



The New Zealand Statistical Association

www.stat.auckland.ac.nz/nzsa

Newsletter

Number 56

October 2002

President's Column



Because I have been overseas, it is only recently that I have been able to take over from David Scott after my election as NZSA President at the last AGM. I am looking forward to this opportunity to work with you all.

My first President's column provides me with a welcome opportunity to thank David and the last Exec Committee for their excellent work. Together with the efforts of the Association's members generally, they are responsible for NZSA's currently sound state.

Of course, this is not all history. A number of past Exec members were willing to put their names forward again and were re-elected - one of the strengths of the Association is that it contains a group of members willing to remain on the Exec from one year to the next. It is also good to be able to welcome several new Exec members, because it is only by us all taking enough interest to become involved that NZSA can remain viable, especially as we are not a large enough professional body to run a national office with paid staff at fixed premises.

The role of the Association has changed over the years. All past Exec committees have been careful, if not frugal, with spending NZSA subscription income. This means that the Association has been able to build up some reserves, even though subscription rates are very low by international standards. They have been able to be kept so only because a number of the members donate a considerable amount of free time.

I have become more aware of the range of activities that the Association encompasses since becoming President, and the extent of these personal contributions. The preparations for the next NZSA Conference, the development of a branch in Wellington and very likely one in Otago, and the work of the Education Subcommittee come immediately to mind, if only because I have recently been directly involved, but there are, of course, others.

In addition to these activities, which clearly form part of the NZSA's brief, there are statistical projects outside of the Association. These are occasionally accompanied by requests to NZSA for funding support from statistics-related groups or individuals.

NZSA is very fortunate to have received the Campbell bequest funds recently, and recommendations on how this money should best be managed and allocated are on page 3. The major question is whether to distribute all the capital involved, a sum close to \$50,000, or to use this as a reserve fund and make annual or biannual allocations that leave the principal intact.

The same issue arises with any funds that NZSA is presently holding in reserve. It is certainly very much easier to spend or allocate such funds than it has been to accumulate them. With the Association's reserve funds there is also the open question of whether they were originally collected (generally from subscriptions) on a basis that allows the capital to be distributed in this way.

It is important, I think, that decisions about any provision of NZSA funds to external statistical causes, however worthy, are not made on an *ad hoc* basis. I look forward to the Exec formulating a clear policy and procedures on this matter that are both in the best interests of the Association and its members, and also provide support for more general statistical causes without putting the Association's finances in jeopardy, or consistently running the annual budget at a loss.

My nine or ten years as Convenor of the Survey Appraisals and Public Questions Committee left me very aware of how our professional responsibilities extend to the wider community. I am also aware that being able to take such broader responsibility is dependent on the maintenance of the goodwill and a sense of shared direction among our members and the continued financial viability of the Association. Your views as members would be appreciated.

Steve Haslett

Newsletter on Web

An online version of this newsletter is available at <http://nzsa.rsnz.govt.nz/Newsletter56/index.htm>

Editorial



Thanks to Russell for his fine work as newsletter editor over the last 3 years, and best wishes as Applications Editor of the Australian and New Zealand Journal of Statistics. Thanks also to Harold Henderson for his behind the scenes technical work on the newsletter.

For those of you who don't know me, I grew up in Wellington, studied Maths and Stats through to MSc at Victoria University, with summer jobs at the Applied Maths Division of the DSIR, then did my PhD on point processes at the Australian National University. 19 years ago (to the day as I write it) I started work as a biometrician with MAF at Invermay near Dunedin, and I'm still in the same job, although after a generation of restructuring I'm now employed by AgResearch.

My wife, Annette, and I are expecting our second child at the end of August [Tabitha Katie McMillan Littlejohn, b. 19 August, doing well], and they told me this newsletter is my baby now, so I'm getting in early to make sure it's delivered on time and without trauma. Our son Jeremy turns 5 over the summer, and in visiting potential schools for him I was gobsmacked to find Statistics (and Algebra) on the new entrants' syllabus. On one wall was a barchart of 'how I travel to school' (walk, car, skateboard, bus). Forty years ago 'statistics' was no more part of my vocabulary than it is for most of my generation now. Presumably by the time Jeremy enters the workforce, statistics will be child's play.

I developed the website for last year's Biometrics/NZSA Conference in Christchurch, and subsequently, some would say consequently, I was invited to edit this newsletter. Also last year, another claim to fame, I became the first non-North American to win the crossword competition in *Chance*. However, I'm not planning a crossword for our newsletter!

The most noticeable change you will find with the newsletter is that it is now available in two formats, hard copy mailed out as you've always had it including a pdf version available off the NZSA website, and online with active links off the Royal Society NZSA website. We each have our own *modus operandi* – some (most of the Exec) like to sit back with a cup of coffee and thumb through the pages of the newsletter, while others don't like the clutter of paper and would rather flick through it on the screen. If you would prefer not to receive a hard copy of the newsletter, please let us know through the online version.

The Local Scene now receives an expanded

number of contributions. In the past a critical mass principle has operated, with university departments and 'statistician-rich' CRIs contributing their news. The last 15 years has seen a massive fragmentation of the workforce, with many NZSA members (some of whom have made major contributions to the Association) structurally isolated from other statisticians. However, they still have news, so I have asked some from among their number to contribute to this column, to maintain the breadth of our statistical community. Also, I feel I should be able to get good copy out of my old buddies. (I did, too!)

If I missed you out or you have some news to send, roger.littlejohn@agresearch.co.nz is my email address. Statistical snippets are welcomed, brickbats and bouquets for the media for stat-savvy (or otherwise), even letters to the editor.

Roger Littlejohn

Editorial Postscript

Thanks to all of you who have contributed to this newsletter, more so than I had imagined! Now you have 20 pages to read instead of the intended 12, and not as many pictures as I'd expected! I hope you find it interesting reading, as I have.

You may also find it convenient to check the web version, one way to avoid misspelling the hyperlinks; it will also include (late) local news contributions.

<http://nzsa.rsnz.govt.nz/Newsletter56/index.htm>

Roger

SSAI Newsletter Editor



The new member of the editorial team of the SSAI Newsletter is New Zealander Alice Richardson. Her first contact with the NZSA dates from 1982, when as a schoolgirl in Wellington she carried out a project for the Wellington

Science Fair entitled "Graphs of a Library Survey". She won the NZSA prize for her efforts. "Now that I look back, it seems to me that this award really marks the start of my interest in Statistics", Alice said. After completing an Honours degree in Statistics and Operations Research at Victoria University of Wellington, she moved to Canberra in 1991 to undertake post-graduate study at the ANU. She joined both the NZSA and SSAI in 1992, and has held a number of positions in the Canberra Branch of SSAI, including a stint as the Branch President in 1999 and 2000. She took over as SSAI Newsletter Editor when Bob Forrester and Doug Shaw retired in mid-2001.

Our apologies for getting her name wrong in our previous newsletter.

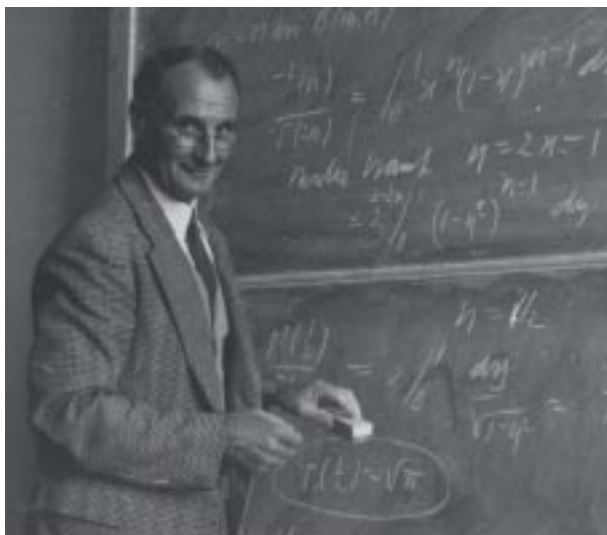
Roger Littlejohn

Campbell Estate Bequest

The NZSA were the recipients of a very generous donation (\$48,000) from Professor Campbell's estate. A group of the executive met to discuss options for use of this money, and recommended to the executive that the bequest be invested and interest from this be made available for special projects. The amount of funding available each year would be roughly \$1500. Applications would be received twice a year (April/October) for funding of special projects that were within the interests of Professor Campbell. The use of the funds in this way was considered against the option of allocating all, or a substantial part of the money, to a major project now. Given there is no major project immediately obvious, and without wanting to preclude the money being available for a worthy project at a later date, the "spend interest-only" option was adopted. The use of the fund would be reviewed in 5 years. Projects funded for 2002/03 are creating electronic copies of back issues of the NZ Statistician and a contribution to Otago University for their survey of statisticians.

To better understand Professor Campbell's interests, the following is summarised from a transcript of an interview of Professor Campbell with David Vere-Jones and Sharleen Forbes in 1987:

- the importance of a good mathematical foundation for any teaching of statistics;
- the likelihood of developments in mathematics being stimulated by the needs of the social sciences, and the role that women, in particular, will play in this;
 - more generally the need to help women mathematicians;
 - the responsibility he felt towards 'second-tier' students - the 'elite' ones were seen as 'self-propelling';
 - effective connections between schools and universities;



- the importance of instilling intellectual honesty - much wider than just mathematics.

Overall he had a vision of mathematics and statistics as a unified whole.

Also, in recognition of Professor Campbell, the NZSA have the NZSA Campbell Award. The purpose of the award is to promote statistics in NZ and to recognise an individual's contribution to the promotion and development of statistics. More details are on <http://www.stat.auckland.ac.nz/nzsa/award.shtml>. The award was given to Stan Roberts in 1999 and Murray Jorgensen in 2001.

Professor Campbell is pictured below, lecturing a 1962 Honours class. The NZSA is extremely grateful for his generosity.

Jennifer Brown, Garry Dickinson

University of Otago Survey

John Harraway and Richard Barker have received a grant of \$1000 from the New Zealand Statistics Association to assist with a survey of "Statistical Procedures used by Graduates in the Workplace". A Research into University Teaching Grant of \$8500 from the University of Otago has also been received and the study is well underway.

They have surveyed research graduates (PhD or Masters) in subjects which have Statistics pre-requisites at university, namely Statistics, the Biological Sciences including Zoology, Botany, Marine Science, Ecology and Environmental Science, Nutrition, Food Science, Psychology, Marketing, Finance and Economics.

The purpose is to see if the statistics courses being taught in the New Zealand Universities (and Otago in particular) are appropriate, to see if they need to be modified to meet the demands of the workplace, and possibly to identify areas where focused workshops could be provided for different groups. It is felt there are subject differences and it is hoped to identify these.

They have gained permission to use the Alumni databases at Auckland, Waikato, Victoria, Canterbury and Otago Universities after meeting ethical and privacy conditions. The target population comprises graduates who obtained their higher degrees between 1995 and 1999, as this ensures there is good chance they will be in the workforce now. About 2500 survey documents have been mailed, with about 900 responses so far. They are about to embark on follow-up of non-respondents, and the grant from the New Zealand Statistics Association will be used to fund this aspect of the sampling as well as some of the analysis. It is hoped to have the results by March next year.

John Harraway

StatsWeb

StatsWeb is now live at <http://www.statsjournalsweb.com>. It is a unique tool enabling researchers to search quickly and easily across titles, abstracts and authors in all the leading statistics journals published by Blackwell.

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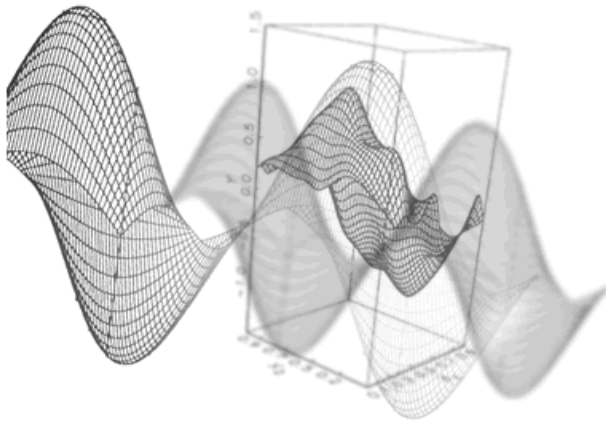
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Paula O'Connor, Blackwell Publishing, Oxford
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NZIMA

The New Zealand Institute of Mathematics & its Applications (NZIMA) has recently closed its call for proposals for programmes, applications for Maclaurin Fellowships, postgraduate scholarships and funding for other research activity in the mathematical sciences in New Zealand, but you may find it useful to bookmark their page

<http://www.nzima.auckland.ac.nz/>

New members

A warm welcome to new members of the NZSA
Grace Chiang Roger Dungan Marco Lau
Nicoleen Cloete Dudley Gentles Karyn Newton
Rachel Fewster Brian McArdle Edith Hodgen
Easaw Chacko Vijayantimala Anand

Join the NZSA

A membership application form is available at
<http://www.stat.auckland.ac.nz/nzsa/form.shtml>

Effective Data Mining Workshop Albany Campus of Massey University

This workshop, held over 24-26 June, provided an in-depth introduction to Data Mining, what is required to set up a Data Mining environment, how to undertake a successful Data Mining project and how to *do* Data Mining using SAS Enterprise Miner. The first day gave an executive overview, while the second and third days were hands-on, held in a computer laboratory with full demonstration capabilities.

This workshop was a repeat of one held in Palmerston North in March, but there was a marked difference in the type of person attending the Auckland workshop. On average the Auckland people had more of a statistical background than the Palmerston North attendees. It was good to have interaction between business and academic statisticians and to see this interaction resulting in the summer recruitment of a Massey student by a local bank. What will she be doing? Data Mining of course!

The reviews suggest that the workshop was successful, providing the participants with what they needed to start using Data Mining seriously in their respective businesses. It is likely that the workshop will be presented in Wellington and Christchurch later in the year. Interested participants should please contact Siva Ganesh at Palmerston North (s.ganesh@massey.ac.nz) or Denny Meyer at Auckland (d.h.meyer@massey.ac.nz).

Denny Meyer



Paul Bracewell, Denny Meyer and Siva Ganesh

16th Australian Statistical Conference

The 16th Australian Statistical Conference was held 7-11 July 2002 at the National Convention Centre, Canberra. A good contingent of 23 from NZ participated. Details of the programme are at <http://www.statsoc.org.au/asc16.html>. The presentation for Nick Fisher's challenging Presidential address "Statistics and the status quo" is at <http://www.statsoc.org.au/pdfs/presaddress2002.pdf>. The SSAI has initiated a public awareness campaign with "Statistics: a job for professionals" as its slogan. Nick offered his working definition that "Statistics is the science of managing uncertainty".

Terry Speed was presented with the Pitman Medal, Ian James received Honorary Life Membership and Michael Adena and Alan Branford received SSAI Service Awards.

A Workshop, *Design and Analysis of Microarray/Chip Experiments*, organized by the Centre for Bioinformation Science, ANU, followed on the Friday. Workshop presentations are at <http://cbis.anu.edu.au/workshop/>.

Harold Henderson

NZSA Conference 2002 and Data Mining Workshop

The Waikato University Statistics Department had the honour of hosting the NZSA One-day Conference for 2002. This was held on June 10, in conjunction with a one-day workshop on Data Mining on June 11. In keeping with this, the theme of the conference was "Data Mining", and most of the contributed papers were in this area. The invited speaker was Alan Lee from University of Auckland and his keynote address was entitled "Empirical Bayes Regression".

The Data Mining workshop was presented by members of the Computer Science Department at the University of Waikato. The workshop looked at Data Mining from a Machine Learning perspective using the software Waikato Environment for Knowledge Analysis (WEKA), which has been developed at this University. The main presenters



Geoff Holmes, Bernhard Pfaringer, Richard Kirkby and Xin Xu of WEKA

were Geoff Holmes and Bernhard Pfaringer and they were assisted in the hands-on tutorial by senior students Richard Kirkby, Gabi Schmidberger and Xin Xu. The general consensus of the attendees was that it had been a worthwhile experience.

The organising committee comprised of Judi McWhirter, Harold Henderson and James Curran and we were assisted immeasurably by the departmental secretary, Karen Devoy. Karen (on left below, with Judi) was presented with a small token of appreciation at the conference dinner which was held following the AGM on Monday evening.

Judi McWhirter



Submissions to the Newsletter

The Newsletter welcomes any submissions of interest to members of the New Zealand Statistical Association. 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 28 February 2003.

Advertising In the Newsletter

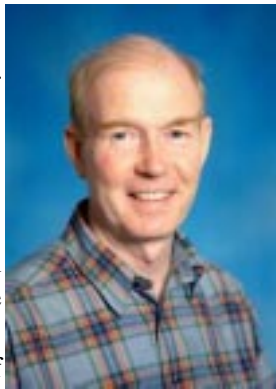
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Erskine Fellow, University of Canterbury

Granville Tunnicliffe-Wilson is a Visiting Erskine Fellow at the University of Canterbury from 9th September to 8th December this year. The Erskine Fellowships are used to bring distinguished visitors from around the world to the University of Canterbury. Granville has the position of Reader in Statistics at the University of Lancaster and is author of the time series component of GenStat.



Granville will be giving some lectures and hopes to pursue research on a new class of time series models that will be more widely applicable than autoregressive models but just as straight-forward to use, with less of the mystique of ARMA models. He is also continuing collaboration with applied scientists, for example, modelling the variation of annual counts of various animal populations in the Kruger National Park and their dependence upon rainfall and temperature, using standard GenStat time series facilities.

Marsden Fund Awards

Three statistical projects are included in this year's Marsden Fund awards, announced recently. Congratulations to Dr Darryl MacKenzie of Proteus Research and Consulting Ltd ('Comparison of study designs for the estimation of site occupancy when species are not detected with certainty'), Dr Renate Meyer of University of Auckland ('Bayesian strategies for astrophysical data analysis') and Professor Estate Khmaladze of Victoria University of Wellington ('Local point processes in the neighbourhood of sets').

Darryl MacKenzie

Darryl's project is collaborative with Dr Jennifer Brown, University of Canterbury, James Nichols, Patuxent Wildlife Research Center, US Geological Survey and Andrew Royle, US Fish & Wildlife Service.



The proportion of sites (or more generally, area) occupied by a target species is of interest in many wildlife monitoring programmes. However, few species are so conspicuous that they will always be

detected when present at a location. While detection of the species indicates the species is indeed present, non-detection does not equate to species absence.

A statistical model has recently been developed that enables estimation of the proportion of sites occupied by the species in such situations. This method requires a sampling scheme where N sites are surveyed at T (>1) discrete occasions, and the detection/non-detection of the species is recorded on each visit. The model provides a flexible framework for assessing such data, allowing relationships between occupancy and site characteristics (e.g. habitat type) to be investigated.

From a practical viewpoint however, more research is required to assess (a) the relative importance of sampling more sites to repeated visits and (b) realistic sampling schemes that could be used in the field. We plan to investigate these two issues using theoretical and computer simulation approaches, as this information is vitally important to potential users of the method during the planning of their study, so that efforts can be focused accordingly.

Renate Meyer



This research project is within the emerging interdisciplinary field of "astrostatistics", at the frontiers of physics and statistics. It is collaborative with Assoc Prof Nelson Christensen, Carleton College, Minnesota, and has strong links to Caltech, the University of California,

Davis, Washington State University and the NSF-supported Laser Interferometer Gravitational Wave Observatory (LIGO) Scientific Collaboration. We will investigate novel statistical strategies for parameter estimation in complex astrophysical models. Making use of new simulation-based technology for posterior computation known as Markov Chain Monte Carlo (MCMC), we will show that a Bayesian astrostatistical approach holds great potential and is no longer computationally prohibitive.

Two areas of astrophysics entering exciting phases of discovery and raising many statistical methodological issues, are:

- cosmic microwave background (CMB) cosmology: The NASA explorer mission MAP will measure temperature anisotropies in the CMB radiation, the remnant of radiation from the Big Bang, with unprecedented accuracy and provide data that can answer fundamental questions about the origin and fate of the universe, and
- gravitational radiation (GR) astronomy: A number of collaborations around the world are starting

to operate laser interferometric GR antennae and may soon observe interesting astrophysical phenomena, e.g. coalescing binaries containing neutron stars or black holes. The detection of coalescing binary events will provide physicists with extremely useful cosmological information, such as an independent determination of the Hubble constant.

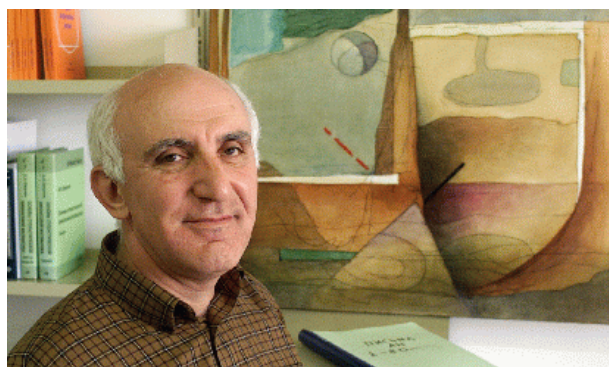
The extraction of cosmological and astrophysical parameters from the CMB and GR data requires a long and computer-intensive analysis chain to which Bayesian MCMC techniques will make a major contribution.

This project offers two PhD scholarships in statistics, and is looking for highly motivated graduate students in statistics (and/or maths/physics), preferably with a strong background in Bayesian inference and Monte Carlo methods, sound computing skills and a keen interest in applied-methodological, cross-disciplinary research. More details can be obtained from Dr Renate Meyer (meyer@stat.auckland.ac.nz, +64-9-373-7599 ext 5755).

Estate Khmaladze.

As we all know, modern mathematics is a science of huge and complex structure. Although all mathematicians speak the same language and follow common rules, still mathematics, as a science, is very diverse. It resembles a great and extremely beautiful palace consisting of different wings with different structures, each with wonders of its own.

That is why mathematicians always appreciate research which aims to discover new connections between seemingly remote and unconnected wings of mathematical science. It seems that the Mathematical panel demonstrated that kind of attitude when they awarded the Marsden grant to the project "Local point processes in the neighbourhood of sets" (E. Khmaladze, Victoria University of Wellington). The project will explore very new and deep relationships between probability theory and the theory of random (point) processes on one side and differential and convex geometry on the other side. Although the main idea comes from New Zealand's soil, two other researchers, W. Weil from Karlsruhe



University, Germany, and J. Einmahl from Tilburg Catholic University, the Netherlands, will participate in the research as associate investigators.

As VICNews put it ... the project "will investigate statistical theory that underlies a wide range of physical phenomena, from earthquakes to possum eradication, the distribution of mineral deposits in the earth to that of galaxies in space."

Cochran-Hansen Prize Competition for Young Survey Statisticians from Developing and Transition Countries

In celebration of its 25th anniversary, the International Association of Survey Statisticians (IASS) established the Cochran- Hansen Prize to be awarded for the best paper on survey research methods submitted by a young statistician from a Developing or Transition Country. The next paper will be presented at the 54th Session of the International Statistical Institute, to be held in Berlin, Germany from August 13-20, 2003.

Participation in the competition for the Cochran-Hansen Prize is open to nationals of Developing or Transition Countries who are living in such countries and who were born in 1963 or later. Winners of an ISI Jan Tinbergen Award are not eligible for the competition.

Papers submitted must be unpublished original works. They may include materials from the participant's university thesis. They should be in either English or French. The papers should be submitted to the IASS Secretariat at the address below, to arrive by 31 December 2002. Each submission should be accompanied by a cover letter that gives the participant's year of birth, nationality, and country of residence.

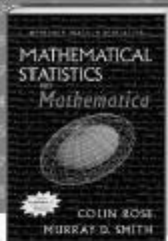
The papers submitted will be examined by the Cochran-Hansen Prize Committee. The decision of the Committee is final.

The author of the winning paper will receive the Cochran-Hansen Prize in the form of books and journal subscriptions to the value of about 500 Euros and will be invited to present the paper at the Berlin Session of the ISI with all expenses paid (i.e., round trip airfare between place of residence and Berlin and a lump sum to cover living expenses).

For further information, please write to:

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P.J. Brockwell, R.A. Davis

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C.S. Davis

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Data sets used in the examples and homework problems can be downloaded from the Internet.

2002. Xxix, 415 pp., 20 figs. (Springer Texts in Statistics) Hardcover € 84,95; £ 59,50; sFr 141,- ISBN 0-387-95370-1

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Statistics Education News

The Statistical Literacy, Thinking and Reasoning Forum (SLTR-3) will be held at the end of July 2003 at the University of Nebraska-Lincoln, USA. The topic of the third Forum will be *Reasoning about Variability*. Participants are selected on their proposed presentations. The organiser is Bill Mickelson (wmickelson2@unl.edu)

The sixth of International Association for Statistics Education's (IASE) series of four-yearly ICOTS (International Conference on Teaching Statistics) meetings was held in Cape Town, South Africa in July 2002. It was a very enjoyable conference with a great group of 16 Kiwi attendees, by far the highest participation rate of any country apart from the hosts South Africa. The CD of the proceedings (Editor Brian Phillips, ISBN: 085590 782 7; Cost \$US25 incl. postage) is available from:

IASE, ISI Permanent Office
428 Prinses Beatrixlaan
PO Box 950
2270 AZ Voorburg
The Netherlands
Email: isi@cs.vu.nl

Preparations for the ISI-54 conference to be held in Berlin, August 13-20, 2003 have started with invited presenters and discussants being already established by session organisers. The sessions are listed at <http://www.cbs.nl/isi/BerlinProgram.htm> with the main education sessions being Sessions 44 to 50. IASE is also holding a satellite conference on "Statistics Education and the Internet" in Berlin just prior to ISI-54. Details can be obtained from Larry Weldon (weldon@sfu.ca) or Joachim Engel (JoaEngel@aol.com).

The first issue of the Statistics Education Research Journal (SERJ) is available at the SERJ web site <http://fehps.une.edu.au/serj>. This is an electronic journal of IASE. Access to the first two issues is free to everyone, but in the future only IASE members will be able to access current issues. It aims to:

- encourage research activity in statistics education;
- advance knowledge about students' attitudes, conceptions, and difficulties with regard to stochastic knowledge;
- improve the teaching of statistics at all educational levels.

In New Zealand submissions were invited for the new Scholarship Mathematics with Statistics examination. Mike Camden was the panel leader and he has ensured that students have an up-to-date statistics course. He is also working on providing

resources for this course. Thanks for all your hard work Mike!

Delta '03 (Fourth Southern Hemisphere Conference on Undergraduate Mathematics Teaching) will be held in Queenstown from 23 to 27 November 2003. A statistics strand is being organised with Chris Wild as plenary speaker. For more information see www.maths.otago.ac.nz/delta03

Chris Wild (c.wild@auckland.ac.nz) is still receptive to brilliant session/organiser/speaker ideas for the education sessions at ISI-55 to be held in Sydney early in 2005.

For more information about statistics education see these web sites:

<http://www.cbs.nl/isi/iase.htm>

<http://www.ugr.es/local/batanero/sergroup.htm>

<http://www.swin.edu.au/math/iase/meetings.html>

Maxine Pfannkuch

RSNZ Committee on Mathematics and Information Sciences

My term on the Council of the Royal Society of New Zealand (RSNZ) as the representative of the Mathematics and Information Sciences Electoral College, carrying with it the Chairmanship of the RSNZ Committee on Mathematics and Information Sciences, is about to



conclude. Coupled with the announcement of the election of Associate Professor Andy Philpott as my successor, it is appropriate that I should provide the member bodies of the Electoral College an overview of the activities of this Committee during my tenure as its Chair.

MISC has gone through various constitutional changes since its initial conception. Originally created in May 1994 as the "New Zealand Mathematical and Information Sciences Council", under the convenorship of Prof Marston Conder it was able to link with the RSNZ, which at the same time was undergoing reform to ensure greater participation of scientists and technologists within its sphere of activities through discipline based groupings. The establishment of "electoral colleges" signalled the possibility of bringing together representatives of various societies - NZ Mathematical Society (NZMS), NZ Statistical Association (NZSA), Operational Research Society of NZ (ORSNZ) and the Informatics Group of the NZ Computer Society (NZCS), as well as NZ Association of Mathematics Teachers (NZAMT), which is currently a member

of the Science & Technology Education Electoral College, as well as Fellows of the RSNZ in the mathematical and information sciences, to form a grouping that would promote the advancement of these disciplines in NZ as well as provide liaison between the societies. This linkage was strengthened in September 1994 through the establishment of the Mathematical and Information Sciences Standing Committee (MISC) of the RSNZ, with Professor Graeme Wake assuming the chairmanship of the committee following his involvement as a member of the Interim Board of the RSNZ since 1992. The new Act took longer to get through Parliament than was initially anticipated and following a recommendation of MISC, in April 1997 I was appointed by the interim RSNZ Council as MISC Convener and a representative on its Council. The passing of the new Act relating to the RSNZ in 1997 brought with it the formal establishment of Electoral Colleges. The interim Council was charged with conducting elections for representatives of the Electoral Colleges and in 1998 I was duly elected. Such elected representatives can serve at most two terms of two years. In order to achieve rotation and continuity of membership on the Council I agreed to seek re-election in 2000, with my term concluding this year. That mechanism achieved the desired effect and every two years roughly half the council does not seek re-election. In recent years the RSNZ Council disbanded the concept of "standing committees" by establishing simply "committees" each of which provides the Council with a plan of action for the following year.

Immediately following my appointment as Chair of MISC, the RSNZ secured a contract with the Ministry of Research Science and Technology to carry out a review of mathematical sciences within New Zealand. This was a major undertaking that took over a year to execute. The exercise proved to be very demanding, but we were determined to do as good a job as we could. The Review Team consisted of myself as Chair, Professor David Vere-Jones, Associate Professor Stephen Haslett, Mrs Jean Thompson and Dr Mark Bebbington. We sought advice from Dr Noel Barton, the author of the Australian Review; produced a discussion document on future likely developments in various mathematical science areas; called for individual submissions; constructed, disseminated and analyzed questionnaires sent out to individuals and groups in a variety of different areas (universities, polytechnics, research organizations, professional associations and user groups); held regional workshop meetings in the main centres; and produced a final report "Mathematics in New Zealand: Past, Present and Future". The report

identified areas of concern as well as opportunities. It provided a very valuable oversight of the mathematical sciences and was also used to provide an input into the Foresight process that was underway in the country at that time. The hard data that the review provided proved to be very useful, particularly when making submissions and press releases on behalf of MISC. These have been submitted in various situations and to various groups including the NZ Vice-Chancellors Committee, the Tertiary Education Advisory Commission, the parliamentary party spokespersons on tertiary education, appropriate Ministers of the Crown, as well as an article in the NZ Education Review. These were in the main in relation to concerns in the funding of our disciplines, especially at tertiary level.

Besides acting as a coordinating body for the discipline groups we have tried to encourage member bodies to consider holding joint conferences. Many Societies prepare dates for these meetings well in advance and I would encourage you to look for such cooperative opportunities. In the past I can recall a successful joint meeting between the ORSNZ and the NZSA, as well as at least one Mathematics Colloquium overlapping with a NZSA Conference.

One area of concern has been the inability of the committee to get formal representation of the computer scientists. The Informatics group of the NZCS no longer functions and we have no official representation of computer scientists. At the last annual meeting of MISC in March of this year Professor Phillip Sallis and Professor Mark Apperley joined us to explore ways that we can effect such a linking without necessarily creating another professional society.

MISC now functions as a National Committee for two ICSU organizations - the International Mathematical Union (IMU), and the International Union of Theoretical and Applied Mechanics (IUTAM). The established policy is that "the IMU NZ representative serves for a four year period with any new appointment being made at the beginning of the year when the IMU holds its General Assembly. It is expected that the Representative would be the President of the NZMS". Professor Jeremy Astley took over the role of IUTAM representative from Prof Ian Collins and joined MISC in 2000. Recently he has been replaced by Dr Graham Weir, following Professor Astley's move to the University of Southampton. The RSNZ Council is currently reviewing its international commitments but the opportunities that we gain by continuing with our representation on these bodies is important for our international standing.

MISC typically convenes for a one-day meeting

once a year with regular email communication conducted between the members when items, typically referred to by the RSNZ Council, need addressing.

I would also like to remind the Electoral College that MISC can assist in bringing forward nominations for New Zealand Science and Technology Medals. It was a great honour that Prof David Vere-Jones was awarded the Gold medal (now called the Rutherford Medal) in 1999 as the top annual award to a scientist or technologist.

The RSNZ Council is also attempting to address the concerns of the Minister for Research, Science and Technology in that not enough scientists are put forward for New Zealand Honours. The Minister asked the RSNZ to take a lead in bringing forward nominations. The Chair of MISC can offer assistance to member bodies if they wish to seek the Royal Society's endorsement of such nominations.

I would also like to bring to the attention of members the existence of the Science and Technology Promotion Fund. MISC has also identified the need for a coordinated promotion of careers in the component disciplines. The committee is exploring the possibility of a suitable publication and up-to-date posters.

In welcoming Andy Philpott to the role of the Chair of MISC, I am delighted that we have achieved a rotation of representatives from the member bodies of the Electoral College - initially Graeme Wake from the NZMS, then myself from the NZSA, and now Andy Philpott from the ORSNZ.

Finally, I would like to express my appreciation of the support that I have received, as chair of MISC, from the various member body representatives. My role has been one of coordination, with secretarial support willingly provided by the RSNZ. In particular I would like to thank those members of the Electoral College that served on MISC during my tenure as its chair - NZMS: Prof Douglas Bridges (1997-99), Prof Rob Goldblatt (1997-99), Prof Graeme Wake (2000-01), Prof Gaven Martin (2000-02), Prof Geoff Whittle (2002). NZSA: 1997: Mrs Jean Thompson (1997-99), Ms Sharleen Forbes (1998-9), Assoc Prof David Scott (2000-02), Assoc Prof Stephen Haslett (2000-02). ORSNZ: Dr Jonathon Lermitt (1997-98), Prof Tony Vignaux (2000), Assoc Prof Andy Philpott (1997-2002), Dr John Davies (2002). In addition the following also served on MISC. NZAMT: Ms Sylvia Bishton (1997-2001), Mrs Jan Wallace (1997-2002), Ms Joanna Wood (2001), Mr Alan Parris (2002). RSNZ Fellows: Dr Alex McNabb (1997), Prof Derek Holton (1997-99), Prof Ian Witten (1998-2002), Prof Rod Downey (2000-02).

Jeffrey Hunter

ANZJS Applications Editor

The biggest challenge for me as Editor of the Applications Section of the Australian and New Zealand Journal of Statistics was to become a bit more organized. In my previous role as Newsletter Editor, I knew that I had to put aside a couple of days every six months, stir-up the loyal contributors a few weeks ahead of deadline date, and file away the contributions as they arrived.



The Applications Editor job doesn't work like that - the submissions, reviews, revisions etc, roll in at any old time and it requires some organisation to keep track of it all. This is particularly so because almost all submissions and correspondence are conducted electronically and I can't count on my in-tray keeping a track of my "to do's". Fortunately, Chris Lloyd (Managing Editor) provided me with his Excel spreadsheet and Word mail-merge documents for automating the handling of correspondence and these have proved to be invaluable.

The Applications Section averages about one submission every couple of weeks. They seem to come in batches, which I suspect coincide with the breaks in teaching duties. I give each submission a quick read to determine if it meets the Apps Section policy and is not obviously flawed. About 40% of submissions do not make it beyond this point. If it does then it gets emailed to an Associate Editor for review. The target is to have the review within three months of submission - this relies very much on the dedication of the Associate Editors. They are vital to the smooth and timely running of the refereeing process. I don't have a good feel for the acceptance rate yet, but I'd put it at a little over 50% of those that get sent to review.

The Australian and New Zealand Journal of Statistics is a publication that we can be proud of, and it is steadily improving its impact factor rating every year. You can help in this regard by considering ANZJS when submitting your work. The Editorial



team have some ideas for keeping the momentum going, and one I especially favour is to invite review articles - we've certainly got the depth of expertise in our membership to produce some review articles that will be much noted in the years to come.

Russell Millar

Conference Brief

Check Gordon Smyth's Australasian conference list
<http://www.statsci.org/conf/index.html>

Details for planned conferences and workshops are given below. We're heading for a busy December!

"Tuning into Statistical Thinking" - Courses in Basic Statistics

AgResearch Grasslands, Palmerston North, NZ
October 21-23 and November 5-6, 2002

Leader: Dave Saville

Email: dave.saville@agresearch.co.nz

SEEM4 - Fourth Conference On Statistics In Ecology And Environmental Monitoring

CASM, University of Otago, Dunedin, NZ
9-13 December, 2002

Invited Speakers: Hal Caswell, Jean-Dominique Lebreton, Byron Morgan

Early Registration Date: 31 October, 2002

Web: <http://www.maths.otago.ac.nz/SEEM4/>

Email: igoodwin@maths.otago.ac.nz

Satellite Workshop: Matrix Population Models
4-6 December, 2002

Leaders: Hal Caswell, Jean-Dominique Lebreton

Satellite Workshop: Distance Sampling

DOC and U. Canterbury, Christchurch, NZ
16-17 December, 2002

Leaders: David Borchers, Len Thomas

Registrations close: 31 October, 2002

Email: iwestbrooke@doc.govt.nz

Australasian GenStat Conference 2002

Busselton, Western Australia

4-6 December, 2002

Early Registration Date: 31 October, 2002

Web: <http://www.agric.wa.gov.au/biometrics/genstat2002/>

Email: genstat2002@agric.wa.gov.au

Satellite Workshops:

Statistics for microarray data analysis

Duxton Hotel, Perth, Western Australia
2 December, 2002

Leaders: Terry Speed, Yee Hwa Yang, Natalie Thorne

Spatial statistics for environmental scientists

3 December, 2002

Leader: Richard Webster

Biostatistics Workshop: Correcting for measurement error in epidemiological studies

Auckland, New Zealand

5-6 December, 2002

Leaders: Raymond Carroll, Roger Marshall, John Horwood

Email: d.bennett@ctru.auckland.ac.nz

Multilevel Statistical Modelling (An introduction to MCMC and MLwiN)

Massey University, Palmerston North, NZ
9-11 December, 2002

Leaders: Bill Browne, David Draper

Early Registration Date: 1 November, 2002

Web: <http://srcc.massey.ac.nz>

Email: s.j.haslett@massey.ac.nz

First International Conference on Resource Selection by Animals

University of Wyoming and WEST Inc., Laramie, Wyoming, USA

13-15 January, 2003

Early Registration Date: November 15, 2002

Abstract Submission Date: November 15, 2002

Web: <http://www.west-inc.com/>

Email: admin@west-inc.com

Satellite Workshop: Resource Selection Functions

11-12 January, 2003

Leaders: Lyman McDonald, Bryan Manly, Trent McDonald, and Wallace Erickson

S Programming Workshop

Statistics Department, University of Auckland
13-14 February 2003

Leaders: Bill Venables, Robert Gentleman, Ross Ihaka, Paul Murrell

Web: <http://www.stat.auckland.ac.nz/S-Workshop/>

Email: workshop@stat.auckland.ac.nz

New Zealand Statistical Association Conference 2003

Massey University, Palmerston North, NZ
2-4 July, 2003

Web: <http://www-ist.massey.ac.nz/stats/nzsa2003/>

Email: D.I.Hedderley@massey.ac.nz

Delta '03 - Fourth Southern Hemisphere Symposium on Undergraduate Mathematics Teaching

Rydges, Queenstown, NZ

23-27 November, 2003

Web: <http://www.maths.otago.ac.nz/delta03/>

Email: igoodwin@maths.otago.ac.nz

International Biometric Conference and Australian Statistical Conference

Cairns Convention Centre

July 11-16, 2004

Web: <http://www.ozaccom.com.au/ibc2004/>

Email: cairns2004@ozaccom.com.au

International Statistical Institute Conference

Sydney Convention and Exhibition Centre

April 5-12, 2005

Web: <http://www.tourhosts.com.au/isi2005/>

Email: isi2005@tourhosts.com.au

Workshop Details

Distance Sampling Workshop

Venue: *University of Canterbury, Christchurch*
16-17 December, 2002

Jointly sponsored by New Zealand Department of Conservation and Biomathematics Research Centre, University of Canterbury

Topics covered

- methods for estimating wildlife abundance;
- distance sampling;
- participants' presentations on work in progress;
- demonstration of the new release of Distance 4.

Registration

Workshop participants will mainly be DOC staff, but there will be some places for others at NZ\$900 (incl. GST) for the 2 days. Participants need a basic familiarity with distance sampling techniques and DISTANCE software. Priority may be given to those with relevant data, particularly if they wish to make a presentation based on the data. For more information or registration, contact Ian Westbrooke, Statistician, DOC, iwestbrooke@doc.govt.nz phone +64-3-371-3725. Registrations close 31 October, 2002.

Workshop leaders:

David Borchers is head of the Research Unit for Wildlife Population Assessment, a part of the Centre for Research into Ecological and Environmental Modelling (CREEM) at the University of St Andrews. He has wide-ranging experience in design and analysis of wildlife surveys. His innovative research into distance sampling methods for when detection on the trackline is not certain has led to theory that unites the hitherto separate areas of distance sampling and mark-recapture. He is a co-author of the standard reference book "Introduction to Distance Sampling", and lead author on a new book "Estimating Animal Abundance - Closed Populations".

Len Thomas is a research fellow in CREEM. He is the principal developer of the new versions of the Distance software, and co-author on the reference book. His research interests include distance sampling, stochastic models of wildlife population dynamics, trends and statistical power analysis.

Biostatistics Workshop: Correcting for measurement error in epidemiological studies

Venue: *University of Auckland*
5-6 December, 2002

Workshop Leaders

Professor Raymond J. Carroll (University of Texas, San Francisco, USA)

Dr Roger Marshall (University of Auckland)

Dr John Horwood (Christchurch School of Medicine at the University of Otago)

Topics covered

- basic concepts for measurement error;
- differential and non-differential measurement error;
- correcting for measurement error in continuous or binary exposures;
- design and usage of validation and reliability studies;
- methods of correction regression models.

For each topic, the workshop will cover a range of issues including the theory behind the various approaches and analyses of datasets using these approaches will be demonstrated.

Registration

Registration fees will be \$NZ300 (academic), \$NZ350 (non-academic). The registration fees will cover morning tea, afternoon tea and lunches for both days, plus a workshop dinner on Thursday evening. Course enquiries may be made to Derrick Bennett (d.bennett@ctru.auckland.ac.nz) or +64-9-373-7599 x4724.

Multilevel Statistical Modelling (An introduction to MCMC and MLwiN)

Venue: *Massey University, Palmerston North*
9-11 December, 2002

Workshop leaders:

Dr Bill Browne (Institute of Education, University of London)

Prof David Draper (University of California Santa Cruz)

Topics covered

- data and modelling issues;
- Bayesian methods;
- more complex models;
- sessions using MLwiN and WinBUGS.

Registration

The costs is NZ\$1,000 for registration prior to 1 November 2002 and NZ\$1200 on or after 1 November (excl. GST). Email s.j.haslett@massey.ac.nz or visit <http://www-ist.massey.ac.nz/msm/multi.asp> for further information.

Snippets: Credit where credit's due

After the election a pollster was asked how they managed to "get it so right". He replied modestly that all credit should go to the people, they didn't change their minds after the last poll.

Local Scene

Auckland University, Tamaki

I'm writing this from Coffs Harbour (home of the Wallabies and Russell Crowe), so I'm not able to chat with individuals about the details of their recent doings. We'll just have to rely on my patchy memory and a bit of editorial licence! I'm here to play with some mixed effects models for catches of prawns in nets of varying mesh size and construction.

Just about everyone has been overseas at some stage this year and here's some details about the ones I remember. Marti Anderson gave some multivariate workshops in Italy a few months ago. Thomas Yee just got back from a conference in Berlin. Marti Anderson, Ross Parsonage and Matt Regan (and their city colleague Chris Wild) attended the ICOTS conference in Cape Town a couple of months ago. They all had a great time and reported that the conference was very successful and that experiencing the contrasts of South Africa was both exhilarating and saddening. Postdoc Trev Willis did a long trip to Europe and has accepted a job offer at the University of Ravenna, Italy.

The Tamaki campus has undergone major site preparation work this year. A large engineering barn is nearing completion in the SE corner of the campus and we are all looking forward to the roof raising party. The long awaited health sciences buildings are due to be started in a few weeks and completed for 2004. Every week we seem to get a different plan showing where the statistics group is to be relocated once these buildings are complete. The health sciences buildings will occupy the gravel parking lot next to the 721 and 731 buildings. Once the construction crews move onto the parking lot, Tamaki may experience a shortage of student parking for the first time in its history!! Then we'll know we are becoming a proper campus.

Russell Millar

University of Waikato

Waikato recently hosted the one-day New Zealand Statistical Association Conference. This was held in conjunction with a one-day workshop on Data Mining presented by Geoff Holmes and Bernhard Pfaringer, of the Computer Science Department here at Waikato. Both days were well attended.

During the study break, members of the department also took the opportunity to attend some overseas conferences. Dave Whitaker, Nye John, Murray Jorgensen and Judi McWhirter, together with PhD students, Carole Wright and Khangelani Zuma,

attended the 16th Australian Statistical Association Conference in Canberra. Bill Bolstad was an invited speaker at ICOTS-6 in Cape Town. Also attending ICOTS was Bruce Millar, a part-time tutor in the department. Lyn Hunt travelled to Knoxville, Tennessee and presented a paper at the Statistical Data Mining and Knowledge Discovery Conference.

Nye John is currently on leave. He has just returned from visiting Europe where he attended IBC2002 in Frieberg, Germany. His term as Chairperson of the department was originally to end at the end of the year and so he stepped down from this position to coincide with the start of his Sabbatical. Dave Whitaker has been appointed as the new Chairperson.

Murray has returned from his sabbatical. He spent most of his time away in Canada, visiting with Prof Bill Reed, in the department of Mathematics and Statistics at the University of Victoria. He also attended several conferences including the International Conference of Robust Statistics (ICORS2002) in Vancouver, the 13th Annual Meeting of the Statistical Society of Canada in Hamilton, Ontario, and also the Mixture Models and Bump-Hunting and Measurements Error Workshop in Cleveland Ohio.

And last but not least, James Curran visited Venice in early September, where he was an invited speaker at the International Conference on Forensic Statistics.

Recent Seminars:

Jennifer Brown (Department of Mathematics & Statistics, University of Canterbury) "Designing an efficient adaptive cluster sample."

Judi McWhirter "Catching the Bayesian Wave: An MCMC Approach to Modelling Pulsatile Data."

Jock Mackay (Dept. of Statistics and Actuarial Science, University of Waterloo, Ontario, Canada) "Some Issues in Variation Reduction."

Murray Jorgensen "Using Finite Mixtures to Robustify Statistical Models."

Stefan Steiner (Dept. of Statistics and Actuarial Science, University of Waterloo, Ontario Canada) "Seven Habits of Highly Effective Industrial Problem Solvers: An Overview of Statistical Engineering (Shainin Methods)."

Nye John "Crossover Designs in Clinical Trials."

Judi McWhirter

Auckland University, City

We have recently welcomed our new lecturer, Mik Black. Mik grew up in Nelson and studied at Canterbury before going to Purdue University in Indiana to do a PhD in statistical genomics. Another new arrival is Yuichi Hitose, who has recently begun a PhD with Chris Wild after working for ten years

for a pharmaceutical company in Tokyo. And once again, we welcome back James Reilly. James just can't kick his degree habit — this time he's going for the big one and is swinging in to a PhD with Alastair Scott and Chris Wild. Farewell to Samuel Manda, who has just completed a two-year postdoc with Renate Meyer and will shortly take up a lectureship in Leeds, UK.

The Statistics Department is a joint player in one of the country's five new Centres of Research Excellence, 'The NZ Institute of Mathematics and its Applications' (see page 5). Alastair Scott is on the board of directors.

Renate Meyer has had two pieces of good news recently, and is now expecting not only two PhD students through a successful Marsden Grant, but also a new baby! The Marsden Grant funds a three-year project in Bayesian analysis of astrophysical data, but Renate suspects that Project Motherhood will take a lot more work and somewhat more than three years to complete!

Between June and August, the conference season saw people jetting all over the world: Alan Lee attended the 16th Australian Statistical Conference in Canberra; Ilze Ziedins, Geoff Pritchard, Wiremu Solomon, and Ru-Shuo Sheu attended the 28th Conference on Stochastic Processes and their Applications in Melbourne; Ilze also went to the Stochastic Networks conference at Stanford; Alastair Scott and James Reilly attended an Ottawa conference on Recent Advances in Survey Statistics; Arden Miller went to a conference on Design and Analysis of Experiments in Vancouver, and Paul Murrell to the Joint Statistical Meetings in New York. Brian McArdle travelled to Griffith and Otago universities to deliver his popular course on Multivariate Statistics.

On the political front, we have our very own parliamentary candidate in Leila Boyle, who stood as the Labour candidate for the Tamaki electorate in the General Election. After reducing the sitting



James Reilly of Statistical Insights Ltd and Hans Hockey of Biometrics Matters Ltd

National MP's majority from about 5000 to 1200, Leila is pausing only to do a quick significance test before gearing up for her next campaign...

And finally we congratulate our PhD students Carl Donovan and Monique Mackenzie, upon their imminent wedding to take place on 30th November. By late afternoon they are sure to be in no state to remember who they actually invited, so for their own protection the venue is to remain a closely guarded secret!

Rachel Fewster

Biometrics Matters

Although Biometrics Matters Limited has existed only since last year I have been working as a singleton statistical consultant since 1997, or, to stretch a point, since 1990. A brief history is that while I was finishing an MSc in statistics and computing at the University of Waikato I started work for MAF as a biometrician at Ruakura in 1980. The big OE started in 1986, and lasted until 1999. I worked first at the Applied Statistics Research Unit (ASRU) at the University of Kent at Canterbury (the other one) for three years until becoming a biometric advisor in Cameroon working for the UK's Overseas Development Administration (ODA) on an institutional strengthening project for 4½ years. A similar two-year spell followed in Nepal, both courtesy of having a British passport.

With no further ODA contracts available I approached Pfizer, a US multinational pharmaceutical company, in 1997, as I had worked for them on-site in Kent through ASRU previously. My first work was on Phase 3 full clinical trials for Viagra. Since then I have analysed trials in anti-arrhythmic, anti-fungal, stroke and overactive bladder drug programs. Two of these drugs have required Advisory Committee approval from the FDA (both gained) which gives an extra dimension to the usual drug development process, and one did not progress beyond Phase 2.

As a 'contractor' there is the flexibility to work from home and in fact in 1999 I moved permanently back to New Zealand, working by email from here. Electronic communications have improved recently by using Virtual Private Network software which 'tunnels' securely through any Internet connection, such as with ADSL. Up to a quarter of each year is also spent overseas, particularly when a new drug project for me starts and Statistical Analysis Plans need to be written (and non-pharmaceutical follow-up contract work in Nepal has just ceased). The time difference with the UK has advantages and disadvantages, with telephone contact possible only in late evenings. However often work requested in the UK at 5 pm is in the Inbox first thing the next morning, as can often occur during the 'rapid

response' stage of drug approval whereby US or European regulators raise queries, often statistical, to the sponsoring company to help their decision making after the drug submission. It is exciting to be part of the 'knowledge economy' doing work not greatly typical of New Zealand's statistical scene, but not unrelated either to previous experiences.

Hans Hockey

Massey University

Our numbers have been reduced still further by the departure of Graham Wood to McQuarrie and John Giffin to Canterbury. Both will be greatly missed. Chin Diew Lai has taken on the additional burden of Subject Leader until a new Professor is appointed.

Mark Bebbington returned from a 3 month visit to Minneapolis, somewhat bemused by temperatures of 33C being followed three days later by snow. Besides investigating airline security by always forgetting and trying to carry on nail-clippers, Mark was participating in the IMA program on Mathematics in the Geosciences. Careful scheduling resulted in the sabbatical being followed by 6 weeks parental leave. Always the careful statistician, Mark and wife Jill were careful to provide for paired data. Craig and Anna are doing well, although Mark looks awful.

Steve Haslett has been less here than there over the last six months with projects overseas at the US Bureau of Labor Statistics as part of an NSF/ASA Senior Fellowship on small area estimation for employment statistics, at the Office of National Statistics (UK) on interviewer effects in small area estimation, and National Statistics Office (Thailand) as part of a World Bank project on improving establishment surveys. He reports that Len Cook has been sighted at Drummond Gate (very near to Random House), is still his usual enthusiastic self, and is very much enjoying heading up ONS.

Ganesalingam returned briefly in July, having been given a flight home from Sultan Qaboos University in Saudi Arabia. He appeared suddenly and unannounced in the Statistics corridor, his head wrapped in scarves in case of sudden sandstorms. He seems to be enjoying his experience of the Middle East.

We are now starting to grapple with the intricacies of organizing next year's NZSA conference (see elsewhere for details). We are also hosting a short course on Multi-level Modelling in December run by visitors Bill Browne and David Draper. For details see <http://www-ist.massey.ac.nz/msm/multi.asp>.

Geoff Jones

Statistics New Zealand

I'll start with the new (and some not so new) faces in SMASH Wellington. Mike Camden has joined us

from Massey University. Frances Krsinich and Keith McLeod returned from MSD and OE respectively. Other newcomers since the last Newsletter are Katrina Daish (temporarily based in Christchurch), Guido Stark and Jamas Enright. As well Melanie Gin got left off last Newsletter's list of arrivals.

Frank Nolan has left SNZ, and in fact NZ, to work for the UK ONS under SNZ's old boss Len Cook. He recently paid a flying visit back here to tell us what the ONS was like. We also got some information on how the Brits are coping with Len, and vice versa. Those of you who know Len will see why we were interested. A large gap has been created by the departure of Alistair Gray to work full-time for SRA. SNZ though has not seen the last of him as Alistair remains on the ABS Methodology Advisory Committee and SNZ does the occasional presentation to that group. Frances Krsinich presented a paper to the November MAC meeting on her work on adding noise to business microdata for confidentiality purposes. At present we use cell suppression which means values in the cells that are likely to allow a user to deduce a business's response do not get released. With the new methodology you'll get an approximate number which should be good enough for research. It looks very promising and we are currently trialling it for one of our business datasets to see if what works in theory, works in practice.

Victoria Wilcox has left (again) to go to MSD (for the first time). We are all taking bets as to when she'll return, though buying a house in Khandallah (not the very posh end I'm told) may mean a long-tail in the distribution. Also leaving are Vicky Barlow (BNZ) and Gareth Minshall (OE).

Helen Stott has taken over as Chief Analyst, to my immense relief. She has shepherded the report on sustainable indicators to release, to her immense relief. The report, like all SNZ output, can be found on our website (www.stats.govt.nz) and it's well worth a look (the report and the website).

Robert Templeton went to The Netherlands and Denmark recently to visit statistical offices and present a paper, "Using tax data and PRN's to reduce accuracy decay in repeated business surveys" at the International Conference on Improving Surveys. Not his only overseas travel lately as he also went to ASC16 in Canberra where he presented two papers, "Analysis of longitudinal business data" and "Potential use of EFTPOS data in New Zealand for official statistics". John Crequer also was at ASC presenting a paper "Benchmarking with the Kalman filter". John stayed another week in Canberra visiting our time series colleagues at the ABS, as well as trying to get ABS information on various topics as requested by his colleagues. Hard work, so he took the following

week off to explore a bit of Central Australia. We await photographic proof. By the time you read this Steve Johnston will have returned from his three weeks visiting various statistical agencies in North America and Europe discussing agricultural surveys.

Richard Penny

University of Canterbury

UoC Stats is in the process of interviewing for a new lecturer, and those of us teaching in 2002, truly look forward to an expanded group in 2003. In 2003 we shall also, once again, try to fill the Statistics Chair.

So what is happening: Marco Reale continues his work on financial math/stat and is co-teaching a new Financial Math course at the 4th year level in 2002. Mike Steel is busy with NZIM Core (Condor *et al.*) and with research and helping to start a process whereby bioinformatics will have a place in UoC teaching. Irene and members of the Research Centre for Health Care Technology NZ are actively pursuing how bio-statistics, bio-engineering and medical and core physics could play a major role in moves on campus for a Health Sciences Research Centre and Health Research Organisation - all this is part of a Health Sciences push here. Irene is involved in a committee, as Co-Director and interim analyst, to qualify if not quantify "equity", or its lack, here. That may ruffle some feathers!

Jennifer Brown is on sabbatical this year, and apart from one month in Europe, is spending her time in NZ. She is trying to spend at least one week at each University in NZ. The month in Europe was spent first in Italy where she, Bryan Manly and Marco Reale co-hosted an environmental statistics workshop with the University of Naples. Then she was in France and met up with Malcolm Faddy to continue their work with likelihood based modelling. The highlight of the French visit was the fill-your-own 3 litre wine cask with wonderful-tasting red wine for \$6. She won't report how many times the 3 litre cask was refilled. Since then, she attended the NZSA conference in Hamilton, and hosted a visit from Mark Boyce, University of Alberta. Mark and Jennifer are working on an approach to combine adaptive management with population modelling.

Irene Hudson is presenting a paper at the 2002 Royal Statistical Society Conference in Plymouth UK (3-6 September) in the Signal processing and time series session. The paper deals with new statistical developments aimed to resolve whether it is natural habitat or a 7 fold permutation pattern of phyllotaxis that govern wood morphology spatial patterns.

Irene visited Otago University recently and spoke with people interested in global climate change, in which she is developing statistical methods using

phenological indicators as proxies - very much enjoyed Otago University and found a great restaurant called "Thyme Out".

Easaw Chacko continues research in sampling and time series.

Irene L Hudson

Lincoln University

Chris Frampton left Lincoln University to take up a position with the Christchurch School of Medicine.

Richard Sedcole

Department of Conservation

I've been at DOC for two and half years - with the newly created position of statistician being made permanent last year. There is a great mix of project work, consulting and facilitating training. A major project has been looking at the impact of a 1080 poison possum-control operation on tomtits, which I presented early results from at the December conference in Christchurch. Our results were summarised in the June *North and South*: "Extensive monitoring of tomtit populations in the Tongariro Forest before and after a 1080 operation in 2001 shows that no adverse impacts occurred. This is considered to be significant because tomtits ... are considered vulnerable to poisoning".

Another project showed the role of the statistician in conserving data. After a discussion with me at the December conference, Robert Davies came to light with an electronic version of 6,200 bird counts in the central North Island in 1978-81, which he had carefully conserved. One of my colleagues described "wasting 2 years of his life" working full-time to collect this data, and without the consultant statistician saving a copy, it would almost certainly never have seen the light of day again. We managed to find some comparable data from 1997-98, and now have a paper ready for submission to a journal reporting some interesting patterns that are apparent.

Recent training opportunities have involved Mike Camden running courses in the 3 main cities for DOC staff on using SPSS for exploring data; and having 25 DOC staff attend a course on mark/recapture with Richard Barker and Shirley Pledger in July. My next event is running a workshop on 16 & 17 December for those with experience in using distance sampling, led by Len Thomas and David Borchers from University of St Andrews, who will be here for the SEEM4 conference in Dunedin the week before. I hope to catch up with NZSA members with an interest in ecology and conservation at that conference.

A trip to Australia in July was successful in making contacts with Australian statisticians interested in conservation. At ASC16 in Canberra, I met up with

the statistician in the Queensland Environmental Protection agency, along with making contact with some university-based people with ecological interests. Then I visited the Conservation and Land Management department in Western Australia - where they have twice as many statisticians as DOC - 2! I hope that we may gradually build up an informal network of statisticians working in conservation in Australia and NZ.

As I am the only statistician at DOC, I find it very important to keep in contact with other statisticians I know - at universities, AgResearch and other CRIs, and former colleagues at SNZ. If you are interested in helping conserve NZ's native biodiversity, please make contact with me at iwestbrooke@doc.govt.nz.

Ian Westbrooke

Tony Aldridge, Christchurch

A couple of industrial highlights to report since moving to Christchurch. Particle size problems have been solved with help from Nick Fieller's software *ShefSize* (ver 1.0). I had data from the very fine (micron only) to the very large on separate projects. Nick's log hyperbolic model, including mixtures works well for me. Another highlight has been my exposure to Six Sigma projects for business improvement, and watching Minitab being used. There is a surge in the use of statistics by companies adopting the Six Sigma approach, which I expect to flow through to our own community.

Tony Aldridge

Proteus Research & Consulting

David Fletcher is looking forward to the challenge of working as a statistical consultant in ecology and environmental science fulltime. He will still be based in Dunedin, working through the company that he jointly runs with Darryl MacKenzie, who recently graduated with a PhD in mark-recapture methods from Otago. One of the major contracts that the company has at present is with the US Geological Survey. It involves developing methods for estimating the proportion of sites occupied by a species when the species is not guaranteed to be detected even if it is present. The Marsden Fund is also supporting this project. See the company website (<http://www.proteus.co.nz>) for more details.

David Fletcher

University of Otago

August saw the re-establishment of the Dunedin branch of the NZSA. The aim is to provide a social forum for statisticians from other University departments (e.g. Preventive and Social Medicine and Finance), and for statisticians working at independent

research institutes (e.g. AgResearch, Proteus Consulting). The hope is that it will also appeal to local secondary school teachers. At September's meeting George Seber discussed the notion that 'statisticians count more than sheep' to an appreciative audience.

The first few weeks of the second semester saw several visitors from overseas who gave seminars:

- Claude Belisle (Universite Laval, Quebec, Canada): Convergence properties of hit-and-run samplers
- Tshikazu Kimura (Hokkaido University, Sapporo, Japan): Diffusion approximations for queues with Markovian bases
- Paul Yip (University of Hong Kong): A unified approach in estimating population size of capture-recapture experiments in continuous time
- Paul Wade (National Marine Mammal Lab, Seattle, USA): Population dynamics of Washington killer whales: environmental variability of human impacts?
- Ted Catchpole (Australian Defence Force Academy, Canberra): Modelling the dynamics of a simple large mammal population is not easy

In addition, Marti Anderson (Auckland University) visited Dunedin and presented the seminar "Canonical analysis of principal coordinates: a new point of view".

John Harraway attended ICOTS6 in Cape town, South Africa, 7-12 July. He presented an invited paper in the session Statistical Training and Education in Environmental Settings, and organised the session on Multivariate Statistics. Both the Local Organising Committee and the International Programme Committee ran a well organised conference with 500 delegates and a wide range of papers. John was also asked to join the Advisory Committee for the International Statistical Literacy Project. He has responsibility for developing a web page containing resources which can be used by journalists to help them report on statistics and statistical ideas correctly and in an understandable manner. If you are aware of any relevant addresses please contact jharraway@maths.otago.ac.nz. On the way to South Africa John spent four days at Monkey Mia 800km north of Perth seeing the field work being carried out on dolphin behaviour by a PhD student with whom John has previously collaborated.

In the second half of September, Richard Barker will fly to North Dakota for the annual meeting of The Wildlife Society. Darryl MacKenzie finished his PhD in May which investigated computer intensive methods for assessing mark-recapture

data. Near finishers are Ruben Roa and Jorge Navarro who have returned to Chile and Mexico, respectively, which is sad for us but happier for their families.



Markus Neuhäuser (pictured left) joined the department in January. He is from Germany, received his doctorate from the University of Dortmund, and subsequently worked as a biostatistician in the pharmaceutical industry. His research interests are nonparametric methods, multiple comparisons as well as location-scale tests and their application in life sciences, especially in drug development, ecology, and ornithology. He recently visited the colleagues at Auckland University and presented recent research about adaptive designs.

The department is busy getting ready for SEEM4, the fourth conference in their series on Statistics in Ecology and Environmental Monitoring, which takes place 9-13 December this year. The theme is "Population Dynamics: The Interface Between Models and Data". The invited speakers are Hal Caswell (Woods Hole Oceanographic Institution, USA), Jean-Dominique Lebreton (CNRS, France) and Byron Morgan (University of Kent, UK). There is also a pre-conference workshop on "Matrix Population Models" from 4th to 6th December, to be run by Hal Caswell and Jean-Dominique Lebreton. Further information is available from Irene Goodwin (casm@maths.otago.ac.nz) or at <http://www.maths.otago.ac.nz/SEEM4/>.



Richard Barker and Claire Cameron held a workshop at Victoria University on analysing mark-recapture data using the computer program MARK. The workshop was co-taught with Shirley Pledger from VUW. Because of demand for places, two workshops were run back-to-back making for an exhausting week. More than 40 took part, with about half the participants from the Department of Conservation and the remainder coming from Universities and Research Institutes from all over New Zealand and Australia.

Irene Goodwin

AgResearch

David Duganzich retires from Ruakura after almost 44 years working there as a statistician. Dave's

laconic humour will be missed by his fellow statisticians and clients. We wish him a happy retirement. We welcome Katarina Domijan, who has just completed an MCMS in statistics at Waikato, to the stats team at Ruakura, and Ray Littler for the duration of his sabbatical leave from Waikato.

Seven of the AgResearch statistics group attended the NZSA one-day conference at Waikato and the whole group participated in the Data Mining workshop on the following day. Then followed our annual retreat (or should it be called an advance), where we considered our strategic direction, did a spot of team building in the Waimangu Volcanic Valley (hoping for no practical demonstrations of the power of nature), and devoted a day to presentations of current projects and research.

David Baird and Harold Henderson attended the SSAI meetings in Canberra in July. David presented "The analysis of microarray data using mixed models" at the Microarray workshop at ANU that followed. Presentations are at <http://CBiS.anu.edu.au/workshop/>. Peter Johnstone attended the IBC in Freiburg and enjoyed a walk in the Black Forest.

Our group now includes 3 bioinformaticians stationed at Invermay, Nauman Maqbool, Mark Schreiber and Jonathan Warren. Allan McRae has also had a half-time position in the statistics group at Invermay from February to September. He has been investigating the analysis of linkage disequilibrium for helping locate genes in animal mapping populations. He has been awarded a Commonwealth scholarship to study towards a PhD at Edinburgh University.

Dave Saville

Crop and Food Research

It's been a busy year for the four biometricians at Crop and Food Research, so much so, that we are adding another biometrician to our staff. We're very pleased to be welcoming Duncan Hedderley, from Massey University, to our institute. He will join us in December, in Palmerston North. He is Secretary for the NZSA 2003 Conference at Massey University, and his new email address will (almost certainly) be hedderleyd@crop.cri.nz.

As faithful Genstat devotees, Ruth Butler, John Koolaard and Maaike Bendall will be heading off to the Genstat conference in Western Australia. They will each present posters, and also attend workshops on microarray analysis and spatial statistics.

Andrew Wallace has had his Australian trip already, on the Northern Queensland coast around Cairns. And last, but not least, Ruth Butler has tied the knot, marrying Ron van Toor in February of this year. Our best wishes go to them both.

Maaike Bendall

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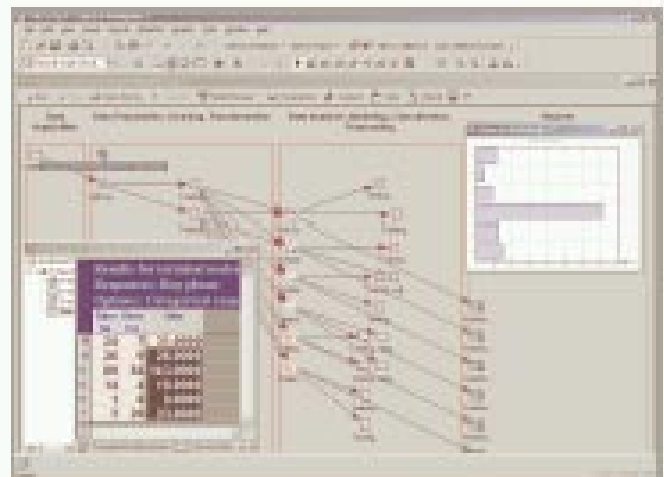
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