Australasian Region

IBS-AR

Newsletter

Issue 24
March 2019

President's Corner

Introducing our new President, Alan Welsh

At the Australasian Region's AGM, Alan Welsh was elected President for 2019-20. Alan writes…

I am very pleased and honoured to be the incoming President of the Australasian Region (IBS-AR). IBS-AR is very important in my professional life and I count many friends in the membership so I look forward to this opportunity to serve IBS-AR and work with the Regional Council to contribute directly to its future development.

I would like to thank the outgoing president Samuel Müller for his leadership and the many other contributions he made to IBS-AR during his presidency. He has done excellent work with the Regional Council to develop IBS-AR and position us for the future. Of course, no President can achieve anything without the help and support of the Regional Council which works very hard for IBS-AR. I would therefore also like to acknowledge and thank the past Regional Council for their contributions.

As usual, a new President starts in an IBS-AR conference year and planning is already well under way for the conference to be held in December in Adelaide. I hope many of you will be able to attend and participate in the professional and social events that are such an enjoyable feature of our regional conferences. I look forward to interacting with many of you at the conference or elsewhere as opportunities arise.

Alan Welsh
alan.welsh@anu.edu.au

In this Issue

Australasian Regional Council

President	Alan Welsh (The Australian National University)
Past-President	Samuel Mueller (University of Sydney)
Secretary	David Baird (VSN NZ)
Treasurer	Warren Müller (Retired)
Membership Officer	Ian Renner (University of Newcastle)
Social Media Officer	Emi Tanaka (University of Sydney)
Newsletter Correspondent	Vanessa Cave (AgResearch Ltd)
Regional Website Manager	Hans Hockey (Biometrics Matters)
IBS President	Louise Ryan (University of Technology Sydney)
IBS Executive Board	Brian Cullis (University of Wollongong)
IBS Representative Council	Alison Kelly (Queensland Dept of Ag & Fish)
	Kevin Murray (University of Western Australia)
	Ross Darnell (CSIRO)

BIOMETRICS BY THE BOTANIC GARDENS

INTERNATIONAL BIOMETRICS SOCIETY AUSTRALASIAN
REGION CONFERENCE

2 - 6 DECEMBER 2019
NATIONAL WINE CENTRE, ADELAIDE, SOUTH AUSTRALIA

ausbiometric2019.org

The IBS-AR Member Code of Conduct can be found here:
http://www.biometrics.org.au/docs/IBS-AR-Code-of-Conduct.pdf

www.BiometricSociety.org.au

Facebook group: IBS-AR

Member Profiles

Thank you to John McKinlay for kindly providing a profile. We invite all our mid-career members (i.e. members approximately 5 to 15 years into their professional career) to provide a profile for inclusion in a future newsletter. Please email the editor (Vanessa.Cave@agresearch.co.nz) for more information.

John McKinlay
Australian Antarctic Division

John after a tough week!

When and why did you join IBS?

I'm a latecomer to IBS, joining in 2015 when the conference was held in Hobart. Although I'd been a member of the SSA for more years than I care to remember, I'd not given much thought to joining the IBS despite working with biological data for most of my career. When the conference came to town, I put my hand up to assist Scott Foster as part of the local organising committee. Helping out with the conference was an overwhelmingly positive experience, and one that I would recommend to new and established members alike. It also had the nice side effect of introducing me to lots of IBS members, and I quickly felt part of the IBS-AR family. As I progressively saw more talks, the epiphany dawned that *this* was the conference I had been missing all my professional life.

What biometrics related work do you do?

I work for the Australian Antarctic Division, which is itself part of the Department of Environment and Energy. The type of science we do at the AAD can be broadly categorised into the physical sciences (ice, ocean and atmospheric processes) and the biological sciences (from microbes to whales, and all stops in between). I'm in the latter group and have been lucky to land a job where my twin passions of seeking knowledge (if not an objective 'truth', then at least degrees of evidence) and understanding our natural environment can coincide. Much of my work has been representational, with focuses on supporting Australia's Southern Ocean fishery at the Commission for the Conservation of Antarctic Marine Living Resources, and more recently supporting Australia's pro-conservation objectives at the International Whaling Commission. It is interesting, but sometimes challenging, presenting analysis-based work into disputed science settings (and resource management science can be *very* disputed). It's one thing to get an article past peer review and into publication, but it can be an entirely different proposition to convince a large group of (often

partisan) scientists that your result should carry the day. I describe myself to my children as a 'professional arguer', a label that sits well with my precocious 8 year old who is herself shaping up to be a lawyer or statistician.

What other research interests do you have?
I think it's difficult to come up with novel ideas in science, but perhaps this is particularly true for statistics (though I concede that this might just be me!). One of the things I appreciate about statistics is that it is applied to so many different, disparate fields of study, and that you can often borrow methodological developments from one field and apply it to your own. Who would have imagined, for example, that astronomical pattern-matching algorithms developed by NASA might be so successfully used for identifying whale sharks from their spot patterns? I sometimes find myself sitting in front of a blank search engine page, thinking: "I bet someone's done this before, now if I can only think of the right search terms..."

What is your most memorable conference moment?
Here is my best workshop moment, instead. I had the privilege to demonstrate for Bill Venables when he gave an R/stats course here in Hobart some years ago. I was a lightweight along for the ride, more help with syntax than content, but it didn't stop me from asking a question or two of my own along the way. Bill was on his feet, he'd just finished an exposition on alternate parameterisations in linear models (it was probably that pesky 'janka' data). I was also on my feet at the other end of the room, and I asked a curly question about collinearity. As the class looked on expectantly, Bill took a quick step towards me, narrowed his eyes, and with a wry smile on his face and a playful hint of menace in his voice, said: "You want to have a go?!" I could do nothing but (metaphorically) roll onto my back, show him my tummy, and hope he scratched me behind the ears. He generously did, as well as follow up with sound advice. And the moral? Bill is *very* quick on his feet!

Where do you see IBS-AR as a professional organisation in 10 years from now?
I'll answer this in relation to statistics organisations more broadly, rather than the IBS in particular. In the past decade I've witnessed a lot of hand-wringing in the statistical community over the distinction between statistics "proper" and data science/machine learning/model-free inference/insert-your-favourite-buzzword-here. My prevailing feeling is that, underneath the hype (and yes, there is plenty of that), statisticians have much more in common with those endeavours than they do differences. I think in 10 years people will, as the best people already do, transition seamlessly between these supposed paradigms depending on the problem at hand, and that distinctions will in future be regarded as largely semantic.

Recent Papers

The International Biometrics Society publishes two journals, Biometrics and, jointly with the American Statistical Association, the Journal of Agricultural, Biological, and Environmental Statistics. Papers recently published by our members* in these journals include:

Journal of Agricultural, Biological, and Environmental Statistics

December 2018, Volume 23, Issue 4

Daniel Pagendam, Nigel Snoad, Wen-Hsi Yang, Michal Segoli, Scott Ritchie, Brendan Trewin and Nigel Beebe. *Improving Estimates of Fried's Index from Mating Competitiveness Experiments.*

Arūnas Verbyla, *Joanne De Faveri*, John Wilkie and Tom Lewis. *Tensor Cubic Smoothing Splines in Designed Experiments Requiring Residual Modelling.*

To submit a manuscript visit: http://www.editorialmanager.com/jabe/

Biometrics

December 2018, Volume 74, Issue 4

Francis Hui, *Emi Tanaka* and *David Warton*. *Order selection and sparsity in latent variable models via the ordered factor LASSO.*

Katharina Parry and Matthieu Vignes: *Book review: Christophe Giraud. Introduction to High‑Dimensional Statistics*. Boca Raton, CRC Press.

To submit a manuscript visit: http://www.biometrics.tibs.org/

*IBS-AR members are in blue italics

If your paper has been inadvertently omitted from this list, please email the editor (Vanessa.Cave@agresearch.co.nz) so that it can be included in the next edition.

Membership News

Congratulations to Rachel Fewster

Congratulations to IBS-AR member Dr Rachel Fewster (The University of Auckland), who was recently awarded the New Zealand Statistical Association's highest accolade, the Campbell Award for her sustained contribution to the promotion and development of statistics. Rachel has an exceptional and sustained body of work developing improved methodology for estimation of population size and for understanding population dynamics, especially for endangered species and invasive species. For many years Rachel has actively consulted with New Zealand's Department of Conservation and Regional Councils. She created the "CatchIT" citizen science project, whereby individuals and community groups enter their monitoring and trapping data into online software, and directly see the value of statistics through the interactive graphics and animations produced. The system now hosts data from hundreds of community groups. Rachel has also received several teaching awards, including twice being a recipient of New Zealand's National Tertiary Teaching Excellence Award.
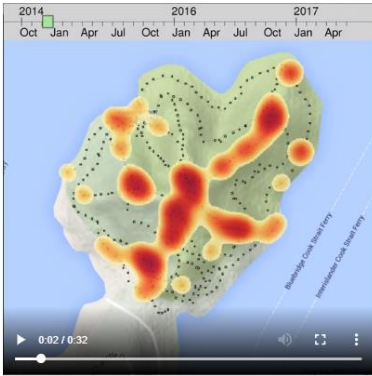

Screenshot from CatchIT.

To play with the example movie animations, visit http://www.catchit.co.nz/ and click About CatchIT

Membership Milestones

Congratulations to the following members who've celebrated membership anniversary milestones*:

50 years
Arthur Gilmour

40 years
Hannelore Middlebrook, Michael Adena and Ian James

25 years
Martin Krogh and Alice Richardson

10 years
Samuel Mueller, Suzanne Brown, Teresa Neeman, Carole Wright, Denny Meyer, Geoff Adams, Emma Lawrence, Pauline O'Shaughnessy and Hwan-Jin Yoon

* If your membership milestone has been overlooked, please contact the Membership Officer (ian.renner@newcastle.edu.au) to have the membership records corrected.

Welcome to our new members: Zhanglong Cao (Curtin University), Peter Green (AgResearch), Shen Hea (AgResearch), Paul Maclean (AgResearch), Poppy Miller (AgResearch), Helena Oakey (University of Adelaide), Andy Timmins (University of Adelaide), Max Moldovan (SAHMRI), Farzana Jahan (Queensland University of Technology), Peter Kasprzak (University of Adelaide) and Harriet Plant (Auckland University)

Membership as of 14 March:

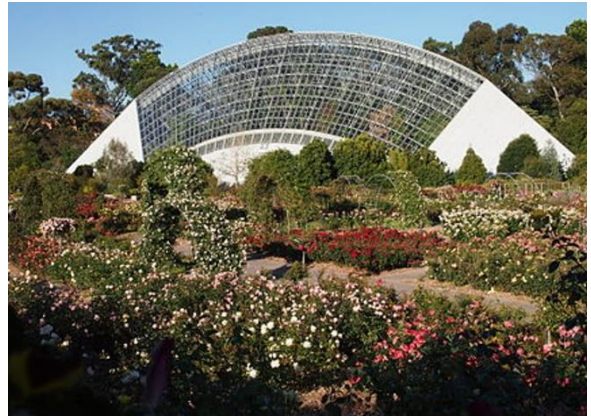|	
Life Member	3
Regular Member	182
Senior Retiree	19
Student Member	28
Supporting Member	9
	241

Jane Speijers, Helen Nicol and Arthur Gilmour studying a map of Mandurah at the 2013 IBS-AR conference, Biometrics by the Canals. This year, Arthur celebrates 50 years of membership.

Biometrics by the Botanic Gardens

Save the date: 2–6 December, 2019

Make a note in your diary and book the first week in December 2019 for coming to Adelaide, South Australia. The preparation is well under way for the Australasian Meeting of the Society on 3 – 6 December 2019. Short courses and workshops on a range of topics will be presented on Monday 2 December with the main conference running on Tuesday – Friday.

Attuned to the interests of the regional membership, the conference will look at statistics research and applications in medicine and public health, agriculture and environment, genetics, natural sciences and education. The list of speakers includes international and Australasian statisticians at various stages of their careers, currently: Daniela Bustos-Korts, James Carpenter, Claudia Czado, Joanne De Faveri, Max Moldovan and Christopher Wikle.

More information will be available soon on the conference website, www.ausbiometric2019.org. For expressions of interests and enquires please contact Prof Alan Welsh (Alan.Welsh@anu.edu.au) or Dr Olena Kravchuk (olena.kravchuk@adelaide.edu.au).

Did you know? You can read about our previous regional conferences here http://www.biometrics.org.au/conferences-more.html

Special Features

BioInfoSummer 2018
Report by Nicola Armstrong

AMSI BioInfoSummer is Australia's leading bioinformatics and mathematical and computational biology training event. The 2018 edition was held at UWA from 3-7 December, jointly hosted by UWA, Murdoch University and Edith Cowan University, marking the first time the event has been held in WA. Over 130 students, researchers, academics and professionals attended the five-day program which focused on single cell 'omics, plants and animals, epigenetics and metabolomics and proteomics.

The program featured over 20 national and international speakers including Assistant Professor Stephanie Hicks (Johns Hopkins Bloomberg School of Public Health), Assistant Professor Simon van Heeringen (Radboud University), Jason Williams (Cold Spring Harbour Laboratory), Professor Zhiping Weng (University of Massachusetts Medical School) and Professor Matthew Hahn (Indiana University).

As usual, the program was a blend of research presentations and hands-on workshops with plenty of time for networking in-between. And, importantly, gender balance was once again achieved in the program. A fast-forward poster session, where each presenter had 2 minutes to talk about their research, was followed by the traditional poster-viewing over lunch. COMBINE organised a well-attended careers session at the UWA tavern, where people could ask questions of bioinformaticians who had very diverse career pathways. The public lecture, after an evening reception, was given by Professor Rebecca Johnson from the Australian Museum Research Institute, who gave a fascinating insight into life as a wildlife detective.

AMSI BioInfoSummer 2019 will be held at The University of Sydney from 2-6 December – www.bis.amsi.org.au

Australasian Applied Statistics Conference 2018

The Australasian Applied Statistics Conference (AASC18) and pre-conference workshops, held from 3rd – 7th December 2018 at the Millennium Hotel, Rotorua, were an excellent opportunity to liaise with fellow statisticians within the agricultural, biological and environmental sciences and to keep abreast of the most recent developments in statistics within this context.

The themes of AASC18 were big data analytics, reproducible research, history of ANOVA and REML, experimental design, statistical consultancy in the biosciences, and applied statistics. Invited speakers and workshop presenters (Chris Auld, Peter Baker, Salvador Gezan, Roger Payne, Alison Smith, Robin Thompson, Linley Jesson, Ruth Butler, Gabriela Borgognone and Helene Thygesen) helped explore these themes in various contexts.

The workshops were:

- Scaling R in the Cloud with doAzureParallel (Chris Auld, Microsoft)
- Genstat 19ed Masterclass: how to get the analyses you need, the output you want, and the graphs you prefer (Roger Payne, David Baird and Vanessa Cave, VSNi)
- Tools for Efficient Data Analysis Workflow and Reproducible Research (Peter Baker, University of Queensland)
- Modelling correlations between observations in agricultural and environmental sciences with ASReml-R (Salvador Gezan, University of Florida)

Post Conference Goodies, including most presentations and photos, are available here: https://www.aasc.nz/post-conference-information/.

The conference was organized by David Baird (Chair), Chris Triggs (Treasurer), Vanessa Cave (Secretary), Andrew McLachlan (On-site Technology) and Hans Hockey (Photographer).

(L to R) Andrew McLachlan, Chris Triggs, David Baird, Vanessa Cave, Hans Hockey

Statisticians at play

IBC 2020

The 30th International Biometric Conference will be held at the Seoul Convention and Exhibition Centre from the **5-10 July 2020**. Seoul, the heart of the nation, is a safe and tourist-friendly city that offers the warmest hospitality, state-of-the-art conference facilities, comfortable accommodation facilities, breathtaking scenery, and appealing cuisines.

The Local Organizing Committee and IBS Korean Region are designing a comprehensive and rewarding scientific program, as well as exciting cultural and social programs. Delegates will have many opportunities to strengthen professional networks and friendship during the Conference, and to explore Seoul.

Themes of the conference are:
- Digital technologies and biometry
- Challenges in genomics
- Statistical modelling in ecology
- Adaptive designs
- Predictive modelling
- New techniques in agricultural research
- Modelling grouped environmental data
- Spatial and spatio-temporal data analysis
- Clinical trials
- Analysis of observational cohort data
- Inference in natural resource surveys
- Advancements in survival analysis
- Bioinformatics
- Epidemiology
- Big data methodologies

For more information, visit:
https://www.biometricsociety.org/2018/07/ibc-2020-seoul-preview/

YOUNG STATISTICIANS CONFERENCE

Visualising the Future

1-2, October 2019, Manuka Oval, Canberra

For more information, visit: https://ysc2019.netlify.com

New Zealand Statistical Association Conference

26 - 28 November, 2019
University of Otago, Dunedin

Information available soon at: https://www.stats.org.nz