 has expanded for the 2014 REF and is described in the documentation as:

“... for veterinary science this includes submissions of primary relevance to subjects underpinning the practice of veterinary medicine and surgery and the statutory responsibilities of the veterinary profession. It includes all clinical, basic and applied aspects relevant to the normal and abnormal function of animals, their health, welfare, behaviour, productivity and diseases as individuals and populations; and their role in human society as providers of food, companions, participants in sport, models for the human condition, sources of disease, and fellow occupants of the natural environment.”

So quite inclusive. As an Institute with a remit in Animal Health this all seems very fitting, and hopefully in supporting and combining with traditional ‘veterinary sciences’ we can make a very strong return.

I have made a number of minor updates to the REF FAQs. 4* papers are likely to be remunerated at just over 3-times a 3* paper, so if you are sitting on possible ‘big-papers’ the next 18 months of this assessment period is of course the time to get them out. With such uncertainty around the 2*-3* boundary, generation of ‘definitive’ 3* papers is of course very desirable.

Our Impact studies are also very important (a 4* impact study is apparently worth about 12 4* papers) and candidate impact studies will be worked-up over the next few months.
Institute of Biodiversity, Animal Health & Comparative Medicine
BAH-Science, 6

Publications, Jan-2012


- Bessell, Paul R.; Rotariu, Ovidiu; Innocent, Giles T.; Smith-Palmer, Alison; Strachan, Norval JC; Forbes, Ken J.; Cowden, John M.; Reid, Stuart WJ; Matthews, Louise Using sequence data to identify alternative routes and risk of infection: a case-study of campylobacter in Scotland BMC Infectious Diseases 2012, 12: 80


- Bize, P.; Diaz, C.; Lindstrom, J. Experimental evidence that adult antipredator behaviour is heritable and not influenced by behavioural copying in a wild bird PROCEEDINGS- ROYAL SOCIETY OF LONDON 2012, 279 (1732):1380-1388

- Boden, Lisa A.; Parkin, Tim DH; Yates, Julia; Mellor, Dominic; Kao, Rowland R Summary of current knowledge of the size and spatial distribution of the horse population within Great Britain. BMC Veterinary Research 2012, 8: 43

- Codner, G. F.; Stear, M. J.; Reeve, R.; Matthews, L.; Ellis, S. A. Selective forces shaping diversity in the class I region of the major histocompatibility complex in dairy cattle ANIMAL GENETICS 2012, 43(3):239-249


- Dudley, B.; Gunn, I. D.; Carvalho, L.; Proctor, I.; O’Hare, M. T.; Murphy, K. J.; Milligan, A. Changes in aquatic macrophyte communities in Loch Leven: evidence of recovery from eutrophication? HYDROBIOLOGIA 2012, 681:49-57


- Etheridge, E.C.; Bean, C.W.; Maitland, P.S.; Ballantyne, S.; Adams, C.E. Discontinuous infraspecific variation in ecological and morphological traits has consequences for conservation of powan (Coregonus lavaretus) in Scotland (with 7 figures) ADVANCES IN LIMNOLOGY 2012, 63: 505-517


- Higgson, A. D.; Speed, M. P.; Ruxton, G. D. Effects of anti-predator defence through toxin sequestration on use of alternative food microhabitats by small herbivores JOURNAL OF THEORETICAL BIOLOGY 2012, 300: 368-375
- Jennings, G.; McGlashan, D. J.; Furness, R. W. Responses to changes in sprat abundance of common tern breeding numbers at 12 colonies in the Firth of Forth, east Scotland ICES JOURNAL OF MARINE SCIENCE 2012, 69(4):572-577
- Kao, R.:Simulating the impact of badger culling on bovine tuberculosis in cattle VETERINARY RECORD 2012, 170(7): 175-176
- Lamm, C.G.; Hastie, P.M.; Evans, N.P.; Robinson, J.E. Masculinization of the Distal Tubular and External Genitalia in Female Sheep With Prenatal Androgen Exposure VETERINARY PATHOLOGY 2012, 49(3): 546-551
- Mather, A.E.; Matthews, L.; Mellor, D.J.; Reeve, R.; Denwood, M.J.; Boerlin, P.; Reid-Smith, R.J.; Brown, D.J.; Coia, J.E.; Browning, L.M. An ecological approach to assessing the epidemiology of antimicrobial resistance in animal and human populations PROCEEDINGS- ROYAL SOCIETY OF LONDON B 2012, 279(1733): 1630-1639
Monaghan, P. ; Heidinger, B.J. ; D Alba, L. ; Evans, N.P. ; Spencer, K.A. For better or worse: reduced adult lifespan following early-life stress is transmitted to breeding partners PROCEEDINGS- ROYAL SOCIETY OF LONDON B 2012 279(1729): 709-714

Nickbakhsh, Sema ; Matthews, Louise ; Bessell, Paul R ; Reid, Stuart WJ ; Kao, Rowland R Generating social network data using partially described networks: an example informing avian influenza control in the British poultry industry BMC Veterinary Research 2011, 7: 66


Page, R. D. M. Space, time, form: viewing the Tree of Life TRENDS IN ECOLOGY AND EVOLUTION 2012, 27(2): 113-120


Stevens, M. ; Ruxton, G.D. Linking the evolution and form of warning coloration in nature PROCEEDINGS- ROYAL SOCIETY OF LONDON B 2012 279(1728): 417-426

Stevens, Martin ; Searle, W Tom L ; Seymour, Jenny E ; Marshall, Kate LA ; Ruxton, Graeme D Motion dazzle and camouflage as distinct anti-predator defenses BMC Biology 2011, 9: 81


Whitelaw, C.M. ; Robinson, J.E. ; Hastie, P.M. ; Padmanabhan, V. ; Evans, N.P. Effects of cycle stage on regionalised galatin, galatin receptors 1-3, GNRH and GNRH receptor mRNA expression in the ovine hypothalamus JOURNAL OF ENDOCRINOLOGY 2012, 212(3): 353-361

Wilcock, R. J. ; Müller, K. ; Assema, G. B. ; Bellingham, M. A. ; Ovenden, R. (2012) Attenuation of Nitrogen, Phosphorus and E. coli Inputs from Pasture Runoff to Surface Waters by a Farm Wetland: the Importance of Wetland Shape and Residence Time WATER AIR AND SOIL POLLUTION 223 (2) 499-509


Winfield, I. J. ; Adams, C. E. ; Bean, C.W. ; Cameron Durie, N. ; Fletcher, J.M. ; Gowans, A.R. ; Harrod, C. ; James, J.B. ; Lyle, A.A. ; Maitland, P.S. Conservation of the vendace (Coregonus albula), the U.K.'s rarest freshwater fish (with 3 figures) ADVANCES IN LIMNOLOGY 2012, 63: 547-559
### Institute of Biodiversity, Animal Health & Comparative Medicine

#### Awards, to date

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<td>Roman Biek Rowland Kao</td>
<td>Combining bacterial phylogenomics and contact networks to unravel the epidemiology of bovine TB in cattle and badgers</td>
<td>£768,514</td>
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<td>Michelle Bellingham</td>
<td>The cost of maternal smoking on human fetal development</td>
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