



The New Zealand Statistical Association

www.stat.auckland.ac.nz/nzsa

Newsletter

Number 55

April 2002

Editor's last stand



Alas, it's time for me to hand the mantle of Newsletter editorship over to some other lucky NZSA member.

I'm moving on to the position of Applications Editor of the *Oz* and *New Zealand Journal of Statistics*. Funny thing, unlike when I agreed to be Newsletter Editor, I was

completely sober this time. The Editorial Board has already been re-jigged and I'm very pleased to say that it now includes Jennifer Brown (Canterbury), James Curran (Waikato), John Eccleston (Queensland), Robert Gentleman (Harvard School of Public Health), Geof Givens (Colorado State), Gary Grunwald (Colorado), Stephen Haslett (Massey), Harold Henderson (AgResearch), Brian McArdle (Auckland), Bryan Manly (Western EcoSystems Technology), John Reynolds (Agriculture Victoria), and Siu-Ming Tam (Australian Bureau of Statistics).

Putting a newsletter together isn't that bad a job, the very first time excepted because of the various PageMaker tricks that need to be learned. I can throw a newsletter together in a day now. [Apologies, I took 2 months to add the conference report - Harold.]

The hard part is keeping the contributions flowing in, and that's where the Editor has to rely on members. I'd like to thank all the members who made contributions to Newsletter over the last three years, and I hope that they will be as obliging for the new Editor. I'm delighted to announce it's Roger Littlejohn from AgResearch Invermay. Roger did a superb job as webmaster for the conference and we can all look forward to the next issue with great interest.

Don't forget that the Newsletter is a service for members. In the internet age it remains an important way for NZ statisticians to keep in touch, and a place for announcements that are important, but not of an urgent nature. And, it goes well with a cup of coffee!

Russell Millar

New Zealand Statistical Association 2002 Conference, AGM and Data Mining Workshop 10 and 11 June 2002 University of Waikato

Monday 10 June 2002

10am-5pm NZSA one-day conference

5-6pm NZSA AGM

6.30pm Dinner at *The Station* at the University

Judi McWhirter chairs the local organising group, James Curran is programme chair and Karen Devoy is dealing with registrations and enquiries. Contributed papers on the Data Mining theme and other statistical topics are welcome. Abstract submission by May 27 is at <http://www.stats.waikato.ac.nz/>

Tuesday 11 June 2002

The 2002 Waikato Centre for Applied Statistics (WCAS) workshop will be presented on Data Mining by Geoff Holmes and team from the Machine Learning Group in the University of Waikato Computer Science Department. The programme from 10am-5pm on Tuesday 11 June will include

- Basics of Data Mining
- Advanced Data Mining
- Tutorial in the Weka computer lab.

Information on the 1999 book by Ian Witten and Eibe Frank, in this group, on Data Mining is at <http://www.cs.waikato.ac.nz/~ml/weka/book.html>

Registration

Registration is \$85 per day or \$150 for both days and the student rate is \$45 per day. Registration is at <http://www.stats.waikato.ac.nz/>

Australian Statistical Congress 7-12 July 2002, Canberra

The Australian Statistical Congress is 7-12 July in Canberra. See <http://www.statsoc.org.au/asc16.html>

NZSA encourages members to participate in the ASC, which is held in even years. (So NZSA has only a one-day conference with its AGM this year.)

Australasian Biometrics & NZSA Joint Conference 2001

The conference was at the Parkroyal Hotel, Christchurch, December 10-13, 2001. More than 200 attended and 116 papers were presented.

We are grateful to the sponsors: SAS, AGMARDT, Ceanet, Hoare Research Software, Statistica, Blackwell Publishers, Hearne Scientific Software, and SPSS NZ.

Details of the programme are at <http://nzsa.rsnz.govt.nz/Conference/home.htm>

Biostatistics Workshop

A two-day *Biostatistics Workshop: Missing Values* was presented by Mike Kenward, Andrea Rotnitzky and Chris Wild. Two presentations from the workshop were invited conference papers: Mike Kenward on *Stochastic imputation methods for modelling incomplete longitudinal data* and Andrea Rotnitzky on *Models for conducting sensitivity analysis of longitudinal data with monotone missing patterns*. The Health Research Council of New Zealand was a sponsor of the workshop.



Participants in the Biostatistics Workshop

Bayesian Workshop



A one-day Bayesian Workshop was presented by Bill Bolstad, James Curran and Martin Upsdell.

Hoare Research Software Student prizes

Jonathan Godfrey won the student prize (\$400) and Natalie Thorne and Jean Yang each received \$300. We thank Ray Hoare for his continued sponsorship.



Jonathan Godfrey, Natalie Thorne and Jean Yang receiving their cash awards from Ray Hoare



Speakers in a bioinformatics session: Terry Speed, Peter Johnston, Nihal De Silva, Ken Dodds, Yvonne Pittelkow, Ben Bolstad, Jean Yang and Natalie Thorne. "Inference with Grahams": Graham Wood, Graham Hepworth, Patrick Graham and Graham McBride

Other invited sessions included Terry Speed on *Multiple testing in large-scale gene expression experiments*; Peter Clarke on *Mixed models and experimental design for variety trials*; Tony Pettitt on *Statistical modelling for complex binary data in biometrics*; Bryan Manly on *Simultaneous estimation of population size and habitat selection using line transect sampling*; Malcolm Faddy on *Discrete data modelling and analysis* and Richard Gordon and Chase O'Brien on *Changing information needs in environmental and biological statistics*.

The conference concluded with a special invited session on statistical genetics: Bruce Weir on *Multi-allelic measures of inbreeding*; Greg Gibson on *Mixed model analysis of contributions to transcriptional variance*; Sharon Browning on *Probabilities for genetic data from pedigrees*; Zhao-Bang Zeng on *QTL mapping and genetic architecture of quantitative traits*. This doubled as the opening of the Southern Summer Institute of Statistical Genetics (SSISG).

Southern Summer Institute in Statistical Genetics

The institute continued at the University of Canterbury, December 13-18. It consisted of four three-day workshops: Genomic Science and Bioinformatics (Gibson and Muse), Population Genetic Data Analysis (Weir, Nielsen and Browning), Quantitative Trait Locus Mapping (Zeng, Doerge and Dodds) and Forensic Statistics (Weir, Basten and Curran). There were 97 participants in the Institute, mostly from New Zealand and 25 from Australia. We are grateful for generous sponsorship from AGMARDT and SAS.



Nine of the SSISG team: (Front L to R) Chris Basten, Bruce Weir, Sharon Browning, Ken Dodds, Zhao-Bang Zeng, (Back) Greg Gibson, Rebecca Doerge, Spencer Muse and James Curran
Harold Henderson

President's Report

Many of those who attended Biometrics/NZSA 2001 in Christchurch from December 10 to 13 were of the opinion that it was one of the most enjoyable conferences they had



experienced for a long time. I thought so too. There was an excellent scientific program, meals and facilities were first class, and the hotel function staff were very professional. Financially, it was a great success and the organizers, David Baird, Dave Saville, Roger Littlejohn and Harold Henderson, deserve our warmest thanks.

I feel that holding conferences jointly with other professional societies is attractive to potential attendees, as is having associated workshops. This conference was ideal in these respects. I would be very pleased to hear from members any suggestion of other societies which might welcome a joint conference, and also of possible workshops which might be associated with future conferences.

I thank all those who attended the Special General Meeting and offered their opinions and suggestions. It was great to be able to gather the views of members without the pressures of the formal business of the Annual General Meeting.

This year the NZSA Annual Conference will be in Hamilton in early June on the theme of data mining. In 2006 the Annual Conference will be joint with the Statistical Society of Australia, in Auckland.

As always, I welcome your comments. Email me at d.scott@auckland.ac.nz.

David Scott

Campbell Award



Murray Jorgensen accepting the NZSA 2001 Campbell Award, from David Scott, for service to the NZSA, particularly editorial service. Murray was editor of the Newsletter (1993-6), the NZ Statistician (1996-8) and then Applications Editor of the merged Australian & NZ Journal of Statistics (1998-2001).

Request for statistical disaster and success stories

The Statistical Society of Australia Inc (SSAI) is preparing a nationwide Public Awareness campaign, primarily to support Professional Accreditation, but more generally, of course, to promote awareness of the importance of professionalism in the practice of Statistics. We shall be targeting groups such as Government, employers, contractors of statistical services, statisticians, students and prospective students.

In preparing the campaign, we need to accumulate a collection of stories, both of successes due to good statistical practice, and of disasters that arose either from bad practice or from failure to use Statistics. For example, the Challenger disaster provides a classic example of failure to use statistical methods.

We are appealing to statisticians around the world to send us such materials. What we require is a description of (say) at most a page, together with references to any publications that provide verification. We would also appreciate direct references to any books or journal articles addressing such matters.

All contributions will be acknowledged and we hope to make the consolidated information generally available.

Please send any responses to
SSAI Business Office
P.O. Box 85
AINSLIE ACT 2602
AUSTRALIA
Fax: (61)(2) 6249 8266
Email: ssai@ozemail.com.au

Thank you for your assistance.

*Nicholas Fisher
President, SSAI*

I can't think of any good stories, but I am continually amused at the inane attempts by the media to convey quantitative information. A recent ad on TV advertizes the high accuracy of a telecommunications company, and in doing so it makes a comparison to maps by saying that maps are 90% accurate. What the heck does that mean???

Somewhat less obvious, a recent news story said that characters in movies are "four times more likely" to smoke than average. How many people think probabilities upon reading that, and how many think odds-ratios? (Try it on your 1st year class.) What if it had been "ten times more likely"?

-Ed

Statistics at the NZ Association of Maths Teachers' Conference

The 7th biennial NZAMT took place in Wellington at the start of July. A record 480 people took part.

The Speakers

For a second time, NZSA sponsored an overseas plenary speaker: Dr Gail Burrill from Washington DC. Gail has been President of the National Council of Teachers of Mathematics (USA), and has taken a leadership role in Statistics education there and elsewhere.



Gail Burrill

In her address "Data Driven Mathematics: Real Data and Statistics", she showed how statistics can be used to support the rest of the mathematics curriculum, to the mutual benefit of all parts.

It was obvious that our speaker had done her homework very carefully, and based her approach on the "Maths in the NZ Curriculum" document. Gail presented a workshop as well, as did her husband Jack. Thank you both very much; you've met our requests in a perfectly targeted way.

We (the NZSA Education Committee) were pleased that Dr Maxine Pfannkuch (University of Auckland) was a plenary speaker. In her address, "Statistical Thinking: What is it and how can we develop it", she showed that developing statistical thinking in students and statistics users should be the next step to the evolution of statistical education. She concluded with a statement that NZ is a world leader in statistics education, and that by developing our ideas on statistical thinking, we can keep ourselves there.

As well, we had plenaries from Dr Sharleen Forbes ("Measuring the equity of Maths education outcomes") and Dr Tom Koerner ("How to hunt a submarine"). While their subjects were not specifically statistical, they both modelled statistical thinking in their analyses.

Prof David Vere-Jones ("Reflections on Mathematical Education") explored some of the social factors of the past two centuries that have brought Maths and Statistics education in NZ to where it is today.

John Cornish, Deputy Government Statistician, spoke briefly at the closing session, about the importance of numeracy.

About 20 contributed workshops dealt with statistical teaching methods or software.

If anyone suggests that there was an attempt to subvert this maths conference into a statistics one, we will deny it. In fact, both the organising team and the participants applied their customary enthusiasm to the statistical aspects of the conference.

The Issues

As usual, school statistical education in NZ faces some potentially exhilarating challenges, and would benefit from the continuing support of NZ statisticians.

- a. There is an increasing amount of software available that aims to bring statistical subjects (like the central limit theorem) to life, and to provide interactive learning experiences, (e.g. Dr Doug Stirling's CAST). At present this is often distinct from software used for data analysis (e.g. Minitab). It is interesting that the former type is more affordable, available and attractive than the latter. The participants were clearly very taken by it.
- b. "Statistical thinking" fits in very well with the 1992 curriculum document. If NZ is to lead in this direction, then assessment (NCEA Level 1, 2 & 3, and Scholarship) needs to be pointed in the right direction. Teachers will need to be supported with professional development and resources.
- c. There's a resource that we must provide, and that is a supply of real data-sets, preferably as local as possible. In fact the need is for information about investigations, along with the data-sets. It is easy to provide web access to these, if they can be found; but it is difficult to find them.

NZAMT 8: Hamilton, 8-11 July 2003

This will be hosted by the Waikato and Bay of Plenty Maths Associations.

Old Statisticians

Adapted from the conference's daily newsletter: "Old Statisticians never die; they just get disaggregated by age and sex".

Mike Camden

George Styan's 65th birthday

George Styan from McGill University is a frequent visitor to NZ and is a longtime member of NZSA. The Eleventh International Workshop on Matrices and Statistics, August 29-31, 2002, in Denmark will be a celebration of the 65th birthday.

For details see <http://www.imm.dtu.dk/matrix02/>

Notices

Biostat Software

NZSA member Paul Johnson (Davis, CA) writes that he has recently completed a CD of "Biostatistical Software". The CD costs US\$19.95 which includes shipping and handling to anywhere in the world (so basically at cost). For more detail see <http://pages.prodigy.net/johnsonp12/biostat.html>

Australasian Conferences

Gordon Smyth maintains a list at <http://www.statsci.org/conf/index.html>

Australasian GenStat Conference

December 2-6, 2002, Abbey Beach Resort, West Australia <http://www.agric.wa.gov.au/biometrics/genstat2002/>

IBC 2004 and ASC, 11-16 July 2004, Cairns

ISI Conference, April 5-12, 2005, Sydney

Effective Data Mining Massey University Albany Campus, Auckland 24-26 June 2002

This workshop provides an in-depth introduction to Data Mining. You will learn about data mining methods, tools, techniques, applications, advantages, capabilities, limitations and pitfalls. You will leave with a comprehensive set of notes and valuable references.

You will receive a 1-month trial of SAS/EnterpriseMiner, a leading data mining software package.

The presenters include Denny Meyer, Siva Ganesh and Tim Ball.



Denny Meyer

Siva Ganesh

Tim Ball

Fees

1st-Day only (Executive Overview) - \$500 (plus GST)
Full 3-Day Workshop - \$1200 (plus GST)

Registration and workshop details

<http://www-ist.massey.ac.nz/dmworkshop/>
email: s.ganesh@massey.ac.nz

Crew Changes for NZSA and SSA Publications

Chris Lloyd has taken over from Simon Sheather as Managing Editor (and Theory and Methods Editor) of the Australian and New Zealand Journal of Statistics.



Chris Lloyd

Russell Millar has taken over from Murray Jorgensen as the Applications Editor of ANZJS.

On the newsletter front, Alison Richardson (U. of Canberra) has taken over from Bob Forrester (CSIRO) as a co-Editor of the Statistical Society of Australia's newsletter and Roger Littlejohn will be the new editor of the NZSA Newsletter.

NZMRI Summer Workshop in Napier

The Eighth Summer Workshop of the NZ Mathematics Research Institute was held in Napier, New Zealand from 6-11 January 2002. Following the standard format for these workshops, there was a series of morning and evening talks by six distinguished invited lecturers, with afternoons left free for discussion, networking and leisure. This year the focus was on probability and statistics with talks grouped under the general heading of "Applications of stochastic processes to biology, medicine and stochastic networks". There were 62 participants (20 of these being postgraduate students) from around New Zealand and Australia.

The speakers and their topics were:

Adrian Baddeley, University of Western Australia, on spatial point patterns – data analysis and modelling.

David Brillinger, UC Berkeley, on the use of stochastic differential equations to model animal motion

Steve Evans, UC Berkeley, on random matrices

Ian McKeague, Florida State University, on illustrations of MCMC in semiparametric regression, survival analysis and spatial statistics

Ruth Williams, UC San Diego, on performance and control of stochastic networks

Keith Worsley, McGill University, on stochastic geometry and brain imaging.

Alastair Scott

Statistics Education News

The SLTR-2 Forum (Statistical Literacy, Thinking and Reasoning) at Armidale in Australia was held in August. A group of twenty international statistics education researchers discussed and shared their research. The focus was on improving the researchers' understanding of how students reason statistically. A book entitled "The Challenge of Developing Statistical Literacy, Reasoning and Thinking", edited by Dani Ben-Zvi and Joan Garfield, will be produced from the work presented at the first and second Forums.

The organisation for ICOTS-6 (International Conference on Teaching Statistics) in South Africa in July 2002 is well underway with about 300 papers expected by the final January deadline. Preparations for the ISI-54 conference in Berlin in 2003 have started with presenters already being sought by session organisers.

The IASE Statistics Education Research Newsletter will be transformed into the Statistics Education Research Journal (SERJ), an electronic journal starting in May 2002. This journal will be published by the International Association for Statistical Education to:

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

At the moment there is a call for the submission of quality papers, including research reports, theoretical or methodological analyses, literature surveys, thematic bibliographies, summaries of research papers and dissertations. All the papers will be refereed. Papers may be submitted to the editors: Carmen Batenero, batenero@ugr.es or Flavia Jolliffe, F.R.Jolliffe@gre.ac.uk

A statistics education seminar day was held at The University of Auckland in September 2001 at which 50 statistics educators from Kaitaia to Christchurch attended. The morning session focused on statistics education research issues with the guest speakers being Professor Rolf Biehler (Kassel University, Germany) and Tim Burgess (Massey University, Palmerston North). The afternoon session focused on the statistics strand in the New Zealand mathematics school curriculum. Dr Andy Begg gave an overview of statistics education at the international and national level. A panel discussion on the school statistics curriculum by Jeanette Saunders (St Cuthbert's College), Matt Regan (The University of Auckland), and Mike Camden (Massey University

at Wellington) was chaired by Professor Chris Wild (The University of Auckland). For more info see <http://www.stat.auckland.ac.nz/PEOPLE/wild/logos10>

The current school mathematics curriculum was written ten years ago and consequently discussion is arising within the mathematics education community about changes that should be made to the present curriculum and what the 2020 curriculum should look like. Currently a website, <http://www.nzamt.org.nz/curriculum2020/home.html>, set up by Jim Neyland, Victoria University, is inviting people to contribute their views on the school mathematics curriculum. In his suggested list of critical questions is "Should statistics be separated as a separate subject?"

For more information about statistics education see these websites:

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

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

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

Maxine Pfannkuch

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National Correspondent for IASE

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.

Advertising In the Newsletter

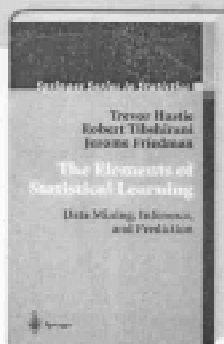
The Newsletter accepts advertising of interest to statisticians in New Zealand. Advertising is placed subject to space considerations. Personal advertising by NZSA members will be published free. Other advertising is \$250 per page, \$140 per half page, and \$75 per quarter page. Other sizes can be quoted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

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Springer for Statistics



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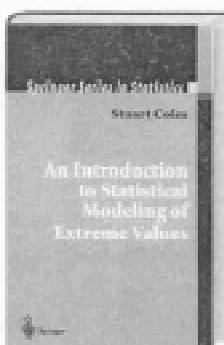
The Elements of Statistical Learning

Data Mining, Inference, and Prediction

During the past decade there has been an explosion in computation and information technology, which has brought about the arrival of vast amounts of data. Here, the author describes the important ideas behind the different new tools, such as data mining and machine learning, which have been developed to cope with this explosion of data. While the approach is statistical, the emphasis is on concepts rather than mathematics. Many examples are given.

Topics covered include: neural networks, support vector machines, classification trees and boosting.

2001. XVI, 533 pp. 260 figs. in color. (Springer Series in Statistics) Hardcover € 79.95; £ 59,-; sFr 138,- ISBN 0-387-95284-5



S. Coles

An Introduction to Statistical Modeling of Extreme Values

Directly oriented towards real practical application, this book develops both the basic theoretical framework of extreme value models and the statistical inferential techniques for using these models in practice.

A wide range of worked examples, using genuine datasets, illustrate the various modeling procedures and a concluding chapter provides a brief introduction to a number of more advanced topics.

All the computations are carried out using S-PLUS, and the corresponding datasets and functions are available via the Internet for readers to recreate examples for themselves.

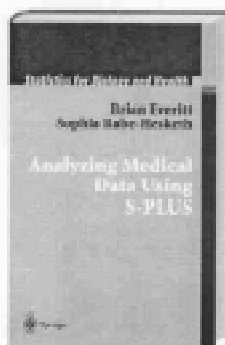
2001. XIV, 208 pp. 77 figs. (Springer Series in Statistics) Hardcover € 74.95; £ 45,-; sFr 129,- ISBN 1-4020-1459-3

K.-S. Chan, H. Tong

Chaos: A Statistical Perspective

This book discusses dynamical systems that are typically driven by stochastic dynamic noise. It covers many of the contributions made by statisticians in the past twenty years towards our understanding of estimation, the Lyapunov-like index, the nonparametric regression, and many others - many of which are motivated by their dynamical system counterparts but have now acquired a distinct statistical flavor.

2001. XX, 300 pp. 94 figs. (Springer Series in Statistics) Hardcover € 84.95; £ 62.50; sFr 146.50 ISBN 0-387-95280-2



B. Everitt, S. Rabe-Hesketh

Analyzing Medical Data Using S-PLUS

Each chapter consists of basic statistical theory, simple examples of S-PLUS code, plus more complex examples of S-PLUS code, and exercises. All data sets are taken from genuine medical investigations and will be available on a web site. The examples in the book contain extensive graphical

analysis to highlight one of the prime features of S-PLUS. Written with few details of S-PLUS and less technical descriptions, the book concentrates solely on medical data sets, demonstrating the flexibility of S-PLUS and its huge advantages, particularly for applied medical statisticians.

2001. XII, 485 pp. (Statistics for Biology and Health) Hardcover € 79.95; £ 59,-; sFr 138,- ISBN 0-387-96862-9

R.L. Brennan

Generalizability Theory

Generalizability theory offers an extensive conceptual framework and a powerful set of statistical procedures for characterizing and quantifying the fallibility of measurements. The author has written the most comprehensive and up-to-date treatment of generalizability theory. The book provides a synthesis of those parts of the statistical literature that are directly applicable to generalizability theory.

2001. XX, 538 pp. (Statistics for Social Science and Public Policy) Hardcover € 79.95; £ 59,-; sFr 138,- ISBN 0-387-95282-9

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Springer

Fourth Conference On Statistics In Ecology And Environmental Monitoring - SEEM4

**Population Dynamics:
The Interface Between Models and Data
9-13 December 2002
Matrix Population Models Workshop
4-6 December 2002
University of Otago, Dunedin**

Web page: www.maths.otago.ac.nz/SEEM4

Email enquiries: igoodwin@maths.otago.ac.nz

Conference Programme

The purpose of the conference is to bring together ecologists, statisticians, fisheries scientists and modellers in order to discuss common issues in the modelling of population dynamics. Our hope is that ecologists and other scientists can benefit from insight that statisticians can provide on the latest techniques in parameter estimation, and that statisticians can better understand the needs of ecologists by becoming familiar with the types of population dynamics models that are currently being used.

Invited Speakers

Three leading researchers in this area will give invited talks, and to lead an end-of-conference forum:

Hal Caswell (Senior Scientist, Woods Hole Oceanographic Institution, USA)

Jean-Dominique Lebreton (Head of the Department of Population Biology, Centre for Functional and Evolutionary Ecology, CNRS, Montpellier, France)

Byron Morgan (Professor of Applied Statistics, University of Kent, UK)

Hal Caswell is well known for his work on population matrix models, and a second edition of his landmark book, *Matrix Population Models: Construction, Analysis, and Interpretation*, has recently been published by Sinauer Associates, Massachusetts, USA. (<http://science.who.edu/labs/mathecology/hcaswell/>)

Jean-Dominique Lebreton is famous for his work on both mark-recapture methods and population dynamics. He brings a breadth of knowledge to the conference that is rare, in that he is an experienced practitioner in both biometry and population modelling. (<http://www.cefe.cnrs-mop.fr/>)

Byron Morgan is an internationally renowned applied statistician. Recently his interest in statistical ecology has lead him and his co-workers to develop

new statistical methodology for evaluating animal population dynamics, which he will present at the conference. (<http://www.ukc.ac.uk/ims/statistics/people/B.J.T.Morgan/web.html>)

Conference Proceedings

The proceedings of the conference will appear in a special issue of the Australian and New Zealand Journal of Statistics. If you wish to have your talk considered for the proceedings, you will need to provide a manuscript version to organizers at the conference.

Pre-Conference Workshop

Hal Caswell and Jean-Dominique Lebreton will run a 2.5-day workshop on matrix population models prior to the conference (4-6 December). The number of participants will be restricted to 20. The workshop is aimed primarily at quantitative ecologists and population biologists, either in fundamental or applied research. The material presented is of interest both in animal and plant population dynamics, and useful both for research and management aspects. At the end of the workshop, participants should be able to build and run basic matrix models using available software, to address questions on population dynamics using such models, and to have a clear view of the generalizations that are available and relevant to their research.

The workshop content will be a balance between modelling approaches per se and estimation procedures/models use in practice, and will include the following topics: Matrix model formulation; From life cycle to matrix; Linear and nonlinear models; Deterministic and stochastic models; Linear models (transient analysis, asymptotic analysis, eigenvalues, eigenvectors); Sensitivity analysis; Matrix models for classical life tables; Estimation from transition frequency data; Stochastic models; Density-dependent models; Estimation from mark-recapture and other kinds of individual history data.

Registration Fees

The conference registration fee is NZ\$500, with a student fee of NZ\$250. The workshop registration fee is NZ\$300 (no student discount). If you wish to register for both the conference and workshop, the combined fee is NZ\$750 (\$NZ500 for students). A 20% late conference registration fee will be imposed after 31st October 2002.

Important Dates

Early Registration: Friday, 31 October 2002
Abstracts Deadline: Friday, 31 August 2002

David Fletcher

Local Scene

University of Canterbury

2001 has been a year of change and no change depending on how one views this. At the time of writing this we are busy with the Biometrics/NZSA 2001 conference held at the Parkroyal Hotel and boasting good food and statistics.

Michelle Dalrymple and Rob Weir are giving presentations at this meet on "Examining the relationship between SIDS and climate using hurdle, ZIP, and finite mixture models" (with Irene Hudson) and "Approximation of posterior means and variances of posterior discrete distributions characterised as digitised normal distributions". Irene Hudson presents work on "A study of spatio-temporal variation of *Eucalyptus nitens* fibre morphology - a multivariate clustering and nonlinear time series approach".

Jennifer Brown was an invited speaker at the ISI conference in Korea in August. Here she is speaking on "How to monitor a population when there are too few animals to count".

The following week Irene and Jennifer will be at the University of Wollongong at the International Conference on Statistics, Combinatorics and Related Areas and The Eighth International Conference of the Forum for Interdisciplinary Mathematics. Jennifer will be giving workshop lectures with Bryan Manly on Applications of Statistics in the Environmental and Ecological Areas. Irene will give a presentation entitled "Natural Habitat or a 7-Fold Pattern of Phyllotaxis in *Eucalyptus Nitens*"? She shall also develop work on brain axes of dys-symmetry with Eric Beh at that University. Looking forward to Wollongong's sea food!

Marco Reale has been given Erskine study leave and last I heard he was in the UK drinking beer with Professor Malcolm Faddy who shall partake of this brew with me... after the conference duties on Friday 14th December. Malcolm Faddy, Irene Hudson and Michelle Dalrymple are researching on new families of distributions which will afford new methods of analysis for spatial networks.

Easaw Chacko and Irene are attending the Missing Data workshop at the conference - and enjoying it.

My thanks go to Dave Saville, David Baird, Roger Littlejohn and Harold Henderson, who have all done a grand job with the conference and helped me in my role as conference secretary.

There have been no babies, some promotions, lots of work and too little time! We await to hear whether the powers on high will allow us another shot for a Chair.

Statistics New Zealand

There a few NZSA members in SNZ not in the Survey Methods and Analytical Support divisions (collectively called SMASH - and no, I don't know what the H stands for) who I have forgotten to report on in the past, so I'll start with some of them.

Frank Nolan is completing the job of managing the 2001 Population Census, a large and long-term task (the planning for the 2006 Census has started and we haven't completed the 2001 Census). Michael Ryan works for Demography, but does some moonlighting for Department of Conservation.

Now to SMASH.

Arrivals: Vicky Barlow, Hilary Ferral, Grace Chiang, Vera Costa, Sue Brown, Chengui Qiao, Simone Paapu, Andrew Smith and Janet Pearson. Victoria Wilcox has returned. Also, Rachael Viles and Ben Malthus are working for us over the university summer break.

Departures: Richard Arnold (to VUW), Frances Krsinich (MSD), Gareth Minshall (Auck), Rachel Kyle (WiNZ), Kenneth Miller (OE), Jon Briggs (OE), Theva Thevathasan (Oz) and Lisa Jones (OE).

As it is a year since my last report there is rather a lot of movement, but with about 40 staff in SMASH, plus we employ a lot of graduates who are prone to want to travel overseas, it could be expected.

Sharleen Forbes has moved to higher things (a new job and from the 3rd to the 11th floor). Helen Stott is taking over Sharleen's job as Chief Analyst when Helen's project of sustainability indicators is complete around May. Andrea Piesse is working at Westat in Washington DC for six months, with a further six months leave afterwards. Mike Camden from Massey has been doing some work for us on developing a framework for training to improve the level of statistical thinking in SNZ, as many in SNZ have little knowledge of statistics.

A range of Research Reports are available from the SNZ web site (<http://www.stats.govt.nz>). Also we have initiated our first FAQ on a statistical subject on the web site. This is on seasonal adjustment and trends, and as part of the release Richard Penny gave four seminars for around 65 external clients. Philippa Graham, as the custodian of the pages, strongly urges anyone interested in times series to have a look and provide some feedback.

We hosted the first meeting of Canterbury statisticians. Mansoor Khawaja from Demography gave a talk showing that the aging of the population is not a new phenomenon, but rather that the baby boom interrupted the long-term aging trend. A pleasant time was had by all and we will have further ones, once someone can be conned into organising them.

The recent NZSA conference had a smaller SNZ presence than usual, with only three talks from us (I think Richard Arnold's talk on Bayesian analysis of stellar spectra can't be really regarded as an SNZ contribution). Next year's ASC being in Canberra, where our Australian counterparts at the Australian Bureau of Statistics are headquartered, I would expect a bumper crop next year!

Richard Penny

University of Otago

David Fletcher, Richard Barker, Brian Niven and Irene Goodwin are having fun getting ready for SEEM4, the fourth conference on Statistics in Ecology and Environmental Monitoring, which will take place in Dunedin at the end of this year (see the page 8 announcement in this newsletter).

David Fletcher has decided to leave the delights of Academe and work full-time for his consulting company (Proteus Research and Consulting: www.proteus.co.nz) in 2003, when his partner has full-time work. After 25 years at university he wants to do something different. Proteus is a joint venture with Darryl McKenzie and specializes in ecological and environmental statistics.

Irene Goodwin

Massey, Palmerston North

The Institute of Information Sciences and Technology, of which we are a part, is moving from our current location in the Social Sciences Tower to occupy a floor or two of the AgHort building on the other side of the campus. The statisticians however are being left behind for the time being as there is insufficient space. Once we lose a few more staff members we should fit in easily. There has been much discussion of appropriate new names for the building, but a recent suggestion to sell the naming rights has so far not been taken up. Anyone wishing to make a bid should contact Corporate Communications.

Alasdair Noble, who has been teaching at Massey for five years in various capacities, has been given a two-year lectureship to replace Ganesalingam, who has taken up a two-year associate professorship in Oman. Alasdair is close to finishing his PhD, the actual distance depending on who you talk to. He presented his work earlier last year at the RSS Conference in Glasgow and at the Wayne Fuller 70th Birthday Conference at Iowa State.

Steve Haslett is currently



Alasdair Noble

visiting the Bureau of Labor Statistics in Washington DC. He reports no sightings so far of terrorists or anthrax. He must be operating with a very limited definition of "terrorist". Meanwhile in the other Washington, Graham Wood has been visiting Zelda Zabinsky at Washington State.

Doug Stirling has won further funding from Massey's Fund for Innovation and Excellence in Teaching to work on the development of a Business Statistics version of CAST. A key feature of the new system will be to confuse the user with jargon and then send them a bill for \$5000.

Chungui Qiao, who has been visiting us, has now taken up an appointment as a Mathematical Statistician with Statistics NZ in Wellington.

Mark Bebbington spent the last week of November in Melbourne, working with Kostya Borovkov on conditions for stability of multi-dimensional piecewise deterministic Markov processes, (and not watching one day of the Davis cup final). But at least the cricket coverage from Perth was at a more civilised hour! Mark's next visit is to the state of matrimony, which should curb his travelling somewhat.



Jonathan Godfrey

Three of our PhD students: Jonathan Godfrey, Dongwen Luo and Ryan Sherrif, presented at the NZSA conference in Christchurch in December. Jonathan won the prize for best student talk with his seminar "Two-stage imputation of missing genotype-by-environment data".

Geoff Jones

University of Auckland

We've had several very recent arrivals, or should I say deliveries. Joss Cummings gave birth to Matthew in November. In December Marilyn Gabriel had a bouncing baby boy, and this January Paul Murrell had his third child, a baby girl. They are all doing well, and Joss's dog has finally forgiven her and is getting into the nurturing spirit.

There was an excellent Auckland turnout at the Biometrics/NZSA conference in Christchurch, and everyone had a great time and appreciated the preparation and thoughtfulness that went into the organization of this very successful conference. The Auckland turnout even included some ex-UoA folk, including Robert Gentleman and Tanya.

A number of us stayed on in the Mainland for a few days after the conference, doing things like the Routeburn Track, hiking Arthur's Pass, exploring the West Coast etc. A great time was had by all, which

could bode well for a strong Auckland turnout at SEEM4 for more opportunities to explore the Mainland (oh, and to brush up on our ecological stats too).

Back in Auckland, Geoff Pritchard and Marti Anderson were promoted to senior lecturer and Patricia Metcalf was promoted within the SL grade.

We're currently advertizing a couple of lectureships and hopefully there will be more to report about that for the next newsletter.

Summer school is up and running in the city campus with our 1st and 2nd year applied classes now well underway.

At Tamaki there is a hint of anticipation in the air, or maybe it's just the smell of diesel from excavation machinery. Construction has begun on re-positioning the ring road so that a new building can be built next to ours. Plans are still rather fluid at the moment but it looks like a bit of musical offices will soon be taking place, with the Comp Sci group at Tamaki moving into the new building so that Health Sciences folk can occupy the vacated space. Additionally, a new building for additional Health Sciences staff is planned for completion within the next couple of years, and the Tamaki stats group may end up moving in with them. Time will tell.

John Huakau effortlessly defended his oral PhD exam in December. John admits that the secret to his easy success was the scheduling of his exam half an hour before the Tamaki Christmas barbecue!

On the marine research side of things, the divers amongst us are drooling over the Leigh Marine Lab's recently launched research vessel, RV Hawere. It's



R. V. Hawere

a 50 footer with twin engines giving a total of 840 hp and a top speed around 25 kts. It boasts onboard wetlab and computer lab and can support 10 divers for a week. R.V Hawere first greeted the water on 9 Jan. An official launch will be conducted after sea trials.

Russell Millar

University of Waikato

Apologies for the lack of news of the Statistics Department from the last publication. Your correspondent spent some time in 2001 on sick leave or on reduced duties, following a fall which resulted in broken leg and a badly dislocated ankle. Complications have meant a slow recovery, but things seem to be almost back to normal now.

David Whittaker was on study leave for the first half of last year. Whilst on leave he visited Canberra to work with Emlyn Williams at CSIRO. August saw the launch of a book, *Statistical Thinking for Managers* which is co-authored with Nye John and David Johnston of Loughborough. At the beginning of this year David was promoted to Associate-Professor.

James Curran travelled to Seattle, USA, in February 2001 for research collaboration with Chris Triggs. In September last year and again in January of this year, he went to the UK to work with the Forensic Science Service. He also presented at the Southern Institute of Statistical Genetics with Bruce Weir. James was recently promoted to Senior Lecturer.

Several members went off-shore to conferences last year. Lyn Hunt traveled to Hamburg, Germany to attend the Mixtures 2001 Conference in July 2001. Bill Bolstad visited Canada in July 2001 and attended Statistics 2001 and the Fourth Canadian Conference in Applied Statistics. Murray Jorgensen attended Applied Stochastic Models & Data Analysis, in France, June 2001 and the 16th International Workshop on Statistical Modelling - New trends in statistical modeling, in Denmark, in July. Nye John attended the GenStat Conference in Australia and was an invited speaker at the ASERC Workshop on Innovations in Teaching Statistics in Newcastle, Australia, in June 2001.

Bill Bolstad and James Curran together with Martin Upsdell from AgResearch, Ruakura presented a special one day workshop for AgResearch Statisticians in April 2001 at the University of Waikato. The programme was based on an introduction to sampling based Bayesian methods including Markov Chain Monte Carlo using BUGS. A similar workshop was held in conjunction with the Australasian Biometrics/NZSA joint Conference in Christchurch in December 2001. All members of the department, together with our two PhD students and two of our Masters students were in Christchurch for the conference. Murray and Lyn both attended the Missing-Value Workshop held prior to the conference, although Murray left before the conference proper began. Before he left, Murray was presented with the 2001 Campbell Award of the NZSA for Editorial

Services to the New Zealand Statistical Association. He is currently in Canada on leave, and after he returns in July, Nye John will be on study leave.

Carole Wright returned from Australia last year, to join the Department as a PhD student working with Nye John and David Whitaker on trying to obtain a class of row-column designs with the flexibility and advantages of alpha-designs, and finding tighter upper bounds on the average efficiency factor for latinized, spatial and row-column designs. After completing her Masters at Waikato in 1995 Carole was a biometrician with Agriculture Victoria, before going on in 1998 to join the Northern Territory Department of Primary Industry and Fisheries.

Recent seminars

DAVID WHITAKER “Integer programming: Constraint formulation with binary variables”

ANTHONY LEHMANN (Swiss Centre for Faunal Cartography) “GRASP: Generalized Regression Analysis and spatial Prediction in Ecology”

ALASTAIR SCOTT (University of Auckland) “Estimating Interviewer and Observer Effects for Binary Responses”

LES FOULDS (Department of Management Systems, University of Waikato) “Bookmobile Routing and Scheduling in Buskerud County, Norway”

ANDY PHILPOTT (University of Auckland) “Optimisation in electricity pool markets”

CHRIS TRIGGS (University of Auckland) “The strength of evidence found by searching a database”

NEVILLE DAVIES (Royal Statistical Society Centre for Statistical Education Nottingham Trent University) “The work of The Royal Statistical Society Centre for Statistical Education”

HAROLD HENDERSON (AgResearch, Ruakura) “Visualising data”

JAMES CURRAN “Interpretation of DNA evidence”

EIBE FRANK (Department of Computer Science, University of Waikato) “Determining progression in glaucoma using visual fields”

ILZE ZIEDINS (University of Auckland) “Long range dependence in networks - Does a finite buffer with long range dependent input always have long range dependent output?”

GRAHAM MCBRIDE (NIWA, Hamilton) “Coping with the “swinging evidential burden” in environmental science and management”

PIERRE LEGENDRE (University of Montreal) “Modelling spatial influences at all spatial scales”

GAD NATHAN (Hebrew University) “Imputation for wave nonresponse - a time series approach”

JOHN NEUHAUS (University of California, San Francisco) “The analysis of case-control family data”

Judi McWhirter

AgResearch

The Statistics Group of AgResearch were heavily involved in organising the Biometrics/NZSA 2001 Conference held at the Parkroyal Hotel in Christchurch last December. Peter Johnstone, as regional President of the IBS, gave the opening address. David Baird was chairman of the local organizing committee, Dave Saville the Treasurer, Harold Henderson chaired the programme committee and negotiated substantial corporate sponsorship, and Roger Littlejohn was the Webmaster of <http://nzsa.rsnz.govt.nz/Conference/home.htm>

Attendance was a record 220-odd, including a few not odd! The venue was a great success, with hotel staff feeding us extremely well and the Christmas holly and other decorations lending to the festive air. The sun shone on the social events, and added to the success of the conference trips. Harold H and Dave S even found time to give papers, entitled respectively “Visualising data” and “Teaching the gospel of statistics.” Peter Johnstone and Ken Dodds also presented papers, entitled respectively “The application of mixed models to microarray experiments” and “Using a backcross to single animal for a QTL confirmation experiment.” Martin Upsdell presented in the Bayesian Workshop.



AgResearch statisticians at the conference dinner (front, L to R), Peter Johnstone, Lilian Morrison, Zaneta Park-Ng, Roger Littlejohn; (back) Neil Cox, Dave Saville, David Baird, Harold Henderson

The Southern Summer Institute of Statistical Genetics which followed the conference picked up themes of genomics and bioinformatics, and was attended by a 100 people including a strong contingent of 20 AgResearch staff.

On another angle, Dave Saville and Graham Wood (Massey) are awaiting the publication of a paper on the geometry of the p-value, entitled “A new angle on the t-test,” to appear in April in issue #1 for 2002 of “The Statistician” (JRSS-D) - watch that space!

Dave Saville