



British & Irish Region Newsletter — March 2010



The recently opened John Hope Gateway (above) and the Royal Botanic Gardens, Edinburgh.

Biometrics Summer meeting

Chris Glaseby writes— I'm delighted to invite you to the British and Irish Region Summer Meeting, which this year will be held at the Royal Botanic Garden, Edinburgh, on Friday June 4. We are privileged to be able to use the newly opened *John Hope Gateway*, an acclaimed biodiversity and information centre. This exciting facility is an inspiring example of green construction and sustainability, and worth a visit in its own right.

The Garden, which is renowned both as a tourist attraction and as a scientific centre for the study of plants, is just one mile from the centre of Edinburgh. For more details goto <http://www.rbge.org.uk/the-gardens/edinburgh/the-gateway>. The provisional timetable is

12.00–1.00pm Lunch

1.00–2.30pm Tour of Gateway, gardens and Royal Botanical Garden laboratories

2.30– 4.30 Short presentations by Royal Botanical Garden scientists and Biometrics Society members

To reserve your place, please email Chris Glasbey chris@bioss.ac.uk.

The cost, including a light lunch, is £10 (members) and £30 (non-members), payable on the day.

Cut off date for registrations: Monday 31st May.

Bursaries for IBC 2010: apply now

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Thanks in part to the generous support of the Fisher Memorial Trust, the regional committee are delighted to invite applications from career-young biometricians for bursaries to support attendance at the IBC in Brazil.

Applications should be submitted by email to both peter.w.lane@gsk.com and a.h.marshall@qub.ac.uk before midnight on 30th April. Each application should consist of a one-page cover letter, a two-page CV, and the abstract that you have submitted to the conference website.

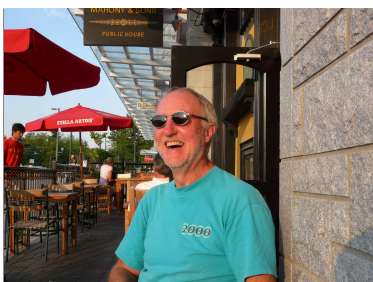
In the cover letter, please make your case for support, stating clearly any other financial support you have for attending the conference, and outlining the importance of the conference to you. Please ensure that your CV makes clear that you are 'career-young' biometrician i.e. that you have not been employed as a biometrician for more than five years. Preference will be given to those who have been employed as biometricians for less than three years. Applicants must be members of the society. The committee has agreed that members who joined after January 2010 may only qualify for a reduced bursary.

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President's corner



Byron relaxes in British Columbia

Clustered around the computer in my office, a handful of us recently saw the beautiful facilities and potential of the new Regional web-site, which is nearing completion. Evidently we are entering a period of exciting change. Further new developments are the changes to membership, with free membership for students, the institution of the new Regional Prize for young members of the Region, in association with the Fisher Memorial Trust, and the future interactions with the new Society of Biology. Forthcoming meetings properly reflect the different interests of members of the Society, and the restitution of the traditional Summer Meetings continues with a visit to the Edinburgh Botanic Gardens in June. In July the National Centre for Statistical Ecology will host the second International Statistical Ecology Conference in Canterbury (p. 2).

Climate Models: current science and common sense

Sara Geneletti

On March 16th I attended a lecture on climate modelling given by Prof. Lenny Smith of the London School of Economics' Centre for the Analysis of Time Series. It was held as part of the ESRC Festival of Social Science and was the ESRC Centre for Climate Change Economics and Policy Lecture.

Prof. Smith talked about the current state of climate modelling in the aftermath of the Copenhagen summit and the University of East Anglia scandals. Amongst other things, he reviewed some statistical models included in a recent report by the Inter-governmental Panel on Climate Change. The report presented a number of models predicting rises in temperature over the next 50 years. 66% of the models predicted an increase in temperature between 2 and 5 celsius, meaning that both increases of 10 degrees and no rise at all were possibilities.

Prof. Smith emphasised that while we still cannot predict with accuracy by how much temperatures will rise, we are almost certain that they will rise and that consequences for the planet would be devastating. He advocated a risk management strategy. By weighing the consequences of large increases versus various actions (or inaction) and basing decisions on these considerations we would be in a position to tackle the problem. He felt too much research was focussed on obtaining exact estimates to the detriment of both climate science and the future.

He then went on to make a very striking analogy: Imagine

you are in a jungle and you are bitten by a snake. Before you realise what is happening the snake has slithered away and you have not seen what type it is. You know that there are some deadly blackhead snakes living in the jungle. If this snake bites you then you will die painfully in 15 seconds – unless you chop your hand off. What do you do? We are collectively in a similar situation. We do not as yet have exact estimates for climate change probabilities, however if we do not take action we might well die.

The discussion after the talk was almost as interesting as the talk itself. It centred around how results in climate science should be presented to the public. Prof. Smith felt that being candid about the uncertainty in results was the best policy: overstating would eventually be found out and undermine future climate research. Some members of the audience felt that projecting certainty in this particular area was essential in order to secure public support.

This is a problem often faced by statisticians collaborating with subject matter experts. Most people (including many scientists) do not understand probabilities and uncertainty. Often they interpret any uncertainty as weakness rather than lack of complete information. How can we communicate both uncertainty and urgency? I for one hope that we get ourselves into gear and sort this out before it is too late.

Opinions on this topic are welcome. Please email me at s.geneletti@lse.ac.uk. The most interesting responses will be published. ■

International Statistical Ecology Conference: July 6–9 2010, University of Kent

Byron J.T. Morgan

You are warmly invited to register for this conference.

Invited speakers are: Richard Barker, Carmen Fernandez, Jeff Laake, Darryl MacKenzie, Lord May, Nigel Yoccoz and Tore Schweder. There will be over 100 contributed talks and posters by presenters from more

than 20 countries. Associated with the conference are four workshops, on Species occupancy, Spatially-explicit capture-recapture, Open-population capture-recapture and stopover duration models, and the AD model builder.

More detail is provided on a poster which is to be found at: <http://www.britishandirish.tibs.org/live/ISECposter.pdf> ■

XXVTH INTERNATIONAL BIOMETRIC CONFERENCE: ABSTRACT DEADLINE 30TH APRIL

Come to Florianópolis in Dec 2010

James Carpenter

Hopefully, all members are aware of the forthcoming IBC in Florianópolis, Brazil. The closing date for submitting abstracts is 30th April. These should be sub-

mitted on-line through the conference website <http://www.rbras.org.br/~ibcfloripa2010/> where details of the stimulating invited programme can also be found. ■

SEPTEMBER MEETING IN IRELAND

Wales and Ireland Genetic Epidemiology Group (WIGEG) meeting, Trinity College Dublin, Monday 6 September 2010

John Hinde

WIGEG is a recently formed group which aims to bring together interested researchers in statistical genetics. The next meeting will be in Dublin and will have 4–5 speakers including: Prof Kathleen Merikangas (NIH, USA) and

Prof Cathal Seoighe (Bioinformatics, NUI Galway).

For further information contact: Dr Ricardo Segurado, Neuropsychiatric Genetics Unit, Dept. of Psychiatry, Trinity College Dublin email: rsegurdo@tcd.ie ■

MEETING REPORT

Cost Benefit Analysis: current perspectives and future directions, February 2010

Sue Welham, Rothamsted Research

Fittingly, this meeting was held at the Food and Environment Research Agency (FERA), near York, on 4th February. The local organisation was outstandingly handled by Joanne Kinder and participants remarked appreciatively on both the pleasant surroundings and the excellent lunch!

There were four talks ranging across agriculture and health, which all provoked lively discussion from the 40-odd participants. The first talk was given by Graham Smith of FERA, on the ‘Cost and benefits of culling badgers for control of bovine TB’. Badgers live in social groups with limited mixing between groups. Research, including a randomised trial, showed that increased mixing was associated with higher incidence of bovine TB in the badger population, and that culling led to an increase in such mixing. Overall therefore, culling gave no overall reduction in bovine TB incidence in the badger population. A simulation model was then described, which could reproduce the observed results and provide an estimate of the effects of various interventions. This in turn allowed economic evaluation of the options—in which a major challenge turns out to be predicting human (farmer) behaviour, which is in some ways much less well understood than badger behaviour!

Glyn Jones (ADAS) then talked about ‘Cost benefit analysis and the evaluation of agri-environment schemes’. The main challenge in the agri-environment context is in assigning value to the environmental benefits/costs, complicated by the fact that the costs and benefits accrue to different social groups. ‘Value’ is often elicited by ‘willingness to pay’ studies, which evaluate preferences and deduce costs—but these can be biased, with large uncertainty and variation. It is even more problematic to cost irreversible changes, eg. complete loss of a habitat or species. Glyn concluded that cost benefit analysis may be appropriate for small-scale short-term projects, but is probably often inadequate to assess large-scale or long-

term impact.

Following lunch (did I mention the excellent lunch?), Andrea Manca (University of York) considered issues in healthcare economic evaluation. Andrea advocated a Bayesian approach to economic evaluation. He discussed various issues to be considered within this process: inclusion of all available evidence — which requires evaluation of which data are both relevant and reliable; the use of indirect comparisons where direct within-trial comparisons are not available, and prediction of long-term prospects without access to long-term follow-up data—so that predictions become very dependent on the models used, resulting in much uncertainty. Almost inevitably, discussion focussed on the perceived additional complexities of the Bayesian approach.

Finally, Richard Grieve (LSHTM) talked about cost effectiveness analysis of health care interventions. Richard used an approach based on ‘Incremental Net Benefit’, a difference measure amenable to estimation within joint linear models for intervention cost (pounds) and benefit (QALYs quality-adjusted life years). Richard used Bayesian hierarchical models to build a simple model for cluster randomised trials, and showed that ignoring the clustered structure had an impact on evaluation of the intervention. He also used the whole distribution of cost-effectiveness to give insight into the underlying variability of the system.

The final discussion concluded that cost-benefit analysis was more advanced in health care, partly because the National Institute for Clinical Excellence (NICE) lays down a specific framework for analysis. This is not so clear in areas like genetic testing or public health, where new types of outcome measure may be required. Some translation of expertise might be possible between the two areas. For example, preference testing might also be useful in health care in some contexts, for example to rank multiple outcomes. ■

NEXT MEETING: LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE, WED 28TH APRIL

Measurement error bias: issues and future directions

Bianca DeStavola

The next regional meeting will take place on Wednesday 28 April 2010, from 13.00-17.00, with lunch from 12.00. In addition, there is the option of a tutorial on measurement error from 9.30-12.00

The meeting will focus on the issues that arise in the presence of measurement error and on the alternative approaches available. Four speakers will review recent theoretical developments, and illustrate the concepts with real life examples.

Programme

09.00 Registration

09.30-12.00 Optional tutorial: *Covariate measurement error: types of covariate error, their effects, and correction methods* — led by Chris Frost and Bianca DeStavola, with practical work in Stata

12.00-13.00 Lunch

13.00-14.00 David Cox (Nuffield College, Oxford)
Overview

14.00-15.00 Laurence Freedman (Sheba Medical Center, Israel) *Measurement error in dietary data and its effects on nutritional epidemiology studies*

15.00-15.30 Tea

15.30-16.15 Ruth Keogh (MRC Biostatistics Unit, Cambridge) *Measurement error in nutritional epidemiology: correlated errors and an illustration in EPIC-Norfolk*

16.15-17.00 Joni Kuha (London School of Economics, London) *Sample group means in multilevel models*

17.00 Close

Cost

BIR Members: whole day (including morning coffee and lunch): £24; lunch and afternoon sessions: £12; afternoon sessions only: free.

Non-members: whole day (including morning coffee and lunch): £124; lunch and afternoon sessions: £52; afternoon sessions only: £45.

Student members: whole day: (including morning coffee and lunch): £12; lunch and afternoon sessions: £8; afternoon sessions only: free.

Why not join the International Biometric Society for £40 (students: free) and take advantage of the members' rate? To join, go to <http://www.britishandirish.tibs.org/live/>

Registration

Download the registration form (<http://www.britishandirish.tibs.org/live/>) and send, with cheque payable to "Biometrics Society", to: Bianca L. De Stavola, Department Epidemiology and Population Health, LSHTM, Keppel Street, London, WC1E 7HT, UK.

Directions

For instructions on getting to LSHTM see: <http://www.lshtm.ac.uk/location/>

CLOSING DATE FOR REGISTRATION: Friday 23rd April 2010 ■

Accessing journals electronically

James Carpenter

You will recall that starting in 2010, one of the enhanced member benefits of the Society includes electronic access to all IBS publications, including both journals, *Biometrics* and *JABES*, and the international newsletter, *Biometric Bulletin*.

Paper subscriptions to either or both journals are available for a modest additional charge through your regular membership renewal process.

Access is through the following URLs:

Biometrics:

<http://members.tibs.org/biometrics.aspx>

JABES:

<http://members.tibs.org/jabes.aspx>

Both require your International Society User ID and Password. If you have misplaced these, you can go to <https://members.tibs.org/retrievelogininfo.aspx> for assistance.

Please contact the Diana Cole (D.J.Cole@kent.ac.uk) with any questions. ■

In Brief

Happy Birthday

Congratulations to **Freda Kemp** (University of St. Andrews), **John Gower** (Open University) and **Bob Carpenter** (LSHTM) who celebrated their 80th birthdays on the 22 and

13th of March and 12th July respectively.

Society for Biology

Charles Darwin House, the location of the new Society of Biology in London, will be formally opened by Professor

John Beddington at 5pm on 7 June 2010, followed by a reception and opportunity to see the new facilities. Members of the British and Irish region are welcome: we are affiliated to the Society of Biology.

Copy Deadline for next issue: Monday June 8th
Production: James Carpenter & Sara Geneletti
