



The New Zealand Statistical Association

nzsa.rsnz.org

Newsletter

Number 63

March 2006



SKYCITY, Auckland

3-7 July, 2006

You are warmly invited to attend the ASC/NZSA 2006 Conference at SKYCITY, Auckland.

SKYCITY Auckland Convention Centre is located in downtown Auckland. It is the newest and most technically advanced convention centre in NZ.

Key Dates

Abstracts Submission Deadline: 22 March

Authors notified of acceptance: 28 March

Early Bird Registration Deadline: 25 April

Registration (for New Zealanders)

Category	Before 25 April	After 25 April
Member	\$765	\$935
Non Member	\$1050	\$1220
Student	\$280	\$330

Accommodation

Accommodation at SKYCITY can be booked through the conference webpage. Cheaper alternatives will be given in the online newsletter.

Social events

The welcome reception is on Monday evening, cost included in registration, and the conference dinner is on the Tuesday night (\$130), both at SKYCITY.

On Wednesday afternoon there will be optional tours (Auckland city, hike in the Waitakeres, Waiheke Island, sailing on the Harbour), as well as contributed papers and Society meetings.

Webpage: <http://www.statsnz2006.com/>

Email: d.scott@auckland.ac.nz

David Scott, Conference Chair

From the Program Chairman

The theme of this year's joint conference of the Statistical Society of Australia and the New Zealand Statistical Association is "*Statistical Connections*". This theme was chosen to indicate the strong links, not only between statisticians in both countries, but also more widely in the region. The theme has also had significant impact on the program design, in which statistical theory and methodology, computational methodology and applications are linked. The program also aims to increase the connection of young statisticians with each other and existing members of both the Australian and the New Zealand societies.

Putting the program together has involved a lot of work by the members of the program committee: David Scott (U. Auckland who is also the Conference Chair), Chris Carter (CSIRO CMIS), Kerrie Mengersen (QUT), Marti Anderson (U. Auckland), Beatrix Jones (Massey U., Albany), and I am very grateful for their efforts.

The Scientific Program for ASC/NZSA 2006 includes Plenary Sessions, Invited Paper Sessions, Contributed Paper Sessions and Poster Sessions. Satellite workshops will also be available. The main scientific program will take place over the four days Monday July 3 through Thursday July 6. There will be a plenary session of 75 minutes duration on each day of the conference. We are fortunate to have four outstanding keynote speakers for the plenary sessions.

We hope to see you all in Auckland in July!

William Dunsmuir
Program Committee Chair

ASC/NZSA 2006 Offers an Outstanding Scientific Program

Keynote Speakers

There are four plenary sessions of 75 minutes duration, one on each day of the conference. The three keynote speakers and the Foreman Lecturer will each present a 60 minute talk at one of the plenary sessions, with the remaining time being devoted to discussion or conference activities such as opening and closing.

Professor David Donoho

David Donoho is Anne T. and Robert M. Bass Professor in the Humanities and Sciences at Stanford University. He works in mathematical statistics, information theory and computational harmonic analysis. He is currently interested in new multiscale representations lying “beyond wavelets”, and in rapidly finding the sparsest solution of systems of underdetermined linear equations. He received his AB from Princeton *summa cum laude* in statistics and his PhD in statistics from Harvard. He has received a MacArthur Fellowship as well as the von Neumann prize of the Society of Industrial and Applied Mathematics, and has served as Wald Lecturer for the Institute of Mathematical Statistics. He is a member of the US National Academy of Sciences and the American Academy of Arts and Sciences. He won the 1994 COPSS Award from the Committee of Presidents of Statistical Societies.



Professor Peter Hall

Peter Hall is Professor of Statistics in the Centre for Mathematics and its Applications in the Mathematical Sciences Institute, Australian National University. Peter received his BSc degree from the University of Sydney in 1974. His MSc and DPhil degrees are from the Australian National University and the University of Oxford, both in 1976. He taught at the University of Melbourne, then in 1978 took a position at the Australian National University, where he has been ever since. His research interests range across several topics in probability and statistics. He is a Fellow of the Australian Academy of Science and a Fellow of the Royal Society of London and won the 1989 COPSS Award.



Professor Xiao-Li Meng

Xiao-Li Meng is Professor and Chair of the Department of Statistics at Harvard University. He received a MA in statistics from Harvard in 1987 and a doctorate in statistics in 1990. Professor Meng held previous appointments at the University of Chicago. His research interests are in statistical inference under complex settings, such as partially observed data, pre-processed data, and simulated data, quantifying statistical information and efficiency in scientific studies, particularly for scientific computation, genetic studies, and environmental problems, statistical principles and foundational issues and effective deterministic and stochastic algorithms for Bayesian and likelihood computation. Professor Meng won the 2001 COPSS Award.



Foreman Lecture: Professor Ray Chambers

Ray Chambers is Leverhulme Professor of Social Statistics and Director of the Southampton Statistical Sciences Research Institute at the University of Southampton. He is a leading international expert in survey statistics and has close contact with several national statistical offices, including the UK Office for National Statistics and the ABS. He will be moving to Australia in early 2006 to take up a research chair in statistical methodology at the University of Wollongong.



See the online newsletter for links to the homepages of the Keynote speakers.

Invited Speakers

The program committee has been delighted with the way in which the invited speaker program has developed and with the willingness of many outstanding statisticians from around the world to participate in it. Our aim was to develop a program in which statistical and computational methodology relevant to a range of applications was presented and this resulted in two of the main program themes being organised. Details are given on Page 10.

The invited program would not have come about without the efforts of the Session Organizers who have played a key role in bringing the program together. The Program Committee is very grateful for their efforts.

Contributed Paper and Poster Sessions

Contributed Papers presented orally or as a poster have always been critical to the success of past conferences. Accordingly the Program Committee has planned for plenty of Contributed Papers and encourages as many attendees as possible to make an oral or poster presentation. We anticipate that most contributed oral presentations will fall into one of the theme areas (outlined on Page 10) and the Program Committee will make every effort to organize the Contributed Papers to complement and enhance the invited and plenary sessions. Contributed Paper Sessions are of 105 minutes duration allowing for 5 talks of 15 minutes with 5 minutes discussion, plus 5 minutes of changeover time.

We have noticed that Poster Sessions have been increasingly popular at conferences and we expect that there will be a large interest in presentations of this type. They are a great way to generate direct discussions with other participants in a less formal way than in oral presentations. There will be one Poster Session each day during lunchtime when presenters will be expected to be available to discuss their poster.

Young Statisticians

The conference strongly encourages participation by young statisticians and there are two important activities on the program especially for them. As part of the Welcome Reception on Monday evening there will be a “young statisticians’ corner”. This will be a great chance to ‘break the ice’ and meet fellow younger colleagues.

A whole session is planned for young statisticians on Monday afternoon, featuring a series of 15 minute presentations on interesting topics encountered by the speakers in their work. These sessions have been scheduled on the first day of the conference to maximise networking among young statisticians. Full details will be given in the online newsletter.

If you are new to the conference and would like to make a presentation, there are options for contributed talks and contributed poster sessions. The poster sessions are a great way to meet other people. Hoare Research Software will sponsor \$1000 in student prizes.

The NZSA has some funds available to support students at New Zealand Universities travelling to the conference. For further information contact Jennifer Brown (j.brown@math.canterbury.ac.nz). Note that first year membership of NZSA is free for students at NZ universities or graduates of NZ universities studying overseas.

Official Statistics Day

On Tuesday the Official Statistics theme will run throughout the day, starting with the plenary Foreman Lecture to be delivered by Ray Chambers. It will be followed by an invited session organized by the Surveys and Management Special Interest Section. Speakers are Kirk Wolter (sponsored by SNZ) and Alastair Scott. There will also be contributed paper sessions devoted to the theme and plans are developing to hold a discussion forum with leading representatives from ABS and SNZ.

Satellite Workshops

Introduction to Distance Sampling Workshop - 28-30 June 2006

Presented by Steve Buckland, David Borchers and Rachel Fewster

For further information, see <http://www.creem.st-and.ac.uk/NZ2006/Enquiries.htm>

Stochastic Processes Workshop - 7 July 2006

For further information, contact Dr Ilze Ziedins: ilze@stat.auckland.ac.nz

Additional workshops are currently under consideration. As they develop further details will appear on the conference web site.

President's Column



“So what do you do then?” She was young and vivacious; alas, too young and vivacious for me! We had exchanged a few words on a half-dozen occasions when we were both working out in the university gym and now this dreaded question.

For some reason, instead of my usual self-and-profession-deprecating easy answer, I tried to explain the excitement of discovering new information in numerical data. I used the analogy of scientists coming to the site of an explosion and using the direction and extent of the rubble to draw conclusions about the location and size of the explosion. “Cool,” she said, “just like CSI!”

I don't really know if she ever did get to understand much of statistics from our conversation, but at least she went away with a positive feeling about statistics. I was reminded of it again when Ray Littler lent me a book called “Freakonomics” by Steven Levitt and Stephen Dubner. Here is something from an NPR blurb for an interview with Levitt:

“Mr. Levitt uses statistics to examine matters of everyday life: His subjects range from abortion and crime to game shows. Some of the chapter titles from *Freakonomics* illustrate Levitt's wide-ranging curiosity: “Why Do Drug Dealers Still Live with Their Moms?” and “How Is the Ku Klux Klan Like a Group of Real-Estate Agents?” are two.” Perhaps most famous is his contention that the falling crime rate is caused by the increased abortion rate in economically stressed mothers.

I find myself led to wonder if the caution that leads us to refrain from causal speculation is not the very same thing that gives our profession a grey public image. It could be significant that the book was co-written with Dubner, a New York Times journalist. Maybe we should use journalists more often to get our message through to the public. Perhaps if we keep a store of interesting vignettes from our consulting experience, slightly laundered for confidentiality, but simplified and hyped up for effect, we could stir up a bit of interest in statistics.

Murray Jorgensen

Financial Snapshot - cash at bank

NZSA accounts	\$30,987
Campbell Bequest Fund	\$59,236
Wellington Statistics Group	\$912

Editorial

Thanks to all the correspondents who have got together interesting and timely accounts of the many and varied activities within their groups, which has made this issue a pleasure to compile. My main difficulty has been in thinking of anything to write myself, and so I will keep it brief!

This issue focusses largely on the ASC/NZSA Conference which will be held in Auckland in early July. The fact that four pages are devoted to it reflects what a major undertaking it is. It is usual to thank the organizers after the event has happened, so thanks for all the planning so far.

The online newsletter will maintain up-to-date information on satellite meetings to the main conference. There is likely to be a substantial amount of new information subsequent to the printing of the hard-copy edition.

I will also maintain a page in the online newsletter listing alternative, cheaper accommodation options in the vicinity of conference venue. David Scott has provided an initial list. I'd be grateful to receive further information from members following any arrangements you might have made for yourselves. Email details to roger.littlejohn@agresearch.co.nz.

Roger Littlejohn



David Bryant, Ray Brownrigg and Pierre Ailliot on top of the Rimutukas, during the wine-tasting excursion of the Wellington Hidden Markov Model Workshop in December (photo: Jan Bulla).

Submissions to the Newsletter

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

Next deadline 25 August, 2006.

Advertising In the Newsletter

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

Editor

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Newsletter on Web

An online version of this newsletter is available at <http://nzsa.rsnz.org/Newsletter63/index.htm>
It will be regularly updated with information and your letters.

Email: roger.littlejohn@agresearch.co.nz

NZSA Membership rates

Given rates apply from April 2006 - March 2007 and are in NZ\$.

	NZ	Overseas
Ordinary	60	65
Student & Retired	30	35
No paper journal (electronic only - see Page 9)	-5	-5
SSAI Member (journal funded from SSAI membership)	30	35

Join the NZSA

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

Campbell Estate Fund

The NZSA was the recipient 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 <http://nzsa.rsnz.org/funding.shtml> for more details.

The fund has now grown to over \$59,000 with accumulated interest since 2001.

Applications are received twice a year (April/October) and are invited for funding for projects in 2006/07. 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), NZSA, PO Box 1731, Wellington. For more details contact Jennifer Brown (j.brown@math.canterbury.ac.nz) or Harold Henderson (harold.henderson@agresearch.co.nz).

Jennifer Brown

Statistics Education DVD

A special session on statistics education was organised at the Dunedin NZSA Conference last year. Seven researchers at the University of Otago spoke about their research and illustrated the statistical procedures used in their work. This was filmed during the conference with the aim of making a DVD, and subsequently re-recorded in a studio environment. The second takes should be completed by about the end of March, with only two remaining to be filmed at the moment.

Since then Statistics New Zealand has also recorded two clips, which means nine case studies will be included in the final DVD.

The DVD of the talks is being produced by the Staff in the Higher Education Development Unit at the University of Otago. It will be available for use in all high schools in New Zealand, to assist in motivating the teaching of statistics. The corresponding data sets will also be available on an accompanying CD. John Harraway is already using this resource in his STAT110 lectures!

This project is supported by a grant of \$750 from the Campbell Fund, and is being coordinated by John Harraway.

John Harraway

New members

A warm welcome to new members of the NZSA: Dongwen Luo, Roger Macky, Sharon Browning, Martin Hazelton, Robyn Drake, Beatrix Jones, Matthew Schofield.

Statistical Methods for the Screening and Classification of Microarray Gene Expression Data: A One-Day Workshop

**Professor Geoff McLachlan,
University of Queensland**

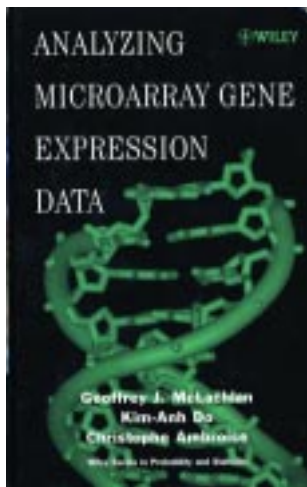
20 April, 2006

**Venue: S Block, Room S.G.02
University of Waikato**



This workshop is on analyzing microarray gene expression data. It is aimed at statisticians/biostatisticians/bioinformaticians in general, as well as to investigators working in areas in which relevant use can be made of microarray gene expression data. The analysis of microarray gene expression data is a very important topic in science and applied science. The latter includes the biotechnology, pharmaceutical, chemical fields, as well as animal health and food industries.

Traditional statistical methodology has to be re-evaluated and modified to carry out the main analyses required for microarray data. Such data consist of several thousands of genes measured over, say, tens or hundreds of patients (tissues). The workshop will focus on the analysis of the preprocessed gene expressions. That is, it is to be presented with the view that although there will be rapid developments in new technology for the production of high-throughput data, the methodology to analyze the “cleaned data” will still be essentially the same. A



key feature of the workshop will be the demonstration of the methods through the reporting of several case studies. Another key feature is that the focus will be on newly developed methodology, in particular that of the presenter, some of which may not be available in publication form at the time of the workshop.

The registration fee is \$75 without dinner or \$120 with dinner, which will be held at the University's Performing Arts Centre, which has a wonderful ambiance overlooking the lake. The webpage for the workshop is via www.stats.waikato.ac.nz.

ICOTS-7: Working Cooperatively in Statistics Education

July 2 - 7, 2006

Salvador (Bahia), Brazil

The International Association for Statistical Education (IASE) and the International Statistical Institute (ISI) are organising the Seventh International Conference on Teaching Statistics (ICOTS-7), which will be hosted by the Brazilian Statistical Association (ABE) in Salvador (Bahia), Brazil, July 2-7, 2006.

Planning is now well advanced and the ICOTS-7 website at <http://www.maths.otago.ac.nz/icots7> is being continually updated. It contains summaries of Topics and Sessions, abstracts for all the invited papers, contact addresses for invited speakers, session organisers, topic convenors and organising committees and much more about the conference organisation.

At the present time there are 223 invited paper, 123 contributed papers, 120 poster presentations, four special interest groups, 12 special sessions and a range of administrative meetings all contributing to a very full six day schedule. The Plenary speakers include some local people who are well known to us, namely Bryan Manly, Len Cook and Chris Wild.

The website also has information about the charm of Salvador Bahia and pictures of the guest rooms and conference facilities at the Othon Hotel where the conference is being held. Conference participants are encouraged to stay at the Othon Hotel, and enjoy views like this.



More information is available from the ICOTS-7 website at <http://www.maths.otago.ac.nz/icots7> or from the ICOTS IPC Chair Carmen Batanero (batanero@ugr.es), the Programme Chair Susan Starkings (starkisa@lsbu.ac.uk), and the Scientific Secretary John Harraway (jharraway@maths.otago.ac.nz).

John Harraway

Statistics Education News

International News

ICOTS-7, Working Cooperatively in Statistics Education, Salvador (Bahia), Brazil, July 2-7, 2006.

The International Association for Statistical Education (IASE) and the International Statistical Institute (ISI) are organizing the Seventh International Conference on Teaching Statistics (ICOTS-7), which will be hosted by the Brazilian Statistical Association (ABE) in Salvador (Bahia), Brazil, July 2-7, 2006. All papers have been submitted. Information on the conference is available at the ICOTS web site at <http://www.maths.otago.ac.nz/icots7>.



Joint ICMI/IASE Study, Statistics Education in School Mathematics: Challenges for teaching and Teacher Education. The International Commission on Mathematics Instruction (ICMI) Executive committee invited IASE to cooperate in a joint study focused on statistics. The invitation was accepted by IASE, which proposed to merge the Study Conference with IASE's next Roundtable Conference to be held in 2008 in Monterey, Mexico. Carmen Batenero is chair of the International Programme Committee (IPC) of the joint study. Planning is underway for this study, which will result in a book being published in 2010. Meetings of the IPC will be held at ICOTS-7 and ISI-56. For more information see: http://www.ugr.es/~icmi/iase_study.

New Publications. The Proceedings of the 2004 IASE Roundtable on Curricular Development in Statistics Education, edited by Gail Burrill and Mike Camden, is now available on the website: <http://www.stat.auckland.ac.nz/~iase/publications.php>. The IASE Review 2005, which reports on IASE activities in 2005 is also available on this website.

Local news

The School Curriculum. The draft school mathematics and statistics curriculum will be launched in June 2006. Joint video-conferences between Wellington and Auckland have been held to discuss the statistics strand. Statisticians and teachers have been involved in these discussions. If you are interested in participating then please email Maxine (m.pfannkuch@auckland.ac.nz).

The CensusAtSchool Project. This project, sponsored by the Department of Statistics, University

of Auckland, Statistics New Zealand, and the Ministry of Education, was launched on August 15, 2005 and the funding period has now been completed. The project was co-directed by Chris Wild and Rachel Cunliffe and aimed not only to give students the experience of participating in a census but also to provide rich classroom resources for Years 5 to 10 students using the CensusAtSchool data. These classroom resources are based on the proposed new statistics curriculum. For more information, photos, press releases, news clips and exciting new classroom resources see: <http://www.censusatschool.org.nz/>. The project will continue to the extent that it can on volunteer efforts and any further funding.

Year 13 Statistics Teacher Development. Palmerston North, Dunedin and Wellington teachers were given a workshop day on the teaching of the Year 13 course Statistics and Modelling by Matt Regan recently. The materials he used were from past annual Year 13 statistics days presented by Auckland University lecturers. For more information and access to these resources see: <http://www.stat.auckland.ac.nz/~u47510x/teachers/index6.php>.

Maxine Pfannkuch

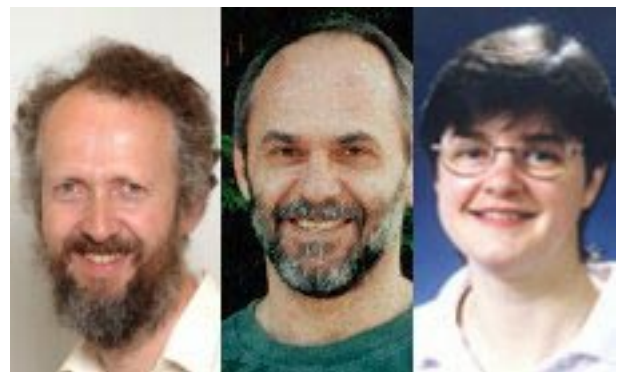
Introduction to Distance Sampling Workshop

28 – 30 June, 2006

University of Auckland

Presenters: Steve Buckland (U of St Andrews), David Borchers (U of St Andrews), Rachel Fewster (U of Auckland)

This is a three day introductory workshop, focusing on standard distance sampling methods. It is a blend of theory and practice, and participants will learn how to use the industry-standard program Distance. You will gain a solid grounding in both survey design and methods of analysis for distance sampling surveys. Participants are encouraged to bring their own data sets and can expect to do some preliminary analyses with their data. For details see <http://www.cream.st-and.ac.uk/NZ2006/Enquiries.htm>.



Awards

Marsden Fund Awards - Beatrix Jones, David Bryant

Congratulations to Beatrix Jones (Massey University, Albany Campus) and David Bryant (University of Auckland), who received Marsden Fund Awards in this year's round.

Beatrix's project is "Design of parentage analysis experiments: a case study for understanding uncertainty in models with latent (unobserved) variables", and is a two year Fast Start award. Beatrix (right)



welcomes inquiries from prospective domestic postgraduates who would like to do a funded honours project in this area. Parentage analysis refers to a group of techniques ecologists use to understand mating and dispersal patterns of wild organisms. In a parentage analysis, genetic data are collected from a group of offspring, and adults that may be their parents. The genetic data is then used to match up offspring with their parents; questions like "do older adults produce more offspring?" can then be answered. Unfortunately, it's difficult to collect enough genetic data to do this parent-offspring matching exactly. That's where statisticians come in. When not all offspring can be confidently assigned to parents, the parent assignments can be treated as latent variables. Demographic parameters can then be estimated by sampling from the joint posterior of demographic parameters and parent assignments. When this method is used, the relationship between the amount of data collected and the precision of the resulting parameter estimates is complex. Beatrix's project will develop design methods so ecologists can know before they begin data collection how much data they will need to achieve a desired precision. She hopes to extend these methods to other contexts as well.

David's project is on "The statistics of phylogenetic networks". Split networks and phylogenetic networks are data representation tools that have arisen out of research into phylogenetic analysis (reconstruction of evolutionary history), but have been applied to fields as diverse as comparative linguistics and virology. In effect, they can be regarded as compact representations of large collections of trees. The central aim of this project will be to place these

representation tools into an appropriate statistical framework, with the development of the appropriate network models, validation and sampling techniques. These will be applied to the analysis of complex evolutionary events: particularly the study of viral transmission histories and evolutionary analysis of organisms with unclear species boundaries. Project members include Alexei Drummond (Auckland), Noah Rosenberg (Michigan), Bernd Sturmfels (Berkeley) and Paul Tupper (McGill). Software is available at www.splits.org. David is currently searching for two PhD students.

NZIMA Programme - Modelling Invasive Weed Species

Congratulations to Jennifer Brown, Alex James and David Wall (U Canterbury) who are Directors of an NZIMA Programme on "Modelling Invasive Species and



Weed Impact". The aim of the 3-year programme is to bring mathematicians and statisticians together with biologists to stimulate applied research that will benefit weed control and management.

The programme will begin with a 5 day workshop in Hanmer in April 2007. Up to 6 international mathematicians and statisticians, along with about 35 New Zealanders, will be invited. The workshop's format will be introductory sessions by New Zealand weed managers outlining the current issues and problems in weed management in NZ, followed by sessions from the international invitees on the latest developments in relevant mathematical and statistical tools. Each day, in the follow-up sessions, the workshop attendees will identify the gap between the knowledge that can be gained from the the current mathematical models and what is needed by NZ weed managers. The NZIMA programme goal is to bridge that gap by stimulating relevant research amongst NZ mathematicians and statisticians.

Applications are being called for students to undertake postgraduate and postdoctoral studies in this area. The NZIMA programme will also include follow-up workshops and regular newsletter style updates on the research.

For more information or for any queries contact Jennifer Brown (j.brown@math.canterbury.ac.nz) at the Biomathematics Research Centre at University of Canterbury. The Programme webpage contains a full and updated account of all Programme activities (<http://www.math.canterbury.ac.nz/bio/NZIMA/>).

Accessing ANZJS online

Blackwell Synergy

Members were emailed (1 February, 2006) instructions and their password from Blackwell Publishing on how to log-on to the *Australian and New Zealand Journal of Statistics* online directly through Blackwell Synergy (www.blackwell-synergy.com).

Alternatively, check with your library about access to ANZJS online through the subscriber-based providers Ingenta, Ebsco, SwetsWise or OCLC.

ANZJS

Kerrie Mengersen (Queensland University of Technology) has now taken over the role of Managing Editor of ANZJS. She was an Invited Speaker at last year's NZSA Conference, and is well-known for her contributions in Bayesian Statistics. ANZJS has previously not been consistent about assigning submissions to Applications or Theory & Methods, pretty much allowing the author to do so. This led to some problems, with stronger applications often being published in Theory & Methods. The submission procedure has now changed, so that all submissions go to the Managing Editor, who will decide which section should process it.

Steve Haslett (Massey University) was appointed as a Theory and Methods Editor last year. Ken Russell is doing his usual, very careful job as the new Technical Editor. Special thanks to Russell Millar (right - see also page 13), who is currently completing the processing of Applications manuscripts received prior to 2006. Jeff Wood (ANU) has now succeeded him as Applications Editor.



The number of Theory and Methods papers submitted to ANZJS continues to be high, although the acceptance rate is not, and there are to be two 'bumper' issues published. In order to be sure of covering associated costs, the NZSA AGM in 2005 approved an increase in the membership fee. However, members are being offered the option of selecting electronic-only access to the journal at a reduced membership cost of \$5 per member. This option takes effect immediately, with renewal forms enclosed with the newsletter. Details of membership options are given on Page 5.

The homepage for ANZJS is now <http://www.statsoc.org.au/Publications/ANZJS.htm>.

Conference Brief

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

Statistical Methods for the Screening and Classification of Microarray Gene Expression Data

Hamilton, New Zealand

April 20, 2006

Presenter: Geoff McLachlan

Web: <http://www.stats.waikato.ac.nz/>

Email: stats@waikato.ac.nz

Introduction to Distance Sampling

Auckland, New Zealand

June 28-30, 2006

Web: <http://www.creem.st-and.ac.uk/NZ2006/Enquiries.htm>

Email: rhona@mcs.st-and.ac.uk

ICOTS 7 - Working Cooperatively in Statistics Education

Salvador, Brazil

July 2-7, 2006

Web: <http://www.maths.otago.ac.nz/icots7/>

Email: batanero@ugr.es

ASC/NZSA 2006 Statistical Connections

Auckland, New Zealand

July 3-6, 2006

Web: <http://www.statsnz2006.com/>

Email: d.scott@auckland.ac.nz

Stochastic Processes Workshop

Auckland, New Zealand

July 7, 2006

Web: <http://www.statsnz2006.com/>

Email: ilze@stat.auckland.ac.nz

IBC 2006

Montreal, Canada

July 16-21, 2006

Web: <http://www.ibc2006.org/welcome.html>

Email: IBC2006@nrc-cnrc.gc.ca

Modelling Invasive Species and Weed Impact

Hanmer, Canterbury

April 16-20, 2007

Web: <http://www.math.canterbury.ac.nz/bio/NZIMA/>

Email: J.Brown@math.canterbury.ac.nz

Invited Speakers

Here we give details of the Conference Themes, Sessions, Invited Speakers and Session Organizers.

STATISTICAL METHODOLOGY

- *Bayesian Statistics (organized by Claire Jordan & Kerrie Mengersen)*. Christian Robert (University Paris-Dauphine), Robert McCulloch (University of Chicago).
- *Exact Methods of Statistical Inference (organized by Chris Lloyd)* Alan Agresti (Florida State University), Chris Lloyd (Melbourne Business School), Ivan Chan (Merck Research Laboratories).
- *Saddlepoint Methods in Modern Statistical Inference (organized by Neville Weber)* Ron Butler (Colorado State University), John Robinson (University of Sydney).
- *Multivariate and High Dimensional Data (organized by Robert Kohn)* David Donoho (see Keynote Speakers), Matt Wand (UNSW).
- *Spatial Statistics (organized by Adrian Baddeley)* Christian Lantuejoul (Centre de Geostatistique).
- *Stochastic Processes (organized by Ilze Ziedens)* Adam Schwartz (Technion Israel Institute of Technology), Dirk Kroese (University of Queensland).
- *Modern Goodness-of-Fit Theory and Methods (organized by Estate Khmaladze)*.

COMPUTATIONAL STATISTICS

- *Statistical and Machine Learning (organized by Matt Wand)* Geoff McLachlan (University of Queensland), Alex Smola (National ICT Australia / ANU).
- *Computationally Intensive Statistics (organized by Chris Carter)* Xiao-li Meng (see Keynote Speakers), Robert Kohn (UNSW).
- *Statistical Computing (organized by Paul Murrell and Kuldeep Kumar)* Junji Nakano (Institute of Statistical Mathematics, Tokyo), Bill Venables (CSIRO CMIS).
- *Resampling Methods (organized by Marti Anderson)* Peter Hall (see Keynote Speakers), Jiming Jiang (University of California, Davis).

STATISTICS IN BIOLOGY AND MEDICINE

- *Statistics in Biological Science (organized by Harold Henderson & Simon Barry)* Mark Burgman (University of Melbourne), Tony Pettitt (Queensland University of Technology).

- *Bioinformatics (organized by Chris Triggs)* Gordon Smyth (Walter and Eliza Hall Institute of Medical Research), Allen Rodrigo (University of Auckland).
- *Statistical Genetics (organized by James Curran)* Sharon Browning (University of Auckland).
- *Forensic Statistics (organized by James Curran, Janet Chaseling & Claude Roux)* James Curran (University of Auckland), John Buckleton (Institute of Environmental Science and Research Ltd)
- *Medical Sciences (organized by Katrina Sharples & Peter Howley)* Annette Dobson (University of Queensland), Gita Mishra (Medical Research Council - National Survey of Health & Development at the Royal Free & University College London Medical School), Robert Gibberd (Health Services Research Group, CCEB).
- *Statistics in Ecology and the Environment (organized by Marti Anderson)* Steve Buckland (University of St Andrews), Rachel Fewster (University of Auckland).
- *Multivariate Statistics in Ecology (organized by Marti Anderson)* Brian McArdle (University of Auckland), David Warton (UNSW).

SPECIAL INTEREST SECTIONS

- *Industrial Statistics (organized by David Whitaker & Ross McVinish)* Nozer Singpurwalla (Institute for Reliability and Risk Analysis, George Washington University), Chin Diew Lai (Massey University).
- *Surveys and Management (organized by Steve Haslett & Robert Clark)* Kirk Wolter (University of Chicago), Alistair Scott (University of Auckland).
- *Young Statisticians (organized by Jason Thomas & Ian Woods)*
- *Econometrics and Finance (organized by Kerrie Mengersen & Chris Carter)* Cathy Chen (Feng Chia University), Mike So (Hong Kong University of Science & Technology).

The program of invited sessions and speakers continues to be developed. For example, we are working on a session on econometrics and time series and one on syndromic surveillance for disease outbreaks.

The program will be updated continually at the conference web site (<http://www.statsnz2006.com/invitedsp.asp>), so please check there for details.

Postcard from Cambridge

With an eclectic mixture of emotions; eager anticipation, trepidation, excitement and sadness, I made the ‘epic’ journey to England in order to begin my PhD at Cambridge University. My project, provisionally entitled “Integrated Modelling of Bird Populations”, aspires to develop Bayesian statistical methodology to underpin, and improve, advice given to Government and other interested parties on the state of the UK’s bird populations.

I’m very lucky to be supervised by dual Steves – Dr Steve Freeman from the British Trust of Ornithology (BTO), and Prof Steve Brooks in the Statistics Lab at Cambridge. I am also most fortunate to be literally overwhelmed with vast amounts of high quality data. Count data on numerous species of birds has been collected annually using a standardised mist netting approach by hundreds of volunteers throughout the UK as part of the BTO’s ‘Constant Effort Scheme’, from 1983 to date.

Survival information is also available from ring recoveries, nest success data from another BTO survey (the ‘Nest Record Scheme’), as well as various habitat and climate variables.

At this early stage I’ve concentrated my efforts on modelling Sedge Warbler data (photograph below, thanks to Dawn Balmer), and have produced various indices of abundance and productivity. The “Integrated” part is still to come. Tragically I’ve yet to meet a Sedge Warbler as they’re sensibly wintering in Africa, but come summer I’m very keen to see mist netting in operation ... although the 3am start is not so appealing.

The Statistics Lab is a very stimulating and enjoyable place to work, despite the fact I’m



remorselessly teased over my pronunciation of data (‘darrrrrrrrta’). My research promises to be very challenging but extremely rewarding and wonderfully interesting.

Thanks to my colleagues at AgResearch for their continued support and encouragement, and also to my lecturers and tutors at Otago University for fuelling my interested in Statistical Ecology.

Vanessa Cave

A Biometrician at the Mathematics in Industry Study Group

The Mathematics in Industry Study Group (MISG) was started in Oxford during the 1960’s as a pathway to show industry the power of mathematics when applied to their particular problems. The Australasian version of MISG has been running since 1984. The general idea is that industry representatives bring along a problem and the workshop attendees spend a week working together toward a solution. In recent years it has attracted more statistical problems, and as a result greater numbers of statisticians are beginning to attend.

This year Crop & Food Research contributed a problem (attendees are pictured working on it below, see also page 14) relating regional and soil property information and farm management history to various soil health measurements, to create a decision support system for NZ farmers. I was excited to work closely with experienced statisticians and mathematicians from a variety of backgrounds and disciplines, and it was interesting to see the different ways in which these practitioners approached the problem. However, I won’t say there weren’t any ‘moments’ between mathematicians and statisticians (all friendly of course)! The enthusiasm of everyone involved in MISG was fantastic, resulting in some very good results and hopefully rewarding collaborations in the future.

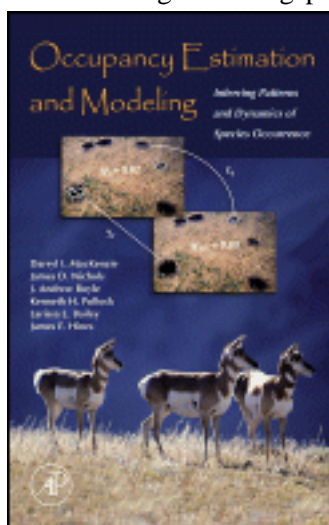
Esther Meenken



Local Scene

Proteus Wildlife Research Consultants

We are continuing our Ministry of Fisheries-funded project on the sustainability of seabird bycatch in NZ fisheries. Our most recent work has focussed on the difficulties of estimating bycatch, as well as on the best methods for collecting demographic information on the birds themselves. As usual, consulting problems suggest interesting statistical issues that may be worth pursuing beyond the context of the original application. David Fletcher has decided to employ his new PhD student at the University of Otago, Peter Dillingham, to carry out some of the work. Peter's thesis will be in the area of animal population modelling and management. He is from the US and already has experience working in statistical ecology, on the conservation management of Stellar sealions. Darryl MacKenzie (along with his co-authors) has recently had his first book published "Occupancy estimation and modeling: inferring patterns and dynamics of



species occurrence". This is a synthesis of current estimation methods for the presence/absence of species that are detected imperfectly; a topic he first began working on in 2001 while working at the US Geological Surveys Patuxent Wildlife Research Center. While obviously pleased with its

publication, the unfortunate thing is that readers have begun to point out a few typos that he missed.

Darryl MacKenzie

AgResearch

Re comings and goings among the statisticians in our section – a nil report! Instead, we are all lining up for AgResearch's recently introduced "Long Service" award celebrations, to be held on the 10, 15, 20, 25, 30, 40 and 50th anniversaries of joining. Congratulations to John Waller (pictured above right with Neil Cox, Tony Pleasants and Peter Johnstone) for attaining 30 years of service, and being the first to receive this award – well done, John! Congratulations also to Ken Dodds and Linda Murray (our science administrator) who will be having their 20-year celebrations as this goes to press. Some of



the other younger groupies (sorry, sectionies) are heading towards the 25 years of service mark, with three still aiming for the first mark (at 10 years). Meanwhile, the other half of us are in the long slog from 30 to 40, with the old-age pension arriving before our first long-service recognition. (DS: *too bad, you win some, you lose some!*) One wonders whether the spacing was decided upon by mathematical means.... (statistical analyses are pending). (Joking aside, congratulations to AgResearch for introducing recognition of service awards! – a great concept which is excellent for staff morale).

In September, Ken Dodds et al. gave an invited talk entitled "Practical aspects of a genetic evaluation system using parentage assigned from genetic markers" at the Association for Advancement of Animal Breeding and Genetics Conference at Noosa, Queensland. Also, David Baird, Peter Johnstone, Martin Upsdell et al. gave a talk entitled "Turning ID on its head" at the NZBio Conference on Traceability in Dunedin. In November, Ken Dodds attended the Symposium in Biostatistics: Statistical Genetics and Genomics in the USA, as well as two one-day courses on "Design and analysis of microarray experiments" and "Analysis of modern population genetic data". Also, Peter Johnstone attended the workshop on experimental design in honour of Nye John at the University of Wollongong. In December, Roger Littlejohn gave a talk entitled "EDA of rhythms in deer data: feeding, biting and growth hormone" at the Second Workshop on Hidden Markov Models and Complex Systems in Wellington.

During the December/January period, David Baird and Peter Johnstone took to long-distance travelling. David and his family spent four weeks in England (in connection with GenStat), and made trips to Chad, India and Thailand totalling another 4-5 weeks. Peter and his wife holidayed at exotic spots in the Baja California peninsula, "just south of the border, down Mexico way".

Dave Saville

University of Auckland

We welcome our new lecturer, Sharon Browning (below), who joined us in October from GlaxoSmithKline in North Carolina. Sharon's specialisation is statistical genetics of human diseases. It's a warm welcome back for Sharon, who did her Honours degree at Auckland before going to the University of Washington in Seattle for her PhD. By a happy coincidence, Sharon arrived back just in time to recommend her erstwhile Honours supervisor Ilze Ziedins (right) for a teaching award. Congratulations to Ilze for her well-deserved Dean's Award for Excellence in Teaching.



Unfortunately for us, there is a Law of Conservation of Statistical Geneticists at work. We are very sorry to say farewell to Mik Black, who has accepted a post with the Bioinformatics Group in the Biochemistry Department of the University of Otago. Mik has been at Auckland since completing his PhD at Purdue University in 2002.

Luckily, we were able to retrieve Chris Triggs from his sabbatical visit to the Centre of Excellence in Nutritional Genomics at UC Davis. While there, Chris attended his first and only conference in which one of the talks made it to the front page of the New York Times: completion of the HapMap project. As Chris muses, this never happens at Stats conferences. [Sample lead: "Cox announces new proportional hazards model!"]

Congratulations to Tim Langlois, for successfully defending his thesis "Influence of reef-associated predators on adjacent soft-sediment communities", supervised by Marti Anderson. Welcome to Sammie Jia, who has won a university international fees bursary to start his PhD with Russell Millar and Marti Anderson.

Members of the department have loomed large in the public eye over the last few months. Star PhD student and failed rat-catcher James Russell wrote up his doomed attempts to capture a particularly athletic rat on the Noises Islands in the Hauraki Gulf. The Tom-and-Jerry style episode was published in the top international journal Nature in October. The story was picked up by over 100 news agencies worldwide, including the BBC, Washington National

Public Radio, New Scientist, and National Geographic. James reports how the rat eluded barrages of traps and swam 400m across open sea to a neighbouring island, presumably in search of a mate. James caught up with it several weeks later, but by boat.

We are very proud to harbour the author of one of the community's most influential publications. Ross Ihaka's 1996 paper with Robert Gentleman, introducing the R language, has just been announced as the most cited paper of the last 10 years in the mathematical sciences. To date, there are more than 20 books based on R, with at least ten more in the pipeline.

More publicity followed the results from the CensusAtSchool programme hosted by the department, including features in The New Zealand Herald, The Herald On Sunday, and Canvas. In addition, our Annual Teacher's Day drew over 90 participants and some very favourable feedback.

Russell Millar was back on the nation's TV screens with more lottery wit and wisdom, this time about the new game Big Wednesday. In recognition of his new career as TV Lotteries Celebrity, Russell has stepped down from the job of Applications Editor for ANZJS. Not for a life of idleness, of course, as he and Rachel Fewster are both commencing terms as Associate Editors of Biometrics this month.

Congratulations to Marti Anderson and Richard Ford, who gained an \$80,000 grant from the VC's University Development Fund for a project entitled "Investigating the impact of multiple stressors on benthic communities". Congratulations also to James Curran, who has obtained a 3-year \$176,000 contract with the Forensic Science Service of the UK.

And finally, it emerges that the Stats department is responsible for the world's most famous Paintball contest. Check out <http://images.google.com> and search on "paintball". No prizes for guessing whose gruesome hand appears as the number 1 hit, but cheques and donations may be forwarded to Brian McArdle [c/o newsletter editor...]

Rachel Fewster



Massey University, Albany

Towards the end of January, a number of statisticians from Albany attended the Mathematics in Industry Study Group (MISG), coordinated by Professor Graeme Wake from the Albany Campus Mathematics Group. The MISG essentially involves bringing industrial problems in Mathematics and Statistics to University researchers (with the expectation that they will be solved!). Barry McDonald (Massey, Albany), Penny Bilton (Massey student) and Mini Ghosh (Massey, Post-Doc) examined data from the Soil Sustainability Group, with a view to developing a soil management index. They were assisted by fellow statisticians Kaye Marion (RMIT), Walt Davis, Victoria Wei and Simon Leong (Statistics New Zealand), Esther Meenken (Crop & Food Ltd), along with mathematician Nev Fowkes (UWA) and a further three soil experts. Work in action is pictured below. In addition, Claire Jordan from our Stats



Group, Henning Rasmussen (UW Ontario) and Ratneesh Suri (Massey student) looked at 'Expectations for loss of supply in the New Zealand power system, a problem provided by Transpower NZ.

Jeff Hunter continues as the Professor of Statistics (although now only on a part-time basis). Not content with only 40% time in the Institute, he has got himself involved (for a limited period) as the Project Manager for the Campus Strategic Positioning Project working with the Deputy Vice Chancellor for the Albany Campus. In November he visited Professor Eugene Seneta at the University of Sydney to give a seminar and initiate some collaborative activity. He is planning an extensive leave trip to Europe and the US in the middle of the year to participate in various conferences. (More on that next time!)

Beatrix Jones attended the 8th New Zealand Molecular Ecology Meeting, December 3-5, held at the YMCA Wainui Park on the Banks Peninsula. As you may guess from the venue, this annual conference is fun and informal, with a lot of students presenting.

Beatrix gave a talk called "Bayesian inference for brood structured data", about using genetic data to understand the complicated mating patterns of organisms like fish. Although it was an ecology conference, many of the participants use sophisticated statistical methods for phylogenetic, population genetic, and pedigree data, so Beatrix felt quite at home! The meeting provided Beatrix with a great opportunity to interact with those collecting data and to understand the related scientific questions.

Tasos Tsoularis has recently returned from a six month trip to Europe and the USA. Whilst in England, Tasos spent time in the Bradford University School of Management, where he was researching the topic of stochastic learning algorithms applied to problems in Management Science. Whilst in Miami, Tasos went to a mathematical-biology conference and presented a paper on "Learning strategies for a predator operating in variable model-mimic-alternative prey environments".

Paul Cowpertwait

University of Waikato

2005 saw several changes in the department. Following the departure of James Curran, who is now at Auckland University, and the retirement of Professor Nye John, we also had to farewell our long time departmental assistant, Karen Devoy. In October, Karen left to take up a position as PA to Professor Ian Graham, who was originally in the Computer Science Department and then long time Dean of the School of Computing and Mathematical Sciences, here at the University. He now heads up his own very successful computing company, Endace Technology. Karen has been replaced by Rhonda Robertson who is doing a marvellous job filling the "big shoes" that Karen left.

In honour of Nye's retirement, a workshop on Experimental Design was organised by Ken Russell



Nye John (left) shares a thoughtful moment with Murray Jorgensen and Peter Johnstone at the Station (U. Waikato campus)

of the University of Wollongong, NSW. This was held at the end of the year. David Whitaker also attended as an invited speaker.

So far this year, things have been relatively quiet in the department. Murray Jorgensen has returned from sabbatical and at present we have Dave Johnson, formerly of Loughborough University, visiting the department. He is helping out by teaching our first year Management Statistics paper, and he will be with us till Easter.

Finally, an upcoming event in the department will be a One-Day Workshop to be held on Thursday April 20, 2006. The presenter will be Professor Geoff McLachlan from the University of Queensland. The title of the workshop is "Statistical Methods for the Screening and Classification of Microarray Gene Expression Data". Registration details will be available at www.stats.waikato.ac.nz shortly.

Recent seminars in the department:

Lyn Hunt (*University of Waikato*) "Using multiple choice questions as an assessment device for statistical thinking"

David Whitaker (*University of Waikato*) "The state of the art in the generation of efficient statistical designs"

Judi McWhirter

University of Canterbury

There have been lots of comings and goings recently here at Canterbury. Irene Hudson has moved to Adelaide to become an Associate Professor and head of the statistics group at the University of Southern Australia. We wish her all the best and hope the group prospers.

We are currently advertising for a new lectureship position in statistics, which has a closing date of 31 March.

Over summer Jennifer Brown has had 2 summer scholarship students working with her. Gavin Bell gained a UC scholarship and worked with Jennifer on developing a sequential, adaptive, 2-phase sampling design. Gavin was also awarded a Statistics New Zealand prize for his exceptional undergraduate performance last year. Jason Bentley, on a Biomathematics Research Centre scholarship, began work on graphical models for describing phenology. The phenological study they are working with is a montane forest in Nigeria and their interest is in the timing and intensity of flowering, fruiting and leaf set events.

The NZIMA programme on Modelling Invasive Species and Weed Impact organised by Jennifer, and Alex James and David Wall (UC) is well underway. The website for the programme has full details, <http://www.math.canterbury.ac.nz/bio/NZIMA/>.

They are currently advertising for a postdoctoral fellow and 2 PhD/MSc students. The programme officially begins in April 2007 with a workshop at Hanmer.

Dominic has been working with his student James Roscoe on a UC scholarship to develop a hidden Markov model for assessing the health of pre-term babies. His work forms part of a major study to improve outcome forecasts with Marco Reale and Glynn Russell, a neonatal paediatrician at Christchurch Women's hospital. Dominic also presented some of this work at the Second Workshop on Hidden Markov Models and Complex Systems in Wellington.

Christian Robert of Ceremade-Université, Paris-Dauphine has accepted a Visiting Erskine Fellowship from 8 July-20 August 2006, hosted by Dominic Lee. Christian's areas of interest include Bayesian Analysis, Computational Statistics, Latent Variable Models and Applied Modelling.

Mike Steel has recently been hosting huge numbers of visitors following the successful annual NZ Phylogenetics Conference in Kaikoura from 12-17 February. A full list is available on the departmental newsletter on our website.

Easaw Chacko has been kept rather busy over summer making sure the department will continue its financial success in the coming year, for which we are all very thankful. The case for our replacement lecturer was ensured because of our group's financial health.

Marco Reale and Carl Scarrott have been supervising a summer project by Alethea Rea (another UC scholarship student), investigating spill-over effects between international markets (namely Japan and US). They have also been hosting Granville Tunnicliffe-Wilson from Lancaster University.

John Newell from the National University of Ireland, Galway is visiting the department (hosted by Marco) until June 2006 and is joined by his wife, Karen. John's main areas of research involve applied statistics, including multivariate survival analysis problems, computational inference, functional data analysis, and applications in medicine and sports science. He is the Consultant Statistician for the Sports Performance Unit at Glasgow Celtic Football Club and, on a recent visit to Auckland, had the dubious distinction of appearing on nationwide TV as a stretcher-bearer at the NZ Knights 1-1 draw with league leaders Adelaide!

Marco is also hosting Dominico Piccolo from the University of Naples, who, most of you will be aware, is a prolific time series expert. Dominico is currently teaching our 3rd year inference paper.

Carl Scarrott

Department of Conservation

I started at DOC in October 2005, beginning with some line transect distance sampling analysis, which was part of a study of the impact of 1080 operations on tomtits. With Ian Westbrooke, I have also been involved with the analysis of public favourability of DOC, a critique of methods used for analysis of data on crowding at busy conservation sites, and the development of a document to help DOC staff use the SPSS classification and regression tree package AnswerTree. Michael Ryan (from Statistics New Zealand) has been making his regular Friday morning visits.

Ian has been busy with various kiwi and stoat studies, the design of visitor surveys and is continuing his crusade against the use of pie charts (especially the 3-D variety) in DOC. Along with kiwi scientist Hugh Robertson, he successfully carried out a number of workshops on the use of Leslie matrices and Kaplan-Meier survival analysis. In December he presented a talk at the Australasian Ornithological Society conference titled “Design and analysis of bird monitoring data – some experiences from a statistical viewpoint”, where he stressed the importance of good objective setting in a study *prior* to data collection. He has been scarce of late due to Christmas holidays, followed by a tramping trip which resulted in a helicopter ride (thanks to search and rescue!), and most recently, and unfortunately, a family bereavement. We are happy to have him back in the office now.

Adam Smith has been “working” (aka diving) in Fiordland over the past few weeks, helping to establish baseline biological data for the marine reserves. He is making good progress in his MSc with Marti Anderson, entitled the “Validation of the New Zealand Marine Environment Classification for shallow rocky reef fish communities” and is fitting in some statistical consulting in Wellington.

My contract finishes at the end of March so I can embark on a PhD at the University of Queensland. I plan to keep up with the office gossip and hope that Ian has the inclination to mentor another recent graduate, as he has done with myself and Adam.

Carla Meurk

Wellington Statistics Group

The Wellington Statistics Group (WSG), a local group of the NZSA, continues to meet regularly. The Group has now gratefully received sponsorship from the Ministry of Social Development, in addition to Statistics New Zealand, Statistics Research Associates Ltd, and Victoria University of Wellington. Attendance at the early evening meetings remains pretty good;

typically 20 to 30 people, with 45 or so sometimes.

Since the last WSG news appeared in the NZSA Newsletter, in reverse chronological order there have been WSG talks given by:

Rod Lea (*Institute of Environmental Science and Research Ltd*) “Genome Informatics and Disease Susceptibility” December 2005;

Tony Vignaux (*Operations Research, VUW*) “Incorporating factors such as Chance and Risk” November 2005;

Paul Jose (*Psychology, VUW*) “Making Moderation and Mediation Quick, Easy, and Clear” September 2005;

Phil Lester (*Biological Sciences, VUW*) “Using discriminant analysis to predict the establishment success of exotic ant species in New Zealand” August 2005.

The next WSG meeting will be in mid March 2006, addressed by Geoff Chambers (*Reader in Cell and Molecular Biosciences at VUW*) on “Out of Taiwan? Genetics sheds new light on Maori origins”.

Anyone who does not presently receive WSG announcements and who wishes to be informed of future events is welcome to contact the WSG Convenor, John Haywood: John.Haywood@mcs.vuw.ac.nz.

John Haywood

Massey University, Turitea

Given the amount of time we have had to spend constructing and correcting our PBRF portfolios, it’s amazing anyone has had any time to do anything else, let alone produce research outputs. Nevertheless the activity has somehow continued.

Our new Professor of Statistics, Martin Hazelton (below), has arrived from the University of Western Australia. We are all very pleased, not only to have appointed someone, but to have them actually turn



up and stay for at least a month. Particularly pleasing is the fact that Martin has arrived in time to submit a PBRF portfolio!

Now that Martin has arrived to take over the leadership of the statistics group, Mark Bebbington is counting down the days until the handover, although it is just a rumour that he is notching his door jamb. Mark did find time to be an invited speaker at the 4th International Statistical Seismology Workshop in Japan in January. He returned full of sushi and sashimi but, along with all the other gaijin, had wasted no time in unplugging the electrically heated toilet seat in his room.

Siva Ganesh was a Distinguished Invited Speaker at the 2nd Annual Asia IT Congress in Bangkok in November. He chaired a day-long stream on "IT and Data Warehousing" and gave a talk entitled "Data Mining: How data rich is your organisation?". This seems a particularly pertinent question for those of us still filling in our PBRF portfolios.

Ganesalingam was invited by the University of Jaffna and University of Peradeniya, Sri Lanka to undertake collaborative research work. Because of ongoing political unrest in the northern part of Sri Lanka, Jaffna University was highly understaffed and Ganes' visit was well appreciated by his former colleagues. He gave a series of lectures in Multivariate Statistical Analysis and presented two seminars covering his current research work in Ranked Set Sampling and Discriminant Analysis.

Doug Stirling has just returned from eight months at the University of Reading in England. During this time, he added a chapter about multiple regression to CAST and developed a customised version of CAST for a Reading University eLearning course to teach statistics to climatologists in Africa. A new release of CAST is now available and can be used and downloaded from <http://cast.massey.ac.nz>. During his sabbatical, Doug gave seminars about CAST in Reading and Essen and ran a workshop at the Applied Statistics 2005 conference in Bled, Slovenia. He returned just in time to complete his PBRF portfolio.



Steve Haslett, Alasdair Noble and Geoff Jones have been commuting regularly (twice a month) to Statistics New Zealand to work with them on two OSRDAC-funded projects using small-area estimation techniques, one on Maori expenditure patterns and the other on sub-regional employment levels. Steve Haslett paid a final visit to Nepal in February to finish off the poverty estimation that he and Geoff Jones have been doing for the World Food

Programme. Geoff gave a talk based on this work to the Manawatu branch of the RSNZ in February.

Jonathan Godfrey's move from student to supervisor has taken him places recently. While his student (Deborah Brunning) has managed to do the number crunching, Jonathan has written the words around the outside of a supplementary analysis of the costs of blindness data that is about to be made public by the Royal NZ Foundation of the Blind. The data is right up Jonathan's alley both privately and professionally as it involves sparse responses from a smaller than desirable sample. He's been to Wellington recently to show the Ministry of Social Development and the Minister for Disability Issues that their plans for a Costs of Disability study need to be considered rather carefully.

Geoff Jones

Statistical Methods - Statistics New Zealand

By the time you read this I would hope all of you have completed your Population Census forms and returned them to Statistics New Zealand, either by giving it to your enumerator, posting it back, or by filling it out on the Web.

The biggest news is that our Wellington office has moved from Aorangi House to a new building, Statistics House. Very recognisable! It's the very green building between the waterfront and the railway station. The part of SNZ in the Public Trust building should have moved in about the time you read this. So for the first time in living memory all the SNZ people in Wellington will be in one building.

While the Census raises our profile, I find some people think that's all Statistics NZ does and wonder what we do when it's not running. You can be assured that we are all busy collecting other data and analysing it. The key change over the last decade has been the increasing use of data collected by others to extend and supplement our outputs. For example, Statistics NZ has recently released the first results from the Longitudinal Employer Employee Database (LEED). This has been a very big job as we are linking the PAYE data from the IRD with the information we have about the businesses where people work. It has been very involved as many aspects of the linking process are quite complicated. For example, SNZ needed to link employees over time (it is L-EED) using their IRD numbers without actually having their IRD numbers, which had to remain at IRD for legal, confidentiality and privacy reasons. As well as the technical issues there was a large amount of consultation with interested parties, like the Privacy Commissioner, because, as you can imagine there are major privacy and confidentiality

concerns that needed to be worked through and resolved.

I'll do a quick plug for our Expert Users Newsletter. This free SNZ newsletter aims to inform users of statistics about new statistical outputs, significant developments, survey redesigns, new classifications and standards, and upcoming presentations and seminars. The newsletter is published by email approximately every fortnight. To subscribe please send an email to Caroline.Galvin@stats.govt.nz with 'subscribe expertuser' in the subject line.

OSResearch is looking for Expressions of Interest (EOI) from people wanting to do research that may benefit the official statistics system (OSS). The OSS encompasses all statistical outputs from all government departments, not just SNZ. Any OSResearch research has to be sponsored by a government department, so having one attached to your EOI helps. However it is possible for your EOI to not have one. OSResearch may be able to direct you to possible sponsors. Contact Kimberly.Cullen@stats.govt.nz for more info.

As noted in my last report Statistical Methods were in the process of recruiting from the 2005 graduates. The successful candidates were Rebecca Bagma, Claire Sun, Nellie Yang and Johanna Prebble. They have all recently started, beginning with a session in Wellington with all the other graduates starting in other areas of SNZ. Also joining us in Christchurch from a research arm of Fonterra is John Pearson. Polly Stuart so liked her time here on her RSNZ teacher's scholarship that she has joined us permanently in Wellington. Karla Helgeson has come to us from Statistics Canada for 18 months. Steve Johnston has returned to the fold part time while still working on his PhD at VUW, while Frances Krsinich has been back doing some contract work for us. Christine Bycroft is due to return soon after spending some time working for the Office of National Statistics in the UK. Grace Chiang is temporarily absent after having a baby just before Christmas. Philippa Graham has recently retired and will be sorely missed, while Rachael Viles has gone to ONS in the UK for a few years and Chris Gianos has moved sideways to work in Injury Statistics. John Lopdell has gone to spend 18 months at Westat in Washington DC, where he should meet up with Andrea Piesse. We also have a permanent manager, Vina Cullum, who is also handling John's work while he's away. Now that Richard Penny is relieved of his manager's duties (relieved being his view as well!) he is stationed in our Auckland office until July where he is hoping to build up the links between SNZ and the research community in Auckland. Eric Nordholt, a Senior Researcher at

Statistics Netherlands, is visiting. The primary purpose is to do a review of our confidentiality procedures and research for OSRDAC, but while he is here we are taking an opportunity to pick his brain about the work being done in Statistics Netherlands. He is also giving talks for the OSS Professional Statisticians Network in Wellington.

On the conference and workshop front, Tim Duke went to a conference on data linking in Canberra run by SSAI. Allyson Seyb went to the Association for Survey Computing conference on Maximising Data Value, Data Use & Re-use where she presented a paper, "Statistics New Zealand's Longitudinal Business Frame". Rico Namay went to the Statistics Canada Methodology Symposium in November where he presented a paper, "Estimating Undercounting of Vehicle-related Injury Cases in New Zealand: A Probabilistic Data Integration and Capture-recapture Approach". Walter Davis, Mike Doherty, Victoria Wei, Simon Leong and Richard Penny went to the recent MISG meeting at Massey Albany. All enjoyed being able to work on a problem and discuss statistics in general without being interrupted by meetings, phone calls, emails etc. At MISG Walter gave a plenary talk "Some Principles of 21st Century Statistics", and Richard a talk to the students, "Making Sense of Data". Mike Camden was down to go to a confidentiality conference in Luxembourg in December, but ended up being admitted to hospital, instead.

Richard Penny

Victoria University

The Statistics and Operations Research (STOR) Group at VUW have had quite a few exciting developments on the staff front. We have two new arrivals, both in the second half of 2005. Colleen Kelly (right) started in August, and is our official "Consulting Statistician", giving statistical advice to graduate students and staff in other disciplines around the University. The rest of the University view Colleen's arrival as something akin to a miracle, since there is now someone who (nearly always!) has time to see them and to sit and listen to their statistical problems. Mark Johnston started in late June, as a new lecturer in Operations Research. Mark came to VUW after 4 years at U. Essex teaching mathematics and computer science; he has a PhD in Operations Research from Massey University, on combinatorial optimization.

Now elevated to a higher plane, Dong Wang and Stefanka Chukova were promoted to the rank of



Reader/Associate Professor at the start of 2006, where they sit alongside Shirley Pledger and Megan Clark. In May 2005, on her return from sabbatical, Megan added the Deputy Head of School position to her already formidable list of administrative responsibilities; how's that for a homecoming present?!

Stefanka Chukova took over from Shirley Pledger as STOR Programme Director on 1 July 2005. The Group was very grateful to Shirley for guiding us through the lead up work required for the external review (of Maths, as well as Stats and OR) that we had during August. The review commented favourably on many aspects of the Group's activities. As a consequence of the recommendations, we have recently advertised a new permanent position with a focus on 'Applied Statistics', the latter interpreted in a quite broad sense. We are also very grateful to Stefanka, who has taken on the various administrative tasks required of the Programme Director and is still seen smiling on a regular basis!

Courses have started in 2006 with an increase in numbers in just about all our courses, and in our graduate students. Of those graduates nearing completion, Nuovella Williams went part time on her PhD from March 2004, and is about to submit. Nuovella was employed on a temporary contract as a Systems Analyst by the Caribbean Government Accounting Reform Project in Montserrat from March 2004 to Sept 2004, and has been employed full time as a Research Officer at the UK Office for National Statistics from Jan 2005 to the present. Steve Johnston is also making good progress with his PhD. In January Steve went to the 4th International Workshop on Statistical Seismology, held at Shonan Village, south of Tokyo, Japan. Steve presented a poster entitled "An accelerating moment release version of the stress release model". Others from our group who went to the same conference included David Vere-Jones, Ray Brownrigg and Junko Murakami. Junko is one of DVJ's postdocs on the Hidden Markov Models program, which is coordinated by DVJ and supported by NZIMA. Johanna Prebble is very close to completing her MSc on the New Zealand Health Survey, and has recently started work at Statistics New Zealand. Johanna is the second of two successful Masters students (following Kylie Mason a year earlier) supervised by Richard Arnold, supported by awards from Public Health Intelligence in the Ministry of Health.

Various staff have been travelling, including Stefanka and Dong on separate overseas trips for a couple of months during the 2005/6 summer. Richard Arnold attended the 25th Workshop on Bayesian Inference and Maximum Entropy Methods in Science

and Engineering in San Jose, in August. Richard presented a paper on the application of Bayesian statistics to seismology (earthquakes as signatures of the stress in the earth's crust). Estate Khmaladze also travelled extensively over the summer. In December Estate was a keynote lecturer at the EURANDOM Workshop "Economics and finance of extremes", and an invited speaker at the European Science Foundation Workshop on Model Specification in Santander, Spain. While in Europe, Estate also worked with Miguel Delgado (Madrid) and John Einmahl (Tilburg), before returning to EURANDOM to give a series of lectures on the differentiability of set-valued functions and their use in statistics. On the way back to New Zealand, Estate fitted in working visits to see Hira Koul (Michigan State) and Roger Koenker & Stephen Portnoy (Illinois).

In other news, Megan unfortunately broke her leg by falling when leaving a party in late November; it was a steep driveway, honestly, before you speculate further. In December 2005, Stefanka Chukova and Mark Johnston helped to organise the Operational Research Society of New Zealand's 40th conference, held at VUW. One highlight was that Stefanka organised two Stochastic OR sessions, the first of which was chaired by John Haywood. As I told the slightly bemused audience, they were making history just by being there, since there had never been any sessions devoted just to stochastic OR in the previous 39 years! Tony Vignaux fittingly gave the leading talk in that first Stochastic OR session; fitting since Tony has done so much to champion OR in NZ, and Stochastic OR in particular - a fact acknowledged with thanks by many at the conference. Other members of our group who presented papers at the conference included Richard Arnold, Stefanka, John, Ivy Liu, and Dong Wang. After helping to organise the conference, Mark couldn't actually get to it since he was in England at the time, at a PlanSIG planning and scheduling workshop held at City University, London. Ivy has a visitor coming to VUW for a month in May 2006: Bhramar Mukherjee from the University of Florida. Finally, to conclude on a very happy note, we were pleased to enjoy a (too short) visit from Yu Hayakawa at the end of February 2006. Yu returned to VUW for 10 days, to work with Stefanka and Richard. While she was here we managed to statistically test (and refute) the hypothesis that she'd lost some of her noted capacity for fun-filled nights out since she left VUW in early 2004. It was clear that Yu has settled in well to her Associate Professorial position at Waseda University in Tokyo, and that the demands of that role have not affected her ability to party.

John Haywood