



The New Zealand Statistical Association

Newsletter

Number 49

May 1999

NZSA 50th Anniversary Conference at Victoria University of Wellington 4-7 July 1999

Conference Themes

The Conference Programme has three broad themes: history and education, risk, and data mining. The history and education theme follows from the special anniversary character of the meeting. The risk theme is a very broad one, and will include sessions on environmental risk, medical risk, financial risk and economic risk. In organising these sessions the NZ Statistical Association will join forces with the NZ Society of Actuaries. The data-mining theme will be used to cover issues of archiving, accessing and interpreting large databases. Other topics are certainly not excluded, and the Programme will include talks in the areas of official and applied statistics.

Conference Timetable

Sunday Evening 4 July	<i>Informal reception</i>
Monday 5 July	<i>Education and history</i>
Tuesday 6 July	<i>Medical and environmental risk</i>
Tuesday Evening	<i>Conference dinner</i>
Wednesday 7 July	<i>Economic and financial risk</i>

The **annual general meeting** of the NZSA will be held at VUW at 5pm on Tuesday 6 July, prior to the conference dinner. The Agenda will be on the conference web site and the association web site, and will be emailed to ANZSTAT, widerisor andnzsa-99 (conference mailing list).

Call for Contributed Talks

Conference participants are also invited to contribute a talk. Contributed talks will be allocated 20 minutes with a further 5 minutes available for questions and discussion. Abstracts are due by 31 May.

Young Statistician Prize

Ray Hoare, Hoare Research Software, will again this year generously sponsor "The SPSS prize for statistics" for the best presentation by a young statistician.

Registration

The registration fee is \$150 (\$75 for students) and the conference dinner is an additional \$40. The per day fee is \$75. Note that registration and payment should be made by 31 May, after which payments will incur a \$20 late fee.

Further Information

1. If you want to receive further information by email, subscribe to the mail-list by sending an email to majordomo@mcs.vuw.ac.nz with a blank subject line and a message `subscribe nzsa99-list`
2. Visit the web site address <http://www.mcs.vuw.ac.nz/stat/nzsa99/>
3. Email address: nzsa99@mcs.vuw.ac.nz
4. Postal Address: NZSA 50th Anniversary Conference, PO Box 1731, Wellington.

Categorical Data Workshop

Waikato Centre for Applied Statistics presents a One-Day Workshop on "Categorical Data Analysis" by *Professor Alan Agresti*, University of Florida at AgResearch, Ruakura, Hamilton, on **Thursday 8 July 1999**. Four one-hour sessions will be held starting at 10.00am and finishing by 4.00pm, followed by food and drinks at The Station, University of Waikato.

The workshop is on the day after the NZSA conference in Wellington. Information on the programme and registration (the cost is \$100 + GST) is at <http://www.cs.waikato.ac.nz/stats/agresti.htm>

Statistical Methods for Environmental Management Workshop Christchurch 10 - 11 June 1999

The Biomathematics Research Centre at the University of Canterbury and the Centre for Applications of Statistics and Mathematics at the University of Otago invite you to participate in a two day workshop on Statistical Methods for Environmental Management.

In the workshop we will discuss how to design surveys and collect data for environmental studies

and how to analyse such data. We will look at environmental management for both land and water (marine and freshwater). The workshop will focus on statistical survey designs and methods for environmental monitoring.

The workshop will be most beneficial to those actively working in environmental management and those responsible for survey design, data storage and analysis. You need not have previous statistical training.

For further information please contact Jennifer Brown: Biomathematics Research Centre, University of Canterbury, Private Bag 4800, Christchurch.

email: j.brown@math.canterbury.ac.nz

phone: 03 364 2987 ext. 7684

fax: 03 364 2587

or visit the website at

<http://www.math.canterbury.ac.nz/biomath.html>

NZSA Campbell Award

This year we will be awarding the first NZSA Campbell Award at the conference dinner. The purpose of the award is to promote statistics within NZ and to recognise an individual's contribution to the promotion and development of statistics. The award was ratified at the AGM in 1997.

The criteria for the award are:

- a) Publishing the best, recent, original statistical research undertaken within NZ, or,
- b) Making an outstanding contribution to statistical education, or,
- c) Playing a key role in consulting on a major, innovative research project that has direct relevance to NZ, or,
- d) Making a significant contribution to promoting statistics within NZ.

We are now calling for nominations for the award. Nominations can be made by individuals or groups of individuals. Nominators may be non-NZSA members but the award may only be given to fully paid up members of the NZSA. All membership categories are eligible. Nominations should include a statement of support from the nominator and may include names of suitable referees. The criteria for the award are wide and I encourage you to take a similar "wide" view in considering your nominations. The 1999 awards panel is Sharleen Forbes, Jeff Hunter, and Jennifer Brown.

Please send your nominations to Jennifer Brown, Department of Mathematics and Statistics, University of Canterbury, Private Bag 4800, Christchurch by 4 June. If you would like more information or advice on the nomination procedure please call or email me.

Jennifer Brown, Award Convenor

Editor's bit

"Where's that drink taking you?" is the closing line of



a recently aired television advertisement against teenage boozing. I've learnt that you've got to be careful at statistical conference barbeques also. Harold Henderson saw the beer in my hand and mellow expression on my face when he said "You'd make a good newsletter editor" I told Harold that I wouldn't be

able to find a photograph of myself wearing a tie, but it was no deterrent to his enthusiasm.

In truth, I'm happy to be giving the Newsletter Editor job a try and to be doing something to help the NZSA (I had a good run at avoiding such duties).

The biggest tribulation of the job for me has been the enforced use of a Microsoft operating system because this version of the desktop publishing program PageMaker runs under Windows, and because some contributors submit Word documents. For someone from a purely UNIX background, the use of Windows can be extremely painful. (In fact, the name of my laptop is *pita*, which is an acronym for "pain in the". No kidding.) I've taken immense comfort from the recent articles in the NZ Herald that discuss the bright future of Linux.

I've still got much to learn about PageMaker, but it is already clear that it is much easier to process newsletter contributions that are submitted as plain text documents. The specific layout of this newsletter requires that even nicely formatted Word documents be severely re-formatted. Another feature is that, for some reason, the graphics files don't come out very well on the hardcopy newsletter, but they come out just fine on the web version. See the article on the NZSA website for more details.

The newsletter serves many purposes, but ultimately it should be something that not only keeps members of the NZSA informed, but is also enjoyable reading. So, if there is a particular facet of the newsletter that you particularly like or dislike then please let me know.

My favourite section has always been the Local News and I would like to encourage more regular contribution to this section. Before the next issue I'll finalize a list of (willing?) contacts for Local News submissions. I really would like to hear from you, even if it is just a couple of sentences thrown together over a cup of coffee.

Russell Millar

President's Column

Planning is well underway for the NZSA 50th Anniversary conference at Victoria University from 4–7 July this year.



I am hoping that as many members of the association as possible will make it to the conference as there are a variety of streams being offered and a special focus will be the history of statistics in

New Zealand. Stan Roberts has almost completed work on his history book and a copy will be given to each conference participant as part of registration. We wish to locate and invite older and retired members of the association in particular. If you have any information in this regard, please contact the conference convener, David Harte, at Victoria University (email: David.Harte@vuw.ac.nz).

I am due to depart on 15 April 1999 to study at Curtin University in Perth for a few months, but will return a week or two before the NZSA conference and will definitely be an attendee. I can still be contacted by email: sharleen_forbes@stats.govt.nz. As agreed at the last Annual General Meeting, Associate Professor David Scott from Auckland University will act on my behalf until I return. David has been a member of the Auckland University Statistics Department for nearly four years and currently teaches at their Tamaki Campus. His statistical and research interests are in applied statistics, stochastic processes, and Bayesian methods.

David's work on the Executive Committee has primarily been with the establishment of the NZSA Website, which is at

www.stat.auckland.ac.nz/nzsa

A description of the website is given elsewhere in the Newsletter.

NZSA Members recently received the latest copy of the *Australian and New Zealand Journal of Statistics*. I was pleased to note that the number of papers published by New Zealand authors has increased. However, the New Zealand editor, Murray Jorgensen, is still calling for more papers so that we can maintain this level and also carry on the applied statistics focus that the New Zealand Statistician had.

Welcome to these new members of NZSA

Robert Williams Lynley Povey
Mina Budianto Khanhav Au
Rachel Harrison Judi Scheffer
Evan Jones

I wish everyone well over the next few months and look forward to seeing you all at the conference.

Sharleen D Forbes

NZSA Website

As noted in the previous Newsletter, a website has been established for the NZSA at

www.stat.auckland.ac.nz/nzsa

The Association is grateful to the Department of Statistics at the University of Auckland for hosting the website, and for employing a student, Rachel Merriman, to work on creating the site. Rachel (who incidentally was the top student in the whole of the Science Faculty at Auckland last year) has carried out the work under my direction, originally entirely by email when I was on sabbatical at the University of Melbourne.

In designing the site, my concern was to make it very simple, with minimal graphics and easy navigation. I wanted it to be information-rich and to provide a convenient access point for anyone who is interested in the activities of the Association, both members and non-members. A further ideal is to make the website the definitive, up-to-date repository of information relevant to the Association. The members of the Association are widely dispersed and the Executive typically meets physically only once a year, with other meetings by conference telephone connection. Allowing all members access to important information wherever they are located should be of tremendous benefit to everyone.

Currently on the website we have information and links under the following headings: Association Aims; Activities; Executive Members; Section Heads; Constitution; Code of Conduct; Information for Prospective Members; Upcoming Conferences; Australian & New Zealand Journal of Statistics; Newsletter; Useful Links.

I have two further developments in mind about which I would particularly welcome member comments.

1. A directory of members commonly appears on professional society websites, and a directory of NZSA members has appeared on Statlib (go to www.stat.cmu.edu/) for some time now. Privacy

concerns demand though that members give permission for their contact details to be published on the website. I would like to add a directory but need to gain approval from members first.

2. This Newsletter is available on the website in pdf format. This is readable with Acrobat Reader, which is free, and available for Windows, Macintosh, and Unix. In the future it might be sensible to cease formal publication of the Newsletter and just notify members by email of the latest issue becoming available. Some paper copies (photocopied only) might still be sent to members who do not have web access.

I am also very interested in any other comments concerning the website, and any additions which members believe would be valuable. Please email me at d.scott@auckland.ac.nz.

David Scott

New Zealand Statistical Association (Inc) 1998 Annual General Meeting

Summary of the AGM held on September 4, 1998 at Massey University

The meeting opened at 3.30pm and was chaired by the president, Sharleen Forbes.

Present: Judith Archibald, Greg Arnold, Rod Ball, Jonathan Briggs, Christine Bycroft, Mike Camden, John Cornish, Robert Davies, Mike Doherty, Bruce Dunning, Sharleen Forbes, David Harte, Stephen Haslett, Harold Henderson, Jeff Hunter, John Jowett, Frances Krsinich, Marie Luckman, Bryan Manly, R Hugh Morton, Alisdair Noble, James Reilly, Stan Roberts, V M Rohan, Jean Thompson, Niki Thorne, Ian Westbrooke, Victoria Wilcox, Graham Wood, David Vere-Jones, Julian Visch, Siva Ganesalingam.

Apologies: Jenny Brown, Len Cook, Gary Dunnet, Murray Jorgensen, Richard Penny, David Scott.

The minutes of the 1997 AGM were accepted after correction of a minor typographical error.

President's report

A motion that an NZSA e-mailing list be set up was carried.

Treasurer's report

Philippa Graham thanked Harold Henderson for taking over the Blackwells mailing list work.

Philippa summarised the treasurer's report, and the motion that it be accepted was carried.

Election of Office Bearers

The following nominations were received:

President: Sharleen Forbes

Secretary: Frances Krsinich

Treasurer: Philippa Graham

Committee: David Scott, Rod Ball, Wiremu Solomon, Jeff Hunter, Jenny Brown, David Harte

Corporate Representative: James Reilly

Editors: ANZJS applications editor - Murray Jorgensen

NZSA newsletter editor: Richard Penny (Richard would like to retire from this position next year - *Richard got his wish, ed.*)

Subcommittee Convenors:

Education: Mike Camden (Mike would like to retire from this position next year)

Publications: Denny Meyer

Standards: Jeff Hunter

Young Statisticians: Jonathan Briggs

SAPQC: Steve Haslett

Membership: Harold Henderson

Science Fairs: Jenny Mason

All the above positions were elected unopposed.

Election of Auditor

Sharleen Forbes thanked Paul Maxwell for his work as auditor. A motion for the NZSA exec to send a letter of thanks to Paul Maxwell was carried, as was a motion that Paul be retained as auditor. (Paul would like to retire from this position next year.)

Election of SAPQC

The following membership was proposed and ratified: Stephen Haslett (convenor), Peter Danaher, Alistair Gray, Katrina Sharples, Jenny Brown, James Reilly.

A motion that membership of subcommittees of the executive committee should be confirmed by the executive committee and notified in the newsletter was carried.

Added item: Sharleen Forbes raised the idea of having one member of the executive acting as Vice President, and proposed that we consider changing the constitution to accommodate this at the 1999 AGM. She noted that another option might be to have both the outgoing and the incoming presidents on the executive committee. The following motion was carried: That David Scott be asked to stand in as an unofficial vice-president if the President is absent or unavailable during the remainder of this term.

Added item: 1999 conference. The following membership was proposed and ratified for a 1999 conference committee (with the power to co-opt other members): David Harte, Frances Krsinich,

David Vere-Jones, Mike Camden, Alec Neill.

Proposed amendment to the rules in the constitution Section 6: Expulsion of Members - the current clause 'Any member two years in arrears with subscriptions will forfeit membership and may be re-admitted to membership only by method of rule 3, or by payment of arrears.' be amended to 'Any member whose annual subscription is not paid within 3 months of invoices being first posted out will forfeit membership and may be re-admitted to membership only by method of rule 3, or by payment of arrears.'

The amendment was carried with one dissent.

Added item: Journal agreement. A draft memorandum of agreement between the Statistical Society of Australia (SSAI) and the NZSA was circulated before the meeting. The motion to ratify/accept the agreement was carried.

General Business

The following motions were all carried:

That all NZSA minutes be archived in a minute book.

That the subscription rates remain the same.

That the NZSA executive committee consider setting up a subcommittee to look into how we take a proactive role in delineating areas where statistics input could be made in the issues arising from the review.

That the NZSA supports in principle the concept of bidding for the ISI 2005 conference in NZ.

Other Conferences

Harold Henderson noted that 2004 has been suggested for a joint SSAI and NZSA conference in Auckland. Jeff Hunter passed on Graeme Wake's suggestion that NZSA have a joint conference with the Maths society. There is an Australasian Biometrics conference in 2001, and a National Congress in Mathematical Science in 2001, with a suggested venue of Wellington.

The AGM closed at 5 pm

Deadline for next Issue

All submissions for the next *Newsletter* to Russell Millar by 31 July please.

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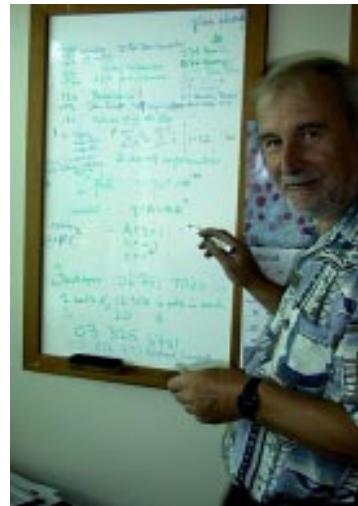
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Slice of Statistics

This is a new section, with the general aim of providing a look at the many and varied aspects of a career in statistics. I wish to thank our first contributor to this section, Fred Potter.- Ed

I arrived in New Zealand three years ago after working for 27 years in the Institute of Grassland and



Environmental Research, Aberystwyth, Wales. I'm not sure why: perhaps it was all those split-split-etc-plots. Little did I know what sensory evaluation panels held in store for me. The common themes were Genstat, Minitab and a sense of isolation. Or so I thought, but in NZ I

find much more appreciation for what I do and a stronger statistical camaraderie.

In Crop & Food Research, John Koolaard and I, as biometricians, are firmly embedded in the whole scientific process, or so we like to think. However, being in on the whole experiment is not so easy when we service sites from far-flung Nelson and remote Hawke's Bay, to the wilds of Auckland. This is why providing training is an important aspect of our work, both at remote sites and at our new but homely Food Industry Science Centre in Palmerston North. (As is only right and proper with this emphasis on food quality, our cafeteria is simply the best: good for both sustenance and esprit de corps.) Other sites in the South Island are in the charge of our 2 other biometricians.

These days, commercial pressure means the best possible experiment given the resources, and it is therefore important that the statistician does not over-deliver by data-dabbling. So I try not to answer unasked questions, unless it would be wrong not to. Nevertheless, we analyse the results of disinfestation studies, which require logistic regression, often polytomous, and many requested ANOVAs are better analysed as dose response problems. Also, the already mentioned sensory evaluation trials have special problems, and REML is duly put through its paces. Another dimension of course is time. We find that there is no routine template in which to fit repeated

measures data analysis, but each case must be assessed on its merits if sensible conclusions are to be reached. This might be adjusted split-plot ANOVA, analysis of summary statistics, antedependence analysis or the fitting of smoothing splines in a REML context.

A friend once said, “Never analyse an experiment you haven’t trodden on”. It has to be pointed out that he was an oat breeder and this rule does not apply to experiments with an emphasis on Petri dishes. His advice is well-taken however, and a pair of gum-boots or something equally bucolic and stout, like an anorak, in the corner of your office works wonders for your field credibility.

Fred Potter

John Offenberger (1920 - 13/3/99)

The following extract is from a condolence letter sent by the NZSA to John’s family.

“John Offenberger was a member of the NZSA until now, and we value his long-standing support for our Association.

He was also a major player in statistical education throughout his career. He was there in the background, instigating initiatives and improvements whenever he saw that he could be effective.

Statistics was very new to New Zealand in the 1960’s, 70’s and even in the 1980’s. John was always keen to seize on new methods and ideas, assess their value, and promote them. He did this for statistics at teachers’ courses, curriculum committees, and of course within Wellington Polytechnic. John probably thought of statistics as a key part of the honest science which could improve the world for humanity.

Luckily for us, John documented the history of Statistics in Polytechnics (which contains many of his own efforts). This work will be published as part of a book on the history of Statistics in New Zealand, edited by Stan Roberts, which will be published in July of this year.

We will miss John’s good-humoured analysis of the world”

50+ Gigahertz of CPU power!

At Auckland’s Tamaki campus, Peter Dobcsanyi (a Mathematics PhD student) has applied the latest paralleling computing software to harness the combined processing power of 150 undergraduate PCs, each running at 350 MHz. The machines are booted under Linux at the close of the computer lab each day.

John Revfeim, 1938-1998



John Revfeim in 1980

by Murray Jorgensen

Writing an obituary is always a sad thing to do, but what makes this sadder is the knowledge that to many of those who read this, what I write will be an introduction to John. This is not because the contributions John made to the scientific applications of mathematics and statistics have been small, but rather that John believed strongly in entering into the disciplines his statistical work served to the point where many people came to think of him as an agricultural scientist or as a meteorologist. This would not displease him, but from time to time I wish that New Zealand mathematical scientists themselves formed a bit more of a community. But John’s service to the NZSA was not in the least insignificant: he was Secretary-Treasurer in 1966 and Editor of the NZ Statistician in 1970 and 1971. (He may have been on the executive before 1966, but I don’t have information about this to hand.)

John grew up in Tauranga, spending much time on the Revfeim family orchard property near there. His later education was at Nelson College and Auckland University College, from where he received his BSc (N.Z.) in 1959. There followed a period of teaching at Tauranga College and Auckland’s Seddon Memorial Technical College before a return to do an MSc in Mathematics at Auckland which he received in 1962.

After a period at the Ministry of Works Auckland Laboratory John joined the Biometrics Section of the Department of Agriculture in Wellington in March 1964. He showed his musical side at that time by joining the university choir where he met Greg Arnold, who was later to join him at the Biometrics Section. In September 1966 John, with his wife Hilary, left for the University of Manchester (Institute of Science and Technology) where John undertook PhD study under Morris Walker. He returned to the Biometrics Section in later 1969.

In those days, computer requirements forced a centralization of statistical consulting in government science. ‘Biometricians’ like John were based mainly in Wellington and flew off at regular intervals for several days intensive consulting at regional research stations. One of John’s responsibilities was Invermay Agricultural Research Centre at Mosgiel, near Dunedin. During 1971 John suggested to Geoff Jowett, then Professor of Statistics at the University of Otago, that he consider moving to Invermay as a resident Biometrician. Whether or not John’s advice

was the deciding factor, Geoff Jowett did, in fact, move to Invermay in 1972. Geoff remained there for ten years, of necessity doing much pioneering work in the computer analysis of experimental data. John himself did much work in this area. He also worked with Dr Bob Jordan, an engineer within the Biometrics Section now with HortResearch at Ruakura, on 'data loggers' for automatic capture of climatic variables in the field.

John was a great admirer of Hewlett-Packard programmable calculators, which in those days extended to large 'desktop' versions with cassette tape drives. I joined Biometrics Section myself in early 1974 and was quickly convinced of the virtues of the reverse-Polish command sequence in calculators. Program memory was very scarce in these machines and John showed considerable flair for compressing seemingly complex statistical operations into very few program steps. This is but one example of John's legendary frugality which many who knew him recount.

John's frugality was, however, coupled with generosity. Greg Arnold recounts *"In August 1977 he and Hilary packed the Arnold family into their Edinburgh house when we arrived some days before our arranged accommodation became available. In the few weeks before John again left for New Zealand, he and Hilary showed us around Edinburgh, and John demonstrated using the university's reducing photocopier to squeeze the maximum amount of information onto an A4 sheet. I generally disagreed with John's firmly expressed opinions and was dubious about his economising schemes, but these little eccentricities made up a unique individual who showed me immense generosity."*

Another Research Station on John's visiting circuit was Wallaceville Animal Research Centre in Upper Hutt. Here John had Dr Ken McNatty as a client and did much work on the analysis of hormone concentrations in sheep. Ken comments *"Neither David (Thurley) or I had any idea on how to analyse these data, but of course to John the problem was only a minor challenge."*

In those days Biometrics Section was made up of about 8 scientists supported by about 8 computer data preparation technicians in two adjacent large rooms. John and his colleague Don Wright contributed to staff morale by organising a version of indoor cricket played with rulers and loose rubber door-stops. They also used to organise pranks with the telephones by dialing two numbers on different phones and holding the handsets together so both persons dialled would assume that the other was the caller.

In May 1976 John and his family departed for the University of Edinburgh, where John had been awarded a post-doctoral fellowship under David Finney. This was just the time when the statistical analysis computer

programs and the DSIR Elliot 503 for which they were written had come to the end of their working life. John was not happy with the decision made in 1977 by both MAF Biometrics and Applied Maths DSIR to adopt the Rothamstead-written statistical package GENSTAT to replace the Elliot programs. I remember receiving a letter from him shortly after he returned from Edinburgh in 1978 in which he complained about the large amount of core memory used by GENSTAT. What he would feel about some of today's overblown "Office" suites can only be imagined!

In April 1979 John left MAF to join the Meteorological Service where he found an old calculator (Olivetti or WANG) which was just on the point of being discarded. John 'saved' it and wrote many programs for it. The computations for his papers in the early 80s were carried out on this machine.

At the Meteorological Service, John worked first in the climate section headed at the time by Jim Hessel who contributes the following reminiscences:

"John had no background in synoptic meteorology and did not express any desire or interest in the subject unless it impinged directly on his work. For example, he found from extensive analysis of sunshine cards that many places experienced a greater "afternoon sunshine advantage" (his phrase) over the morning (i.e. pre solar-noon) and would enquire of the synoptic meteorologists why they thought this should be so. This independence of thought was typical of his approach and proved advantageous to both parties; the synoptic meteorologists had their impressions of what occurred confirmed by unarguable statistics and he found that there was a real physical basis for his results.

As above he had a great interest in sunshine statistics on both a daily and seasonal basis and was also interested in the application of the Poisson distribution to monthly rainfall figures. Many observation stations had good records of monthly rainfalls but little was known about the intra-monthly distributions. Did the rain at any place fall uniformly throughout the month or was it spasmodic? He characterised the rainfall at locales within New Zealand and overseas using the Poisson distribution which he found to be as applicable to the tropics as the middle and high latitudes. He visited the Singapore Meteorological Service on one or two occasions and had developed a good working rapport with them.

As well as producing a good volume of work in the Meteorological Service, as his published papers attest, he was very cooperative in teaching other research members of the Climate Section. People he worked with frequently were Craig Thompson, Steve Goulter and John Sansom. Steve Goulter, a well qualified statistician, is now in Australia but Craig Thompson and John Sansom are still in Wellington - at NIWA, which absorbed the Climate Section on a reorganisation which took place in 1989/90. Craig Thompson produced several publications using Poisson analyses developed as a result of John's influence.

Through his earlier position in the Ministry of Agriculture and Fisheries John was able to help the

agricultural meteorologist. He looked at the methods of archiving climate data used by the Climate Section over many years and pointed out many ways in which they could be simplified and the volume of stored data drastically reduced. His ideas led to discussions on "the entropy of information". Most of these discussions were not well appreciated by most of us who had a background in synoptic meteorology rather than statistics.

Although John worked largely on his own he was by no means isolated from the rest of the section and was generally a congenial working partner. Occasionally I would ask him to do some special task such as writing the Introduction to a rainfall statistics publication containing gamma parameters to explain the gamma distribution. Tasks such as these he undertook willingly. He was the instigator of a system of collecting climate data on a daily basis (Dlycli).

John was active on the international scene also through his involvement with the International Statistical Climatology Association. He attended IMSC meetings in Spain and Ireland and organised the 4th Meeting in Rotorua in 1989. Because of these, and also because of his papers published in international journals, he was in some ways better known abroad than at home; I expect that he will be remembered, and referred to, for many years to come.

Among those he worked with at home he will be remembered by all his colleagues and assistants not only for his productive work but also for his kindness, helpfulness and for his puckish, sometimes devastating, sense of humour."

However, John's enquiring mind did not always fit in well with any prevailing official model for how public science should be conducted (and he surely would have found university red tape no more to his taste.) There is a tale of him spending many months and many letters pursuing a claim through the Met Service bureaucracy for a refund on an anemometer that he purchased during a visit to an Indian Met. research station. John had hoped that NZ would buy many more of the devices from India, as they were considerably cheaper than those from other sources. This was just one of many conflicts between John and officialdom. J. T. Steiner, who headed the Research Division at the Meteorological Service in the 1980's recalls: "*John was one of the few scientists that I have known who was capable of contributing new ideas. Most of the rest of us merely test the ideas of others, embellish them a bit or apply them to a different problem. John's capability and work methods thus did not sit well in the model of research proposals, approval and monitoring which I and other research managers were introducing to the science departments of the old Public Service. I think he found my insistence on this model as tedious. Had I been a wiser manager, I might have found some way of extricating him from this model by classing him differently from the others. I left the Met Service before he did. I believe that his decision to retire at 50 was at least partly due to his disaffection with the increasing requirement for paperwork that was not really relevant to his contribution.*"

As Jim Hessel points out John was "in some ways better known abroad than at home". Perhaps it was a desire for better recognition in New Zealand that led him to submit a collection of 23 of his papers, published for the most part in Agricultural and Meteorological journals, to VUW for the degree of DSc. This application was unsuccessful. David Vere-Jones comments: "*Ifelt at the time that his papers on reflectivity provided a valuable and practically useful basis for agricultural procedures, but that for a DSc in statistics a more substantial statistical component would be necessary. John here was in the typical problem situation of someone who works in a cross-disciplinary field but finds it hard to get their papers fully accepted by either side.*"

Skimming through the papers I am struck by the blend of Agriculture and/or Meteorology with physical science, classical applied mathematics and statistics. This is very much what I remember of John's interest and approach, although I have to confess that my own background in pure mathematics did not make me very attracted to John's work at the time.

Martin van Montfort of the Mathematics Department of Wageningen Agricultural University in the Netherlands has compiled a bibliography of John's publications (which is incomplete at least in respect of some joint articles arising from his collaborations with MAF scientists). I attach Martin's bibliography as an appendix; the first 23 papers listed constitute, in a slightly different order, the papers submitted for the DSc. As another appendix, I include John's introduction to the papers which serves also as a broad indication of John's interests and philosophy at the time.

John's move to the Met. Service did not lead to him quickly cutting his ties with Agricultural Science. He served as Chairperson of the organising committee of an NZ Institute of Agricultural Science convention in 1983 and was Secretary/Treasurer of NZIAS from 1984 to 1986. In 1989 John took early retirement and set about the establishment of 278 Cockayne Road, Ngaio as a research centre of some note by working on the completion of numerous partly-written papers in his 'bottom drawer'. However, with the departure of his youngest son for Medical School in Otago, he felt free to take up the position of Principal Scientific Officer (Climatology) with the Fiji Met. Service, a position that he held between August 1991 and July 1994.

John was a very keen gardener, especially of fruit and vegetables (with the use of compost), which allowed him to express both the frugal and the generous sides of his character. After purchasing the family homestead in Otumoetai (near Tauranga), John's love of gardening caused him to divide his time between Ngaio and Tauranga. Sadly an ironic full

circle was closed when an accidental fall while harvesting avocados caused his death on May 19, 1998, leaving his wife Hilary, and three adult sons. His insight and wit will be missed by all those who worked with him be they Statistician, Agricultural Scientist, or Meteorologist.

I wish to thank all the many people who sent me information about John, even if I did not directly quote them. I know that I should have got this completed earlier but I hope that now, appearing on the first anniversary of John's death, it will serve as a memorial to him.

I have interrupted my study leave to prepare this note and I like to think that John would have been interested in the research work that I have been undertaking. John had always been scornful of statistics that were quoted to many more significant figures than the precision implied by their standard errors. I have just been studying Minimum Message Length (MML) inference with the aid of its founder, Emeritus Professor Chris Wallace of Monash University in Melbourne. MML sees excessive precision in estimates as a form of overfitting. In a 1991 note John refers to a 'magnum opus' on entropy mouldering in his 'bottom drawer' (surely as much a part of his mind as a part of his desk!) It turns out that 'message length' and entropy are more or less the same thing, and clearly related to John's love of storing the maximum of information in the least physical space. Perhaps I would eventually have seen my ideas converge with John's in this instance, at least!

Appendix 1. Martin van Montfort's Bibliography of John Revfeim's publications. List of publications and other articles (*) of (KJAR:) Kristian John Alasdair Revfeim (1938-1998). BSc(NZ), Dip.Math.Stats, PhD. (Manchester).

KJAR and R.B. Jordan: Precision of evaporation measurements using the Bowen ratio. *Boundary Layer Meteorology*, 10, p97-111, 1976.

- Solar radiation at a site of known orientation on the earth's surface. *Journal of Applied Meteorology*, 15(6), p651-656, 1976.
- A simple procedure for estimating global daily radiation on any surface. *Journal of Applied Meteorology*, 17(8), p1126-1131, 1978.
- Maximisation of global daily radiation on sloping surfaces. *New Zealand Journal of Science*, 22, p293-297, 1979
- Reviewing agricultural research. *New Zealand Agricultural Research*, 14(3), p123-126, 1980.

KJAR and J. W. D. Hessel. Observations and implications of diurnal asymmetry in "bright" sunshine hours. *New Zealand Journal of Science*, 24, p153-160, 1981.

- Estimating solar radiation income from "bright" sunshine records. *Quarterly Journal Royal Meteorological Society*, 107(452) p427-435, 1981.
- Those illusive decimal points. *Weather and Climate*, 2, p4-8, 1982.
- The feasibility of estimating solar radiation flux distributions

- from 'bright' sunshine data. *New Zealand Journal of Science*, 25, p1-13, 1982.
- Simplified relationship for estimating solar radiation incident on any flat surface. *Solar Energy*, 28(6), p509-517, 1982.
- Seasonal patterns in extreme 1-hour rainfalls. *Water Resources Research*, 18(6), p1741-1744, 1982.
- Comments "On the study of a probability distribution for precipitation totals". *Journal of Applied Meteorology*, 21(12), p1942-1945, 1982. Corrigendum and addendum, *ibid.*, 22, p502, 1983.
- An interpretation of the coefficient of the Angstrom equation. *Solar Energy*, 31(4), p415-416, 1983.
- Stochastic process analysis of rainfall totals and extremes. *Proceedings 2nd International Meeting on Statistical Climatology*, Lisbon, p10.2.1-10.2.5, 1983.
- On the analysis of extreme rainfalls. *Journal of Hydrology*, 62, p107-117, 1983.

KJAR and H.S. Hughes. Physically meaningful parameters that characterise rainfall totals and rainfall extremes. *New Zealand Journal of Science*, 26, p443-445, 1983.

- Generating mechanisms of, and parameter estimators for, the extreme value distribution. *Australian Journal of Statistics*, 26, p151-159, 1984.
- The cumulants of an extended family of type I extreme value distributions. *Sankya*, 46, p281-284, 1984.

KJAR and J. W. D. Hessel. More realistic distributions for extreme wind gusts. *Quarterly Journal Royal Meteorological Society*, 110, p505-514, 1984.

- Is the "100-year-flood" interpreted correctly? *Journal of Hydrology (NZ)*, 23, p4-9, 1984.
- An initial model for the relationship between rainfall events and daily rainfalls. *Journal of Hydrology*, 75, p357-364, 1984.
- The analysis of maximum wind gusts by direction. *New Zealand Journal of Science*, 27, p365-367, 1984.
- Drought prediction from rainfall records. A note on the comparison of theoretical and empirical quantiles for monthly rainfall totals. *Atmosphere-ocean* 23(4), 414-419, 1985.

C. S. Thompson and KJAR. Comment on "Homogeneity analysis of rainfall series- an application of the use of a realistic rainfall model". *Journal of Climatology*, 5, 579-581, 1985.

- Proverbial outliers. *Proc. Pacific Stats Congress 1986 (Elsevier)*, p296-298.
- Iterative forms in numerical integration. *The New Zealand Mathematics Magazine*. (1986?) 38-40
- Extracting information from rainfall data. 3rd International Meeting on Statistical Climatology, Vienna, p382-387, 1986.
- Daily observations: necessity, ritual or imposition? *International Journal of climatology*, vol.9, 1-6, 1989.
- A framework for interpreting rainfall models. Contributed paper 4th International meeting on Statistical Climatology, Rotorua, 1989.
- Approximation for the cumulative and inverse gamma distribution. *Statistica Neerlandica*, 327-331, 1991.
- Annual maxima and totals of seasonally varying processes. *Stochastic Hydrol. Haudraul.* 5, 147-153, 1991.
- Dominant events in extreme rainfall records. *Journal of Hydrology*, 134, 143-149, 1992.
- Confronted with Clicom. *Proceedings 5th International Meeting on Statistical Climatology*, Toronto, p395-396, 1995.
- Significant harmonics in distribution parameters of the seasonal process. *Proceedings 6th International Meeting on Statistical Climatology*, Galway (Ireland), p171-173, 1995.
- * Identification and interpretation of three bounds occurring in extreme rainfall records. (18pp, 1983).
- * A small sample distribution for the m-th largest value (16pp, 1985) [added as an appendix to: Martin A.J. van Montfort:

Inference on the maximum based on top-ith and top-i data. Technical Note TN 93-06, Dept. of Mathematics WAU, 21pp, 1993].

* S. W. Goulter and KJAR. Extreme value parameters estimated from short records of ranked observations (9pp, 1986).

* Lower bounds, upper bounds and bounded intervals in the analysis of maxima. (10 pp, 1990?).

* Mean exponential statistics: meaningful measures or trivial pursuit? (5pp, 1990).

* Directional and seasonal analysis of wind gusts (7pp, 1991?).

* A theoretically derived distribution for annual rainfall totals (1991?).

* Improved methods for prediction of extreme wind speeds (8 pp, 1991?).

* An extreme value description with three physically meaningful parameters (July 1996). [Partially added as an appendix to: Martin A.J. van Montfort: ML-estimation of the CPEE-parameters. Technical Note TN 97-10, Dept of Mathematics WAU, 1997].

* Extremes of observations bounded by a limit on the size of an event or a limited number of events (6 pp, 1989).

* Extremes of observations bounded by limits on the size and the number of events (10pp, 1998).

* Modified quantiles and graded descriptors of 'average'. (14pp, 1998).

Appendix 2. Introduction to "Some physical, mathematical and statistical properties of environmental observations" by K. J. A. Revfeim (Collected papers, 1976-1985)

In contrast to laboratory experiments with biological material, trials carried out 'under field conditions' involve more than the treatments or varieties in the experimental design. Under field conditions the natural environment includes not only the physical and chemical properties of material below ground level but also the properties of the atmosphere near the ground. Responses to the natural environment reflect a sequence of effects which are most rapidly varying in the atmosphere. Some physical properties below ground level, notably moisture and temperature, are subject to seasonal variation. Observed seasonal variations during the course of long-running field-trials are often used to qualify deductions from the trial. Diurnal variation is barely within the sphere where it can be related to biological responses. Seasonal patterns in the physical environment above ground level show more extreme variation between years than below surface patterns. Hence any attempt to make absolute measures of productivity from field trials must take account of the relevant characteristics of phenomena that are used to represent the atmospheric environment (where such phenomena affect the biological response). Routine monitoring of phenomena in the atmospheric environment such as temperature, rainfall, wind and radiation, has led to vast collections of data. Such data have traditionally been the subject of empirical analyses which, apart from the more obvious seasonal or diurnal patterns, are mostly characterised by the properties of the numbers collected e.g. mean, variance, skewness. These statistical parameters are weak representations

of the actual physical processes or events which give rise to the data. There is considerable scope for developing quite realistic models recognising the broad physical principles underlying environmental processes or events. Statistical moments, such as average and variance, of point observations or cumulative data will be functions of parameters of these models. Thus while a two-parameter model provides no more characteristics than the number properties average and variance, the estimated parameters using average and variance will have a definite meaning. That is, with respect to the model the parameters have a physical interpretation as to their expected effect in some other biological response model. Hence the characterisation of data in physically meaningful terms is a necessary first step to the profitable use of that data. This collection of papers represents an attempt to put in context the place of environmental data in agricultural research, and to make some realistic assessments, of the scales on which data are measured and the precision to which derived parameters are estimated. Some particular interpretations of data are made which show

- a) how radiation on sloping surfaces can be estimated from observations on horizontal surfaces;
- b) how radiation can be estimated from sunshine data;
- c) how total and intense rainfalls can be characterised as a recurrence process;
- d) how wind gusts can be characterised as a recurrence process; and,
- e) how variable data bounds are of only slightly less value than admissible observations.

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 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 past and present statisticians and statistical gatherings are of particular interest. All photos will be copied, added to the NZSA photographic archives, and returned.

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.

Happy 50 Len Cook

He was born at Queen Mary
to Jean and Archie,
Their only son with 3 sisters
Ellen, Diane and Ngaire.
Growing up he joined clubs
and rugby he tried,
But alas was not for him as
he preferred inside.
From Forbury, MacAndrew
then to Bayfield he went,
Playing hockey and rowing
for school he did attempt.
A scholar he became,
Dux of Bayfield High,
Then to Otago,
Graduating BA Hons in 71,
He aimed high.
The lure to the capital,
He joined the Dept of Stats,
Now the boss he has been
counting there for 28 years
this way and that.
His fishing trips with Les
and Ho are well known,
Along with his love of the
quiet life at Purakanui his
second home.
With Shirley at your side
enjoy life to the full,
Happy 50 to Leonard you're
now over the hill.

from Otago Daily Times, 13 April 1999

The humorous side

An accountant, engineer and statistician were having a meeting. The accountant casually flicked his smouldering cigar stub into the rubbish bin (this was back in the old days). The threesome were so engrossed with their discussions that they did not notice the contents of the rubbish bin smouldering, until it suddenly burst into flame. "Fire, fire" they yelled simultaneously.

The accountant rushed out and came back moments later with a fire extinguisher. Meanwhile the engineer had whipped the deskpad of the desk and said "It's better to smother the fire", whereas the accountant insisted "No, we must use the fire extinguisher". The engineer felt the need to explain to the accountant the principles of combustion and insisted that smothering the fire would be more effective. The

accountant wasn't swayed and insisted that the fire extinguisher would be more effective.

Meanwhile, the statistician left the room and returned with an armful of rubbish bins, and proceeded to set their contents alight. "What are you doing??" the accountant and engineer screamed, to which the statistician replied "Well, you're not going to be able to settle your argument with just a sample size of one"!!

This statistician sounds like a frequentist....well, it was back in the old days! -Ed

Local Scene

AgResearch

The AgResearch statisticians have been involved in a review of their function and place within the company.

Ken Dodds has been awarded an OECD scholarship to study Marker Assisted Selection at the University of New England. He started his three month sabbatical in March 1999.

Peter Johnstone and Harold Henderson attended the International Biometric Conference in Cape Town in December. They are also the Australasian representatives on the Council of the International Biometric Society. Ken Louie and Mick Roberts attended the Second Annual Wellington-Manawatu Regional One-day Conference on Applied and Computational Mathematics, held at Gracefield on January 26. David Baird visited Rothamsted Experimental Station, UK, in January to plan the on going development of Genstat and was an invited speaker at the Genstat 1999 Conference in Lorne, Victoria. Dave Saville, Roger Littlejohn and Peter Johnstone also participated in this conference.

Harold Henderson



Harold Henderson caught on camera by Russell Millar

University of Otago

Bryan Manly went to the annual Kansas State University Conference on Applied Statistics in Agriculture to give a workshop on Computer-Intensive Methods in Biology, and the keynote address on Statistics in the New Millennium. His keynote address was about three topics: the uses and misuses of computer-intensive methods, the problems involved with handling extremely large data sets (using the use of GIS with resource selection by animals as an example), and the use or lack of use of statistical research by scientists in general. He is also keeping very busy editing the Journal of Agricultural, Biological and Environmental Statistics and is glad to see papers being submitted by New Zealand statisticians (so far only from Auckland and Otago, but still it is a start).

In late June Bryan will be attending the 1999 WNAR (Western North American Regions of Biometric Society) Annual Meeting/IMS Regional Meeting in Seattle, Washington to give an invited session and to be organiser of another session on Statistical Inference in Observational Studies with Special Interest in the Before-After-Control-Impact (BACI) Design.

Irene Goodwin

University of Waikato

Recent visitors to the Department have included Emlyn Williams (CSIRO, Australia) for another short visit to work with Nye John and David Whitaker. Hans Hockey was also back in Hamilton over the long summer. The department also welcomes David Johnson from Loughborough University in the UK who will be here from March to June. He will be furthering his research in academic timetabling in collaboration with David Whitaker and Professor Les Foulds in the Management School. With David Whitaker he hopes to develop some joint research into heuristic methods for use in course timetabling. He is also assisting in the tutorial programme for the first year management statistics course.

Murray Jorgensen is currently on sabbatical. He will be working with Geoff McLachlan until he returns at mid-year. Nye John attended GENSTAT99 held in Lorne, Australia, in early February. He will be on sabbatical during the second half of this year. Sharon Gunn was a presenter at LOGOS#5 on recent issues in Statistical Education, held in the Mathematics Education Unit of the University of Auckland at the end of March.

The Waikato Centre for Applied Statistics will present a one-day workshop on Categorical Data Analysis, by Professor Alan Agresti, University of Florida on Thursday 8 July, 1999. This is immediately following the NZSA 50th Anniversary Conference, which will be held at the Victoria University of Wellington.

Chido Gandanzara has submitted her masters thesis entitled "An Interactive Computer Simulation Exercise for SPC Students". She has now returned to her home in Zimbabwe.

RECENT SEMINARS IN THE DEPARTMENT

Rod Ball, (NZ Forest Research Institute) "Testing Scientific Hypotheses – the Bayesian approach versus P-values".
Murray J. Mackinnon, (Consulting Statistician, North Vancouver) "Data Mining and Knowledge Discovery in Databases – an Overview".
Saralees Nadarajah, (University of Plymouth) "Some Recent Developments in Extreme Value Theory".

UP COMING SEMINARS IN THE DEPARTMENT

David Johnson, (Loughborough University) "Triangular approximations in continuous random variables in risk analysis."
Ray Littler, (University of Waikato) "The challenge of statistical practice: how does it help us teach?"
I-Ming Liu (University of Waikato) "Strategies for modeling a categorical variable allowing many category choices."

Judi McWhirter

Statistics New Zealand

With about 35 statisticians in our area, with an average age in the late twenties, the first task of these reports is generally a list of who's left and who's arrived. Departures: Ian Westbrooke to the Health Funding Authority; Paul Willoughby to Telstra; Tracey Gilmour overseas; Chris Zingel back to university; Matt Berger back to ABS (our Australian equivalent); Diane Craig to BNZ. Arrivals: returnees - Alistair Gray, Diane Craig & Debra Taylor; new: Kaylene Murdoch & Pete McMillen. We have been interviewing and expect to employ four new staff in the near future.

We recently had the annual get together of our Christchurch and Wellington groups to exchange ideas and catch up with people's work. A fair bit of socialising too. The quiz was won by a team with Len Cook as a member. No favouritism was shown because when one of the questions was "what is Len's extension number?" this team was required to answer a different question. We also had a visitor from the ABS, Luke Starrick, attending. Luke did say that he would have to phrase his report on his trip so it wasn't too obvious how very enjoyable it was.

We recently enjoyed the visit of Ulf Jorner from Statistics Sweden. He was invited here to assist in our upgrading of the graphics produced by SNZ. While

here he gave two 2-day workshops on good graphics to people from Christchurch and Wellington, a one day course for external clients, plus reviewed our protocols on graphics outputs. My lasting memory comes from taking Ulf to the Air Force Museum in Christchurch. I had been told Ulf was interested in aircraft but when I found he could identify the plane and model type from a recreation of a wreck in the jungle they have in the museum, I realised Ulf was really into aircraft. Very impressive, as I could barely recognise it as a plane. Ulf also liked our boutique beers (obviously a man of discernment).

We're a bit light on the overseas travel since my last report with only Lisa Jones travelling courtesy of the NZ taxpayer. However, it was to Bucharest for a conference on seasonal adjustment which was held in the large monstrosity built by Ceausescu in the 70's. Quite an experience if Lisa's photos are anything to go by. After the conference it was to the wilds of Washington D.C. to visit the time series people at the Bureau of the Census. We are in the unusual position of having 3 staff preparing for maternity leave. In my 15 years in SMASH, and its predecessors, I can only remember 2 previous in total. Well planned though as they're all in different sections so no area will be particularly denuded of staff.

Sharleen Forbes is about to depart to Perth for six months to complete, she hopes, her PhD. Vic Duoba will fill in for her while she's away, for which I give much thanks as I've done it a couple of times in the past.

Richard Penny

University of Canterbury

Marco Reale, a specialist in econometric theory, joined our department in February as a new lecturer. His thesis, Graphical Modelling Approach to Time Series Models, was awarded a PhD by Lancaster University's Mathematics and Statistics Department last year. He has published articles on econometrics in both English and Italian. He graduated *Laurea cum laude* in economics at the First University of Rome in 1992. He worked as a researcher at the University LUISS of Rome, where he built an econometric model for the Italian monetary and financial sector and provided forecasts to clients before attending Lancaster University in the U.K. He is now working on the application of wavelets to financial time series. He is also developing a third year course on time series with an econometric flavour and he is teaching a second year course on Inference.

Malcolm Faddy gave a departmental seminar on "Mathematics of Menopause or Statistics on Sterility"

which was well received. Malcolm will be presenting some of this work at medical meetings in Europe later this year. Malcolm is one of the organising committee for a Stochastic Modelling Workshop to be held in September in Christchurch at the plush Park Royal Hotel. To date there have been over 60 expressions of interest in this workshop; anyone else interested should get in touch with Richard Wilson (rjw@maths.uq.edu.au) or Malcolm Faddy (M.Faddy@math.canterbury.ac.nz).

Easaw Chacko has taken up the position within our department of Deputy Head. Our department had a social get together so that honours students, postgrads and staff could get to know each other with pizza, chips and drinks. It went well! Jennifer Brown has been busy organising the Statistical Methods for Environmental Management Workshop (to be held in June). Other research on possum and rat monitoring strategies is continuing. Results from summer field work are being fed into the great Malcolm Faddy analysis machine and together with Malcolm she is coming up with some interesting findings about possum trapability. Jennifer Brown has been invited to the workshop on "Applications of Mathematics to the sciences of nature: Critical moments and aspects" in Italy in June and is speaking at the Italian Biometrics Conference.



Pictured above from left to right are Irene Hudson, Malcolm Faddy, Marco Reale, Mike Steel, Easaw Chacko and Jennifer Brown

Congratulations to James O'Malley who has successfully defended his PhD thesis in Statistics, entitled "Some New Considerations for the Statistical Analysis of an Assay." The advisors for James' thesis were John Deely and Murray Smith. The defence was conducted at Purdue University where James was, due to one of his Supervisors John Deely retiring and moving to Purdue University while at the same time being officially still enrolled here. He had won the Cook prize in 1994 as the top Mathematics honours student, and also completed two stage 3 papers in each of Statistics and Management Science. His honours project was a design of experiments problem conducted for the Firestone/Bridgestone plant off Papanui Road. He presented the work to the

top Firestone management group in Auckland. The observations of the 2x2x2x2 factorial design were too expensive to conduct one of each of the 16 possibilities, much less to replicate any! So the analysis rested on formally eliciting uncertain knowledge about the design components from willing and able production engineers.

James is also the author of the seminal work on the statistics of recidivist offending in New Zealand, prepared as part of a consulting contract with the Justice Department. James plans to remain in the U.S.A. for a few years with an industrial contract or a post-doc. He will be back in Christchurch, probably around graduation in May, hopefully favouring the department with a seminar.

Irene Hudson has been invited to speak at the 53rd Appita (Association of Australian and New Zealand paper industry) conference in Rotorua in April about her work on sampling regimes for Eucalypts and between species differences of whole tree maps. This work extends ongoing collaborative work with the Cooperative Research Centre for Hardwood Fibre and Paper Science (CRC-HFPS) with the University of Melbourne, Australia. Overall, four papers are being presented from the Uni. Canterbury/CRC-HFPS team. Irene's Appita paper involves jackknife resampling methods, control charts and modelling vertical, radial and oblique axes of variation of the fibre variation using cluster and spatial methods. The notional concept of oblique axes of variation has proven to be tractable from the basis of cambial tree physiology and will lead to new concepts of sampling and whole tree utilisation. Irene continues to work on wood anatomy. This and the on-going work with PhD students here at UC on (1) traffic networks and limiting confidence intervals; (2) neural networks in brain mapping and psychometry; and (3) transient state modelling of risky dive indices (underwater dives), present different and challenging projects.

Lawrie Wilson, Research Scientist from CRC-HFPS, will visit here in April to consolidate ongoing work on vessel morphology and genetic methods with Irene. Marie Keatley (PhD student Uni. of Melbourne) will visit Irene to consolidate work on flowering phenology and evolution.

Jennifer Brown along with one of the Honours students, Katrina, took Jennifer's stage 2 biometrics students off to Bottle Lake plantation to collect data on pine trees. This data was then manually entered in by the students onto the web via a cgi-perl script for later retrieval as a full data set.

Jennifer is developing a new 3rd year course on sampling methods and computer intensive methods. Irene is also developing a new 3rd year course on distribution free methods (univariate and multivariate)

with computer intensive applications. We hope to enrich numbers with the provision of new courses!

University of Auckland *Irene Hudson*

There has been considerable change in personnel over the last few months. Brian Eastwood has now officially left us and we are just about to advertize for his replacement. We also lost a couple of computer support staff and our departmental assistant Kathy Edmunds. We've managed to secure another Kathy as her replacement. Welcome Kathy Henry.

Rachel Fewster arrived in February to take up a post-doc position. Her PhD advisor was Prof Steve Buckland, who you might recall was a very popular invited speaker at the 1997 NZSA conference in Auckland. Steve was hoping that Rachel would remain at St Andrews, so we feel very fortunate to have her. She is enjoying the discovery of our native bird life and is currently staying at the newly renovated "Railway Campus", which was the old railway station on Beach Road just down from the city campus.

We are happy to report that Brian McArdle has transferred into our department (from the School of Biological Sciences). Brian has already increased our PhD enrolments due to two of his recent MSc students, Carl Donovan and Monique MacKenzie, enrolling for PhDs in statistics with Brian.

David Scott, Renate Meyer and Russell Millar were all overseas on study leave in the second semester of last year. David went to Melbourne and Renate and Russell went to Dalhousie University in Halifax to work on Bayesian state-space models for fisheries stock assessment. While there, Renate learnt that she had been awarded a Marsden Grant to investigate Bayesian methodology for multiple event failure data.

Russell has been doing a lot of work with snapper (*Pagrus auratus*) including modeling their growth, estimating the relative density of snapper in and around the marine reserve at Leigh using generalized linear mixed models, and trialling a modified longline hook which is showing great promise as a way to reduce the mortality of small snapper that are returned to the water. He also managed to catch a few prime examples while fishing off Coromandel over Easter. Still, Thomas Yee remains the undisputed Fisher King of the department.

Stop press! Alan Lee, Alastair Scott and Chris Triggs have just announced their intention to relocate themselves and some PhD students to the Tamaki Campus. This will give a complement of seven fulltime academics at Tamaki.

Russell Millar



The New Zealand Statistical Association

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Web www.stat.auckland.ac.nz/nzsa

The NZ Statistical Association, founded in 1948, is New Zealand's only association for professional statisticians. The association has about 400 individual members and is growing strongly. Many of its members are employed by universities, government departments or research institutes, with growing participation by senior students, who are offered free membership for their first year.

The constitutional aims and objectives of the association are *the encouragement of theoretical and applied statistics in New Zealand*. In 1992 the association agreed on a more comprehensive set of vision and mission statements including the short description:

The mission of the NZSA is to lead New Zealand to value and make intelligent use of statistical thinking and good statistical practice.

Services to Members

Members receive *The Australian and New Zealand Journal of Statistics* quarterly and are kept up to date on statistical happenings within New Zealand and interesting overseas developments with regular newsletters. A feature of the New Zealand statistical year is the annual three-day conference, normally held in mid-year. At the 1995 annual conference the association adopted a 'Code of Ethics'.

Links with other Bodies

The association is an affiliated organisation of the International Statistical Institute and maintains close relations with a number of statistical societies around the world. It is also a member body of the Royal Society of New Zealand and is part of the Mathematical Sciences Council of New Zealand.

Survey Appraisals and Public Questions

The Survey Appraisals and Public Questions Committee aims to raise the standard of statistical practice and the level of public understanding of statistics in New Zealand by conducting independent appraisals of sample surveys, opinion polls and other statistical statements in relation to the statistical

validity of their results. It is regularly called upon to comment on contentious polls and surveys.

Education

The Education Committee aims to improve the quality of statistical education for New Zealand students. It participates in advisory groups related to curriculum matters and helps organise conferences and courses for the benefit of those teaching statistics at all levels. With the support of some of our corporate members, the association sponsors prizes for statistical excellence at each of the regional Science Fairs.

Application to join NZSA

Complete the online form on the NZSA web site or send this form to NZSA, Box 1731, Wellington.

I wish to join the New Zealand Statistical Association

Name:.....

Address:.....

.....

.....

Phone:.....Fax:.....

Email:.....

Permission to publish email address: Yes/No

Occupation:.....

Gender: Female/Male (for statistical purposes!)

Employer:.....

Areas of Interest:.....

Ordinary members NZ \$35, Overseas \$40

Student and Retired NZ \$20, Overseas \$22.50

(NOTE: First year free for students)

Payment details, in increasing order of cost to NZSA

*Payment by automatic payment or telebank:

Please ensure that your name will appear on our bank statement (e.g., Subs Mary Smith, Dunedin)

Bank 020 Bank of New Zealand

Branch 500 BNZ Centre, Wellington

Account 0019525-00 New Zealand Statistical Association

*Payment by cheque: Make out to New Zealand Statistical Association (Inc)

*Payment by MasterCard or Visa:

Please supply this information

Credit Card number

Cardholder's name

expiry date

amount \$NZ.....

Signature:.....Date:.....