Australasian Region

IBS-AR

Newsletter

President's Corner

It was my privilege to serve you as the regional president since the beginning of 2017 and this is already the last time I write to you in this President's Corner. There are still four more months left to speak louder through actions than with words.

I am thankful to Emi Tanaka who accepted being our inaugural Social Media Officer and with this role, Emi also joined the Regional Council. Emi already made several important contributions and is very active in her role. It is wonderful to see how in our region many early to mid-career biometrician play a leading part in shaping our society.

Alan Welsh will take over as President and I will support him for his first year in that role to then step back and continue to contribute in other ways to the IBS. Alan received a well-deserved Honorary Life Membership at the IBC 2018 in Barcelona and is the third distinguished biometrician from the Australasian Region to receive this special accolade, following Sue Wilson (in 2012) and Kaye Basford (in 2016).

Helen Newton Turner (1908-1995) was selected from the Australasian Region to name one of the venues at the 29th IBC. As I walked into the foyer of the conference centre there she featured on a banner. Helen was a distinguished Genetist and Statistician, a leading authority on sheep genetics. She worked for the CSIRO and received awards such as the Queen Elizabeth Coronation Medal, the Order of the British Empire, the Order of Australia and the Farrer Memorial Medal.

Our region has great diversity, it is one of the key enablers of excellence. Here we do well in celebrating the success of everyone, a quality that needs to be preserved and built upon.

Samuel Mueller
(samuel.mueller@sydney.edu.au)

In this Issue

Australasian Regional Council

President	Samuel Mueller (University of Sydney)
President-Elect	Alan Welsh (The Australian National University)
Past-President	Ross Darnell (CSIRO)
Secretary	David Baird (VSN NZ)
Treasurer	Warren Müller (Retired)
Membership Officer	Ian Renner (University of Newcastle)
Newsletter Correspondent	Vanessa Cave (AgResearch Ltd)
Regional Website Manager	Hans Hockey (Biometrics Matters)
Social Media Officer	Emi Tanaka (University of Sydney)
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)

www.BiometricSociety.org.au

Facebook group: IBS-AR

Welcome to our new members: Gabriela Borgognone (Department of Agriculture and Fisheries), Bethany Macdonald (Queensland Department of Agriculture and Fisheries), Michael Dymock (University of Western Australia), Denzel Florez (University of Sydney), Shovanur Haque (Queensland University of Technology), Alaba Ajibola Lamidi-Sarumoh (University Putra Malaysia), Emmanuel Segun Oguntade (University Putra Malaysia), Thi Huong Trinh (University of Toulouse, France), Vivi Arief (University of Queensland), and Kang Jie (University of Otago).

Membership as of 28 June:

Life Member	2
Regular Member	181
Senior Retiree	19
Student Member	27
Supporting Member	9
	251

In addition to Australia and New Zealand, we have members in China, France, Germany, Malaysia, Spain, Thailand, United Kingdom, USA, and Vietnam.

Social Media Initiative: Better Together

Emi Tanaka (IBS-AR Social Media Officer, University of Sydney)
Kathy Ruggiero (IBS Social Media Coordinator, University of Auckland)

Social media has evolved rapidly and plays a key role in helping businesses and organizations to increase their visibility, and to connect and engage with people. For many people, particularly those under 35 who do not remember a time without personal computers, social media tools such as Facebook, Instagram, Twitter, YouTube, blogs, etc, are an integral part of their everyday lives, giving them platforms via which to connect with others. In order for our Society to stay relevant and to be visible, it is essential that we develop and maintain a vibrant and effective Social Media presence.

But is social media for academics or professionals?

Both! While there are scholarly sites, such as Research Gate and Academic.edu, which target researchers, it is interesting to note that an online survey of academics by Lupton (2014) found that academics' most widely used social media platform is Twitter (albeit a high proportion of the sample was from the social sciences).

Twitter certainly has a flux of information. Academics and practitioners use it to share their work, tweet about conferences and workshops, advertise jobs, seek advice and even for general chatter about work life. In 2012, Priem et al. found 1 in 40 scholars to be active on Twitter. This was six years ago; engagement with social media has experienced significant growth since then.

Lupton (2014) found that the academics surveyed felt they benefited from "*connecting and establishing networks not only with other academics but also people or groups outside universities, promoting openness and sharing of information, publicising and development of research and giving and receiving support*".

See below for information on how to join the IBS's existing social media platforms and for some tips on engaging with these.

Lupton, D. (2014). Feeling better connected: Academics' use of social media. Canberra: News and Media Research Centre, University of Canberra.

Priem, Jason; Costello, Kaitlin; Dzuba, Tyler (2012): Prevalence and use of Twitter among scholars.

Who is taking charge of this initiative?

Kathy Ruggiero, previous chair of the Committee on Communications, has taken on the new role as the IBS Social Media Coordinator, starting January 1, 2018. Kathy will be working closely with a network of regional Social Media Liaisons.

Emi Tanaka is the Social Media Liaison for the Australasian Region. She is a prolific Twitter user and, at one point, was regarded as the third top #rstats influencer by Kcore Analytics. She interacts with other prolific tweeters such as Hadley Wickham and other RStudio employees. This resulted in Yihui Xie (author of many popular R packages, e.g. knitr, shiny, rmarkdown) noticing and writing a blog post praising her hacking abilities. She will be using her social media expertise to increase IBS-AR members' engagement with social media.

What existing social media presence does the society currently have?

•Twitter handle: @IBSstats

•Facebook page: https://www.facebook.com/BiometricSociety/

•Facebook IBS-AR group: https://www.facebook.com/groups/ibs.dash.ar/

If you are already on a social media platform, then we encourage you to join and follow these because this is where you will hear your IBS(-AR) news first!

How to navigate Twitter

Twitter is a social media platform where users can post a maximum of 280 characters and optionally four images, gifs or a short (max 140 seconds) video for each "tweet". Twitter accounts are by default public which means that your tweets are visible to anyone. As common sense dictates, if you wouldn't say what you tweet out in public, don't tweet it.

Twitter gives you a platform to broadcast your thoughts to the world but your tweets can be easily lost in the twitter stream and receive little notice. We will keep this section short and give you three practical tips to use twitter effectively:

1. **At a conference? Use the official hashtag**. A hashtag is a word or phrase preceded by the hash symbol (#), used commonly on social media to identify specific topics. Most modern conferences come with an official hashtag. E.g. check #IBC2018BCN for all the tweets related to the 2018 International Biometrics Conference in Barcelona. Another recent one is #JSM2018 for the 2018 Joint Statistical Meeting. So, even if you can't make it to a conference, you can keep up with what is happening by searching those hashtags!

2. **Tag/mention relevant accounts.** Tagging can be done by including twitter handles. E.g. on top of using #IBC2018BCN, you may want to mention @IBSstats or even the local organising committee of IBC2018 @LOC_IBC2018 or the Young Statisticians of IBC2018 @YSIBC2018. By tagging, the account that was tagged receives a notification (unless they opt not to get this notification), making the tagged account holder aware of your tweet. This is a great way to let relevant people know about your tweet. Of course, you should exercise common sense to decide when tagging is the right action. Some common uses are tagging official accounts so they may broadcast your tweet

to their network or when tweeting about someone's talk or uploading someone else's photo, tagging that person in.

3. **Contribute to conversations.** Don't just tweet - actively engage and add to existing conversations. Your tweets should not just be about you and aim to elevate your peers (and tag them when you do!).

These tips work for Facebook too, except Facebook tends to have more private posts which are not visible to the wider network.

What about Facebook?

For those who don't already know, Facebook is a free social networking website that allows registered users to create profiles, upload photos and videos, send messages and keep in touch with friends, family and colleagues. (Go to www.facebook.com/r.php create an account.)

As a private Facebook user, you can control who may see your profile and your posts. The IBS, however, has a Facebook Page and Pages are always public, meaning that anyone on or off of Facebook can search for, and view the Page's posts. In order to see a Page's posts in a Facebook newsfeed, the Page must be liked. Furthermore, visitors to the IBS Page can post, but the posts are subject to review and approval by the Page's administrator.

Want to make sure you see all IBS Facebook posts? Go to the IBS's Facebook page at https://www.facebook.com/BiometricSociety/. You will see two buttons:

To ensure you opt into seeing our posts click on the Like button (which will then change to Liked, as shown above). To ensure you see **all** IBS posts, click on the Follow button (which will then change to Following, as shown above).

Do you have some social media ideas?

Please contact either Kathy (k.ruggiero@auckland.ac.nz or @roginello on twitter) or Emi (emi.tanaka@sydney.edu.au or @statsgen on twitter). We would love to hear about how you use social media in your academic or professional pursuits and regarding any ideas you may have on creating an engaging IBS social media environment for you and our other members.

Did you know?

If you are under 65, the statistics indicate that the probability you engage with social media is non-negligible. And, the probability of engagement is inversely proportional to age!

IBS-AR Awards

Travel Awards

Our region offers travel awards to assist outstanding students and/or early career members to attend international meetings of the society. IBS-AR member Timothy Bilton, a PhD student at the University of Otago and AgResearch Ltd, was awarded a travel grant to attend the XXIXth International Biometric Conference in Barcelona. *Congratulations Timothy!*

Timothy's doctoral research is focused on developing statistical models and methods for analysing genetic data generated using high-throughput sequencing technology. This sequencing technology provides a cost and time efficient genotyping method but generates data with various types of errors present that lead to biased estimates of genetic quantities. Typically, the errors are removed by heavily filtering the data using ad hoc approaches, whereas Timothy's research is focused on modelling the data and associated errors using a probabilistic approach. Timothy's conference presentation described a hidden Markov model based approach for modelling errors in the construction of genetic linkage maps.

Timothy's conference report on Barcelona IBC 2018 can be found on page 7.

Student Scholarships

To help attract enthusiastic and talented students to career paths in biometrics, our region offers scholarships for suitably qualified students who intend to undertake a fourth or honours year of study, or a coursework Masters, in statistics, mathematical statistics, biostatistics, bioinformatics or biometrics. We are delighted to announce the winners of this year's highly contested award: Michael Dymock (honours student at the University of Western Australia) and Denzel Florez (honours student at the University of Sydney). *Congratulations*!

Michael Dymock

University of Western Australia

Denzel Florez

University of Sydney

Barcelona IBC 2018: Conference Report

Timothy Bilton (University of Otago, AgResearch Ltd)

I'm currently flying at approximately 12,000 meters over the Atlantic Ocean as I write this report having survived my first international conference and first trip to Europe (ever!). I had the privilege of attending the 2018 International Biometric Conference (IBC) in Barcelona, Spain.

Like most conferences, IBC started off with all day short courses. I attended the "*Multivariate Dimension Reduction for Biological Data*" by Kim-Anh Lê Cao and Sébastien Déjean which was essentially an introduction to the mixOmics R package. I really enjoyed this course as it was well organized, the content was very accessible, and it was nice to find out what the package was all about having heard about it from my colleagues.

The following day started with the opening ceremony and Professor Louise Ryan gave an excellent president's address on statistics in the big data era. As a first timer, I wasn't quite sure what to expect from the sessions. There were a wide range of topics with biostatistics, Bayesian statistics and survival analysis all being quite popular and it seemed like the LASSO was mentioned in one form or another in half of the talks I attended. The real highlight for me, however, was to see some really interesting presentations relating to my own research interests of agriculture, genetics and plant breeding. I gave a talk on "*Modeling errors in the construction of genetic linkage maps using high-throughput sequencing data*", which touched on the first part of my PhD work that was recently published in Genetics. It was particularly pleasing to have four questions from the audience and to receive some very positive feedback from various delegates.
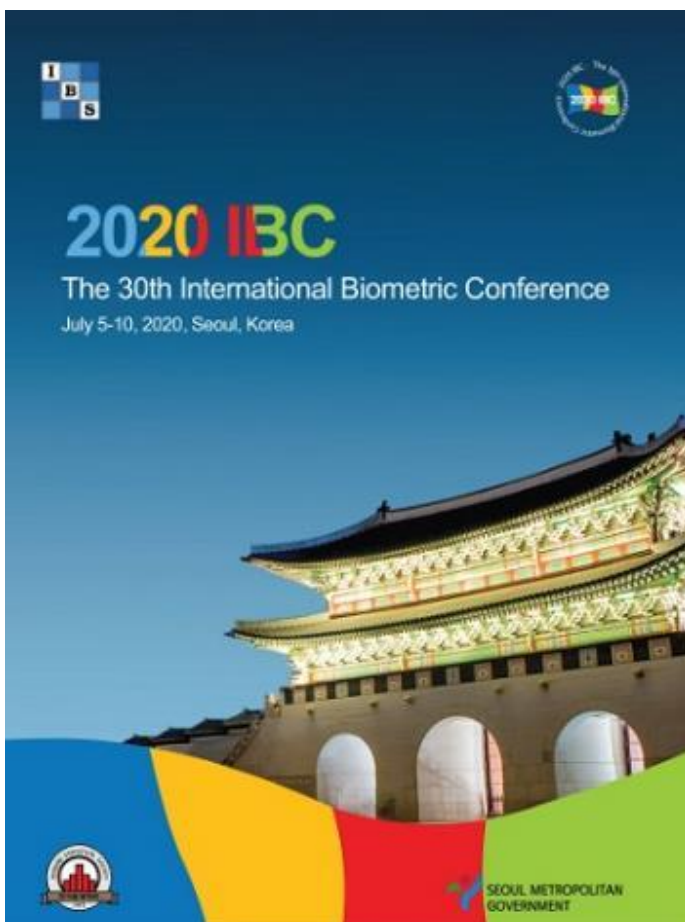

Timothy Bilton presenting his talk at Barcelona IBC 2018.

There were also plenty of activities tailored for the younger statisticians. We had a lunch reception on the Monday with a talk by Alex Sánchez on web scraping followed by a statistical quiz over Kahoot (I came a disappointing 49th out of 145). A dinner reception was held on the Tuesday night that provided a more relaxed environment to socialize and to get to know other young statisticians (while watching the World Cup semi-final!). There was also the Young Statistician Showcase where the five awardees all gave high quality presentations on very diverse and interesting topics.

On the free Wednesday, I caught a train to Girona with my supervisor and another colleague from Otago. After exploring the old part of Girona, we got a rental car and drove around visiting some other towns and beaches. I never realized that Spain had old medieval towns preserved from the 16th and 17th centuries and it was incredible walking through the narrow streets and into the buildings (especially the cathedrals). There was also a strong Catalonia presence just about everywhere we went with Catalonia flags and independence banners on many buildings (particularly on apartment balconies).

Overall, I really enjoyed the conference; it was a great experience and afforded opportunities to develop as a researcher. I'd like to thank the IBS-AR for their generous support. Looking forward to IBC2020 in Seoul.

The next IBC will be held in Seoul, 5-10 July 2020. More information can be found here.

IBS Honorary Life Membership: Alan Welsh

Congratulations to Alan Welsh on receiving his IBS Honorary Life Membership

Nomination for Alan Welsh prepared by Samuel Mueller.

We nominate Alan H Welsh who is the E.J. Hannan Professor of Statistics at The Australian National University for an Honorary Life Membership for i) his outstanding, extensive and long-time support of the International Biometric Society, which includes his international representation for the Australasian region and leadership in several biometry societies; ii) advancements in biometry through fundamental contributions to statistical methodology and theory, including robustness and model selection in linear models, robustness and bootstrapping in linear mixed models, semiparametric estimation, zero-inflated data modelling, compositional data modelling and sample survey data analysis; iii) extensive and resolute mentoring of junior faculty in biometrics; and iv) outstanding work as a teacher and scholar.

Alan's extensive contributions to the International Biometrics Society are extensive indeed and include eight years as Associate Editor for Biometrics (from 1993 to 2010), over ten years as Member of council and elected member of the Executive Council (2006-2016), President-elect (2018) and President (2019-20) of the Australasian Region, He has organized four regional conferences: from 1998-1999 as Chairman of the Program Committee for Biometrics 99 held in Hobart, from 2004-2005 as Chairman of the Program Committee for Biometrics 05 held in Thredbo, from 2006-2007 Member of the Program Committee for Biometrics by the Beach in Coffs Harbour in December 2007 and from 2014-2015 as Member of the Program Committee for Biometrics by the Bay in Hobart in December 2015.

Alan's contributions to the Biometrics Community extend well beyond his contributions to IBS. Alan has played an active professional role as a member of the Australian Bureau of Statistics Methodology Advisory Committee, a Council Member of the Institute for Mathematical Statistics, a member of the Europe Committee of the Australian Academy of Science, a Member of the Section Committee of the Australian Academy of Science, and as a member of the Accreditation Committee of the Statistical Society of Australia.

Alan was the Editor-in-Chief of the Australian and New Zealand Journal of Statistics from 2012 to 2015. This involved work at both ends of the publication process, namely handling over 200 submissions per year and approving final proofs for the approximately 25 papers published each year. Before taking on this role, Alan was the Applications Editor for 3 years. He has been an associate editor of several of the top statistics journals in addition to Biometrics including: The Annals of Statistics (1998-2003), The Journal of the American Statistical Association (2005-2011), Bernoulli (2004-2009), The Australian and New

Zealand Journal of Statistics (1993-2009), and The International Journal of Biostatistics (2006-2009). Alan was appointed to three editorial boards while in his thirties, served at least two terms on all of them and became one of the longest serving associate editors to Biometrics.

Alan has published extensively and widely in statistical methodology, including a research monograph on statistical inference and another on maximum likelihood estimation in models for survey data. His research has more than 400 citations annually, his total citation count exceeds 5700 (all data as per Google Scholar, retrieved March 2018), and his h-index is more than 40 and he has fifteen publications that have attracted more than 100 citations. His paper on modelling the abundance of rare species (Welsh et al, 1996, Ecological Modelling) has attracted a total of 434 citations. In the last 10 years, most of his publications have appeared in top statistical journals including the Annals of Statistics, the Journal of the American Statistical Association, the Journal of the Royal Statistical Society Series B, Biometrika, Biometrics and Statistica Sinica. His recent work continues to be highly cited, for example his work on fitting and interpreting occupancy models (Welsh et al, 2013, PLoS One) and on model selection in linear mixed models (Scealy, Mueller and Welsh, 2013, Statistical Science) have already more than 100 citations.

His past accolades include being elected fellow of the Institute of Mathematical Statistics in 1990 when Alan was only 30 years old, the American Statistical Association (since 2001) and the Australian Academy of Science (since 2007). Alan has been awarded the Peter William Stroud Prize (1984), the P.A.P. Moran Prize (1987), both by the Australian National University for his PhD thesis, the Moran Medal (1990) by the Australian Academy of Science for his research achievements in theoretical and applied statistics, and the Pitman Medal (2012) of the Statistical Society of Australia for "*outstanding achievement in, and contribution to, the discipline of Statistics*".

Most recently, Alan was awarded the prestigious Alf Cornish Award in 2017. This award recognizes a member in the Australasian Region who has given long-time service to the Biometric Society and to the advancement of biometry.

Alan is also a wonderful mentor, colleague and friend, to the nominator and numerous junior academics and biometricians outside academia. In the last ten years alone, Alan supervised 4 MPhil candidates, 6 PhD candidates and 5 post-doctoral research associates. He has published jointly with all his post-doctoral research associates; 4 of whom have gone on to continuing academic positions. The supervision of the research associates has both benefitted his research and provided opportunities for training and mentoring for young researchers.

Alan excels as a teacher and scholar: Significant invited presentations in the last the years include the Taipei International Statistics Workshop, Taipei (2006), The Belz Lecture to The Statistical Society of Australia Inc. Victorian Branch (2007),

Oberwolfach Workshop (2007), the Association Statistique Suisse, Bern, Switzerland (2009), the International Conference on Robust Statistics (ICORS), Parma, Italy (2009), the New Zealand Statistical Association Conference (2011), the Institute of Statistical Mathematics Symposium on Environmental Statistics, Tokyo, Japan (2013, 2014, 2015, 2016) and The Lancaster Lecture to The Statistical Society of Australia Inc. NSW Branch (2013). Alan has attracted more than $4M of funding through numerous grants internationally and nationally, including four Australian Research Council Discovery Projects since 2008.

In conclusion, Alan is a most deserving recipient of an Honorary Life Membership of the International Biometric Society.

Alan Welsh receiving his IBS Honorary Life Membership at the International Biometrics Conference in Barcelona.

Pictured: Louise Ryan (President, IBS), Kaye Basford (previous recipient of Honorary Life Membership), Alan Welsh (President-elect, IBS-AR) and Samuel Mueller (President, IBS-AR).

Member Profiles

Thank you to Francis Hui for kindly agreeing to be profiled. 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.

Francis Hui
Mathematical Sciences Institute, The Australian National University

When and why did you join IBS?

I joined IBS in 2011 before the IBS-AR conference in Kiama. I don't recall exactly why I joined at the time, but given the pragmatic nature of both my personality and my approach to statistics, I can only hypothesize that it was probably because student membership was free and I would get a discount to go to the conference. What I can be confident in saying now is that it was an awesome decision to join the society. The IBS covers the whole breath of theoretical, methodological, computational, and applied statistics, all of which is motivated by biometry data. This suits me very well as I tend to dabble in all of these, while applying them to ecological and medical studies.

What biometrics related work do you do?

Like my fellow mid-career member Ian Renner, who starred in the last edition of member profiles, a fair portion of my research is related to ecological statistics. This includes model-based approaches to single species as well as species communities, where I have considered different methods of estimation, variable selection, clustering, and dimension reduction. More recently, I have started looking into a little bit of mental health and clinical trial data, which have motivated me to muck around with multivariate longitudinal and nested mixed models, semiparametric regression, and approaches to handling missing data.

What other research interests do you have?

Does watching copious amount of Japanese animation count???

What is your most memorable conference moment?

My most memorable "academic" conference moment would probably have to be IBC 2014 in Florence, where I first got formally introduced to Samuel Mueller (USYD) and Alan Welsh (ANU). I was about six months away from completing my PhD then, and they dropped a hint to me about the fact that they were looking for a post-doc. The rest is history as they say, and so I have to thank IBC 2014 for getting me a post-doc and eventually a continuing position at the ANU.

Non-academically, the IBS-AR conference in Kiama 2011 sticks in my mind not just because it was my first ever conference, but also because David Warton (UNSW) saw a breathalyzer machine at the hotel bar and thought it a great idea to collect data on how well biometricians from Australasia handle their alcohol. I was inspired at that moment to consider doing a PhD with him and Scott Foster (CSIRO), and the rest is, well, history.
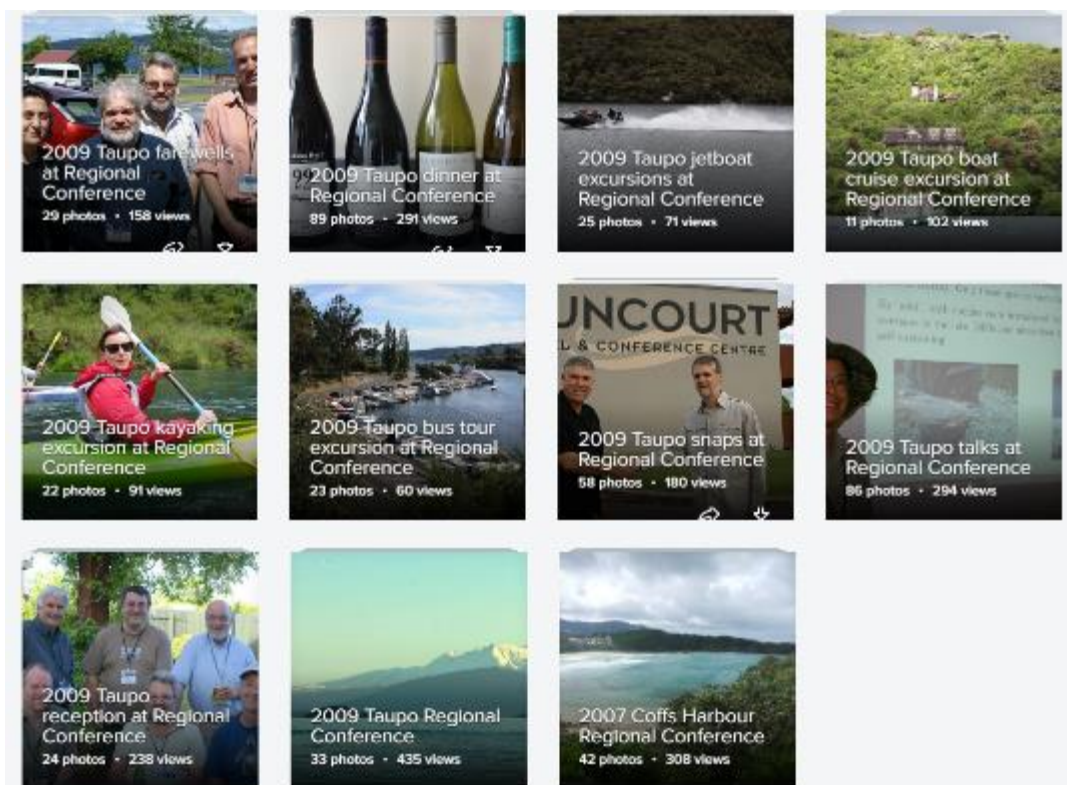
Where do you see IBS-AR as a professional organisation in 10 years from now?
I guess the right thing to say will be that I envision IBS-AR to become an increasingly powerful social network that statisticians from all walks of biometry will utilize in forming new collaborations and pathways for research. However informally, 10 years from now I see IBS-AR as continuing to proudly uphold traditions such as a drinking tour and speed poster talks that must rhyme at every IBS-AR conference.

Did you know?

Photos from past IBS-AR conferences are available here:
https://www.flickr.com/photos/australasian-biometrics/albums

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

March 2018, Volume 23, Issue 1

Daniel W. Gladish, Daniel E. Pagendam, Luk J. M. Peeters, Petra M. Kuhnert, and Jai Vaze. Emulation engines: choice and quantification of uncertainty for complex hydrological models.

Emlyn R. Williams and Hans-Peter Piepho. An Evaluation of error variance bias in spatial designs.

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

Biometrics

March 2018, Volume 74, Issue 1

David I. Warton. Why you cannot transform your way out of trouble for small counts.

Richard J. Barker, Matthew R. Schofield, William A. Link, and John R. Sauer. On the reliability of N-mixture models for count data

June 2018, Volume 74, Issue 2

Matthew R. Schofield, Richard J. Barker and Nicholas Gelling. Continuous-time capture–recapture in closed populations.

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

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.

Special Features

Australasian Applied Statistics Conference 2018

AASC18, 3-7 Dec 2018

Millennium Hotel Rotorua

http://www.aasc.nz/

Registration and Abstract Submission Now Open!

The Australasian Applied Statistics Conference is 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. Join us for AASC18 and pre-conference workshops, being held from 3rd - 7th December 2018 at the Millennium Hotel Rotorua.

The themes of AASC18 are big data analytics, reproducible research, history of ANOVA and REML, experimental design, statistical consultancy in the biosciences, and applied statistics. Our exciting group of invited speakers and workshop presenters will help explore these themes in various contexts. For more information can be found on the conference website: http://www.aasc.nz/.

We look forward to welcoming you to Rotorua for AASC18.

David Baird (Chair), Chris Triggs (Treasurer), Vanessa Cave (Secretary)

Ranked Set Sampling Symposium

Join us in Adelaide, 27 – 28 September for captivating discussions on the theory and practice of sampling in agricultural and natural resource research centred around the idea of ranked set sampling. The details of registration and abstract submission are on https://rankedsetsymposium2018.website/.

2018 Joint NZSA and ORSNZ Conference

The New Zealand Statistical Association (NZSA) and the Operations Research Society of New Zealand (ORSNZ) are holding a joint conference hosted by Massey University at their Manawatu campus in 2018. The conference presentations and other events will be held from Tuesday 27th November to Friday 30th November 2018. For more information, visit http://www.massey.ac.nz/nzsa2018.

New Zealand Mathematics and Statistics Postgraduate Conference