The New Zealand Statistical Association nzsa.rsnz.org **Newsletter** Number 60

September 2004

NZSA Visiting Lecturer



The NZSA Visiting Lecturer in 2005 is to be C.R. Rao (left), Eberly Professor of Statistics and Director of the Center for Multivariate Analysis at the Pennsylvania State University, one of the world leaders in statistical science over the last six decades.

He will be an invited speaker at the 14th International Workshop on Matrices and Statistics at Massey University, Albany Campus, and will also present a workshop on "Exploratory Data Analysis and Statistical Learning" hosted by the Waikato Centre for Applied Statistics. For details of his itinerary check http://nzsa.rsnz.org/ Newsletter60/visitinglecturer.htm.

His research, scholarship and professional services have had a profound influence on theory and applications of statistics. Two of his papers appear in Breakthroughs in Statistics for the last century. He is the author of 14 books and about 350 papers.

Rao received an MA degree in mathematics from Andhra University and an MA degree in statistics from Calcutta University. He then started doing research at the Indian Statistical Institute and continued at Cambridge University, UK, where he earned his PhD and ScD degrees.

As Head and later Director of the Research and Training School at the Indian Statistical Institute for a period of over 40 years, Rao developed research and training programs and produced outstanding students which "put India not far from the centre of the statistical map of the world". Over that time he promoted the study of statistics and its applications for socio-economic development, improving the quality of industrial production and decision making in general. After moving to the United States, he has been active during the last 24 years teaching and doing research work at American universities.

He has been the President of the International

Biometric Society (1973-75), Institute of Mathematical Statistics (1976-77) and the International Statistical Institute (1977-79).

He has received numerous honours including the Gold Medal of Calcutta University, Wilks Medal of the ASA, Guy Medal in Silver of the RSS, J.C. Bose Gold Medal of Bose Institute and Mahalanobis Centenary Gold Medal of the Indian Science Congress. At the Berlin conference of the International Statistical Institute (2003), Rao received the prestigious International Mahalanobis Prize for lifetime achievement in statistics and the promotion of best statistical practice.

Rao was honored by the President of the USA (pictured below) with the prestigious National Medal of Science "as a prophet of new age" with the citation, "for his pioneering contributions to the foundations of statistical theory and multivariate statistical methodology and their applications, enriching the physical biological, mathematical, economic and engineering sciences".



The Government of India honored him with the second highest civilian award, Padma Vibhushan for "outstanding contributions to Science and Engineering/Statistics", and also instituted an award in honor of him for young statisticians.

a fuller biography see <u>http://</u> For www.stats.waikato.ac.nz/rao_biography.pdf. Enquiries about Professor Rao's visit should be directed to Prof Jeff Hunter (j.hunter@massey.ac.nz).

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President's Column



The New Zealand Statistical Association has continuing value to statisticians in New Zealand as in some sense the "keeper of the flame" of Statistics in New Zealand. There have been times in the past when the association has seemed as if it were a branch of

some moderately large organisation like the former DSIR or Statistics New Zealand. Indeed many employers over the years have (knowingly or not) been generous with the time of their staff in building the association.

Diverse as we are, is it important that we continue to have an association of "statisticians"? Should we have societies, units, departments, etc., labelled "Statistics"? Bradley Efron chose the theme "The Unity of Statistics" for the recent JSM in Toronto. In his Presidential Address he argues

Why should a university have a statistics department? Why should a pharmaceutical company have a statistics group? Why should a medical school have a division in biostatistics? The first answer has to be that there is a unified viewpoint called "statistics" that has provided, and continues to generate, useful answers to an important set of scientific problems.

Now there probably is nothing that we do as statisticians that is not done in some non-statistical organisations by people who do not see themselves as statisticians. But organizations that are unashamedly statistical in focus, like the groups that some of us work in, keep that broad perspective and unified viewpoint alive.

No-one can count on any employing body not changing its structure or purpose. The association, however, is ours. It cannot be re-structured or dissolved unless we wish it. I suppose that this is not much use unless we see some issues about which it should be active. I had a few such on my mind when I started to write this column but I decided that it might be better for me to use this column to ask you about issues that concern *you* and what you think the association might be doing about them. So please let me know what you think the priorities of the association should be now. I will promise, at least, to think about what you suggest and discuss them with other members.

Murray Jorgensen

New NZSA Executive

While the election of the new NZSA Executive at the AGM during the NZSA Conference in Wellington saw a turn over in the roles of office bearers, with Murray Jorgensen elected as President, Judi McWhirter as Secretary and Neil Cox as Treasurer, the committee remains very stable, with most members continuing on in some new role.

Steve Haslett was elected as a Theory and Methods Editor of the Australian & New Zealand Journal of Statistics, of which Russell Millar is the Applications Editor. Alasdair Noble, Geoff Jones and Mike Doherty continue as committee members.

As well as Neil Cox, other first time members are Carl Scarrott, Ian Westbrooke, John Haywood and Ramya Suntheralingam, who is the Young Statisticians' Representative.

Jenny Brown is Chair of the Awards Committee, Jeff Hunter of Standards, Jenny Mason of Science Fairs, Alex Neill of Education and James Reilly of SAPQC (the Survey Appraisal and Public Questions Committee).

Harold Henderson is the Membership Secretary, Roger Littlejohn the Webmaster and Newsletter Editor, and the committee is rounded out by Rod Ball and David Scott.

Thanks to out-going members Alasdair Gray, Frances Krsinich, Denny Meyer and Andy Smith.

As a new initiative, Murray Jorgensen has set up a Yahoo discussion group for documented communication among Exec members. While this has been broadly successful, some of us are still struggling with membership of this group [Ed!].



Some of the members of the new NZSA Executive following the AGM in Wellington on 1 July. Top row: Steve Haslett, Roger Littlejohn; Middle row: Murray Jorgensen, Ian Westbrooke, John Haywood, James Reilly; Front row: Mike Doherty, Judi McWhirter, Harold Henderson, Jennifer Brown, Carl Scarrott.

Editorial



I have just updated the events diary (on pages 12-13) and am in a state of severe pre-conference burn out. This is the year that statistics comes 'down under', and the intensity of the planned activities, not to mention those recently completed, is quite staggering. There are 18

meetings listed, 8 of which are in New Zealand, while 3 overseas conferences have websites hosted in New Zealand, a tribute to the leadership of Kiwis in the international community.

A quick look at the list of invited speakers to the ISI Satellites in NZ shows that we will be hosting a veritable 'Who's Who?' of statisticians. It promises to be an exciting, stimulating and demanding time. Let us hope that as a statistical community we can capture the value offered by such a 'visitation'.

I particularly want to draw your attention to next year's NZSA 3-Day Conference, to be held in Dunedin next July. It promises to be a beaut, although not too many details are available yet. With all the intervening activity, I suggest you make sure now that you have the time, energy and funds to attend.

This year's NZSA Conference in Wellington had a special charm, from the Vice-Chancellor's notably well-connected introduction (in another life he consulted with statisticians) to dinner at the Skyline.

I also attended IBC/ASC in (tropical) Cairns, which although attended by 750 people, did not overwhelm. For me the highlight was Steve Feinberg's use of a simple unqualified 2x2 table that convinced a US Senator, if not the Department of Energy, that 'lie detectors' were a poor option.

What more can I say? Take a deep breath, plan thoroughly, be selective, and (as they say) enjoy!

Roger Littlejohn

Exploratory Data Analysis and Statistical Learning WCAS One-Day Workshop

Professor C R Rao

Emeritus Holder of the Eberley Family Chair in Statistics and Director of the Center for Multivariate Analysis at Penn State College of Science Tuesday 22 March, 2005

McMeekan Centre, Ruakura, Hamilton Details will be posted on the website: http://www.stats.waikato.ac.nz/rao_workshop.html

NZSA Conference, 2005 Statistics in New Zealand in the 21st Century

The next NZSA conference will take place from July 4-6, 2005, at the University of Otago. The main theme will be "Statistics in New Zealand in the 21st Century". We will soon be advertising on the anzstat list server, once the conference web page (<u>http://www.maths.otago.ac.nz/nzsa2005/</u>) is up and running. Enquiries can be sent to Irene Goodwin (<u>igoodwin@maths.otago.ac.nz</u>), the conference administrator.

This is the first time the conference has been beyond 45°S since 1995, so we are planning to make southern hospitality even more evident than usual!

David Fletcher

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 11 February 2005.

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

Roger Littlejohn AgResearch, Invermay Private Bag 50034, Mosgiel, New Zealand Phone: +64-3-489-9082; Fax: +64-3-489-9037 Email: roger.littlejohn@agresearch.co.nz

Newsletter on Web

An online version of this newsletter is available at http://nzsa.rsnz.org/Newsletter60/index.htm

It has the full "Education Issues" item and will be regularly updated with information and your letters. Email: roger.littlejohn@agresearch.co.nz

Thredbo Statistical Meeting

The Australasian Region of the International Biometric Society and Australasian GenStat Users Association

Thredbo Alpine Hotel, Thredbo Village, NSW February 6-11, 2005.

Thredbo Village is a small, picturesque, exclusive resort in Kosciuszko National Park in the high country of SE NSW. Situated in the heart of the village, the Thredbo Alpine Hotel is a boutique chalet style hotel in tranquil surroundings with uninterrupted views of the high country. It is an ideal place to avoid the summer heat, forget the hustle and bustle of city life, clear your mind and start afresh in 2005.



Call for papers:

We invite proposals for oral and poster presentations at the Thredbo Statistical Meeting. Submitted abstracts should address one of the conference themes or any other current statistical topic. We particularly encourage young statisticians and students to submit proposals for oral presentations and encourage others to submit proposals for posters.

Conference themes:

- model selection
- multivariate analysis
- joint modelling of discrete longitudinal data
- capture/recapture
- MCMC
- splines

Invited speakers:

David Baird (AgResearch), Steve Brooks (U Cambridge), John Eccleston (U Queensland), Malcolm Faddy (Queensland U of Technology), Chris Field (Dalhousie U), Robin Henderson (Lancaster U), Wojtek Krzanowski (U Exeter), Xihong Lin (U Michigan), Roger Payne (VSN International), Alison Smith (DPI Agriculture), Sue Welham (Rothamsted)

To keep up to date as the arrangements progress, to register or submit an abstract, go to the conference website <u>http://wwwmaths.anu.edu.au/thredbo2005/</u>.

14th International Workshop on Matrices and Statistics



Massey University, Albany Campus, Auckland, New Zealand March 29 - April 1 2005

The purpose of the Workshop is to stimulate research and foster the interaction of researchers in the interface between statistics and matrix theory in an informal setting. It will provide a forum through which statisticians may be better informed of the latest developments and newest techniques in linear algebra and matrix theory and may exchange ideas with researchers from a wide variety of countries.

Supported by the NZSA Satellite meeting for 55th Biennial Session of the ISI, Sydney 5-12 April 2005

The conference will have a wide variety of invited and contributed papers. Potential participants are recommended to pre-register on the website <u>http://</u> <u>iwms2005.massey.ac.nz</u>. The deadline for early registration and submission of abstracts of contributed papers is **February 11, 2005**.

Invited Speakers include Moshe Haviv (Hebrew U Jerusalem, Israel), Nye John (Waikato U, Hamilton), A Krishnamoorthy, (Cochin U of Science and Technology, India), Alan Lee (U Auckland), Shuangzhe Liu, (U Canberra, Australia), Augustyn Markiewicz (Agricultural U of Poznan, Poland), Carl Meyer (North Carolina State U, Raleigh, N.C.), Robin Milne (U Western Australia, Perth, Australia), Simo Puntanen (U Tampere, Finland), C R Rao (Pennsylvania State U, USA), Alastair Scott (U Auckland, NZ), Shayle Searle (Cornell U, Ithaca, N.Y., USA), George Seber (U Auckland), Jennifer Seberry (U Wollongong, Australia), Eugene Seneta (U Sydney, Australia), George Styan (McGill U, Montreal, Canada), Garry Tee (U Auckland), Hans Joachim Werner (U Bonn, Germany).

International Organising Committee: George Styan (Chair) (McGill U, Montreal, Canada) <u>styan@math.mcgill.ca</u>, Hans Joachim Werner (Vice Chair) (U Bonn, Germany), Simo Puntanen (U Tampere, Finland)

Chair, Local Organising Committee: Jeffrey Hunter (Massey U, Auckland, NZ) j.hunter@massey.ac.nz

Sponsors: Massey University, NZIMA, RSNZ



IAOS Satellite Meeting

Wellington, April 14-15, 2005

The IAOS (International Association of Official Statisticians) satellite meeting on "Measuring Small and Indigenous Populations" will be held at Te Papa Tongarewa/Museum of New Zealand, Wellington, New Zealand, on 14-15 April 2005, and will be hosted by Statistics New Zealand. Te Papa Tongarewa is a high-quality conference venue, situated close to all facilities, and is right on the Wellington waterfront.

While the main focus is on methodological issues, the conference will be of direct interest to economic and social researchers, as the theme encompasses the challenges of measuring small domains in economic, social and population statistics. Among the themes likely to be covered by the satellite meeting are: statistical methods used to collect information in censuses or other large-scale surveys; measurement and improvement of data quality; the derivation of indicators on indigenous populations, communities or subnational areas; statistical use of administrative data sources; experience with data integration initiatives; small area estimation; other new developments in satisfying the growing demand for disaggregated statistical measures.

The conference programme will consist of three keynote plenary sessions and an array of concurrent sessions. The registration fee for the two-day conference meeting is \$NZ350 (including GST), but to encourage participation of students, the registration fee for fulltime students is just \$NZ50. This includes morning and afternoon teas, and lunches on 14-15 April, and the pre-conference reception on 13 April. A conference dinner is planned for Thursday, 14 April 2005 (estimated cost - \$NZ80).

The conference organisers are inviting 'expressions of interest' from prospective authors of papers. The last date for submission of abstracts is **29 October 2004**. An 'Expression of Interest' form, a formal registration form, and other information for conference delegates is available on the website <u>http://www.stats.govt.nz/ISIsatellitemeeting</u>. If you are interested in presenting a paper, please contact Mansoor Khawaja, Chief Demographer, Statistics New Zealand, Private Bag 4741, Christchurch, New Zealand; Email: <u>ISIsatellite@stats.govt.nz</u>; Phone: +64 3 964 8794.

Complex sampling, retrospective sampling and missing data: A Conference in honour of Alastair Scott

April 13–14, 2005 This conference is sponsored by the International Association of Survey Statisticians as a Satellite Conference of the 55th ISI Session. Its purpose is to celebrate the



distinguished career of Professor Alastair Scott on the occasion of his retirement from the University of Auckland. Starting his career in the Applied Mathematics Division of the DSIR, after graduate study at the University of Chicago Alastair was on the staff of the London School of Economics before returning to New Zealand in 1972 and joining the University of Auckland where he became the founding head of the Department of Statistics when it was formed in 1994. He is a past president and Honorary Life Member of the NZSA.

Alastair has made many fundamental contributions to the analysis of survey data, often in collaboration with J.N.K. Rao and T.M.F. Smith. His 1981 JASA paper with Jon Rao was selected as one of the 19 landmark papers in the history of survey sampling for the 2001 IASS Centenary volume. He has guided the official statistics agencies in Australia and Canada as well as Statistics New Zealand. He has also made fundamental contributions to many other areas of statistics including the design and analysis of retrospective studies extending classical results for case control studies.

The conference is to be held in the Auckland Maritime Museum, immediately following ISI 55 in Sydney. The first day will be devoted to survey sampling and the second to applications and medical and general statistics.

Confirmed invited speakers include:

David Brillinger (University of California, Berkeley), Ray Carroll (Texas A&M University), Ray Chambers (University of Southampton), Wayne Fuller (Iowa State University), Steve Haslett (Massey University), Jack Kalbfleisch (University of Waterloo), Graham Kalton (Westat), John Neuhaus (University of California, San Francisco), Danny Pfefferman (Hebrew University, Jerusalem and University of Southampton), Jon Rao (Carleton University).

Registration details can be obtained from the website <u>http://www.stat.auckland.ac.nz/iass55/</u>.

NZSA 2004

The conference this year at VUW on July 1 attracted 80 participants and 30 presentations. John Haywood and his team organised a smooth running event.



We thank Ray Hoare of HRS for sponsoring the student prizes which were awarded to Caroline Roughneen and Steven Johnston (above).



Shortly before the NZSA conference Jean Thompson announced that she would be stepping down from the Education Committee, after many years of service to the Association in many roles, including President (1991-93) and Secretary (1962-63, 1987-88). She is pictured above talking (in English) at the NZSA conference dinner with Steve Haslett. That particular table had earlier been enlivened by an animated conversation in Russian between Jean and Estate Khmaladze.



Marianne Streibel, Andrew Harvey (NZSA keynote speaker), Peter Thompson and Murray Cameron at IBC/ASC.

IBC/ASC, Cairns

The IBC in parallel with the ASC in Cairns, 11-16 July, attracted 763 participants with more than 40 from NZ. There was a rich and varied scientific programme of talks in 7 parallel sessions and 2 streams of posters. Kaye Basford (IBC) and Neville Bartlett (ASC) and their teams did a great job in organising such a successful gathering.



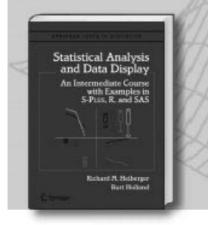
Kiwis in Cairns: (back) Rod Ball, John Maindonald, Roger Littlejohn; (front) Harold Henderson, Martin Upsdell, Zaneta Park-Ng

An AgResearch perspective on IBC/ASC (Local News Overflow)

In July, nine of the group's biometricians attended the 22nd International Biometric Conference and associated workshops in Cairns. Temperature was a pleasant 25-ish mostly, with a medium humidity. Harold Henderson featured as an invited speaker, talking and demonstrating "Dynamic graphics in statistical consulting". Martin Upsdell presented a paper on "Estimating spatial patterns using a Bayesian/ mixed model smoother", Dave Saville on "Robustness of multiple comparison procedures", David Baird on "Mixed maggots: the analysis of a fly competition experiment", and Roger Littlejohn on "Calculating standard errors for finite mixture distributions". Ken Dodds displayed a poster entitled "The number of alleles seen in a mixture", Zaneta Park-Ng's was entitled "Discrimination among milks and cultured dairy products using screen-printed electrochemical arrays", Fred Potter's was "Estimating break points", and Katarina Domijan's was "Modelling thermal destruction of viruses and bacterial cells". The conference was attended by over 700 participants, so in addition to the formal scientific program, it was an excellent opportunity to renew international connections and forge new links. On the social side, many people took a trip to "The Reef" or visited the rainforest, as well as enjoying the excellent conference dinner (yes, more food) and entertainment at the Tjapukai Aboriginal Cultural Park (pronounced "Jabakai").

Dave Saville

Springer for Statistics



R. M. Heiberger, B. Holland Statistical Analysis and Data Display

An Intermediate Course with examples in S-PLUS, R, and SAS

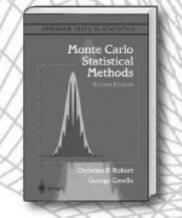
This contemporary presentation of statistical methods features extensive use of graphical displays for exploring data and for displaying the analysis. The authors demonstrate how to construct and interpret graphs, discuss principles of graphical design, and show how ac companying tradition at tabular results are used to confirm the visual impressions derived directly from the graphs. Many of the graphical formats are novel and appear here for the first time in print.

The authors provide and discuss S-Plus, R, and SAS execute ble functions and macros for all new graphical display formats. All graphs and tabular output in the book were constructed using these programs. Complete transcripts for all examples and figures are provided for readers to use as models for their own analyses.

2004. XXIV, 760 p. Hardcover €79.95; sFr 135.50; £61.50 ISBN 0-387-40270-5

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C. P. Robert, G. Casella Monte Carlo Statistical Methods

Monte Carlo Statistical Methods is a very popular book published in 1999 with new advances covered in the second edition. This new edition has been revised towards a c oherent and flowing coverage of simulation techniques, with incorporation of the most recent developments in the field. In particular, the introductory coverage of random variable generation has been totally revised, with many concepts being unified through a fundamental theorem of simulation.

2nd ed. 2004.000, 645 p. 132 illus. Hardcover € 89.95; sFr152.50; £ 69.00 iSBN 0-387-21289-6

Edited by P. D. Boeck, M. Wilson

Explanatory Item Response Models

A Generalized Linear and Nonlinear Approach

This edited volume gives a new and integrated introduction to item response models (predominantly used in measurement applications in psychology, education, and other social science areas) from the viewpoint of the statistical theory of generalized linear and nonlinear mixed models. The new framework allows the domain of item response models to be co-ordinated and broadened to emphasize their explanatory uses beyond their standard descriptive uses. The basic explanatory principle is that item responses can be modeled as a function of predictors of various kinds. For all major examples, computer commands from the SAS package are provided that can be used to estimate the results for each model. In addition, sample commands are provided for other major computerp ackages.

2004.000, 382 p. 50 illus. Hardcover € 69.9 5; sFr 123.50; £ 54.00 ISBN 0-387-40275-6

K. Lange Optimization

Optimization

This introduction to optimization attempts to strike a balance between presentation of mathematical theory and development of numerical algorithms. The content of courses on optimization theory varies tremendously. This book views linear programming as a special case of nonlinear programming. The real bridge between linear and nonlinear programming is convexity. The theoretical side and applications of convexity in the design of algorithms for problems with either a large number of parameters or linear restraints are addressed in this book.

2004. XIII, 252 p. Hardcover € 79. 95; sFr 135.50, £ 61.50 ISBN 0-387-20332-X

R. Y. Rubinstein, D. P. Kroese

The Cross Entropy Method

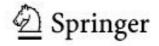
A Unified Approach to Combinatorial Optimization, Monte-Carlo Simulation and Machine Learning

This book provides a comprehensive and accessible introduction to the cross-entropy (CE) method.

It based on an advanced undergraduate course on the CE method, given at the Israel Institute of Technology (Technion) for the last three years.

The book is aimed at a broad audience of engineers, computer scientists, mathematicians, statisticians and in general anyone, theorist or practitioner, who is interested in fast simulation, including rare-event probability estimation, efficient combinatorial and continuous multi-extremal optimization, and machine learning algorithms.

2004. Approx. 320 p. Hardcover € 89.95; sFr 152.50; £ 69.00 ISBN 0-387-21240-X



Al Euro and CBP prices are net-prizes subject to local VAT, e.g. in Germany 7% VAT for books and 16% VAT for electronic products. Prices and other details are subject to change without notice. d&p - 011295

Statistics Education News

International News

The International Association for Statistical Education (IASE) has a website at <u>http://www.stat.auckland.ac.nz/~iase/</u>. It has a publications page from which over 500 papers from IASE publications and proceedings can be located and downloaded. There is also information about IASE forthcoming activities and links to conference websites.

IASE ISI-55 Satellite, 4-5 April 2005, Sydney.

The theme is Statistics Education and the Communication of Statistics. The presentations are planned to include discussions of the main components in statistical communication and the relevance of statistical communication in the general education of citizens. Wrap your experience and ideas up into a paper for the IASE Satellite or just plan to come and hear others' experiences. For full details see the webpage <u>http://www.stat.auckland.ac.nz/~iase/</u> conferences.php?show=iase2005.

Important date: Abstracts due September 30, 2004

International Conference on Teaching Statistics, ICOTS-7, 2-7 July, 2006, Salvador, Brazil.

John Harraway, Otago University, is the scientific secretary on the International Program Committee Executive, while John Shanks, Otago University, has set up the website. Currently there is a call for invited and contributed papers.

Invited Paper Sessions are organized within 9 different Conference Topics. The list of Topic and Session themes, with email contact for Session Organisers is available at the ICOTS-7 website at <u>http://www.maths.otago.ac.nz/icots7</u>, under "Scientific Programme". Those interested in submitting an invited paper should contact the appropriate Session Organiser before December 1, 2004.

Contributed paper sessions will be arranged in a variety of areas. Those interested in submitting a contributed paper should contact either Joachim Engel (Engel_Joachim@ph-ludwigsburg.de) or Allan MacLean (alan.mclean@buseco.monash.edu.au) before September 1, 2005.

Local news

The Fourth Statistical Reasoning, Thinking, and Literacy International Forum (SRTL-4) will be held in Auckland on 2-7 July 2005. A small group of international statistics education researchers has been invited to submit extended proposals. See: <u>http://</u>www.stat.auckland.ac.nz/srtl4/.

A review of statistics and probability education

research literature has been undertaken for the school statistics curriculum for the Mathematics Curriculum Reference Group, Ministry of Education.

Maxine Pfannkuch



Brian Phillips (left), organizer of the IASE Satellite meeting (Sydney 4-5 April), and David Vere-Jones in conversation at IBC/ASC, Cairns.

Education Committee

We've been meeting monthly this year, and have had attendance from Aucklanders Murray Black (AUT) and Maxine Pfannkuch (University of Auckland).

The curriculum review for school maths is proceeding well. It is likely that the new curriculum will acknowledge the value of statistical thinking as the partner of the deterministic part of mathematical thinking that has dominated in school maths for so long. If this curriculum shift is to translate into new skills for students, then NZ's teachers will need support from NZ's practitioners, in the form of datasets, concepts and other resources. It requires a paradigm shift from all of us. You could register in the discussion process: <u>http://www.tki.org.nz/r/</u> <u>nzcurriculum/cp online e.php</u>; and make sure that statistics has a voice. You'll find the current draft of the one-page 'essence statement for mathematics and statistics' in there.

There's a world-wide ocean of fresh research on the learning of statistics. The Ministry of Education took up our request that this ocean should be searched for findings relevant to NZ's new curriculum. This has been done, and the results are available for the mathematics curriculum group when it meets in early September. The results will inform the writers of the new curriculum next year. Two members were involved in the final stages of the report and aimed to put the committee's views.

<See P11 & online newsletter for NCEA content>

The NZSA conference contained a set of three talks that dealt with the above issues. They are on our website at <u>http://nzsa.rsnz.org/Newsletter59/</u>edissues.htm.

Mike Camden

ANZJS

The SSAI/NZSA Subcommittee (Neville Bartlett, Chris Lloyd, Murray Jorgensen, Russell Millar) Report on the future of the Australian & New Zealand Journal of Statistics was released on May 17.

Its Recommendation Summary is to:

• Provide an additional upgraded electronic (fulltext HTML) version of the Australian and New Zealand Journal of Statistics (ANZJS) that enables the real benefits of electronic publishing to become available at a net saving of A\$9 per member;

• Maintain production of the hardcopy version of ANZJS for the time being but allow members of NZSA and SSAI to choose electronic-only access to the journal at a slightly reduced membership fee;

• Upgrade access to the electronic version of ANZJS via Blackwell Synergy in place of the existing access via StatsWeb;

• Only provide authors with electronic copies (pdf files) of papers and discontinue the provision of hardcopy re-prints.

Congratulations to the committee for integrating a wide range of opinion into a future-facing policy.

Their full report is available at <u>http://nzsa.rsnz.org/</u> index.shtml.

Steve Haslett replaces Rob Hyndman as a Theory and Methods Editor, joining Managing Editor Chris Lloyd in this role.

Accessing ANZJS online

StatsWeb

To access full text articles is simple:

- go to http://www.statsjournalsweb.com;
- click 'Browse Journals and Societies' ;

• locate Australian and New Zealand Journal

of Statistics, click 'Logon' and enter the <u>password</u> (which has been distributed to members).

• locate the issue and article you require and click on the Article button for the pdf file of the full text.

You may also be able to access ANZJS online through the subscriber-based providers Blackwell Synergy, Ingenta, Ebsco, SwetsWise or OCLC. Check with your library for details.

NZSA Website

The NZSA website is now hosted by the Royal Society of New Zealand at <u>http://nzsa.rsnz.org/index.shtml</u>. The new webmaster is Roger Littlejohn (<u>roger.littlejohn@agresearch.co.nz</u>), who takes over from David Scott. Roger has been working on updating the site, but there is still a lot to do and the upgrade is unlikely to be implemented before this newsletter goes out.

Join the NZSA

A membership application / change of address form is available at http://nzsa.rsnz.org/form.php

New members

A warm welcome to new members of the NZSA. There are 20 new members who attended the NZSA Conference in Wellington, who were not members prior to attending (well done John Haywood!). Of the 45 new members since March, 15 are students who receive their first year's membership free.

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Joe Helu Derek Christie Yong Wang	
In Kang Kwaku Damoah Eldon Paki	
Zhaojing Gong Marian Loader Susan Kim	
Jane Hay Vanessa Cave Nigel Guenole	
Charlotte Kieft Lisa Teague Colin Jeffcoat	
Jingwei Wang Yilin Jia Mieke Wensvoort	
Leni Hunter Kevin Stokes Satish Iyengar	
Laurie Fleming Claire Harkess Ramzan Afzal	
Alan Wan Claire Jordan Irene Zeng	
Ray Lin Jin Seo Cho Carl Scarrott	
Marie Fitch Mark Maunder Dean Minot	
Ramya Suntheralingam Hiu Tung Cheung	
Anna-Marie Martin Vicki Livingstone	
Lisa Corscadden Roseanne Sovka	
Ozer Karagedikli Laimonis Kavalieris	
Padmaja Ramankutty Hadley Wickham	
Caroline Roughneen Michael Slyuzberg	

Campbell Estate Fund

A reminder that the NZSA were the recipients of a very generous donation (\$48,000) from Professor Campbell's estate.

There is roughly \$1500 funding available each year for special projects that are in the realm of Professor Campbell's interests. Refer to newsletter 56 on the web (<u>nzsa.rsnz.govt.nz/Newsletter56/campbell.htm</u>) for more details.

Applications are received twice a year (April/ October) and are invited for funding for projects in 2004/05.

There is no formal application process but please supply details of your project, the full project budget, the amount you are requesting, a short statement about why your project is within Professor Campbell's interests, and your full contact details.

Please send your applications to the Secretary, (judi@stats.waikato.ac.nz), New Zealand Statistical Association, PO Box 1731, Wellington.

For more details contact Jennifer Brown (j.brown@math.canterbury.ac.nz) or Harold Henderson (<u>Harold.Henderson@agresearch.co.nz</u>). Jennifer Brown

Awards

Chris Glasbey, Erskine Fellow

Chris Glasbey has a Visiting Erskine Fellowship to **Canterbury University** Sept 18 - Oct 16, 2004. He is Head of **Research** in **BioSS** (Biomathematics and Statistics Scotland). He has an MA in mathematics from Cambridge University, and a PhD and DSc

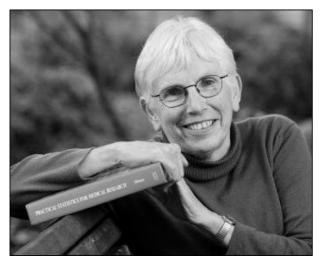


from Edinburgh University.

His research interests are in image analysis, spatiotemporal models, meteorological and biological applications, microarrays and bioinformatics, and he has co-authored a book "Image Analysis for the Biological Sciences" (Glasbey and Horgan, 1995, Wiley). He is joint editor of "Applied Statistics", and holds honorary professorships at Heriot-Watt University and the Scottish Agricultural College.

Sheila Willams, DSc

University of Otago biostatistician Sheila Williams received a Doctor of Science degree at the May graduation, recognizing her role in research teams including those studying cot deaths and psychiatric disorders in children.



The doctorate is earned for published works of "special excellence".

Sheila comments, "The work we have done on cot death, not particularly my papers, has reduced the incidence of cot deaths enormously. It is much,

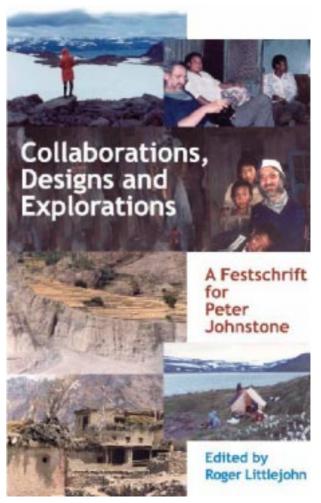
much lower than it was when we started doing these studies in the mid 1980s."

Sheila has also worked on the Dunedin Multidisciplinary Health and Development Study, which is following 1000 people born in 1972, assessing the effects of early life experiences on subsequent health. She joined this study as a volunteer when it was set up in 1975. She has been working as a statistician in the Department of Preventive and Social Medicine at the University of Otago since the mid 1980s.

She did her BSc (Hons) in Applied and Pure Maths at the University of Hull, followed by a Postgraduate Diploma in Science at Otago in 1979.

Festchrift for Peter Johnstone

To celebrate Peter Johnstone's 65th birthday, the AgResearch Statistics group presented him with a book of recent research and analysis, including his own essay on experimental design, enriched with travellers' tales from his family and friends. The book is entitled "Collaborations, Designs and Explorations", nicely reflecting his professional and social interests. A limited number of copies of the book plus a CD version are still available from the volume's editor, Roger Littlejohn (roger.littlejohn@agresearch.co.nz), at \$25 each.



ASA JSM Student Prize Winner

Narasimha (Murthy) Mittinty (below), a PhD student at the University of Canterbury, was one of 5 students to be awarded a student prize at the ASA JSM in Toronto. His award winning paper was entitled "Imputation by propensity matching". Propensity score is a sufficient summary of the



covariate information and should be a good matching variable to find a donor to missing cases. He compared it to the well known regression based matching method and also a method developed by the authors called multivariate nearest neighbour. Murthy is very thankful for the opportunity to attend the conference and workshops, which was made possible by the prize sponsorship from the Social Statistics/Government Statistics/Survery Research Methods Sections of the ASA. He attended workshop courses taught at the conference and also met experts from the field of survey sampling and imputation. There were around 20 sessions on survey sampling, which had some interesting papers on recent advances in this area. Murthy writes, "I would like to take this opportunity to thank my supervisors, Dr Easaw Chacko and Mr Richard Penny, who have been a constant source of motivation and help in achieving this award".

NCEA News

(Education Issues Overflow)

NCEA Level 2 ran for the first time last year, and is now open for comment. There are two statistical standards (on sampling and probability). They can be found on <u>http://www.nzqa.govt.nz/</u>. We've commented on the wording of the sampling one. NCEA Level 3 runs for the first time this year. 'Statistics and Modelling' (replacing 'Maths with Stats') contains five standards (of its seven) in statistics and probability. It will be open for comment next year, and we have already suggested to the Ministry what our comments will be.

In NCEA Level 3, teachers are dealing this year with the new topic of investigations that involve pairs of measurement variables. The committee has finished an assessment task on this, and has made it available to teachers via <u>http://www.nzamt.org.nz/</u>. We hope we satisfied both the requirements of the standard and the realities of doing a statistical investigation. That wasn't easy.

Report on Science Fairs for the NZSA AGM 2004

NZSA continued to sponsor special prizes for statistics at the regional science fairs around the country in 2003. Again we combined with Statistics New Zealand and together we provided \$80 for prizes at each fair with which we could make contact. We split the prize money into senior and junior prizes where possible and we also presented some certificates of merit for other worthy exhibits. NZSA members selected the prizewinners at those fairs within reasonable reach.

We actually offered prizes at 22 fairs in 2003 - I failed to make contact with 1 fair in Auckland, and a new fair was created in Western Bay of Plenty for the first time without my knowledge. These were all well received and I received numerous letters of thanks from both organisers and prizewinners.

It was reported back almost universally last year that the number of senior entries had fallen dramatically, possibly due to the pressures of NCEA. However, the judges I have spoken to seem to feel our presence and our prizes were still useful and that, even in the past, junior exhibits had often been more interesting / deserving than senior ones. There were mixed reports about the quality of the exhibits at the different fairs this year, with some judges reporting much better use of statistical techniques and other judges being disappointed. Overall, it seems our efforts are worthwhile and that our involvement is a valuable opportunity to encourage students.

It was also felt that our prize money was rather low for many of the fairs. We hadn't raised our prize money for years - it has been \$50 per fair from NZSA since before I became involved in about 1996, and it increased to \$80 when we asked SNZ to combine with us in 1997. Many fairs have asked me for several years to increase the amount, but agreed to continue at the existing level as we were long term sponsors. Most fairs now have the lowest level of sponsorship at around the \$150 level, although there is variety among the fairs - Wairarapa find our \$80 too large and insist on breaking it into 5 or more awards, while South Canterbury have already joined our money with that from another sponsor to allow a prize to be awarded to each of their 3 age groups. The NZSA exec has agreed to raise their contribution to \$60 per fair and has asked SNZ to increase their share to \$60 per fair as well, allowing us to offer \$120 at each fair. We are still awaiting approval for this.

Finally, I would like to thank all the members who have given up their time to judge for the NZSA again this year and I hope that I will be able to call on you all again in the coming months.

Jenny Mason

Mike Camden

Conference "Brief"

See Gordon Smyth's Australasian conference list <u>http://www.statsci.org/conf/index.html</u> Details for planned conferences and workshops are given below.

Site Occupancy Estimation and Modelling Workshop

Dunedin, New Zealand November 10-12, 2004 Web: http://www.proteus.co.nz/workshops.html Email: darryl@proteus.co.nz

Bioinformatics Summer Symposium: Genome to Phenome Modelling

ANU, Canberra, Australia December 6-10, 2004 Web: http://wwwmaths.anu.edu.au/events/ BioInfoSummer04/ Email: BioInfoSummer@cbis.anu.edu.au

International Statistical Conference "Visions of Futuristic Statistical Methodologies"

Kandy, Sri Lanka December 28-30, 2004 Web: http://www.st.rmit.edu.au/~desilva/ conference/slstat.htm Email: s.ganesh@massey.ac.nz

Thredbo Conference of the Australasian Region of the International Biometric Society and Australasian GenStat Users Association

Thredbo Alpine Hotel, Thredbo Village, NSW February 6-11, 2005 Web: <u>http://wwwmaths.anu.edu.au/thredbo2005/</u> Email: <u>Warren.Muller@csiro.au</u>

Exploratory Data Analysis and Statistical Learning

McMeekan Centre, Ruakura, Hamilton March 22, 2005 Presenter: Professor C.R. Rao Web: from <u>http://www.stats.waikato.ac.nz/</u> Email: <u>kdevoy@waikato.ac.nz</u>

International Workshop on Matrices and Statistics

Massey University, Albany Campus, Auckland March 29-April 1, 2005 Web: <u>http://iwms2005.massey.ac.nz</u> Email: j.hunter@massey.ac.nz

Issues for Official Statistics for small countries (especially island nations) IAOS Satellite meeting

Noumea, New Caledonia March 31-April 2, 2005 Web: see <u>www.tourhosts.com.au/isi2005</u> Email: brian-d@ozemail.com.au

Statistics Education and the Communication of Statistics. IASE Satellite meeting

Sydney, Australia April 4-5, 2005 Web: <u>http://www.stat.auckland.ac.nz/~iase/</u> conferences.php?show=iase2005 Email: <u>bphillips@swin.edu.au</u>

55th Session of the International Statistical Institute

Sydney Convention and Exhibition Centre April 5-12, 2005 Web: http://www.tourhosts.com.au/isi2005/ Email: isi2005@tourhosts.com.au



ISBIS 4 - International Symposium on Business and Industrial Statistics

Cairns, Australia April 13-16, 2005 Web: http://www.action-m.com/isbis4/ Email: isi2005@tourhosts.com.au

Complex Sampling, Retrospective Sampling and Missing Data (to mark the retirement of Alastair Scott). IASS Satellite meeting.

Maritime Museum, Auckland April 13-14, 2005 Web: <u>http://www.stat.auckland.ac.nz/iass55/</u> Email: <u>c.wild@auckland.ac.nz</u>

Measuring Small and Indigenous Populations IAOS Satellite meeting

Te Papa Tongarewa/Museum, Wellington April 14-15, 2005 *Web:* http://www.stats.govt.nz/ISIsatellitemeeting *Email:* ISIsatellite@stats.govt.nz

Fourth Statistical Reasoning, Thinking, and Literacy International Forum (SRTL-4)

University of Auckland, Auckland July 2-7, 2005 Web: http://www.stat.auckland.ac.nz/srtl4/ Email: m.pfannkuch@auckland.ac.nz

NZSA 2005 Conference

University of Otago, Dunedin July 4-6, 2005 Web: http://www.maths.otago.ac.nz/nzsa2005/ Email: igoodwin@maths.otago.ac.nz



Recent Advances in Biostatistics, Bioinformatics and Markov Chain Monte Carlo

University of New South Wales, Sydney July 7-8, 2005 Web: http://web.maths.unsw.edu.au/~scott/ symposium/

Email: biomcmc@maths.unsw.edu.au

20th International Workshop on Statistical Modelling

Swiss Grande Hotel, Bondi Beach, Sydney July 10-15, 2005 Web: http://www.uws.edu.au/about/acadorg/clb/ sqmms/iwsm2005 Email: k.matawie@uws.edu.au

ICOTS 7 2006

Salvador, Brazil July 2-7, 2006 Web: <u>http://www.maths.otago.ac.nz/icots7/</u> Email: <u>batanero@ugr.es</u>

ASC/NZSA 2006

Auckland, New Zealand July 3-7, 2006 Email: <u>d.scott@auckland.ac.nz</u>

INTERNATIONAL STATISTICAL CONFERENCE: VISIONS OF FUTURISTIC STATISTICAL METHODOLOGIES

Kandy, Sri Lanka December 28-30, 2004

The primary purpose of the conference is to bring together statisticians from developed and developing countries to present their latest research findings in statistics and to interact and exchange ideas. It is hoped that such a forum will initiate fruitful interaction among all participants and stimulate research. It is expected that this venture will ultimately modernize the educational curricula for students and will generate new opportunities for researchers. That is the futuristic view - the theme for this conference.

See website below for details: http://www.st.rmit.edu.au/~desilva/conference/ slstat.htm

ASC/NZSA 2006

Planning is continuing for the 2006 joint conference between the Statistical Society of Australia Inc. and the NZSA, to be held in Auckland, from July 3-7, 2006.

Professor William Dunsmuir from the University of New South Wales (w.dunsmuir@unsw.edu.au) has agreed to chair the Program Committee for the conference.

A site visit to view the facilities at Sky City and possible locations for social events is to be undertaken in mid-September. One important task over the next month is to select members for the Organising Committee and the Program Committee. I would welcome your suggestions for these committees.

The theme of the conference has been decided as *Statistical Connections*. The first obvious reference is to the connection between the two learned societies. The theme also is meant to highlight the importance of statistical relationships: between predictors and response, or within multivariate observations for example. It is designed to be vague enough to allow a broad range of sessions.

We will shortly be considering ideas for sessions and keynote speakers. If you have any suggestions please email me (<u>d.scott@auckland.ac.nz</u>).

I consider the provision of short courses and/or workshops to be a very important adjunct to the traditional conference format and I would be very interested in receiving suggestions as to possible topics and presenters for these.

David Scott

Local Scene

Proteus Wildlife Research Consultants

We have two pieces of good news, both involving gestation. First, Darryl MacKenzie and his wife Kerry are expecting their third child - having had two boys, what is the probability of this one being a girl?

Second, we are about to start a large two-year project with the Ministry of Fisheries on the sustainability of seabird bycatch around New Zealand. This will involve plenty of challenges, both scientific and political! We will be looking at methods for combining information from various sources (markrecapture data, transmitter locations, observed bycatch, etc.), and at how best to fill gaps in the information available for some species. The "gestation" for this project has been of the order of nine months as well, involving lots of negotiation with various parties.

In association with Richard Barker (Dept. Maths and Stats, University of Otago) we shall also be running a workshop on "Occupancy estimation and modelling" from 10-12 November in Dunedin. Occupancy (the proportion of sampling units occupied by a species) is a concept widely used in ecology. However, because species are detected imperfectly, nondetection does not mean a species is absent.

In the workshop we shall outline the estimation procedures that Darryl has been party to developing over the last few years that explicitly account for detection probability. We shall also give examples of their application and discuss design issues.

While the workshop will have a decidedly ecological focus, researchers from other disciplines where the concepts of occupancy and imperfect detection exist (e.g., epidemiology) may find the the material of interest. Visit our website (www.proteus.co.nz) for more information.

David Fletcher

Department of Conservation

The number of statistical staff at DOC doubled at the beginning of 2004, with the return of Adam Smith on a contract through to 2005 after a year studying at Canterbury University. His main project so far has been multivariate analysis of data from hundreds of marine sites in the Marlborough sounds. He has presented seminars and workshops internally at DOC, and is completing writing the work up.

We've been continuing to work at raising the profile of statistics at DOC, and developing links with others interested in statistics and conservation

ecology. Twelve people attended an internal course on statistical modelling using S-plus covering GLMs and GAMs, and a further 30+ staff have expressed interest in repeat 3-day courses next year. The Estimating Animal Abundance course I organised here in July, led by David Borchers from St Andrews in Scotland had about thirty attending, half from DOC, a number from Landcare Research, and a number from Australia.

Jennifer Brown and I organised a successful Special contributed session on Population trends for Conservation at the IBC/ASC in Cairns in July, and are planning to organise something similar at the ISI in Sydney in April next year, and possibly something for the 2006 NZSA/ASC conference in Auckland. On the way to Cairns, I furthered my aim of developing greater links with those working in conservation ecology and statistics in Australia with a visit to the environmental science group at University of Melbourne, who share strong views on the superiority of confidence intervals over hypothesis testing; and to the Arthur Rylah Institute, the state government ecological research group in Victoria, who have recently appointed their first statistician.

Adam and I both enjoyed the Peter Green workshop in Hamilton, the one-day NZSA conference, and a 3-day workshop on Bayesian analysis for ecologists organised by Richard Barker.

Amongst a host of other topics, I've been working on survival analysis of kiwi chicks in relation to stoat numbers, with help from Geoff Jones; and completing drafting a manual on graphical presentation of data, which should be publicly available on the DOC website in time.

Ian Westbrooke

University of Cantebury

Since our last contribution to the NZSA newsletter we have had a lively time of it here at UoC. The statistics group has been strengthened by two new members of staff, Professor Satish Iyengar and Dr

Carl Scarrott.

Satish (right) has joined us as a visiting professor from the University of Pittsburgh, and brings with him expertise in stochastic models, meta-analysis and multivariate analysis with varied applications including neuroscience. Satish has hit the ground



running, providing valuable contributions to our course structure and has livened the dept with visits from many of his PhD students. Satish is currently teaching a summer school course on neuroinformatics at Marine Biology Laboratory, Woods Hole, Mass.

Satish has just been awarded a UoC 2 year postdoctoral fellowship, jointly with Alex James (a new applied mathematics lecturer) entitled "Stochasticity in Biological Models". This is to study the first passage times of stochastic differential equation models which are common to fish growth and neural spiking and to develop statistical inference procedures for fitting the SDEs. Contact Alex James or Satish Iyengar for more information.

Carl (right) has joined us following a post-doc with the Centre for Ecology and Hydrology, where he was studying extreme rainfall patterns across the UK. He has also recently completed a PhD from the Lancaster University modelling nuclear reactor temperatures and analysing



their extremal properties for assessment of the risk of critical temperature exceedance. Carl has a wide range of interests including statistical modelling, spatial statistics, spectral analysis and extremes.

Jennifer Brown enjoyed the Cairns IBC conference and ran a special contributed session on statistics and monitoring trends for conservation. The following week she worked with Ian Westbrooke with the Estimating Animal Abundance Workshop in ChCh. This was presented by David Borchers and Jon Bishop from St Andrews, Walter Zucchini from Germany, Shirley Pledger from VUW and Jennifer Brown. Over 30 attended and from what we could tell, it was very successful. Jennifer took David skiing the next day and he said it was the highlight of the trip for him - so much for our stimulating statistical conversations! Earlier in June she was working with Ian on another project to provide statistical modelling training with S-plus for DoC staff. Jennifer has also been busy working with MAF on estimating the amount of carbon stored in our forests for the Kyoto carbon agreement. Her role is to estimate the uncertainty of the estimate and she can confirm it is pretty uncertain, but is definitely greater than zero.

Marco also enjoyed the Cairns IBC conference where he presented a paper on "Using Trees to Detect Changes in Trends in Time". Marco is currently at Compstat 2004 in Prague where he is presenting a joint paper with Les Oxley and Granville Tunnicliffe-Wilson on "Finding Directed Acyclic Graphs for Vector Autoregressions". Marco has also been invited to give a course at U. Naples on time series analysis. Carmella Cappelli from U. Naples is visiting Marco from 1 September until the 10 October to collaborate on issues relating to classification trees.

Irene is currently enjoying having time to carry out research whilst on study leave. Irene has invited an Erskine visitor, Chris Glasbey from BIOSS, who has interests in spatial and temporal models including image analysis and bioinformatic applications. Chris will be here from 18 September to 16 October. Irene's student (now Dr) Robin Turner has just successfully defended her PhD entitled "Independent Component Analysis of Personality and Symptoms of Depression and Statistical Parametric Mapping of Personality and Brain Function" - well done Robin. Irene was also pleased with Linda Moore's master's thesis, supervised jointly with the history dept, entitled "Gender voting in the 1800's and 1900's in New Zealand" which achieved a high distinction. Linda has since received a 3 month research position funded by the ANZA Partner's Marsden, considering the "Historical Relevance of the Dialogue Between Statisticians from NZ and Australia in the late 1900's".

Dominic was the one of the key organisers of "The Inaugural New Zealand Time Series Study Group Workshop" held on 4-5 December 2003 at the UoC which had a participation of 30. Feedback from participants has shown that the workshop was successful in achieving its goal of bringing time series practitioners together to exchange ideas and build networks. The workshop was jointly organised by the Department of Mathematics and Statistics, U. Canterbury, and Statistics New Zealand.

Easaw and Dominic have also invited Prof Daniel Naiman to visit UoC in July/Aug 2005, as an Erskine Fellow. Prof Naiman is currently Chair in the Department of Applied Mathematics and Statistics, Johns Hopkins University. During his visit, he will be teaching part of a course in bioinformatics and will also be giving a series of talks on "Importance sampling in statistical genetics and bioinformatics".

Easaw was very pleased that his PhD student Narasimha Mittinty (Murthy) was awarded a student prize at the ASA JSM in Toronto. The award winning paper was entitled "Imputation by propensity matching". Murthy is very thankful for the opportunity to attend the conference and workshops, which was made possible by the prize sponsorship from the Social Statistics/Government Statistics/Survery Research Methods Sections of the ASA. Murthy also wishes to thank his joint supervisors Dr Easaw Chacko and Richard Penny for their motivation and encouragement in achieving the award.

Carl Scarrott

Massey University, Palmerston North

We first congratulate three of our lecturing staff: Alasdair Noble, Jonathan Godfrey and David Alexander: who have now successfully defended their PhD theses. All can now finally put their student days behind them and start acting responsibly.

Steve Haslett has paid further visits to the World Bank and Bureau of Labor Statistics at Washington DC to discuss small-area estimation and to arrange further projects. One of these is a forthcoming visit to the Philippines as part of a World Bank poverty mapping project. He also visited the Office of National Statistics of England and Wales, where he was able to keep an eye on Len Cook, and the University of Southampton for further work on small area estimation.

Still on the international front, Chin Diew Lai gave an invited talk on "Constructing continuous bivariate distributions" at the International Conference on Distribution Theory, Order Statistics and Inference at the University of Cantabra in Spain.

Ganesalingam has been busy helping to organize the 7th Australasian Conference on Maths and Computers in Sports here at the NZ Institute of Rugby. He and Ganesh have also been heavily involved in the organization of the International Sri Lankan Statistical Conference in December this year.

Ricardas Zitikis from the University of Western Ontario has visited again to work with Mark Bebbington on joint research, and also this time to contribute to our first-year Stats teaching. He seems to have found our unusually cold winter quite mild compared to the one he will be going back to.

Steve, Alasdair and Geoff have now finished their terms as NZSA President, Secretary and Treasurer respectively. Geoff's stint was not particularly arduous as he was unable to effect the transfer from the previous Treasurer. As someone pointed out at the AGM, his only act as Treasurer was to second the nomination for his replacement. Our good wishes go to the new, Hamilton-based, triumvirate.

Geoff Jones

University of Auckland, City Campus

We welcome three new PhD students to the City. Heti Afimeimounga, originally from Tonga, is studying with Ilze Ziedins. Debbie Leader has just begun a PhD with Mik Black, and Christian Roever, from Dortmund in Germany, is working on a Marsdenfunded scholarship with Renate Meyer. Congratulations to PhD student Steven Miller, who won a Top Achiever Doctoral Scholarship from FRST. Keeping us all on-line is Stephen Cope, our new Webmaster, who replaces James McGrail as our resident techno-whiz.

We also welcome Dr Sam Ferreira, formerly from the Department of Conservation, who has joined us as a Postdoctoral Fellow to work on modelling of ecological metapopulations with Rachel Fewster and Brian McArdle. After joining us in July, Sam fled straight to Africa, where he is doing elephant surveys until January. Eight thousand kilometres of aerial surveys is the easy bit: Sam is also fitting 29 elephants with satellite collars, which is a tricky manoeuvre to say the least (below "Sam Ferreira collaring an elephant"). The chosen elephants are thrilled that they can now receive Sky Sports.



Professor Claude Belisle, from Laval University in Quebec, is visiting for six months until December. Claude is a well-known name in Bayesian statistics and MCMC.

Members of the department have been busy on the conference scene recently. A contingent of nine attended the joint IBC / ASC in Cairns in July, delivering a total of eight talks, including three invited talks. In August, Alan Lee, Alastair Scott, and Chris Wild were invited speakers at Field's Institute Workshop on Statistical Methods for Missing Data in Toronto. James Reilly also spoke at the meeting. All four then attended the annual North American Joint Statistical Meetings, also in Toronto, by which time they had found their data.

Not content with this, Chris Wild has now proceeded to Korea, where he is participating in an invited panel session at the ISI Special Conference on "The Vital Role of Statistical Science in Assuring National Prosperity". We hope to pick up some useful tips when he returns! We will have to be quick, though, as he is straight off to an invited talk at the Japan Statistical Society. From there he travels to Manchester to give the prestigious opening plenary talk at RSS 2004. Chris's talk is entitled "Statistics education, and connecting practice with research".

Paul Murrell gave the opening keynote talk at the aptly named UseR! conference in Vienna, the first

international conference for R Users. Paul was also selected as Chair-Elect for the ASA Statistical Graphics Section in 2005, and he will be Chair in 2006.

Renate Meyer and Richard Umstaetter each travelled to Germany, where Renate presented a paper at the workshop on survival analysis in Medicine and Econometrics, and Richard presented work on astrophysical data at the Maximum Entropy conference in Munich. In June, Maxine Pfannkuch attended the IASE Roundtable Conference on "Curricular development in statistics education" in Sweden, and gave a presentation at the 10th International Congress on Mathematics Education in Denmark.

Ilze Ziedins was an invited participant at the Workshop on Spatial Stochastic Modelling with Applications to Communications, in Edinburgh. Also visiting Edinburgh was James Russell, who slotted in a quick seminar between a month of genetic labwork in Paris and a visit to the Centre for Ecological Modelling in St Andrews. Arriving in St Andrews to find that the incumbents were currently in NZ, James had to hurry back to attend their workshop on Estimating Animal Abundance in Christchurch.

On the personal front, congratulations to Mik Black and wife Mel on the birth of their bouncing baby boy Liam in April. Meanwhile, Rachel Cunliffe and husband Regan have had a stint in the public eye with their website IdolBlog.com, the unofficial fan site of NZ Idol. The website has had over 7.1 million hits and 190,000 visitors, and has possibly received the most publicity a New Zealand website has ever seen in such a short space of time, including appearances on TV One News, TV3 News, and Holmes. Curiously, screes of young fans gave up watching NZ Idol altogether because they were unable to tear themselves away from the website.

And finally, if you need to brush up on your Portuguese, we have the perfect phrasebook: Encontros Com O Acaso - Um Primeiro Curso De Analise De Dados E Inferencia, by Chris Wild and George Seber, now retailing for 100 Brazilian reals (\$53 NZD). The original title of "Chance Encounters" quaintly translates into Portuguese as "Meeting With Perhaps". [Perfect to prepare for ICOTS 7 - Ed]

Rachel Fewster

University of Auckland, Tamaki Campus

All is going well, but most folks are away or only just back from somewhere. Alan Lee is in Italy at the moment. Marti Anderson and Russell Millar are at the University of Oslo, working on biodiversity impact work with Prof John Gray, then moving on to Italy. *Russell Millar*

Statistics New Zealand

A great deal has been happening in Statistics New Zealand since I last reported and to cover it all would require many pages, so I will concentrate on what I think may interest readers of this newsletter.

Statistics NZ had a large injection of funds in the 2004/05 budget to allow us to implement many of the recommendations of the top-down review of official statistics. A key recommendation was that Statistics NZ create a central repository to enable better and broader access to official statistics, where official statistics covers data from government departments as well as that collected by Statistics NZ. So if you hear the word OSRDAC (Official Statistics Research Data Archive Centre) that's what it refers to. At present we are consulting with a range of possible users. If you feel you'd like to know more contact sandra.mcdonald@stats.govt.nz.

We've got two new Deputy Government Statisticians, Geoff Bascand from Department of Labour and Cathryn Ashley-Jones from Department of Prime Minister and Cabinet. Ian Ewing continues as the third DGS. Also we have a management refocus, which meant all managerial positions were disestablished and people had to apply for jobs in the new structure. Appointments have been made, but there are still some gaps which are due to be advertised in the near future.

SMASH was reorganised at the beginning of 2004 so we were exempted for the time being from a lot of the management refocus. However we have been renamed to Statistical Methods (the same name as where I started 20 years ago - plus ça change etc.), and we are methodologists, rather than mathematical statisticians. One key change is that we can stay in the technical stream a little longer as we have the position of Principal Methodologist above Senior Methodologist. This is also hoped to attract experienced statisticians to SM, so look out for a call for applications in the near future.

Recent departures include Robert Templeton who has gone to the Ministry of Social Development. After 18 years here, he leaves a large gap for us to fill. To start with we're going to need a new manager in Statistical Methods, and that too should be advertised soon. Sharon Clark has also gone to MSD, which makes about 6 people in all over the last 18 months. I wonder if we could start asking for transfer fees? Frances Krsinich has left to concentrate on her painting. Christine Bycroft has gone to the ONS (UK equivalent of Statistics NZ) for a year. What with Len Cook as head of ONS and Frank Nolan head of methodology group the Brits are probably thinking NZ is taking over official statistics. We've just had graduate recruitment and it looks as if we'll take on about 5-7 new graduates this year. We've also been pulling in people from all over the world. Lisa Corscadden has come from Canada, Sarah Crofts from the UK, Jonno Khoo from Australia, Jeremy Wilhelm from Colorado and Manuila Tausi from Tuvalu.

As to conferences, Jamas Enright and John Lopdell went to the ASC in Cairns with Jamas presenting a paper "Quality issues in using administrative data for longitudinal analysis". Richard Penny went to ISF25 in Sydney to present an invited paper "Using forecasting to improve official statistics". Jonno Khoo presented a paper "Actual, seasonally adjusted and trend series - principles and uses" at the NZ economists conference. We had our usual strong presence at the NZSA conference. Helen Stott and Irene Zheng presented "Confidentialised unit record files (CURFs) for New Zealand", Mike Camden "Data integration in the Linked Employer-Employee Data project; data quality and its effect on longitudinal studies" and "Revitalising the curriculum for statistics in NZ schools" and John Crequer "2006 Census of Population and Dwellings: statistical theory & methodology". As to other travel, Mike Doherty spent 7 weeks at the University of Wollongong working on calibration estimates with Prof. David Steel. We also had Brian Monsell from the time series area of the U.S. Bureau of the Census visit for a week, which gave us the opportunity to discuss various topics related to time series in official statistics.

Richard Penny

Massey University, Albany Campus

Since the last newsletter we have had two new staff join our statistics group. These are Daniel Walsh and Beatrix Jones, both of whom were previously at Penn State University, USA.

Daniel Walsh (right) received his PhD in Statistics

from the University of Washington in 2000, and has held postdoctoral research positions at Penn State University, the Statistics and Applied Mathematical Sciences Institute, and the National Institute of Statistical Sciences. His research



interests include spatial statistics, pattern recognition and image analysis. As a native Kiwi, Daniel is particularly pleased to be living in New Zealand once more. Beatrix Jones (right) has a PhD from the University of Washington, and comes to us after a two year stint at Penn State and Duke University. She is hoping her new job at Massey will be longer term! Her interests are in applications of



statistics to problems in genetics and ecology, and Markov chain Monte Carlo methods.

Jeff Hunter is currently on overseas leave, visiting places such as Bedlewo, Poland, for the 13th International Workshop in Matrices and Statistics where he has been invited to speak, and Prague to attend the COMPSTAT 2004 conference. Jeff is also chairing the Local Organising Committee for 14th International Workshop on Matrices and Statistics, which is to be held on this Campus in March 2005.

Paul Cowpertwait

Crop and Food Research

It's been a couple of months of comings and goings at CFR. The arrivals include Madeline Bendall, born 26 April; and Eric O'Neill, who has come from Canada to Palmerston North to fill in for Maaike Bendall while she is on parental leave. Eric did postdoctoral work in mathematical physics at the University of Florida before returning to his native Nova Scotia and shifting to agricultural statistics. He made a favourable impression early on by saying that PN's winter was similar to Florida's.

The departures were only temporary; Ruth Butler and Duncan Hedderley had a week of sun, sand and seminars at the IBC/ASC in Cairns.

Duncan Hedderley

University of Otago

In July, David Fletcher was at IBC in Cairns, and presented a paper on "Confidence Intervals for Animal Mean Density". As luck would have it, Australia was playing Sri Lanka before and during the conference, which meant he could get to see Shane Warne in action. He also enjoyed the delights of the local backpackers, including unofficial "alarm calls" in the middle of the night by some of his inebriated fellow-residents. The last night of the conference was most enjoyable, as David was introduced to a new brand of single-malt whisky by Alan Lee and Marti Anderson: a balmy night in Queensland seemed a world away from both Scotland and mid-winter Dunedin, but Talisker suited the environment perfectly!

David Fletcher

AgResearch

The statistics/bioinformatics group had its annual gettogether at Ruakura from 31 March-2 April. On the first day, we all gave talks on topics of interest. This was followed in the evening by our annual group dinner, at the Hydro Majestic Cafe. During the meal we all wished our group leader, Peter Johnstone, a happy 65th birthday, and Roger Littlejohn presented him with the Festschrift of collected statistical papers and reminiscences that he had so excellently put together (full details are given on page 10). Peter was also presented with a monster chocolate cake that we had to help him demolish! On the second day of the gathering we attended Peter Green's workshop. This was followed by (yes, you guessed!) more food, in the form of an excellent buffet dinner at the university's "Station Restaurant". This was a good opportunity to catch up with old friends and colleagues. On the third day we spent the morning strategically planning, including pondering our position in the proposed new structure for AgResearch. Such weighty considerations made for a healthy appetite, so we adjourned for lunch and a short team-building stroll at the Hillside Conference Centre, near Huntly - here we were treated to small quantities of very high quality food, which we subsequently supplemented with bananas and cheese and crackers before bidding each other farewell and flying off into the blue yonder (or simply driving home...).

Dave Saville



Christchurch Connection in Cairns Jim Young, James O'Malley, Patrick Graham All entries will be placed on <u>http://nzsa.rsnz.govt.nz/</u> <u>Newsletter60/caption.htm</u>. Enter by email to <u>roger.littlejohn@agresearch.co.nz</u>. My favourite from last issue:

Where is Harold going? "On his way to pay for (the money's in the briefcase) his brand-new, matt-black 6.5 litre V8 HUMVEE with crocodile leather seats, bullet-proof glass, 12-disk 1000watts DVD player and onboard computer, Internet-capable by satellite!" Hans Hockey

The Godwits Still Fly

It may be a little-known fact that Richard Barker (U. Otago) has a postdoc living and working at the Firth of Thames, south-east of Auckland. Phil Battley is a biologist by training, and has started a long-term research program monitoring the survival rates and movements of two species of wading bird that breed on the Arctic tundra, in Alaska and Siberia. These birds migrate down to New Zealand for the nonbreeding season (and their adolescent years), and return through eastern Asia to their breeding grounds, leaving NZ in March-early April. Phil has been colour-banding Bar-tailed Godwits and Red Knots with coloured leg-bands and a white plastic leg 'flag' in order to be able to recognise individuals without having to recapture them. While he didn't get particularly many birds banded before the migration season finished, some have already been seen on stopover sites in the Yellow Sea.

The first report was from Yalu Jiang, a site in the north-eastern Yellow Sea in China, where a team of New Zealand and Australian ornithologists was assembling to survey birds and sign a Memorandum of Understanding between the local city and the Miranda Naturalists Trust from the Firth of Thames. It was most appropriate, therefore, that on their first day out (15 April) the team saw one of Phil's godwits, which had been banded almost 10,000 km away just a month earlier. It was one of the heaviest males caught, and had probably migrated just a day or two after being banded.

The second report was from the same day, but this time from the west coast of Korea. While the bird was standing in deep water, the observers managed to see one of its legs when it lifted it up (pictured below). This was enough to narrow it down to birds banded on either 26 February or 11 March. Considering that there are probably 250,000 godwits in the Yellow Sea at this time, seeing two of 37 birds isn't a bad return! Phil is hoping for more records before the birds leave for the breeding grounds in mid-May, and then even more from Alaska as birds fuel up before flying back to New Zealand.





55th Session of the ISI 5-12 April 2005 Sydney, Australia

Registration is now open for the world's premier statistical conference - the 2005 International Statistical Institute (ISI) Session - scheduled for Sydney, Australia, 5-12 April 2005.

Professional statisticians, plus those who want to stay in touch with latest developments in the field, will find it of great interest and should register their interest now.

Venue

The 55th Session of the ISI will be held at the Sydney Convention and Exhibition Centre, Darling Harbour.

Scientific Program

A diverse and cutting edge Scientific Program has been developed for the 2005 ISI Session and includes Invited Paper Meetings, Contributed Paper Meetings, Key Note Speakers, Poster Sessions, Tutorials and Short Courses. Theme days will cover Statistics and Finance, Environmental Statistics and Genomic Data.

All the details for the Scientific Program, including the list of Invited and Contributed Paper Meetings, are listed on the 2005 ISI website at <u>www.tourhosts.com.au/isi2005</u>

Did you know that you can submit your papers online? See the website for more details.

Social Program

The Social Program will be a highlight of the Session and has been designed to provide participants with an opportunity to relax, experience a taste of Australian culture and maximize networking opportunities. See the website for more details.

Tours

A range of mid-Session and pre and post Tours will be provided for delegates and accompanying persons.

Register NOW!!

The final registration form is now available on <u>www.tourhosts.com.au/isi2005</u>. To register please visit the Session website and complete the online registration form.

For more details on the 2005 ISI Session see <u>www.tourhosts.com.au/isi2005</u> or email the conference managers on <u>isi2005@tourhosts.com.au</u>.

Contact Details

ISI 2005 Conference Managers GPO Box 128 Sydney NSW 2001 Telephone: +61 2 9248 0800 Fax: +61 2 9248 0800 Email: <u>isi2005@tourhosts.com.au</u> Website: <u>www.tourhosts.com.au/isi2005</u>

Key Dates

Before 6 December 2004 - Authors of invited and contributed papers to submit final manuscripts

Before 31 January 2005 - Early Registration Fee cut off

After 31 January 2005 - Late Registration Fee applies