

The New Zealand Statistical Association stats.org.nz

Number 72

October 2010

NZSA 2010 Conference Massey University Palmerston North June 29 - July 1



Brigid Betz-Stablein and Ingram Olkin

#### **Official Report**

The International Conference on Statistical Methodologies and Related Topics (ICSMRT) was held in conjunction with the 61st New Zealand Statistical Association (NZSA) Annual Conference, on Massey University's Palmerston North campus 29 June to 1 July. ICSMRT was held to celebrate the research of Professor Chin-Diew Lai of the Institute of Fundamental Sciences, Massey University.

Despite being held in winter in New Zealand, the conference was attended by around 100 delegates. About 30% of these were from outside New Zealand reflecting Professor Lai's high standing in the international statistical community.

The plenary speakers were:

Professor Ingram Olkin, Professor of Statistics and of Education, Stanford University.

Professor N. Balakrishnan, Professor of Statistics, Department of Mathematics and Statistics, McMaster University, Hamilton, Canada.

Professor Ching-Shui Cheng, Department of Statistics, University of California, Berkeley.

Professor Chin-Diew Lai, Massey University. Professor Olkin spoke on *Life Distributions in* Survival Analysis and Reliability: Structure of



Three Wise Men: Alastair Scott, Stephen Haslett and Len Cook

Semiparametric Families. Professor Balakrishnan's talk was entitled Some Cure Rate Models and Associated Inference and Application to Cutaneous Melanoma Data, and Professor Cheng's talk was Multistratum Fractional Factorial Designs.

There was a strand running through the conference celebrating the work of Professor Chin-Diew Lai of Massey University. He spoke about *Distributions for Late Life Deceleration Phenomenon*. Other talks focused on reliability and distribution theory, reflecting Professor Lai's own research interests.



*Chin-Diew Lai (centre front) with friends at the 2010 NZSA conference* 

Other sessions covered statistical theory, biostatistics, official statistics, statistics in society, and statistical education.

International guests included Professor Allan Sampson of the Department of Statistics, University

Published by the New Zealand Statistical Association (Inc.), P.O. Box 1731, Wellington, New Zealand. The views expressed by contributors to this *Newsletter* should not be attributed to the New Zealand Statistical Association.



Attendees at the NZSA Conference 29 June - 1 July 2010 at Massey University, Palmerston North

of Pittsburgh, who spoke on *Multivariate Modelling Issues for Multiple Outcomes in Post-mortem Tissue Studies*, and Boxin Tang, Professor of Statistics, Department of Statistics and Actuarial Science, Simon Fraser University, who spoke on *Robust Designs Through Partially Clear Two-Factor Interactions*.

Mike Camden, Len Cook and Mike Doherty were elected life members of NZSA, reflecting their major contributions to the association through statistical education, official statistics and policy, and official statistics methodology, respectively, as well as to the NZSA. Professor Stephen Haslett, who is currently the Managing Editor of the Australian and New Zealand Journal of Statistics, was awarded the NZSA Campbell Award for his original statistical research, contribution to statistical education, key role in statistical consulting, and contributions to promoting Statistics in New Zealand. [Get more details and pictures of these honours on page 8. - ed]

The conference was an enjoyable and interesting experience for all involved, especially for those who braved the wind and rain on the last afternoon of the conference to visit the wind farm electricity generation pylons on the hills surrounding Palmerston North.

Stephen Haslett

#### **Student Prizes**

At the 2010 NZSA conference at Massey University in Palmerston North, 29 June – 1 July 2010, there were 11 presentations by students. This year Hoare Research Software Limited and NZSA each sponsored \$500, giving a prize pool of \$1000. HRS has been supporting this prize since 1994, and a list of winners that have been generously sponsored is at http://stats.org.nz/HRS\_student\_prizes.shtml

The winner, receiving \$500, was Ting Wang (Massey University, Palmerston North) for her presentation on *Markov-modulated Hawkes Process with Stepwise Decay*. Second equal, receiving \$250 each, were Sarojinie Fernando (Massey University, Palmerston North) for *Spatio-temporal Modelling of* 

Relative Risk and Chew-Seng Chee (University of Auckland) for Mixture-based Nonparametric Density Estimation: Maximum Likelihood vs Least Squares. Harold Henderson

#### **Student Comments**

First and foremost, I wish to express my sincere gratitude to HRS and NZSA for their generosity



Ting Wang and Sarojinie Fernando (Massey University) and Chew-Seng Chee (University of Auckland), student prize winners

in sponsoring the student prizes at the NZSA Conference 2010. One of my most memorable experiences as a participant is the genuine kindness of strangers towards me. Personally, this conference is also a good platform for exposure to international research and meeting statisticians from around the world.

#### Chew Chee

Though I have already attended and presented at a number of conferences, this was my first international conference, so I was looking forward to listening to the talks from different statistical directions and also to getting feedback on my own research from the audience. Attending the conference was a great opportunity especially for the students who were able to present their work and earn generous prizes.

There was a strand running through this conference celebrating the work of Prof. Chin-Diew Lai from Massey University. It was interesting to learn about his large body of research.

Apart from the research talks, I had the chance

to attend the dinner at the Convention Centre in Palmerston North city. I really enjoyed eating delicious food and chatting with many of the overseas attendees. Here I would like to mention about talking to Prof. Ingram Olkin and Prof. Allan Sampson about their lives.

I would like to thank the organising committee of the Conference.

Sarojinie Fernando

#### **Young Statisticians Report**

The 2010 NZSA conference was hosted by Massey University in Palmerston North. This year there were several events specifically for the 'Young Statisticians'. The traditional Young Statisticians Breakfast was sponsored by Statistics New Zealand. The night before, a bowling tournament was held, giving young statisticians the opportunity to take their competitiveness outside the classroom. The highlight for me was the afternoon session. The session was organized as a casual opportunity for the young statisticians to ask questions of senior statisticians in academia, the industry and government roles. Geoff Jones (Massey University), Andrew McLachlan (Plant and Food Research), and Walter Davis (Statistics New Zealand) shared their experiences, and offered us advice. We were especially pleased to have Ingram Olkin (Stanford University) and Allan Sampson (University of Pittsburg), our American colleagues, volunteer their time. This was a very valuable experience for us all.

The Conference dinner was very enjoyable and gave more opportunities for young statisticians to mix with both national and international talent. Student prizes were also awarded to the total value of \$1000, sponsored by HRS and NZSA. [See p3 - ed.]



Young statisticians 'afternoon session; can you spot the two "old" statisticians in this group shot?



Some attendees at a Conference lunch

**Conference photo collage at** stats.org.nz/images/NZSA2010Collage.pdf

To sum up, the Conference was of great benefit and provided many opportunities for us to learn from each other, our more senior colleagues and international attendees. As a member of the organizing committee this year it was very exciting for me to see the Conference from the planning stages through to completion. It would be great to see others take up this opportunity. I encourage all 'young statisticians', especially students, to attend and present at future NZSA Conferences. I look forward to seeing you all in Auckland next year!

Brigid Betz-Stablein

## NZSA 2011 Conference Auckland, 28-31 August www.stat.auckland.ac.nz/nzsa2011/

The 2011 NZSA Conference is to be held at the University of Auckland from Sunday August 28 (evening mixer) to Wednesday August 31. Preliminary Keynote Speakers:

Biostatistics – Professor Xihong Lin, Harvard Genetics – Dr Robert Gentleman, Genentech Machine Learning and Data Mining – Professor Trevor Hastie, Stanford University

- Missing Data Professor Alan Welsh, ANU
- Statistical Methods Professor Nick Fisher, ValueMetrics Australia

The themes of the conference are (but not restricted to): applied statistics, biometrics, bioinformatics, biostatistics, data mining, ecology, experimental design, genetics, probability and stochastic processes, statistical computing and statistical graphics, sample surveys, statistics education, quality improvement and industrial statistics. It is anticipated that there will be a half day session in honour of Professor Alan Lee. James Curran

#### New Zealand Mathematics and Statistics Postgraduate Conference 22-25 November 2010

The 4th Annual New Zealand Mathematics and Statistics Postgraduate Conference will be held in Westport from 22-25 November. The major goal of the NZMASP conference will be a strong exchange of ideas among NZ postgraduates in mathematics and statistics. Other goals include giving NZ postgraduate students practice in presenting their material, networking with other students and being introduced to conference etiquette in preparation and encouragement for more formal domestic and international conferences in mathematics and statistics. Postgraduate students have found the previous conferences both useful and enjoyable. This year's conference has been supported by the following organizations:

New Zealand Mathematical Society

New Zealand Statistical Association

Australia and New Zealand Industrial and Applied Mathematics

New Zealand Institute of Mathematics and its Applications

New Zealand Institute for Advanced Studies

Hoare Research Software Ltd.

SAS Institute Inc.

For more details please visit our website: http://www.math.canterbury.ac.nz/nzmasp2010

> Shannon Ezzat NZMASP Organising Committee

### Editorial

Jennifer has given a nice discussion of what's been happening in Christchurch, so I will be brief and just say that this newsletter editor survived relatively well, her house is still standing and she can now sleep through a 4.6 earthquake without waking up (one of life's little success stories).



I would like to put in a disclaimer (for the safety of my wonderful contributors): All photo captions are put in by me (except for the ones Harold did) ... Walter and Andrew M, hopefully I have enough credit with you both to get away with this one!

I seem to have run out of room in this HUGE edition of the newsletter, so I will leave my puzzle for next time. Thanks to all the regular and special contributors, and I hope you enjoy the NZSA Newsletter.

Esther Meenken

### Newsletter on Web

An online version of this *Newsletter* is available at <u>http://stats.org.nz/Newsletter72/index.htm</u>

It will be regularly updated with information and your letters.

Email: <a href="mailto:esther.meenken@plantandfood.co.nz">esther.meenken@plantandfood.co.nz</a>

### Join the NZSA

A membership application / change of address form is available at <u>stats.org.nz/form.php</u>

## **ANZJS Corner**

#### **ANZJS Editors' Column**

For the first time in the twelve years I have been an editor of ANZJS, we do not have a backlog of papers to publish. So please submit now! Once through the review process, we can promise that your paper will quickly be in print. Even submission has become much easier



with ScholarOne, our new electronic submission system, now up and running. Just go to the website <u>http://mc.manuscriptcentral.com/anzjs</u> and register before submission if you haven't already. All you will then need to do is upload your pdf files to the website.

ScholarOne is also making it much easier for the editors to monitor papers once submitted, and avoid the extensive separate spreadsheets which were previously used. An improved interface for authors has been another bonus.

The editors are very aware however that the quality of ANZJS depends on the papers submitted. We currently have a high rejection rate, around 80%, but many of these are papers that simply report analyses using standard methods so are more suited to a subject matter journal. So if instead you have an interesting application or a new theoretical advance we would be very pleased to hear from you. We recognise we need support, especially from Australian and New Zealand statistics researchers, for the journal to be a success. Having a better submission and tracking system is not enough!

The editors' annual face-to-face meeting will be held in Melbourne on 29 and 30 November. This is fast becoming an essential forum for the editors to discuss policy issues at greater length than is possible with our regular teleconferences, and it also makes it possible to meet and discuss ANZJS issues with our publishers Wiley-Blackwell. This year we will also have a link to Singapore where Wiley-Blackwell's technical editing staff are now located, and another session on ScholarOne Manuscripts so we can get to grips with its finer points.



The publishing contract with Wiley-Blackwell is currently under final negotiation. The contract will be for five years, and as an incentive Wiley-Blackwell are offering Online Early as a free service in addition to hosting additional material for ANZJS papers on its website, and allowing coloured pdf versions of published papers. Having the website as an adjunct to the hardcopy version of the journal means you can put colour versions of graphical material on the website without paying page charges for colour. Coloured diagrams can also be in the pdf version of your paper for download, even if (for cost reasons) the hardcopy version needs to remain in black and white.

The final good news is that book reviews will soon reappear after a long absence.

Stephen Haslett Managing Editor, ANZJS anzjs@statsoc.org.au

## President's Column



The biggest event to have happened for statisticians in Canterbury recently has been the 4th September earthquake.

I had a telephone call 3 days after the event from someone in my family who lives in the North Island who said they were all a little bored of the earthquake

being in the news! Day 3!! Here we are, 21 days later, and the quake is still the issue that is taking up so much of my time as department head, as a committed parent and as a caring friend. Even today what's front page of the newspaper – the earthquake. And this is where statistics has played such an important role in this whole ongoing event. Without statistics how could we have got out the message that 4th September was just the beginning? Here are some statistics that made it to today's front page: we have been shaken about every 30 minutes since 4th September (today is 25 September), there have been over 1000 quakes greater than magnitude 2 since 4th September, and only on Tuesday 21st September did we get a 12 hour period with no quakes.

These descriptions of the quakes in *The Press* have been presented in scales everyone understands – time. It was a major event, and continues to be so. It's understandable that those of us in Canterbury are exhausted – we get woken each night from our sleep.

The descriptions and graphics have been effective in giving the message, but none as effective as an excellent graphic *The Press* has been running. Every day or so, the front page of The Press has had a very clear data-display. There is a vertical line for each quake, and the lines are grouped in 24 hour periods where the height of the vertical line is the quake-magnitude. This simple graphic quickly gets the message across about how much time in the last 24 hours we have spent being shaken. What is interesting is that we can understand time easily (e.g., we have had 118 minutes over the last 24 hours being shaken), but few have the appreciation of the log-scale and the magnitude of the quakes. The concept of a linear scale is so innate and ingrained that a log-scale is hard to understand for many. Is this an issue for our educators, or, is this something as statisticians we need to address? Using a log-scale is mathematically elegant but is it the appropriate scale to use for communicating to the general public about something as catastrophic as earthquakes?

My final message is, once again, I am humbled by the actions of the statistics community. We all received so many messages of support from statisticians in New Zealand and overseas. Thank you.

Jennifer Brown

### Submissions to the Newsletter

The Newsletter welcomes any submissions of interest to members of the NZSA. News about New Zealand statisticians, statistical meetings, statistical organisations, statistics in education, or statistical curiosities are suitable for inclusion. Letters that raise issues of importance to statistics in New Zealand are also welcomed. Photographs of recent gatherings and new appointees are of particular interest. Electronic submissions are preferred.

#### Next deadline 18 March, 2011

## Advertising In the Newsletter

The Newsletter accepts advertising of interest to statisticians in New Zealand. Advertising is placed subject to space considerations. Personal advertising by NZSA members will be published free. Other advertising is \$250 per page, \$140 per half page, and \$75 per quarter page. Other sizes can be quoted on request. All advertising requests should be directed to the editor.

### Editor

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## **Obituary John Nelder**

John Ashworth Nelder (1924-2010)



John at a Rothamsted Conference in 2004 John Nelder died on Saturday 7th August 2010 in Luton & Dunstable Hospital, UK, where he was recovering from a fall. John was very active, even at the age of 85, and retained the strong interest in our work – and statistics generally – that we will all remember with deep affection. However, he was becoming increasingly frail and it was a shock but perhaps, in retrospect, not a surprise to hear that he had died peacefully in his sleep.

John was born on 8th October 1924 in Dulverton, Somerset, UK. He was educated at Blundell's School and at Sidney Sussex College, Cambridge where he read Mathematics (interrupted by war service in the RAF) from 1942-8, and then took the Diploma in Mathematical Statistics.

Most of John's formal career was spent as a statistician in the UK Agricultural Research Service. His first job, from October 1949, was at the newly set-up Vegetable Research Station, Wellesbourne UK (NVRS). Then, in 1968, he became Head of the Statistics Department at Rothamsted, and continued there until his first retirement in 1984. The role of statistician there was very conducive for John, not only because of his strong interests in biology (and especially ornithology), but also because it allowed him to display his outstanding skill of developing new statistical theory to solve real biological problems. At NVRS, John developed the theory of general balance to provide a unifying framework for the wide range of designs that are needed in agricultural research (see Nelder, 1965, *Proceedings of the Royal Society, Series A*). Then, at Rothamsted, he developed the theory of generalized linear models with the late Robert Wedderburn, to overcome the problems of analysing response variables like counts and proportions that do not come from Normal distributions; see the citation classic Nelder & Wedderburn (1972, *JRSSA*) or the book by McCullagh & Nelder (1989).

This idea of directing statistical research at real biological problems began with the two earlier Heads of Statistics at Rothamsted, RA Fisher and Frank Yates, to whom John became such a worthy successor. However, John emphasized an important additional aspect, namely that the new theory should be implemented in widely-distributed statistical software to enable it to become widely used in practice.

The initial aim for John's first statistical program, Genstat, was to provide analysis of variance for generally balanced designs. The underlying ideas took shape in 1965–1966 when John visited the Waite Institute of the University of Adelaide to work with Graham Wilkinson, who was then on secondment there from CSIRO. More intensive development began in 1968 when John joined Rothamsted, and the wider statistical and computing expertise available at Rothamsted allowed him to develop Genstat as a truly general-purpose statistical system. GenStat continues in widespread use today, and is distributed by VSN International to users in more than 120 countries. I was honoured to take over leadership of the GenStat development in 1985, after John's retirement from Rothamsted, and glad that John continued as an enthusiastic (although sometimes critical!) user.

John's other two major contributions to statistical computing came about while he was Chairman of the Royal Statistical Society's Working Party on Statistical Computing (1967-1984). The first, in 1968, was the Applied Statistics Algorithms, which aimed to support good computing practice by providing implementations of the basic building blocks of a statistical program. Later much more complicated techniques were added, and the publication of an algorithm for a new piece of methodology became an equally valid (and perhaps more effective) way of registering a new idea. The second contribution was the program GLIM which first appeared in 1974, with 4 further releases up to the final GLIM4 in 1993. This implemented Nelder & Wedderburn's generalized linear models, and led to a dramatic improvement in the quality of statistical analysis. It had an immense influence on the new generation of practical statisticians. For many it provided their first experience of analysing data interactively, encouraging them to think about each data set, instead of directing it at a black box with a request for "statistics all".

John retired from Rothamsted in 1984 at the age of 60, but continued his research at Imperial College (of Science, Technology, & Medicine, London) where, since 1972, he had been a Visiting Professor. He retired from Imperial College in October 2009. His first task there was to lead the GLIMPSE project, which was funded by the UK Government's Alvey programme to produce a knowledge-based front-end for GLIM. The GLIMPSE system provided advice on data validation, data exploration and model selection. It contained many very interesting and far-sighted ideas and, when it was released in 1989, it was one of the first statistical expert systems to be made available commercially – and perhaps one of the few to deliver what the originators had promised.

John's other major activity at Imperial College was his collaboration with Youngjo Lee to develop the theory of hierarchical generalized linear models (HGLMs); see the papers by Lee & Nelder (1996, JRSSB; 2001, Biometrika; 2006, Applied Statistics) or the book by Lee, Nelder & Pawitan (2006). HGLMs aimed to provide satisfactory methods of analysis for non-Normal data when there is more than one source of random variation. John viewed generalized linear models as a way of liberating statisticians from the "tyranny" of the Normal distribution, and was a little bemused to see this same tyranny re-established in methods that were devised initially to extend them. These generalized linear mixed models (GLMMs) catered for additional random variation by adding additional Normally-distributed random effects into the linear model of the generalized linear model. John and Youngjo's new HGLMs extended the methodology to include the beta-binomial, gamma and inverse-gamma distributions, and showed that the conjugate HGLMs (namely binomial GLM with additional beta-binomial random effects, or Poisson with gamma, or gamma with inverse gamma) had attractive advantages in their mathematical theory, computing algorithms and philosophical interpretation. HGLMs can be fitted very efficiently by two interlinked generalized linear models. So we have access to a familiar repertoire of model checking techniques, and can base our choice of models on the data rather than on prejudice or software limitations. Also, the analysis can still be carried out interactively - always a very important consideration for John.

With John's many achievements in statistics, it is important not to forget his other interests. He shared a keen interest in gardening with his wife Mary (nee Hawkes), whom he met and married in 1955 while he was at NVRS; they have a son Jan and a daughter Rosalind. John and Mary were also keen birdwatchers: John combined ornithology with statistics by making a rigorous statistical assessment of the implausibility of the many rarities reported from Hastings during 1892-1930 (the "Hastings Rarities"); this provided convincing evidence for their subsequent rejection (see Nelder, 1962, *British Birds*). Finally he was a very keen musician and a virtuoso piano player, and his musical soirees at his house in Redbourn will be remembered by the attendees with lasting pleasure.

John received many honours during his career. He had a DSc from University of Birmingham, and received an honorary DSc from Université Paul Sabatier, Toulouse, in 1981. He was also elected a Fellow of the Royal Society in 1981. He was President of the International Biometric Society from 1978-1979 and was made an Honorary Life Member in 2006. He was President of the Royal Statistical Society from 1985-1986 and was awarded Guy Medals of the Society in Silver in 1977, and in Gold in 2005. He wrote three books and over 120 papers in statistical and biological journals, including two citation classics: the Nelder & Wedderburn (1972, JRSSA) paper on generalized linear models already mentioned, and his paper written with Roger Mead while at NVRS describing their now very widelyused adaptive simplex optimization algorithm (see Nelder & Mead 1965, Computer Journal).

More important perhaps is his statistical legacy of general balance, generalized linear models, hierarchical general linear models – and GenStat – which will keep him always in our thoughts.

stats.org.nz

Roger Payne VSN International

#### NZSA website

The NZSA website is now at <u>stats.org.nz</u> Vanessa Cave, at AgResearch Ruakura, is the webmaster. Please send feedback and items for the web to Vanessa at <u>Vanessa.Cave@</u> AgResearch.co.nz



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## Awards

## Campbell Award



The last three or four months has been a busy period for the NZSA Awards Committee. Arguably the most important item on the agenda was the 2010 Campbell Award. This is the premier honour bestowed by the NZSA, and is awarded in recognition of an individual's contribution to the promotion and development of statistics in New Zealand. Following a call for nominations in April 2010 the Awards Committee received a number of submissions. However, the members of the Committee were in complete agreement that the outstanding nomination was for Professor Steve Haslett (pictured above).

The Campbell Award was presented to Steve at the Conference dinner during the 2010 NZ Statistical Conference in Palmerston North. His citation read as follows.

"The Campbell Award can be granted for excellence with respect to any one of four separate criteria - loosely speaking, research, education, consulting, and promotion of statistics - yet it can be argued that Professor Steve Haslett satisfies them all.

On the research front, Professor Haslett has published more than 75 refereed articles. His range is broad, going from significant applied work (particularly in the field of History, with Professor Miles Fairburn) to theoretical advances (most notably on small area estimation, and on mixed linear models with Professor Simo Puntanen). He has given strong support to the statistics research environment, most visibly through his involvement with the Australian and New Zealand Journal of Statistics, for which he was an Associate Editor from 1998-2004, Theory and Methods Editor from 2004-2008 and has been Managing Editor since 2009.

As an educator, Professor Haslett has been involved with statistics teaching in New Zealand universities over a period of 30 years. His vast practical experience allied to his deep theoretical understanding make him an effective classroom teacher and a sagacious contributor on matters of curriculum development.

Professor Haslett has made enormous contributions in statistical consulting, both in New Zealand and overseas. His work on poverty mapping in developing countries is particularly noteworthy, and reflects his desire to see statistics applied to help solve real social problems. This humanitarian service sheds lustre on our discipline.

Professor Haslett has provided further service through his long term involvement with the New Zealand Statistical Association. He was Convenor of the Survey Appraisals and Public Questions Committee of NZSA from 1990-1999, and President of the Association from 2002-2004."

### Life Memberships

Honorary Life Membership are awarded to persons with a long and distinguished record of service to the Association. This year the Awards Committee decided on three highly deserving recipients - Mike Camden, Len Cook and Mike Doherty (pictured below). They were presented with commemorative certificates at the conference dinner.



Life Members (L to R) Mike Camden, Len Cook and Mike Doherty

## **Campbell Bequest Fund Awards**

The Campbell Bequest Fund can provide funding for special projects, typically up to a total value of \$1500 per year. Details of the principles guiding the selection process for submitted projects are given at <a href="http://stats.org.nz/Campbell\_Bequest\_Fund.shtml">http://stats.org.nz/Campbell\_Bequest\_Fund.shtml</a>. The Awards Committee recently granted awards of \$500 to each of the following two projects.

• A grant towards the national prizes for the International Statistical Literacy Project (ISLP) international poster competition. The mission of this ISI organisation is to support, create and participate in statistical literacy activities and promotion around the world. The aim of the poster competition is to promote statistics learning and education at the school level.

• Sponsorship for the Women in Statistics Miniconference to be held (on 20.10.2010) at Victoria University to celebrate World Statistics Day.

### Plus ça change...

Prior to the 2010 AGM, the Awards Committee comprised Roger Littlejohn (Convenor, on leave November 2009 - March 2010), Martin Hazelton (Acting Convenor), Jennifer Brown (*ex officio* as NZSA President), Harold Henderson and James Curran. At the AGM the following were elected: Martin Hazelton (Convenor), Jennifer Brown (*ex officio* as NZSA President), Harold Henderson, Roger Littlejohn and James Curran. Plus c'est la même chose, indeed!

> Martin Hazelton Convenor, NZSA Awards Committee

## American Statistical Association Fellowship

Paul Murrell been elected a Fellow of the American



Statistical Association in recognition of his "outstanding professional contributions to and leadership in the field of statistical science". See the AMSTAT press release

http://www.amstat.org/ about/pressreleases/2010Fel lowsAnnounced.pdf for more information

## Statistical Computing and Graphics Award



Ross Ihaka and Robert Gentleman

The first bi-annual Statistical Computing and Graphics Award has been jointly awarded to Ross Ihaka and Robert Gentleman (pictured above, L to R) in recognition for their work in initiating the R Project for Statistical Computing. Further details are at: http://stat-computing.org/awards/

## **Conference Brief**

#### **Bayes on the Beach 2010**

Surfers Paradise, Australia 4-5 October 2010 http://www.ccdamc.org.au/utilities/news/ beachbayes2010.jsp

#### Women in Statistics Conference

Victoria University, New Zealand 20 October 2010

#### NZMASP Conference

New Zealand Mathematics and Statistics Postgraduate Conference

Westport, New Zealand (p3-4) 22-25 November 2010

http://www.math.canterbury.ac.nz/nzmasp2010

#### **International Biometric Conference**

*Federal University of Santa Catarina, UFSC, Florianapolis, Brazil* 5-10 December 2010

http://www.rbras.org.br/~ibcfloripa2010/

#### Australian Statistical Conference

*Esplanade Hotel, Fremantle, Australia* 6-10 December 2010 http://www.promaco.com.au/2010/asc/

## The 2010 IEEE International Conference on Data Mining (ICDM 2010)

Building 5 (at Haymarket Campus), the University of Technology, Sydney 13-17 December 2010 http://datamining.it.uts.edu.au/icdm10/

#### Mathematics and Statistics-in-Industry Study Group (MISG) 2011

*RMIT University City Campus, Melbourne* 6 - 11 February 2011 <u>http://www.rmit.edu.au/maths/misg</u>

#### NZSA 2011 Conference University of Auckland, New Zealand (p3) 28-31 August 2011 www.stat.auckland.ac.nz/nzsa2011/

Delta 2011 Conference on the teaching and learning of undergraduate mathematics and statistics *Rotorua, New Zealand* 27 Nov-2 Dec 2011 http://www.delta2011.co.nz/delta2011/



#### **United Nations**

The 20th of October 2010 will be the first ever World Statistics Day (WSD), a day created to recognize the achievements of the global statistics systems at both national and international levels. The day, which was created by the UN Statistics Division, will advocate the work of many statisticians across the world who work within different settings, cultures and domains. The three key words chosen to highlight WSD are Service, Professionalism and Integrity. The celebration of the World Statistics Day will hope to help strengthen the awareness and trust of the public in official statistics. United Nations Secretary General Ban Ki-moon stated "Let us make this historic World Statistics Day a success by acknowledging and celebrating the role of statistics in the social and economic development of our societies and by dedicating further efforts and resources to strengthening national statistical capacity". http:// unstats.un.org/unsd/wsd/

#### OECD

The OECD is excited to be part of World Statistics Day with the Statistics Directorate leading the celebrations. Planning is well underway and day will be centred around a "World Statistics Day Interactive Session" to be held at the OECD and chaired by Mr. Pier Carlo Padoan, Deputy Secretary General. <u>http://www.oecd.org/document/63/0,3343</u>, en\_2825\_35732166\_45908863\_1\_1\_1\_1\_00.html

#### **Geneva Conference**

The Geneva Conference on 20 October 2010 will discuss the role of statistics in solving the most urgent issues shaping today's economic, social and environmental agenda. Professionals, policy -makers, academia and civil society can ask statistical practitioners long awaited questions that could evolve statistics into a valuable tool for every day life. Areas include work in Measuring Progress of Societies, Data Visualisation and Data Access. http://www.unctad.info/en/World-Statistics-Day-Geneva/

#### **Social Sites**

World Statistics Day is on Facebook <u>http://www.facebook.com/pages/World-Statistics-Day-2010/353189579699</u> and twitter <u>http://twitter.com/WorldStatDay</u>. Wikiprogress is also planning on celebrating WSD. Stay tuned for further details. <u>http://www.wikiprogress.org/index.php/World\_Statistics\_Day</u>

## **Activities in New Zealand**

### Women in Statistics Conference

Maclaurin Lecture Theatre: MC LT 102 Gate 5, Kelburn Campus, Victoria University To promote and celebrate women's achievement in statistics on World Statistics Day 20.10.2010 10.30 - 4.30pm No charge – light lunch provided

## Opening speech: Hon Pansy Wong (Minister of Women's Affairs)

Chair: Kim Hill (member Minister of Statistics Advisory Committee on Official Statistics) Invited speakers:

A secondaria de Des formas

- Associate Professor Jennifer Brown: President of the NZ Statistical Association and Head of Department of Mathematics and Statistics at the University of Canterbury
- Associate Professor Megan Clark, Head of School of Mathematics, Statistics and Operations Research, Victoria University of Wellington
- Professor Natalie Jackson, Professor of Demography, Director of Population Studies Centre, University of Waikato
- Lisa Davies, Owner, Kaipuke Consultants Ltd
- Rachael Milicich, Manager National Accounts, Statistics New Zealand
- Adjunct Professor Sharleen Forbes, School of Government, Victoria University and General Manager, Statistics New Zealand.

Please complete the online registration form for this seminar. Numbers are limited and places will be allocated on a first-come, first-served basis.

http://www2.stats.govt.nz/domino/ external/web/OSSSemReg.nsf/ Reg?OpenForm&refno=43404287&

Or, contact Lu Folau, <u>lu.folau@stats.govt.nz</u>

#### **Statistics New Zealand**

In honour of World Statistics Day, Statistics New Zealand is working with the Dominion Post and Air New Zealand to publish quiz questions to promote statistics and we need your help!

Questions must be: concise and written in plain English, and the fact should be based on information collected/published by Statistics NZ. We're keen to use questions that we can adapt to be region-specific where possible. If you have an interesting/fun idea for a quiz question, please email the question, answer and source to Kelly Gage by Wednesday, 6 October. For useful information visit <u>www.stats.govt.nz</u> Join us on <u>www.facebook.com/StatisticsNZ</u>

## **Focus on Education**

## NZSA Education Committee

#### **Education Committee**

Our meetings continue to be made exciting by the technology (as well as by the contents). At the last, we had 12 people in 4 places, connected by Stats NZ video, and phone. Our main interests at present are the new NCEA standards and software for schools.





The new NCEA achievement standards in statistics These will translate the curriculum's ideas into the assessment situation, and therefore have a major effect on what gets taught and learnt. We're now working through the NCEA Level 3 standards. Level x standards (where x = 1, 2, 3) come into use in 2010 + x. This link <u>http://www.tki.org.nz/e/community/</u> ncea/mathematics.php will let people access the Level 1 standards and assessment exemplars, and the draft level 2 standards. Level 3 comes out for consultation in 2011.

A shift in the software that students could access happens to coincide with the arrival of the new standards. For the Level 3 time series standard, till now Year 13 students and their teachers battle through the calculations that give moving averages and seasonal effects. They often use spreadsheet software. We hope that the students get to understand the process, and admire their results. They will now, or soon, be able to find software that does the calculations, with minimal setup effort. So what do we assess in future? We hope that students still understand the process and admire their results. Perhaps they will be freed to spend more energy interpreting and explaining the trend, cycles, seasonality, and residuals (and their forecasts) in context, and assessing how well their method works on their data. In fact the current Time Series standard (AS90641; <u>http://www.nzqa.govt.nz/</u> nqfdocs/ncea-resource/achievements/2006/as90641. doc) does ask for the thinking, but at Excellence:

Excellence: Report on the validity of the analysis (which involves: relevance, features, appropriateness, improvements, limitations, seasonal adjustment, comparisons, indexes).

Perhaps we need to arrange for these statistical thinking skills to be moved so that they are needed for Achievement and Merit as well as for Excellence.

#### **Statistical software for schools**

We are supporting the three initiatives below, and watching with great interest.

John Harraway and David Baird have been working on a version of GenStat that will meet school needs, and on activities that lead students through data exploration of some NZ datasets. Otago school teachers who have trialled this are very positive about it.

Chris Wild and colleagues are developing an R package that will present datasets and exploration tools to students in ways that encourage them to interact. The open-ended nature of R means that there are possibilities to take this interaction in new directions.

Doug Stirling is writing a free CAST e-book for students to use when studying for NCEA. It will be structured into parts corresponding to the current NCEA standards and will include dynamic interactive diagrams to explain concepts plus some exercises. The diagrams will also be provided as a collection of resources for teachers to use in class on a data projector.

#### Conferences

We'd like to congratulate committee member John Harraway on the 'awesome' ICOTS in Slovenia during July. (ICOTS = International Conference on the Teaching of Statistics). 26 NZers were there (including most of the committee), and presented 22 papers. The software initiatives above were presented.

The NZSA conference at Massey concluded with an education afternoon. Teachers from the region

joined us for presentations on R Commander and the initiatives above.

Next year's NZAMT (Maths Teachers') conference in Dunedin will have plenaries from Helen MacGillivray, president of IASE, and also from Pip Arnold.

#### **Other Issues**

We're also interested in science fairs (see separate item), curriculum developments across the Tasman, and statistics in the national standards for years 1 to 8. *Mike Camden* 

#### **Otago Mathematics Association**

A full day professional development workshop for the Otago Mathematics Association is being held on Wednesday 24 November in the Department of Mathematics and Statistics at the University of Otago for local high school mathematics teachers. It is intended to go over the use of *GenStat Schools* and provide a set of lessons for teachers to use when the new school year begins in 2011. It is hoped that David Baird will attend as well as the CEO of the company VSN, Stewart Andrews, who may be visiting Australia at the time. It is intended to video the proceedings of the workshop and make it available to any school in the country who may wish to use *GenStat Schools*.

The key for the program has just been released. There is a version of the package also free to use which is called *GenStat undergraduate* which will cover the statistical procedures used in the first three years at university. Students will be able to use this software at home as well.

There is a link to CAST on the GenStat site as well. John Harraway

### **International News**

London event 20/10/2010: World Statistics Day, Royal Statistical Society launch of the UK 10year statistical literacy campaign. Chris Wild (University of Auckland) has been invited to read a statistics education paper on "Towards more accessible conceptions of statistical inference" at the Royal Statistical Society in London. Other authors of the paper are Maxine Pfannkuch, Matt Regan (Auckland University) and Nicholas Horton (Smith College, USA). The paper will be published along with discussions in Series A of the Journal of the Royal Statistical Society. After this event a week of presentations and workshops will be held in London and Plymouth as part of the launch of the 10-year statistical literacy campaign. The kiwi contingent including Chris Triggs (University of Auckland) will feature heavily in these presentations for secondary

school and higher education levels. See: <u>www.rss.</u> <u>org.uk/main.asp?page=1321&event=1175</u> and <u>http://</u> www.rsscse.org.uk/news/rsscse-news/315-getstats

OZCOTS 2010, 9-10 December, Fremantle, Western Australia. This two-day satellite conference for statistics educators and practitioners, including universities and schools, industries and governments will be held in conjunction with ASC2010. Chris Wild (University of Auckland) is giving a keynote address covering both conferences. Other New Zealanders involved are: Sharleen Forbes (Victoria University) and Doug Stirling (Massey University). See: <u>http://www.promaco.com.au/2010/asc/ozcots.</u> <u>htm</u>

USCOTS 2011, 19-21 May, Cary, North Carolina. The fourth biennial US conference on Teaching Statistics, hosted by the Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) will be held on 19-21 May 2011. Wayne Stewart (Auckland University) will be a plenary speaker. See: <u>http://www.causeweb.org/uscots/</u>

The Eighth International Conference on Teaching Statistics, Ljubljana, Slovenia, 11-16 July 2010. John Harraway (Otago University) was Chair of the International Programme committee and should be congratulated along with the other organizers on running a superb conference. Twentysix New Zealanders attended and gave 22 papers, the highest per capita participation rate apart from the host country. People from all over New Zealand attended (Auckland, Waikato, Massey, Victoria, Canterbury and Otago). Chris Wild ran and organized a very entertaining plenary panel.

International Statistical Literacy Poster Competition 2010-2011. New Zealand schools will be invited to participate in this competition at the national level early next year. The best posters will be submitted to the international competition, the winners of which will be announced during the ISI-2011 meeting. Sashi Sharma (Waikato University) is the organizer. See: <u>http://www.stat.auckland.</u> ac.nz/~iase/islp/competition-second

IASE and ISI conferences 2011. Continuing the successful tradition of IASE satellite conferences immediately before the biennial World Statistics Congress of the International Statistical Institute, the International Association for Statistical Education is pleased to announce that the 7th IASE Satellite Conference will be held in Dublin, Ireland on Thursday 18th and Friday 19th of August 2011. The theme of the conference is "Statistics Education and Outreach". Clearly this is a very broad area and all submissions addressing the theme are welcome. The call for abstracts is at <u>http://www.stat.auckland.</u> ac.nz/~iase/conferences.php?show=iase2011

### Local News

**CensusAtSchool Project.** This project, sponsored by the Department of Statistics of The University of Auckland, Statistics New Zealand, and the Ministry of Education, is focusing on preparing the 2011 school census (Rachel Cunliffe). The project is directed by Chris Wild and aims to give 10 to 18 year-old students the experience of participating in a census. See http://www.censusatschool.org.nz/

Statistics Teachers Day, 2 December 2010, Auckland. This annual day is run jointly by the Department of Statistics, The University of Auckland and the Auckland Mathematics Association for teachers. The theme for the day is: NCEA 2011 – Hitting the ground running. For more information see: <u>http://www.stat.auckland.ac.nz/~teachers/</u> index2010.php

> Maxine Pfannkuch National Correspondent for IASE

## **Science Fairs**

## A chance to strengthen the statistical enquiry cycle?

In August the 2010 Wellington Science and Technology Fair was held at Victoria University. The New Zealand Statistical Association and Statistics New Zealand jointly awarded special prizes to the exhibits showing the best application of statistical methods. A small group of employees from Statistics New Zealand attended the fair and from over 400 exhibits they selected 16 to which they awarded prizes and certificates of merit. These deserving exhibits varied from designing and conducting a survey of bird life in Wellington gardens, to designing a food labelling system that could help children to better assess the healthiness of a food product.

The enthusiasm of the students and willingness to talk about and explain their exhibits was impressive – even to the point of one student (after realising we were interested in data visualisations) pointing out an error he had made in his graph!

The majority of exhibits on display came from year 7 and 8 students. Overall the statistical analysis on display was at quite a basic level, consisting mainly of displays of time series or means. When we asked students to explain their graphs to us, they were able to communicate good ideas about trends in time series. Many experiments contained a trial replicated several times. Although a measurement would be taken for each replication, the students tended to plot the mean of these measurements and draw their conclusions from this. When talking to students about these types of experiments they did not tend to notice variability in their results, consider measures of spread, or how the distribution of results might differ between trials.

We were hoping to see more commentary about what the graphs were showing, have students notice variability in their results or changes in the trend over time, or even show us visual examples of a distribution changing after an intervention!

We'd like to do some very informal inference: we infer that the analyses at the other 20 or so regional science fairs were similar to the analyses we saw. The new NZ Curriculum (2007), in its Mathematics and Statistics learning area, asks Level 4 students (about years 7 and 8) to do this:

Plan and conduct investigations using the statistical enquiry cycle:

Determine appropriate variables and data collection methods;

Gather, sort and display multivariate category, measurement, and time-series data to detect patterns, variations, relationships, and trends;

Compare distributions visually;

Communicate findings, using appropriate displays.

These objectives allow students to examine distributions and their variation, and to use data visualisations for it.

At present, we seem to have a gap between what often happens in science investigations, and what could happen in statistics investigations. The statistical enquiry cycle unpacks as the Problem/ Plan/Data/Analysis/Conclusion cycle. The exhibits we saw did (many) magnificent Problem/Plan/Data stages, limited Analysis stages, and therefore limited Conclusion stages. We have a great opportunity to close this gap and support the use of more statistical skills in science. Both learning areas will benefit, and student satisfaction will increase. How do we do this? Readers could exercise their minds on this question!

The views above belong to the authors.

Emma Hooper, Mike Camden

## **NZIMA Update**

We'd like to update you on developments with respect to the New Zealand Institute of Mathematics and its Applications (the NZIMA), since the outcome of the 2006/07 Centres of Research Excellence (CoRE) selection round.

First, as you'll know, we have had a full suite of programmes in action, and have been supporting a large number of postgraduate research students across the country, as well as the annual summer meeting and some high-profile visitors. Also we have been pleased to be able to build up our "MathsReach" resource (see www.mathsreach.org) and publish our twice-yearly bulletin NZ-IMAges, each showcasing a wide variety of people involved in mathematical and statistical activities in New Zealand.

On the other hand, our status and funding as a CoRE is scheduled to run out in June 2011, and we have been actively considering the future of the NZIMA.

The CoRE selection decision regarding the NZIMA in 2007 was based on a number of perceived flaws, mostly concerned with governance, strategy and added value (benefits over and above what could be achieved by an increase in funding to existing activities).

There was absolutely no question about research excellence. In fact a recent analysis by the Ministry of Education shows that the NZIMA produced 21% of the reported publications by CoREs in A\* or A-rated journals over the three years 2004/06/08 (on a budget of about 5% of the total CoRE budget), and that 70% of the NZIMA's reported publications over those three years were in A\* or A-rated journals (compared with 51% for other CoREs). The CoRE selection process, however, put a lot more emphasis than expected on wider benefits to New Zealand, over and above pure research excellence.

With these things in mind, last year we assembled a new Governing Board, to provide us with a refreshed vision and strategy, with good contacts and influence beyond the mathematical sciences, and to help expand the focus of the NZIMA towards benefits and outcomes as part of a broader recognition of research excellence.

The current membership of the new board is as follows:

Len Cook CBE CRSNZ (former head of Statistics NZ), chair

Marti Anderson (Professor of Statistics, Massey University)

Grant Guilford (Dean of Science, University of Auckland)

Peter Hunter (Director, Auckland Bioengineering Institute)

Peter Jackson (former PVC (Engineering), University of Canterbury)

Alan Lee (Deputy Dean of Science, University of Auckland)

Neil Quigley (DVC(Research), Victoria University of Wellington)

Jeanette Saunders (HoD Mathematics, St Cuthberts School, Auckland)

We will be appointing one or two more non-

university people, including at least one from New Zealand business/industry. Board members are being appointed for two year terms.

Our new Board has met twice so far this year, and we are pleased to report that it is highly committed to the continued advancement of the NZIMA and its valuable activities, and to achieving success in the next CoRE selection round (which is expected to take place in 2012/13).

One of the main tasks ahead is to make a much better case demonstrating how much, and increasingly, the mathematical and computational sciences contribute to higher levels of GDP, through innovation in methodologies, systems and practices in all fields of science, commerce and public life.

Another will be to analyse and set priorities for the great variety of activities undertaken by the NZIMA, in a way that gives more explicit recognition to its short-term, long-term and indirect contributions.

A third one will be to seek opportunities for bridging finance to help sustain the NZIMA through to the next CoRE round, through a small number of partnerships in tightly-focussed areas of application and from sources within the university sector.

We wish to develop a new framework for the NZIMA, that will better enable planning, organisation and communication of the NZIMA's activities, and increase the chances of success in the next CoRE round. The new Board is very confident of our ability to do this. In fact members of the Board believe there is an emerging consensus about the need for an entity like the NZIMA in New Zealand, but we will need your help to build up the arguments to reinforce it.

Over the period July to September this year we are engaging with the mathematical sciences community in New Zealand, to discuss these plans and hear ideas about how some of the above aims can be achieved.

As at the end of July, Marston Conder and James Sneyd have visited each of the university centres in Albany, Dunedin and Christchurch, and are expecting to visit Hamilton, Palmerston North, and Wellington, as well as holding meetings in Auckland, to discuss these issues with you.

We look forward to this interaction and will appreciate any positive contributions you can make. We are particularly keen to hear ideas for the future vision, activities and structure of the NZIMA, as well as gather strong evidence for its continuation, based on the benefits it has brought and will bring to New Zealand.

> Len Cook (NZIMA Board chair) Vaughan Jones (NZIMA Co-director) Marston Conder (NZIMA Co-director) www.nzima.org

## **Local Scene**

## **Statistics New Zealand**

I will start my report with our great pride in Mike Doherty and Mike Camden receiving honorary life membership of the NZSA at the recent NZSA conference. As we have no other Mikes working for us we see it being a few years before having anyone here receiving a similar honour. Our presence at the NZSA conference was large as usual with Chen Chen, Walter Davis, Hazel Kale, Rebecca McGirr, Tim Hawkes, Andrew Richens and Guan Yu (Fish) Zheng presenting talks. I refer you to the NZSA conference site for details on their 6 talks. Rebecca also filled in for Richard Penny as secretary for the AGM and got elected to the NZSA executive for her trouble. Richard was re-elected as secretary.

The recent Canterbury earthquake has made the third floor of the Christchurch office where Statistical Methods sits temporarily unusable. As a result we are scattered about the second floor, though we manage to still have group get togethers, such as for the daily answering of the Dominion Post quiz. Our weekly seminar series continues as well, recently covering such topics as aspects of the Household Labour Force Survey, the Time Use Survey, composite estimation, businesses' nonresponse, and data validation methods. We were also fortunate to have Tommaso Proietti, an Erskine Fellow at Canterbury, present a talk on outliers in time series. This also covered seasonal breaks and we are hoping to work with Tommaso on this in the future. While Tommaso was available we took the opportunity to host a workshop on temporal disaggregation which gave us some good ideas for our work. Statistics New Zealand was also delighted to host the inaugural gathering of Canterbury Young Statisticians.

Statistical Methods recently had its annual professional development off-site in Wellington with 2 guests from the Australian Bureau of Statistics. Professional development included a session on how to be a good consultant. It's somewhat frightening how good most people were at being stroppy clients in the role-playing exercise. Perhaps we're just good at channelling the clients we've had in the past. While technical issues were covered we also had a debate on "Let the Data Speak", in which the 6 debaters were somewhat at variance as to what it meant. Penny Barber provided the highlight when she showed us that we were all evil statisticians! We also recently hosted a group of statisticians from the Korean statistical office which demonstrated the diversity of our employees as Soon Song, who used to work

in the Korean office, and Olivia Son were available to provide translation of the technical discussions.

With the upcoming Population Census in March 2011 and subsequent surveys, such as disability, based on the data from the Census soon after, the people working on those are seeing the end in sight, though of course this means there is a lot to do. And as data collection for official statistics is like painting a large bridge there is already work under way on the shape of the data collection for 2016 Census.

Given the long time since my last report I need to mention the election to the International Statistical Institute of Christine Bycroft. She has also organised an invited session for next year's ISI meeting in Dublin and will be presenting a paper at the Statistics Canada annual methodology symposium in October.

As there are so many I won't report on the comings and goings since my last report except for the recent departure of Harry Smith after almost 25 years in Statistical Methods, which had him as our 3rd longest serving member.

Richard Penny

## Massey Manawatu

Our last newsletter entry heralded the imminent arrival of a firstborn to Jonathan Godfrey and wife Olivia. Callum Joseph Godfrey finally saw the light of day at 2.25pm on Sunday 11 April 2010, having capriciously missed the newsletter deadline. Young Callum tipped the scales at 8lbs 9oz. More recently, Jonathan has been in the news for his Judo exploits (see <u>http://www.stuff.co.nz/sport/othersports/4065938/Judo-champ-blind-unarmed-anddangerous</u>).

Two of our postgraduates have completed their PhDs. Ting Wang, Mark Bebbington's student, has had her thesis on "Hidden Markov Models for Geophysical Hazards" accepted (and added to the Dean's list). Ting is still at Massey, having taken up a postdoctoral research position at Volcanic Research Solutions. She is currently in Europe to attend a volcanology workshop in Italy. Maris Isidro, Steve Haslett's student, is just completing the emendations to her thesis on "Intercensal Updating of Small Area Estimates". Maris has just started an internship at the Ontario Ministry of Economic Development and Trade, having moved to Canada to join her husband.

Alasdair Noble is recovering from his leading role in organizing a very successful NZSA Conference (see elsewhere in this newsletter), just in time to help Ganes organize the next Palmy Stats meeting in October.

Congratulations to Steve Haslett who was presented with the Campbell Award at the NZSA Conference Dinner. Steve has been travelling a great deal recently – to China as an invited speaker at the International Workshop of Matrices in Statistics, to Canada for the Joint Statistical Meetings, to Cambodia for a poverty mapping assessment for the World Food Programme, to Kiribati and Vanuatu for a UNICEF education project, and to Thailand for an NZAID review.

Martin Hazelton attended the Joint Statistical Meetings in Vancouver in early August to give a talk on "Analysis and Modeling of Networks". He arrived back in New Zealand in the wee small hours and, showing true dedication, rushed in to Massey to give his morning lecture. More recently, Martin gave the second in the Professorial Lecture series recently instigated by the Institute of Fundamental Sciences to showcase the Institute's research to others. His lecture on "Change and Changeability: Some Modern Directions in Statistics (with apologies to Jane Austen)" drew an unexpectedly large audience. Whether they were primarily fans of Statistics or Jane Austen has not been determined.

Doug Stirling has also been building up his frequent flyer points this year with visits to Slovenia (ICOTS), Belgium (ENBIS conference) and Canberra (ANU), and has another trip to Perth (OZCOTS) planned for December. He has also been developing CAST-based resources for NZ high schools to help teach NCEA statistics. How he finds time to do this is a mystery, as he's also being bombarded with requests by the Business Statistics team who are now using CAST for their first year course.

Geoff Jones attended the 25th International Workshop on Statistical Modelling in early July. This being his first visit to Glasgow, he was quite surprised to be awakened on his first night by the sound of breaking bottles and loud shouts in an unintelligible dialect. It did stop raining at one point, giving the delegates a chance to explore the beautiful city. Geoff's presentation on "A Longitudinal Model for Multiple Diagnostic Tests" was scheduled as the first talk on the morning after the Conference Dinner, but nevertheless a surprising number of people struggled in to listen to it.

Finally, our re-branding exercise continues: extramural students are now to be called "distance students". No doubt redundancy will soon be rebranded as "extended leave".

Geoff Jones

## AgResearch

The statistics group has emerged unscathed (in terms of size) from two restructures at AgResearch over the last 18 months. No doubt there will be further challenges to overcome over the next year, as is the

case no doubt with readers in other organisations. The institute (company?) has a new CEO after nabbing the "boy next door", which was our Chairman's description of Tom Richardson, the former CEO of Scion in Rotorua.

A number of our group attended and enjoyed the NZSA conference. Top marks to the organisers (including our own Zaneta Park)! The following week, Dongwen Luo and Zaneta escaped the Palmerston North winter for a week and attended the Winter School in Mathematical and Computational Biology at the University of Queensland in early July, to learn more about next-generation sequencing and systems biology. In August, Zaneta was invited to speak at the NZ Next-Generation sequencing conference in Dunedin, and the topic of her talk was "Obtaining high-quality RNA-Seq data - factors to consider". Two of AgR's bioinformaticians (Anar Khan and Rudi Brauning) also spoke at this conference. Zaneta later presented a talk discussing Next-Generation sequencing (with a focus on RNA-Seq) at a Nutrigenomics workshop in Auckland.

In August, the Manawatu Fonterra Science and Technology fair for budding scientists (school-aged) saw several local statisticians volunteering as judges. Zaneta, Dr Ganesalingam (Massey) and several post-grad students awarded prizes that were kindly sponsored by NZSA, Statistics NZ and Massey.

We should have representation at the ASC 2010 in Perth, and at the IBC in Brazil, both in December. Roger Littlejohn is planning to attend the former, and Dongwen Luo the latter.

John Waller is back at work full-time after heart surgery and reports that he is generally doing well. Chikako van Koten reported the good news that she and her family and property came through the earthquake pretty well.

John Koolaard

## **Massey Albany**

In March, Marti Anderson hosted a one-week workshop on multivariate analysis for biologists and ecologists, the second to be held here at Massey Albany, with a focus on the computer software PERMANOVA+, which was developed in collaboration with colleagues at Plymouth Marine Lab (PML) in the UK. Similar workshops were also presented by Marti in August in Seattle, Washington, for the National Oceanic and Atmospheric Administration (NOAA) and in June in Plymouth at the home of the Marine Biological Association (MBA) of the UK. The MBA lab looks right out over Plymouth harbour, where Sir Francis Drake defeated the Spanish Armada. Right down the lane are also the stone steps down to the water where Marti's direct ancestor, William Bradford, author of the Mayflower Compact, embarked with his fellow pilgrims to the New World. What goes around comes around, I guess! Marti also took part in a workshop for the analysis of beta diversity at the National Centre for Ecological Analysis and Synthesis (NCEAS) in Santa Barbara in April. This was the second of three sessions devoted to the topic, with the next one to be held in November.

The other exciting news for Marti, post-doc Dr Mat Pawley, and PhD students Adam Smith and Oliver Hannaford, was the delivery of a brand new 4.3m Naiad rigid inflatable boat (RIB), which is just perfect for diving and counting fish (among other things). While the crew are busy getting together all of the materials for the boat (the list is long everything from lifejackets to scuba tanks) and brushing up on boating skills, first aid, and other qualifications, an important decision had to be made - what shall we call it? We settled on the name "RV Poisson" (the "RV" bit stands for "Research Vessel"), which seemed only fitting for a craft specially designed to serve marine ecological statisticians!

In August Beatrix Jones hosted Anthony Fiumera from the Biology department at Binghamton University in Binghamton, New York. They are working together on a project to detect genetic variants affecting reproductive success in wild populations of fruit flies (Drosophila melanogaster).

Adam Smith successfully completed his PhD confirmation. Well done Adam! In June, Marie Fitch presented some of her PhD research at the 'Sparse structures: statistical theory and practice, Research workshop' in Bristol, UK and the WNAR/IMS annual meeting in Seattle, Washington. Aside from the expected relevant presentations and networking opportunities, a highlight was the Bristol conference dinner which was held on board the SS Great Britain.

One of the team members, Dr Howard Edwards, has moved from his old office in the Quad building to an office in the IIMS building with the rest of us, so our group is now all housed in the same place at last. Howard, Beatrix Jones and Marie Fitch have been beavering away on material for an online textbook resource for the stage 1 Business Statistics paper. This project is being co-ordinated by colleagues in Palmerston North and also involves those teaching the paper in Wellington. Marie and student Katharina Parry have also been doing some liaison work with presentations to local schools. Meanwhile John Xie, another PhD student, has engaged in more family-based liaison supporting his son David who was a member of the team of secondary school students who brought a gold medal home from the 23rd International Young Physicists' tournament in Austria. (Well done.)

Finally, a recent important discovery was the ping pong table at Ferguson's, the local pub right here on the Massey Albany campus. Dr Mat Pawley is currently the reigning table tennis champion in the statistics group.

Marie Fitch

## **University of Otago**

Peter Dillingham recently returned from the 1st World Seabird Conference in Victoria, British Columbia, where he gave a talk on calculating the number of additional mortalities that seabird populations can sustain when there is limited data available.

David Fletcher has been enjoying the delights of life on sabbatical leave. He is visiting Michael Schaub at the University of Bern, to work on statistical issues involved in estimating immigration rates in animal populations, and Byron Morgan at the University of Kent, finishing off work on estimation of overdispersion in sparse count data. He also presented a paper on model-averaged confidence intervals at the International Statistical Ecology Conference in Kent in July.

John Harraway attended the International Conference on Teaching Statistics in Ljubljana, Slovenia in July. John chaired the International Programme Committee which structured a programme involving all aspects of statistics education. As well as presenting a paper of his own John presented a paper for Austina Clark who was not able to attend. John also arranged workshops on the new free *GenStat Schools* package. Jeanette Chapman, Head of Mathematics at Otago Girls High School, described the lessons she has developed for this free-to-use software.

After Slovenia John went to Iceland representing the International Association of Statistics Education at the two day Council Meeting of the International Statistical Institute. John was also fortunate to gain one of the Teaching Excellence Awards at the University of Otago this year.

Laimonis Kavalieris spent the mid-semester break in the Czech Republic attending the "Prague Stochastics 2010" conference. As well as presenting a paper "Estimating the number of breakpoints in a time series" he spent an enjoyable week sampling Czech beer, gulas, clobassi and dumplings from cafes in Prague and its surroundings.

Austina Clark

## **Canterbury Tails**

The Canterbury Tails website has been released, check it out at: <u>http://www.math.canterbury.</u> ac.nz/canterbury-tails/

## **Plant and Food Research**

Our biggest news is no news – we are still looking for a team leader. Peter Alspach has agreed to be acting leader until the end of the year.

One of the first things Peter organised was a team meeting in Palmerston North at the end of June. There was a good exchange of experiences – Esther Meenken talked about mixed models and soils, Andrew Wallace about insect trapping experiments in Perth, Mark Wohlers about assessing how good people's sense of smell is. Andrew McLachlan and Marcus Davy acquainted us with wikis, sharepoint, subversion and other collaboration tools.

It was a busy week for Andrew McLachlan – the day after the team meeting he talked to the young statisticians at the NZSA conference, and later that week gave a presentation of GenStat for Schools to teachers.

Marcus Davy was an invited speaker at the New Zealand Next Generation Sequencing Conference and presented a seminar on quality control issues in next-generation sequencing experiments. This was a bit of a hot topic with half of the talks discussing issues surrounding the technology. He also attended the BestGRID winter retreat and presented a seminar on developing and using GenePattern modules for microarray analysis and next-generation sequencing in a half hour session with discussion. This involved an interactive demonstration of developed modules using a GenePattern server on a laptop.

Mark Wohlers is nearing the end of the first year of a Master of Applied Statistics course with Massey University and is starting his thesis project on design and analysis of odour threshold determination experiments.

Esther Meenken will be attending the International Biometric Conference in Florianopolis, Brazil, in December.

Duncan Hedderley

## **Canterbury Young Statisticians**

Recently Statistics New Zealand hosted the first gathering of the Canterbury Young Statisticians (CYS). A young statistician is loosely defined as someone interested in learning about statistics or someone studying statistics or someone who has been working as a statistician for less than 5 years. At the CYS gathering there were 18 young statisticians from the University of Canterbury, not all currently majoring in statistics, as well as 8 young statisticians from Statistics New Zealand (along with 2 not-so-young statisticians). The meeting started with Rebecca McGirr and Guan Yu (Fish) Zheng from Statistics New Zealand presenting the talks they gave at the NZSA conference. Afterwards



Canterbury Young Statisticians at their mixing event

the young statisticians discussed ideas for further CYS gatherings and then had a mixer over pizza where what statisticians actually do was a common topic of discussion. The gathering finished, by the request of the students, with a guided tour of Dollan House. Everyone got a real charge out of this meeting and have expressed their appreciation to the organisers who included Becky Collet and Andrew Richens as well as Fish and Rebecca. For those interested in further CYS events see the CYS Facebook page <u>http://www.facebook.com/group.php?gid=146642402025037&ref=ts</u>

Richard Penny

## **Department of Conservation**

Minor chaos greeted Ian Westbrooke on his return to the office in Christchurch after 9 weeks away in Europe.



Ian's office post 7.1 earthquake in Christchurch

The 7.1 earthquake threw the filing cabinet drawers open, and spilled some contents. A colleague was heard to comment that Ian's work area looked pretty much as usual. But no serious damage at work or home. Some DOC colleagues homes were less fortunate - with the main issue being damaged chimneys. Ian managed to miss the earthquake by a day, by taking an extended tour after the International Conference on Teaching Statistics in Slovenia, where he presented in a session organised by Jennifer Brown on workplace training in environmental statistics. Europe was sweltering in a heat wave, with Ljubljana reaching 35C, but fortunately the conference venue was air-conditioned. There were plenty of New Zealanders enjoying the warmth at ICOTS, and at the International Statistical Ecology conference in Kent the previous week.

Now it is time for Rohan and Ian to catch up on training work at DOC before staff become too absorbed with field work. With the assistance of Tim Robinson (Uni of Wyoming) they piloted a new three day course on Designing Studies in May. It will be repeated twice in October, and there is a lot of interest for next year. There is also continued interest in courses on linear and generalised linear models using R, and matrix population modelling.

Rohan and Ian enjoyed catching up with people at the NZSA conference in Palmerston North. They presented on their positive experiences introducing R using the R Commander Menu interface. There is substantial interest in this and they have made similar presentations at University of Otago Christchurch, and at Landcare Research, Hamilton.

Ian Westbrooke & Maheswaran Rohan

### AUT

Murray Black has just returned from a six-month Vice Chancellors Study Award to work on his doctoral thesis. Murray is looking to making his formal submission in the early New Year.

Jeff Hunter has had a busy time with three recent trips overseas. He was chair of the International Organising Committee of the International Workshop on Matrices and Statistics held in Shanghai in early June. (He preceded this with a 17 day tour of China. He was the tour leader for a party of 22 some of whom were participating in IWMS. The tour visited Beijing, Xian, Guilin, Yangshuo, Yangtze River and Shanghai.) In late June he was an invited speaker in a mini-symposium on Markov chains at the International Linear Algebra Society Annual Conference in Pisa, Italy and in late August he was an invited speaker at the Second South Pacific Mathematics Conference in Noumea, New Caledonia. With the School of Computing and Mathematical Sciences currently advertising some new Lectureships in Statistics and Applied Mathematics he recently accepted secondment to the role of Head of Mathematical Sciences to assist AUT with the transition from a polytechnic to a fully fledged university with significant levels of research active academic staff. So much for a

relaxing retirement!

In June Farida Kachapova presented a talk at the NZSA Conference in Palmerston North speaking on "Population monotony coefficient".

In August Paul Cowpertwait visited the Operations Research and Statistics Research Group at the University of Adelaide where he gave a seminar on "A spatial-temporal point process model for fine resolution multisite rainfall data from Roma, Italy" and a workshop on "R as a Functional Language". The workshop went down well - or rather the 400g chocolate frog did - awarded to the staff member who came up with the shortest code for factorial n (gamma(n+1)) but, for those interested in such trivia, there is an even shorter one which no one got ...

Jeffrey Hunter

## University of Auckland

Chris Wild, Maxine Pfannkuch, and Matt Regan are at the forefront of the international celebrations of World Statistics Day in London on 20.10.2010. They have been selected to present the keynote paper for the day's meeting of the Royal Statistical Society, along with co-author Nick Horton, who spent several months in Auckland in 2008. Their paper will be the showpiece for the RSS's launch of the international "GETSTATS" 10-year Statistical Literacy Campaign. The talk is entitled "Towards More Accessible Conceptions of Statistical Inference". See more at www.rsscse.org.uk/news/rss-news, including details about how to contribute to the article discussion which will be published in *JRSS, Series A*.

There must be something in the water... Wayne Stewart has also been invited to give a Plenary Address at a premiere Statistics Education forum: at USCOTS 2011 in North Carolina. About 500 attendees are expected, and there's little doubt that Wayne will enthrall them with the antics of Freaky and Tom, his ventriloquist's dummies who suffer from a chronic disagreement about the foundations of statistical inference. Congratulations to Chris, Maxine, Matt and Wayne for getting such great platforms to spread the word about statistics education in New Zealand!

Another big congratulations to Paul Murrell, who has been elected as a Fellow of the American Statistical Association for his "outstanding contributions to the statistical profession". Paul joins Chris Wild and Alastair Scott as NZ's only three Fellows – and all jolly good ones, too.

Congratulations also to Russell Millar, who has been invited by the IBS to be one of the three co-editors of the A\* journal *Biometrics*. Russell holds the daunting responsibility of being editorial representative for the "Rest of the World", which in IBS-speak means everywhere outside of the US and Europe. We dwellers of the Rest-of-the-World are stoked to have a Kiwi on the editorial band-of-three, and need I point out that now you all know who to blame if your paper doesn't make it.

We have had some comings and goings of staff recently. Sharon Browning and Brian Browning have departed to take up Associate Professorships at the University of Washington, Seattle, respectively in Genome Sciences and Biostatistics. Ivan Kojadinovic has returned to his native France to the University of Pau, leaving New Zealand with two children more than he arrived with in 2007. We have a new fulltime Statistical Consulting Service, run by Kathy Ruggiero, Kai Xiong, and Jessica Thomas. Our new professor, Thomas Lumley, will be arriving any day now from the University of Washington.

Research grant success includes an HRC grant for over \$500K to Patricia Metcalf, for "Predictors of CVD mortality and morbidity in NZ adults"; and a Fast-Start Marsden grant to Mark Holmes for "Random walks in degenerate random environments". (It is to be hoped that the Statistics Department is not the 'degenerate random environment' to which Mark alludes!) Mark has also been awarded a Distinguished Visitor Award to fund a trip to NZ by distinguished UBC mathematician Ed Perkins.

Congratulations also to Stephane Guindon, who has won both an Early Career Research Excellence Award, and a post-doctoral award, from the University. Stephane's research is based in the Computational Evolution group, developing methods for studying speciation events using biogeographic and phylogenetic information. The post-doc, Louis Ranjard, has just arrived. We have also welcomed several new PhD students recently.

The Rise of R continues, and with it Ross Ihaka's media profile. Most recently, Ross and R have been profiled by ComputerWorld and Mana magazines, and the Sunday Star Times. If things keep going as they currently R, Ross will have a lot of people to convert when he releases his next language ... watch this space!

Drs Lyndon Walker and Derek Law are the latest PhD graduates from our department. Finding himself with time on his hands after finishing his thesis, Lyndon is standing for the Auckland Supercity as Future West candidate for the Henderson-Massey Local Board. Several of our PhD students have won prizes at local and international conferences recently – in particular, congratulations to Saddam Abbasi who won a Student Merit Award at the 2010 World Congress on Engineering in London for his work with Arden Miller. And finally, the surge of baby boys born to department members continues. We have an even more significant p-value to celebrate since the last newsletter! Our running total of births since 2000 is now 24 boys and 4 girls, bringing our p-value to a whopping(ly small) 0.0002 against equal sex ratio! ...Oh, and welcome to the world Muhammad Abdullah Asad (son of Ali), and Austin Cunliffe (son of Rachel), excuse us for getting carried away in the excitement of our p-value...

Rachel Fewster

## **Statistics Research Associates**

The main news from SRA is that recently the SRA directors unanimously elected David Vere-Jones to the position of SRA Distinguished Associate in recognition of his far-sighted and seminal contributions to SRA over the last decade as foundation director, shareholder and associate of SRA. These personal contributions have been fundamental in establishing the strong reputation and standing of SRA as a high-quality national and international statistics research organisation.

Other news: Wang Ting submitted her PhD thesis "Statistical Models for Earthquakes Incorporating Ancillary Data" at the beginning of 2010. Her oral examination was held in May 2010 which she passed with flying colours! David Vere-Jones and David Harte were co-supervisors with Mark Bebbington at Massey University.

Robert Davies is updating his vehicle crash risk model for Opus International Consultants using an updated set of data.

Peter Thomson continued his involvement with NIWA (focused on weather generator models), the VUW School of Economics and Finance (adjunct professor), and Keio University, Japan, where he gave an invited paper "Towards a robust statistical framework for the assessment of quality of supply by New Zealand electricity networks" at a Mini Workshop on Leading Edge Data Analysis. He completed a report for the Electricity Commission that reviewed the methodology and models used by the Commission for national electricity demand forecasting, undertook consulting for the Department of Corrections, and presented the paper "A hidden seasonal switching model for high resolution breakpoint rainfall data" (joint with John Sansom) at an invited session of the fifth International Workshop on Applied Probability (IWAP 2010) held near Madrid.

David Harte was back at the Institute of Statistical Mathematics in Tokyo again during March, working in Yosi Ogata's group on spatial ETAS point process models. He has also been involved in a joint OSR project with Ken Richardson and Kristie Carter at the Wellington School of Medicine applying hidden Markov Models to longitudinal data.

Both David Vere-Jones and David Harte attended the CORSSA workshop at ETH in Zurich in May. The attendees are developing web based resource material for statistical seismology. David Harte returned via Tokyo and gave a talk at a meeting on Statistical Seismology at the ISM. After the Zurich meeting, David Vere-Jones visited Katerina Orfanogiannaki at the Institute of Geodynamics in Athens, and also visited Professor Karlis at the University of Athens where he gave a seminar. On the way back to NZ he visited the Institute of Statistical Mathematics in Tokyo, and was one of the first guests to stay in Akaike House. It adjoins the new ISM in Tachikawa. *David Harte* 

## **University of Canterbury**

Well, the earthquake certainly drove out large numbers of closet statisticians from deep cover. All of a sudden everyone's an expert and people are sharing graphics, animations and even code to display the sequence of aftershocks. So, it's fair to say that Canterbury is the unofficial stats capital of NZ at the moment. As such, there are important questions such as: how did the UC Statistics Department cope with the big event? Our building suffered no structural damage and it could be said that the holes in Mike Steel's wall are purely cosmetic. Marco Reale's room was a mess, which just goes to show that he has too many books! On the day after the earthquake Jennifer Brown organized a phone check on everyone to make sure everyone was OK, a very nice touch. On the first day back everyone was hard at work moving the occasional concrete block that had been removed from the walls for safety, sweeping, operating various technical devices such as vacuum cleaners and lifting back shelves and filing cabinets that had fallen over. Jennifer kindly issued the team with cloths for wiping and dusting and it is possible that our offices are cleaner now than they were before. Even Reboot (the coffee bar in the building) opened early - an essential aid for useful work. We also discovered that the first Departmental earthquake baby had arrived - Megan Williams had a baby on that very night! As the days passed, the aftershocks continued quite actively for quite a while. More recently they have decayed away to the stage where nobody even mentions them, even in large lecture theatres full of students. So, we fared pretty well, but not everyone got off so lightly. Despite the good humour and team spirit there are many people in the area who lost their homes and the event has been extremely serious for them. Last night's magnitude 5 aftershock (October 4) was a reminder of this.

So, is there any statistics news that is not seismically relevant? Or, in the words of the poet: "Hey man, what's happening?" Anyone who knows the origin of that phrase can apply for a chocolate fish, but no search engines allowed.

New additions are always exciting and we have three of various types. Congratulations to Carl Scarrott who has a new baby girl in the family. We welcome Xin Zhao, a new Postdoctoral Fellow working with Marco Reale, Carl Scarrott and Dominic Lee. Also, shortly to arrive is Elena Moltchanova from Finland. She will be establishing a consulting unit in the Department and is also involved in research and teaching.

Many visitors have passed through recently. Bjarki Eldon from the University of Oxford and Mike DeGiorgio from The University of Michigan have been working with James Degnan, Trent McDonald from the University of Wyoming has been working with Jennifer, and Marco has emptied large portions of Italy with a stream of visitors from that country.

Staff movements have been considerable. Raaz is on sabbatical leave at the moment and is currently in Bangalore. Dominic has also had sabbatical leave and Irene David and Jennifer attended ICOTS 2010 in Slovenia to give papers. James Degnan is giving an invited talk at Phylomania (University of Tasmania, Hobart) and Peter Smith is spending 2 months at the CTTC in Barcelona (hopefully a knowledge of Fawlty Towers will come in useful there).

An interesting development is the establishment of an industrial advisory board for the Department. Jennifer arranged the inaugural meeting of the board in October.

As always, the usual apologies and disclaimers for my erratic and probably faulty reporting of stats news from UC.

Peter Smith

## Victoria University of Wellington

Much of this news entry concerns reports of people's travels, along with great news of one new (unpaid) arrival: Mark Johnston and his wife Emily, along with big brother Hamish (actually, really big for someone who has recently turned two!) welcomed the safe arrival of Benjamin Johnston on 05/05/10; we already see the potential for some maths games with birth dates... Benjamin took only one hour to arrive following his mum's check in at the hospital, so he's already known for his speed out of the blocks. Congratulations to Mark and Emily! Between teaching and parental leave, Mark managed to fulfil his pre-planned conference visit to the 2010 IEEE World Congress on Computational Intelligence (18-23 July in Barcelona) where he was an author/

presenter on two papers.

Mark's co-authors included one of our Honours students, Thomas Liddle; Thomas quite recently got married, so congratulations to Thomas too!

In June and July Richard Arnold had an extended visit to Spain and the UK. Richard attended the Bayesian Valencia conference (the last of its kind: from now on ISBA will have a Bayesian meeting every two years, without returning to a particular location). Shirley Pledger and Richard presented a workshop and two papers at the International Statistical Ecology Conference at the University of Kent, UK (at which all four workshops were presented by New Zealanders!). The workshop was on capture-recapture models for open populations (with age structure and heterogeneity of capture probabilities), and the papers were on clustering of species and habitats in community ecology using finite mixture models. Also in June, Shirley gave a seminar at Murdoch University, Australia, on patterndetection models in community ecology.



John and Ingram taking a breather while discussing wavelets (or something similar...) at Lake Ferry

John Haywood organised the Wellington leg of the New Zealand Statistical Association Visiting Lecturer tour in early July. This year the NZSA Visiting Lecturer was Prof Ingram Olkin (Stanford University), whose visit was associated with the NZSA / Statistical Methodologies Conference, 29 June-1 July 2010 at Massey University, Palmerston North (see <u>http://nzsa\_cdl\_2010.massey.ac.nz/</u>). John also presented a paper at the NZSA Conference and then brought Ingram down to Wellington on 1 July. Prof Olkin gave four talks while in Wellington: a Wellington Statistics Group talk on 2 July (Meta-Analysis: History and statistical issues for combining the results of independent studies; also see below), a repeat of that first talk to the Ministry of Education on the morning of 5 July, an afternoon talk on 5 July to Statistics New Zealand (Measures of heterogeneity, diversity and inequality), and a lunch time seminar at Victoria University of Wellington on 6 July (Life distributions in reliability and survival analysis). See the attached photo of John and Ingram taking a breather while discussing wavelets (or something similar...) at Lake Ferry on 4 July, during Ingram's Wellington visit. Some details of the rest of Ingram's NZ tour are here:

#### http://stats.org.nz/visiting\_lecturer\_2010.shtml.

Estate Khmaladze and Ivy Liu both attended the Joint Statistical Meetings in Vancouver (31 July to 5 August). Ivy organized and chaired a session on Novel Methods for Extended Case-Control Designs, while Estate presented some work in a session on Model Diagnostics. Besides his JSM session, Estate also visited nine other countries on a recent twomonth trip overseas (finishing with the JSM), during which he gave a total of 14 presentations in a very busy schedule. Stefanka Chukova also spent time abroad recently, including a visit to Bulgaria between our trimesters. Fortunately Stefanka came back to continue leading the preparation for APARM 2010 this coming December (see http://msor.victoria. ac.nz/Events/APARM2010/), which is shaping up nicely.

Estate and Ivy are also involved in the organisation of two further events that we are hosting towards the end of the year, but both preceding APARM 2010. First, along with Dong Wang, Ivy is organising the visit of Prof Kai-Tai Fang (Chinese Academy of Sciences and BNU-HKBU United International College). Prof Fang will be the 2010 Shayle Searle Visiting Fellow in Statistics at Victoria University; he will be here in New Zealand from 19 November to 4 December. During his visit, on Tuesday 23 November, Prof Fang will deliver a free one-day short course, entitled "Computer Experiments: Design and Modeling Workshop". Further details are available at the course web page, <u>http://msor.</u> <u>victoria.ac.nz/Events/ShortCourse2010</u>

Secondly, Estate Khmaladze is the main driving force behind the Second Wellington Workshop in Probability and Mathematical Statistics (30 November and 1 December 2010), which follows on from the first such workshop that ran successfully in November 2009. Helping Estate on the Programme Committee this year are David Vere-Jones and Ilze Ziedins (University of Auckland). Attendance at the workshop is free, and expressions of interest (along with titles of proposed presentations) should be sent to <u>Estate.Khmaladze@vuw.ac.nz</u> or <u>ilze@stat.</u> <u>auckland.ac.nz</u> by 31 October 2010. Further details are available at the workshop web page, <u>http://msor.</u> <u>victoria.ac.nz/Events/WWPMS2010/</u>, which will be regularly updated with any relevant new information.

Some brief but very good news concerning our students is that Giorgi Kvizhinadze (supervised by Estate Khmaladze) successfully defended his PhD entitled "Large number of rare events: Diversity analysis in multiple choice questionnaires and related topics". Congratulations to Giorgi!

Finally, in news from the Wellington Statistics Group, John Haywood has resumed as WSG convenor, replacing David Harte who has been the convenor since 2007. Recently David has been out of New Zealand for some lengthy periods and he felt it was time to step down from the role. John was previously convenor from 2001 until 2006. Alistair Gray continues to be the treasurer and Leigh Roberts usually organises the refreshments, while John maintains the group's mailing list. WSG talks since the last NZSA newsletter were given by:

26 May 2010, Shirley Pledger and Richard Arnold (VUW), "Clustering and Pattern Detection in Ecological Models Using Mixtures"

2 July 2010, Ingram Olkin (Stanford University, NZSA Visiting Lecturer), "Meta-Analysis: History and Statistical Issues for Combining the Results of Independent Studies"

Further details of these talks can be found on the NZSA Local Groups web page: <u>http://stats.org.nz/</u><u>local\_groups.shtml</u>

This web page also contains contact details for the group (including the mailing list web interface), names of sponsors, and details of forthcoming (or most recent) talks.

John Haywood

#### **New members**

We welcome new members: Jean-Marie Aubry, Ronald Wasserstein, David Welch, Preeti and student members: Carmen Lim, Ardalan Arash, Sha (Joe) Zhu, Yuancheng (James) Wang, Muhammad Asad Arfeen, Emily Kawabata, Celine Zhou.

This brings current membership to 413.

### NZSA Membership rates

These rates apply from April 2010 - March 2011 and are in NZ\$.

	NZ	Overseas
Ordinary	80	85
Student & Retired	40	45

## Numbers in the News

#### **Climate Change Survey**

On Morning Report on 20 September (or thereabouts) we were told that the Greenhouse Policy Coalition (GPC) had had a survey undertaken which revealed that Kiwis are less concerned about climate change than last year.

Apparently climate change is now at the bottom of things Kiwis worry about. The director of the GPC was interviewed: "Across the board, people seem less committed to climate change as an issue and are certainly less interested in doing something about it if it costs them". Given that a brief report on such a survey is pretty meaningless without knowing the questions, I decided to do what Morning Report could have done and checked GPC's website (http://www.greenhousepolicy.org.nz/). An example question: 'New Zealand should reduce carbon emissions – even if it means reducing our current standard of living'; that is, the questions all implied that doing something about climate change was going to cost.

This is to be expected from an organisation made up of the likes of Solid Energy, Fonterra, NZ Aluminium Smelters and the Coal Association. It may be that last year's question were the same, but perhaps then all the survey is telling us is that Kiwis are generally financially less secure now than last year.

What would have been the response to a more neutral question 'New Zealand should reduce carbon emissions', or one with the opposite loading 'New Zealand should reduce carbon emissions now given that not doing so will reduce our standard of living in the coming decade'?

Perhaps those surveyed could have been directed to the Royal Society's recent article on sea level rise (http://www.royalsociety.org.nz/media/SLR-v4.9for-web.pdf). However, the point is not so much about climate change and associated policy as it is about the apparent inability of even reputable radio to critically assess a data-based story (but then, their grammar is pretty bad at times too...)

Peter Alspach

#### **Contribution Invitation**

This type of commentary on the statistical aspects of current issues is often an interesting read. If any reader notices something similar about which they'd like to write a few words, I invite you to go ahead and send me a column. I would like to include something of this nature regularly if I receive enough material. *Editor* 

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