

## Regional Newsletter, December 2014



## In this issue

MICHAEL SWEETING & DANIEL FAREWELL

Welcome to the December 2014 edition of the BIR newsletter. We've gathered reports from recent meetings alongside the regular offerings from our regional officers. Do make a note of our forthcoming events in your diary, and we'd love to hear from you if you have items you'd like to share with the society in future newsletters. As usual, clicking on text in blue should link you to the appropriate website or email address. We wish you the very best for the festive season, and for the year to come!

## Young Biometrician Award

SUE WELHAM

The British and Irish Region of the International Biometric Society, jointly with the Fisher Memorial Trust, award a prize every two years for young biometricians who are members of the British and Irish Region of the International Biometric Society. Young biometricians are defined as those within 5 years of completing full-time education. The award recognises the research of one paper published, or accepted for publication, in a refereed journal. This award comprises a diploma and a prize of £1000. This is the third time the award will be made; it was won in 2011 by Rachel McCrea (University of Kent) and in 2013 by Doug Speed (UCL).

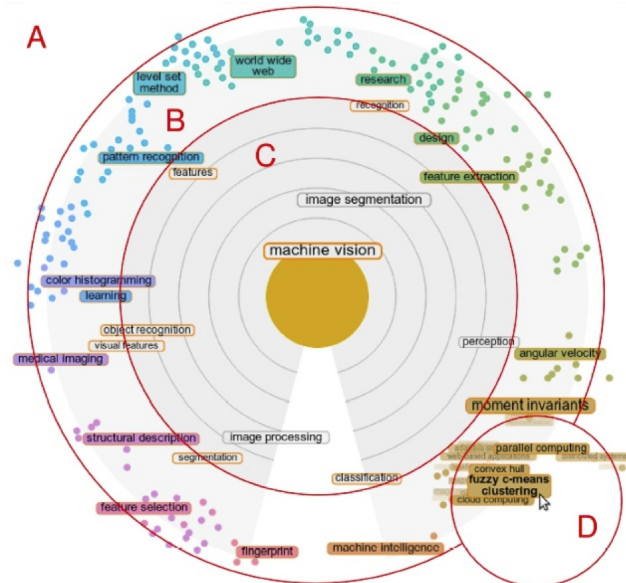
A call for nominations for the 2015 award will be made at the end of this year, with the closing date for nominations as 31 March 2015. The full rules of the competition can be found at the BIR website: <http://bir.biometricsociety.org/award>. To make a nomination, simply send a copy of the paper, with a covering message, to the BIR Regional Secretary ([sue.welham@vsni.co.uk](mailto:sue.welham@vsni.co.uk)) before the closing date. In the case of co-authored papers, a full statement of the contribution from the young biometrician is also required.

Please take this chance to encourage any younger colleagues and students to join the IBS in 2015 so they can be eligible for this excellent opportunity!

## Big Data

DOUG SPEED & VINCENT PLAGNOL

On 17 September 2014, the IBS-BIR hosted a half-day meeting on the theme of Big Data. The diverse range of speakers was testament to the wide variety of problems that fall under the big data umbrella.



*Jaakko Peltonen's IntentRadar, an interactive search engine that anticipates users' intents by estimating them from interaction with the interface*

The first talk was by Jaakko Peltonen (Aalto University and University of Tampere), whose group has developed a more intelligent alternative to Google Scholar. With over 50 million articles available online, Jaakko discussed ways researchers can more efficiently find the articles they are after. Next up was Tom Thorne (University of Edinburgh) who presented work on Bayesian non-parametric and biological networks. Tom discussed a number of high dimensional search methods, including graphical models, hidden Markov models, hierarchical Dirichlet processes and graphical Gaussian models, applying these to data from *S. cerevisiae* and *C. glabrata*. The third talk was by Finn Lindgren (University of Bath) who has bravely attempted to analyse the vast amount of meteorological data available; in total, there are over 20 million data



timeseries collected over 160 years from up to 350 weather stations! Yoram Bachrach (Microsoft Research Cambridge) rounded off the day with a very entertaining talk on social media networks. While the methods were relatively simple, the results were fascinating. With data from over 58,000 Facebook volunteers available (a sample size that made most researchers in the audience very jealous!), it is possible to build up an incredibly accurate profile of a Facebook user only from which places, celebrities, songs, etc. they “Like”.

Members can now access slides from the talks on the BIR website at <http://bir.biometricsociety.org/events/bigdata>.

## Honorary Life Membership awarded to Professors Byron Morgan and Roger Mead

SUE WELHAM

We are delighted to announce that IBS have been bestowed Honorary Life Membership of the Society to Professor Byron Morgan and Professor Roger Mead. This award recognizes both exemplary contribution to biometry and outstanding service to the IBS. To celebrate these awards, we outline here their achievements and contributions as recognised by the Society.

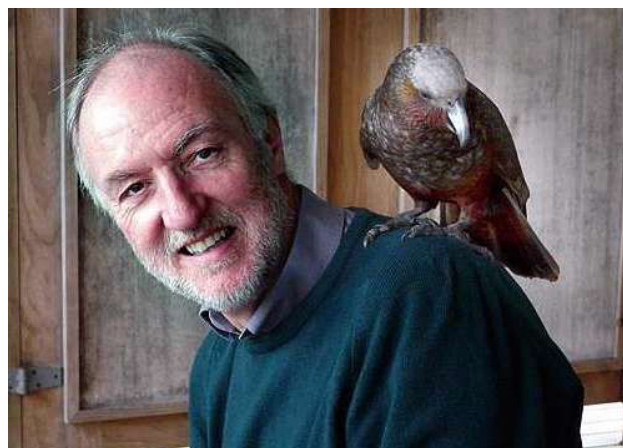
### Professor Byron Morgan

Professor Byron Morgan is well known for his contribution to research in statistical ecology, stochastic modelling in biology and biometry. He has written 7 books and almost 200 papers, 30 of which appear in *Biometrics*. Byron Morgan was recruited by the University of Kent after an initial appointment at the Medical Research Council's Applied Psychology Unit in Cambridge, where he developed his interests in stochastic modelling as well as methodological and applied research in multivariate analysis. Later in his career, he developed methodological innovations in the treatment of quantal response, in the Laplace transform method of parameter estimation, and most recently, in the theory of parameter redundancy.

Byron is an enthusiastic collaborator with both statisticians and non-statisticians. He has inspired many young researchers, supervising over 30 PhD students and 12 post-doctoral researchers, demonstrating his exceptional ability to share his passion for applied statistics. As well as his extensive teaching contributions within the

University of Kent, Byron has been involved with a substantial number of external teaching activities: for example with PSI (Statisticians in the Pharmaceutical Industry) and TNO (Organisation for Applied Scientific Research) in the Netherlands. Many of these courses had wide-ranging audiences; however Byron has always been skilled at explaining new methodology firmly embedded in applications.

In 2005 Byron co-founded the UK National Centre for Statistical Ecology, a cross-institution research centre to develop, apply and communicate innovative statistical methods for collecting and analysing ecological data. This centre has rapidly expanded, now encompassing 7 UK Universities and research centres, with International members around the world. In 2008 he co-organised a satellite conference of the IBC in Dublin on Statistical Ecology, which has itself evolved into an International Conference held every two years.



Byron Morgan

Byron has contributed hugely to the International Biometric Society, serving as President from 1996–1997. He has also had many roles within the British region, serving as secretary from 1987–1991, and as President during 2009–10. During his presidential reign he actively encouraged young members to play a role in the society by seeking younger members to join the committee, setting up an award for Young Biometricians and organising meetings with career-young speakers. He has also had roles on the Editorial Advisory Committee, IBC Program committee and as a session organiser at 7 of the last 8 IBCs.

This nomination was made to mark Byron's official retirement. However, Byron continues in an Honorary Professorial Research Fellow post at the University of Kent and as co-director of the National Centre for Statis-





tical Ecology, so we look forward to his many future contributions to biometrics in the UK and internationally.

The BIR nomination was supported by: Martin Ridout, Steve Buckland and David Elston (BIR), Laura Cowen (WNAR) and Bas Engel, Paul Goedhart & Hans Jansen (ANed).

## Professor Roger Mead

Professor Roger Mead read Mathematics at Cambridge University, followed by the Diploma in Mathematical Statistics, also at Cambridge. His first job was to join John Nelder at the National Vegetable Research Station (NVRS) in Wellesbourne, Warwickshire as a consultant statistician in 1961. During his time at Wellesbourne he co-authored with John one of the most cited mathematical or statistical papers (Nelder, J.A. & Mead, R. 1965. A simplex method for function minimization. *Computer Journal*, 7, 308–313). This period also probably stimulated and influenced much of his subsequent work on designing experiments, based on the design of practical field and glasshouse experiments for the research work of NVRS.

In 1966 Roger moved to join Robert Curnow in the newly established Department of Applied Statistics at the University of Reading, an appointment that created a partnership that had a profound impact on the role of Statistics at Reading for nearly half a century. He served a number of periods as Head of Department, as well as a term as Dean of the Faculty of Agriculture (1993–6). Towards the end of his career at Reading he was appointed for a term as Deputy Vice-Chancellor (1996–2000). One of Roger's major contributions to biometry has been through the MSc course at Reading University, which has resulted in a stream of distinguished statisticians and biometricians. His book, *Statistical methods in agriculture and experimental biology*, jointly authored with Robert Curnow and Anne Hasted, has been popular and influential in encouraging biologists to value and understand statistical methods. Similarly, his work on designing experiments has been highly influential, published in 1988 as *The design of experiments: statistical principles for practical applications* and recently updated with two of his students, Steve Gilmour and Andrew Mead.

Roger has published widely in journals, including *Biometrics*, on topics as diverse as the design of experiments, statistical ecology, competition experiments, intercropping, and the teaching of statistics. He has presented five read papers at RSS meetings — on Teaching Statistics (with Roger Stern), on Intercropping Statistics

(with Janet Riley), on Modelling Field Plot Variation (with Alan Brewer), Public Lending Right statistics (with Anne Hasted and others) and on the Design of Experiments. He has also contributed to a large number of booklets developed to support the application of statistical methods to agriculture in many parts of the developing world; this work taking him to various parts of Africa, Asia and South and Central America to give courses and provide guidance on the practical design and analysis of experiments.



*Roger Mead receives his award from Andrew Mead.*

His involvement with the International Biometric Society started with his attendance at the 5th IBC held in Cambridge in 1963, and he attended nine further IBCs between 1979 (Brazil) and 1998 (Cape Town). He served on the British Region Committee during 1974–6, and then as Regional Secretary from 1978–83. Roger was also elected to the International Council of the IBS (1980–1983) before serving as International Secretary of the Society for eight years from 1985 to 1992. He contributed at least three invited talks to the meetings of the British Region of the Society, and his contributions to applied statistics and biometry, notably in the field of the design of experiments, were celebrated at a Regional Conference held at Reading University in 2003.

More recently, health issues have made it difficult for Roger to be actively involved in the IBS. Our nomination aimed to provide a fitting recognition of his many contributions to the Society and our profession during his career.

The BIR nomination was supported by: Mike Kenward and Geoff Freeman (BIR), Ric Coe (Kenya), Lynne Billard (ENAR), David Baird, Mario D'Antuono & 5 other members of Australasian Region (AR) and the Brazilian Region.



## President's corner

JOHN MATTHEWS

As this is my first President's Corner since succeeding Simon Thompson at the 2014 AGM, it is a pleasure to take this opportunity to pay tribute to Simon's contributions to our subject and to the British and Irish Region of the IBS. I would also like to thank him for his support in my time as Incoming President.

One of things that struck me when I joined the committee about a year ago was the enormous effort that all the Region's officers expend to ensure that the Region runs smoothly. One of the tasks that falls to Diana Cole, our Membership Secretary, is to prepare an annual statement of changes in membership for consideration by the Committee. Assessing the state of our membership is not entirely straightforward for, while many of our members have been with the Region for many years, some fluctuations arise because people have joined in order to attend a particular meeting or conference. Other fluctuations are quite special: we were delighted that our regular membership dropped by two when Professors Roger Mead and Byron Morgan became Life Members of the Society this summer.

While there were no alarming trends in the figures Diana presented, we cannot be complacent and we must maintain our profile among the diverse groups that contribute to our membership. In an era when statisticians seem to be becoming ever more specialised, and where specialist meetings can often seem to have the first call on our time, the benefits of learning from our colleagues in related fields must not be forgotten. One of Simon's last actions as President was to draw up plans to ask experienced members of the Region to act as champions for the Region in their locality, with a remit to ensure that the activities and the benefits of membership are promoted to their colleagues. So, if you get a knock on the door soon, please try to find the time to help out!

So, what are those benefits? One in particular that strikes me as especially compelling arises because our Region is part of the wider International Biometric Society, providing members with a ready opportunity to meet with like-minded scientists from other Regions. This is always pleasant and stimulating for more experienced members but the contacts can be particularly valuable for those earlier in their careers. The British and Irish Region is fortunate to be located close to many other Regions in Europe, and the Channel Network Conference to be held in Nijmegen in April 2015 is an ex-

cellent example of the way the Society can take advantage of its international structure. I would urge all members to visit the website of the conference (<http://www.ibschannel2015.nl/ibs-channel-2015/>) and then to visit Nijmegen for what promises to be an excellent conference!

## Review of Young Statistician Events at IBC Florence

JENNIFER ROGERS



Going to a big international conference can sometimes be daunting for anyone, but especially so if you're a PhD student or only at the very start of your career. Networking events with some of the big names in statistics can be intimidating and major conferences such as the IBC can be a little scary. It is for these reasons that the organisers of the XXVII International Biometric Conference in Florence decided to host an array of events aimed specifically at young statisticians.

A lunchtime ice-breaker got the young statistician proceedings off to a great start, with James Carpenter offering his insider tips and tricks for how to make the most of a conference such as IBC. This was followed by a networking activity, a kind of statistics speed dating, whereby colour coded pairs were given 4–5 minutes at a time to talk about given topics ranging from personal facts to statistical pet peeves.

A highlight in the schedule of talks was the "Young Statisticians Showcase Session", which proved to be an excellent way to end the Monday. This session featured the five winners of the Showcase Competition and PhD students from all over the globe were given the opportunity to present their research. The speakers were: Vinicius Calsavara (University of São Paulo), Laura Fernandes (University of Michigan), Emanuele Giorgi (Lancaster University), N Sewpersad (Durban, South Africa) and Gokmen Zararsiz (Hacettepe University). A wide ranging





variety of topics were up for discussion, including wavelets, modelling toxicity in oncology, spatially referenced prevalence studies, drought tolerance potential of sugarcane and bagging support vector machines. The standard of these presentations was truly outstanding and each of the speakers was a well deserved winner. Following on immediately after this was the “Young Statisticians Reception”, which offered young statisticians a great opportunity to mingle with their peers and also provided an excellent chance to meet Exec Board Directors, Past Presidents and Editors, who were all invited to attend.

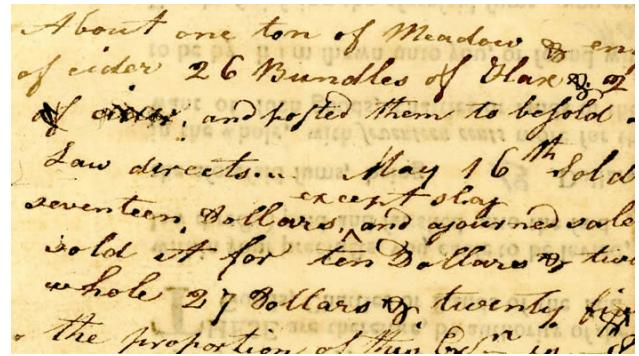
This year, there was only one formal tour organised for the Wednesday and so the organisers of the young statistician events put together an “Explore Florence Together” day. Local students acted as tour guides and showed a group of young statisticians all the highlights that Florence has to offer. The day was a great success with everyone enjoying the chance to have a gentle stroll through Florence’s cobbled streets taking in all the tourist hot spots!

When thinking about how best to welcome young statisticians to IBC, the conference organisers didn’t just put together a selection of special events. At the conference a group of young statistician volunteers were always on hand to give directions, information and advice and their help throughout the conference was hugely appreciated. In addition, in the run up to the conference an “IBS Young Statisticians” Facebook account was set up (you can still find it here: <https://www.facebook.com/ibsyoun statisticians>). This proved to be a great way for young statisticians attending the conference to get in touch with each other in advance of the main event and will continue to be a great tool for communication going forward. Here, Facebook friends can be kept up to date with all things IBS young statistician related and will be used in the run up to the next IBC.

The next IBC will be taking place in Victoria in 2016 and taking a quick look at the plans that are already in place, you can see that there is already a “Young Statisticians Showcase Session” and a “Young Statisticians Mixer” scheduled to be taking place. The young statistician events that took place at IBC 2014 were a resounding success and here’s to them continuing to be so in 2016 and beyond!

## Regional Rules

JOHN MATTHEWS



A few months ago the Officers had cause to look at the rules of the Region, principally to remind themselves about how elections were meant to be conducted. The rules require postal ballots to be used, for example for deciding contested elections and for changing rules. In addition, many other rules were out of date, for example referring to structures in the International Society that no longer exist. We therefore intend to amend the rules so that postal ballots can be replaced by a more modern and less expensive alternative, and to tidy up the parts that are no longer appropriate. The aim is for a small working group (James Carpenter, John Matthews and Sue Welham) to propose new rules for consideration by the Committee in March 2015 and then to consult the membership of the region. Once we have broad agreement the new rules will be the subject of a (perhaps final) postal ballot and agreed at the AGM in 2015.

The current rules are on the Region’s website and anyone who wishes to comment now should get in touch with the working group, via the Regional Secretary (Sue Welham, [sue.welham@vsni.co.uk](mailto:sue.welham@vsni.co.uk)).

## Mendelian Randomisation: Past Success and Future Challenges

MICHAEL SWEETING

On Friday 14th November, the IBS-BIR held a meeting on the topic of Mendelian Randomisation (MR). A morning workshop was organised and aimed especially for career-young researchers to provide some background knowledge to the afternoon talks. Richard Emsley (University of Manchester) and Stephen Burgess (University of Cambridge) gave two excellent introductory talks on Instrumental Variables and MR, respectively, with particular



emphasis given to the underlying assumptions and methods for analysis.

The afternoon session commenced with Simon Thompson (University of Cambridge) giving his presidential address, where he considered “Some extensions to Mendelian Randomisation, and some surprises”. The behaviour of weak instrument bias and naïve weighted allele scores were some of the surprises that Simon considered. Following this, Vanessa Didelez (University of Bristol) discussed the advantages and problems of conducting “Instrumental Variable analyses with covariates” and the trade-off between potential efficiency gains versus model misspecification.



Speakers at the “Mendelian Randomisation: Past Success and Future Challenges” meeting. L-R: Vanessa Didelez, Simon Thompson, George Davey Smith, John Thompson, Stephen Burgess, Richard Emsley.

After the tea break, John Thompson (University of Leicester) presented some “Cautionary notes when conducting Mendelian Randomization”. In a very thought provoking talk John helped to remind everyone that MR analyses should be conducted with caution and that the evaluation of MR assumptions ultimately should rely on biological knowledge and subjective judgement. He proposed a checklist to help researchers gauge when published MR analyses may or may not be appropriate. Finally the day was appropriately rounded off by George Davey Smith (University of Bristol), one of the pioneers of MR, who talked about “Mendelian Randomisation: What

does the future hold?”. George presented a number of examples showing how confidence in the assumptions can be built up through the assessment of multiple variants and by interacting instruments on an appropriate exogenous variable that modifies the effect of the instrument on the intermediate phenotype. A great day was had by all those who attended and slides from the meeting are now available to members on the BIR website at <http://bir.biometricsociety.org/events/nov2014mtg>.

## Subscriptions Due!

MARK BREWER



Your membership of the International Biometric Society, British and Irish Region is now due for renewal. The fees for 2015 remain unchanged:

- Full Member: £40
- Retired Member: £20
- Biometrics and the Biometric Bulletin: £7 extra
- JABES and the Biometric Bulletin: £7 extra
- JABES, Biometrics and the Biometric Bulletin: £14 extra
- Student Member: Free (Note: please renew your membership for 2015 on the website)

If you are a full or retired Member, there are several ways that you can pay for your membership for next year.

- Paypal: Go to <https://biometricsociety.org.uk/amember/signup> to pay your membership fees;
- Standing order: If you have set up a standing order your membership renewal is automatic each year. If you would like to set up a standing order please [contact Mark Brewer](#);
- Cheque: If you pay by cheque, please send the form at the end of this newsletter with your cheque to Mark Brewer (address is on the form).

Please advertise the society widely amongst your colleagues! Any new members can join the society by visiting <http://bir.biometricsociety.org/membership>.







## International Biometric Society, British and Irish Region

RENEWAL OF MEMBERSHIP for ..... (name)

MEMBERSHIP CATEGORY: Please check

- FULL member ☐ (Annual Subscription 40 pounds sterling) Full benefits of the Society including electronic subscription to Biometrics, Journal of Agricultural, Biological, and Environmental Statistics (JABES) and the Biometric Bulletin, voting privileges and the right to hold elective office.
- RETIRED member ☐ (Annual Subscription 20 pounds sterling) All the rights of Full Membership. The retired category is open to anyone who has been a member for at least 10 years, and who is no longer in paid employment (working less than 0.2FTE).

Members have the options of receiving paper copies of the journals. Please check if applicable:

Biometrics and  
Biometric Bulletin  
£7 extra

☐

JABES and Biometric  
Bulletin £7 extra

☐

Biometrics, JABES and  
Biometric Bulletin  
£14 extra

☐

Please detail any changes to contact details here:

Title

\_\_\_\_\_

Organisation

\_\_\_\_\_

Address

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone

\_\_\_\_\_

Fax

\_\_\_\_\_

Email

\_\_\_\_\_

You can renew your subscription online at <http://bir.biometricsociety.org/membership> (see foot of page). If this is not possible, then please send this form with a cheque made payable to 'BIOMETRIC SOCIETY' to Mark Brewer (Treasurer), BioSS Office, The James Hutton Institute, Craigiebuckler, ABERDEEN, AB15 8QH.

If you would prefer to pay by standing order or bank transfer, please contact Mark at [M.Brewer@bioss.ac.uk](mailto:M.Brewer@bioss.ac.uk) for details. Note that with online membership renewal, payment can be made via PayPal (but please note you do not in fact need a PayPal account – just a debit or credit card).