

## The New Zealand Statistical Association

## Newsletter

Number 50

September 1999

## **President's Report**

Is it boring to say "thank you" to a long list of people? My wife thought so when I told her what I intended to write in this report. She may well be correct, but it is impossible to ignore the contributions of a number of people to the work of the Association—



particularly when those contributions are so substantial. David Harte and his team organised the excellent 50th Anniversary Conference of the Association. Stan Roberts has nearly completed his work on the history of the Association, and continues the project despite being seriously ill. Sharleen Forbes has been a fine President. Frances Krsinich as Secretary was responsible for keeping our affairs in order. Richard Penny has been the Editor of the Newsletter for a number of years. Mike Camden has been the Convenor of the Education Committee but is continuing until a replacement is organised. Wiremu Solomon has served on the Executive. Thanks to all these members (and the others I have forgotten about or never knew about). That is too Kiwi for this occasion I think. Something more effusive is required, and the Italians do it better: Mille Grazie!

The work of the Association goes on though, and like everybody else we need to look ahead to the next millennium. (There will be no response to any correspondence about whether 2000 really is the start of the next millennium.) We have made a start on using the Web to provide information for members and prospective members. That work will continue. The Executive is considering the institution of a Visiting Lecturer program similar to the one run by the New Zealand Mathematical Society. Accreditation of statisticians has been introduced by

the Statistical Society of Australia, and is being considered by our Executive. The history project is likely to be completed very soon (final editing and production of an index is about to begin).

There have been a number of projects carried out by the Association over past years and it seems that now we should be thinking about a possible next project. The need for competent statisticians seems to be growing. I would like to see the Association provide more support for young statisticians, to secure the future. There are meetings for young statisticians in the United Kingdom and in Australia. Can we contemplate something similar here? As incoming President, I would very much like to hear the suggestions and views of the membership on these ideas. I have practically forgotten how to write without using a keyboard so send me an email at d.scott@auckland.ac.nz.

David Scott

# Young Statisticians' activities at the 50th anniversary NZSA conference

There were two activities for young statisticians at the NZSA 50th anniversary conference. An employment workshop run on the Monday evening, and a competition for the best talk by a young statistician at the conference.

The employment workshop was designed to provide statistics students with information about the direction their careers could take them. Interesting talks about personal career paths and current jobs were given by Michael Eglinton, James Reilly, Niki Thorne, John Koolaard and Diane Craig. David Scott gave an account of his time as a statistical consultant and, with the voice of experience, summarised some of the issues facing a graduate moving into their first job. Thanks to all the people who came and gave talks.

After the workshop, the generous sponsorship of Statistics New Zealand provided drinks and food,

which was enjoyed by students and speakers alike.

The competition for the best talk by a young statistician at the conference was keenly contested, with the judges having to decide between several standout talks. The winner of the competition and \$500 was Darren Upton, for his talk "One factor interest rate model for the New Zealand term structure of interest rates". Darren reportedly "blew away" one of the judges with the quality of his talk. The runners up, and recipients of \$300 and \$200 were Jonathan Godfrey and Jenni Holden.

Congratulations to the competition winners, and all the young statisticians giving talks, for a high standard of content and presentation. The large number of young statisticians giving presentations was also pleasing, although it presented the problem of getting judges to all the talks! Thanks to the judging panel of Alistair Gray, Harold Henderson, Chris Triggs and Ian Westbrooke.



Sponsor Ray Hoare with Darren Upton (first), Jonathan Godfrey (second) and Jenni Holden (third)

Finally, a massive thank you from the young statisticians to Ray Hoare, Hoare Research and SPSS for the donation of the prizes for this competition.

Jonathan Briggs

#### **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.

## Slice of Statistics

Many thanks to Lisa Jones for this look at her path into the statistical profession. - Ed.

When I was a kid I certainly didn't grow up thinking I wanted to be a statistician, in fact I didn't even know what one was till I got to varsity. Through school, maths was always my strongest subject. I treated questions a bit like a puzzle; it was all a bit of a game really. It wasn't until I started to get more into statistics in sixth form that I realised that maths did actually have a practical side. In one of my school statistics projects I ran blind tests looking at people's ability to differentiate between Coke and Pepsi. Although my methods were elementary I was introduced to the real uses of statistical techniques. My marks were good, and it wasn't too hard so I stuck with it.

With the help of many a Brazilian coffee bean I followed statistics through to a BSc and then a Post Graduate Diploma in Applied Statistics at Otago University. An important influence in my choice to remain with statistics was that a lecturer told me that if one wanted a job from a maths degree, stats was the way to go. It wasn't all stats though, I did some Art History, Linguistics and quite a bit of Psychology. In my final year I completed a dissertation on quality and process control using a practical example from New Zealand Aluminum Smelters.

During my final year I applied for a job as a Mathematical Statistician at Statistics New Zealand through their graduate recruitment program. I was lucky enough to be offered a position in either Christchurch or Wellington. After growing up in Invercargill and attending varsity in Dunedin I thought Wellington would be a bit windy and cold and hilly for me, so I decided on Christchurch. As it turns out, Christchurch is an excellent place to live, heaps happening in the Arts and Cultural scenes, a great nightlife and it hardly rains! It's now over three and a half years since I began. During this time my work has included multivariate analysis of Census data, imputation methodologies and helping create departmental graphical standards and guidelines. The majority of my work has involved the seasonal adjustment of time series. I have also presented an Introduction to Seasonal Adjustment course, which is run for staff within the department who deal with seasonally adjusted data.

One of the most rewarding aspects of working at Stats has been the travel opportunities. Last year I

was fortunate enough to be given the opportunity to present a paper outlining Statistics New Zealand's approach to seasonal adjustment at a conference in Bucharest, Romania. This was a once in a lifetime experience. I also visited the Bureau of the Census in Washington DC to meet with the developers of our seasonal adjustment computer package, X12-ARIMA. Another wonderful opportunity.



Lisa (middle) and friends enjoying Romanian nightlife

I have found working in statistics to be highly rewarding largely because I can see the practical application of my work. The Christchurch office is quite large and has a keen young social club whose members aren't the stats geeks you might imagine. The work environment is supportive and the organisation as a whole is highly progressive and practices equal opportunity, fairness and all that. It's certainly a great place to start a career in stats, I'd recommend it.

Lisa Jones

## Stan Roberts, recipient of the first Campbell Award

At the 50th anniversary Conference of the NZSA, **Stan Roberts** was awarded the inaugural Campbell Award for his service to statistics in New Zealand. There could be no more suitable recipient.



Sharleen Forbes and Stan Roberts

Stan joined the Applied Mathematics Laboratory of the DSIR in 1951, a mere two years after it had been established as a centre for research and

applications covering both the physics side of applied mathematics and the statistics side. The earlier Biometrics Section of the DSIR (1946-49) focused solely on Statistics.

For the next thirty years until his retirement Stan was to channel his energies into what we would call today sensible data analysis. At the outset this was analysing designed experiments such as field trials on agricultural crops. Stan was quick to see however that merely analysing numbers passed to him by agricultural scientists was not good enough. There was work to be done in the field itself before the trial was laid down and a need for understanding of data gathering and handling. Thus he established a pattern of being hands-on in his role as statistician and making sure that he was part of the team doing the experiment, not just a post-end processor.

With his characteristic enthusiasm driven by insight, Stan was quick to see opportunities to broaden the use of statistical principles far beyond agriculture. He got involved in projects on ceramics, coal and concrete to name but three. He also saw a need for organizations such as the Consumer's Institute to use statistical methods in some of their testing and was able to build up a good rapport with them before the days of user pays. One particular non-traditional area where Stan made a lasting impact was with the New Zealand Library Service. This culminated in him giving courses on the maintenance and use of good statistical information in libraries as part of the training programme for librarians.

Of course no article about Stan can be complete just talking about his contribution to his employers. At a time when the NZSA was very much in its infancy he had a passion for the importance of such an Association and did much of the behind the scenes work as secretary, treasurer and conference organiser in the early 1950s. Stan realised there needed to be more wide-spread understanding of statistics. Thus it was fitting that he was appointed as a member of an Advisory Committee for bringing statistical courses into the polytechnics and became the first examiner for elementary statistics in polytechnics. To help the students he published "Model Answers" to statistical problems for these courses.

In the early 1970s when hand-held calculators were coming onto the general market he organised a Calculator Fair for the NZSA in the St George Hotel which was repeated for a number of years. They were very popular events and even raised money for the NZSA which was ploughed back into publications. Equally importantly, the Calculator Fairs raised levels of awareness on how data analysis could be done by people anywhere and were the fore-runner of

Computer Fairs.

Stan's close involvement with the NZSA and its aims was to continue through too many elements to detail here. When he retired from Applied Mathematics Division in 1981 the NZSA awarded him their first "life membership" to recognize his contribution.

But there was more. Another of Stan's abiding passions all his life has been music. He learnt his music as a boy in the Salvation Army, playing trombone, continuing his playing in Army and Air-Force bands during World War II. In later years he learned to play the viola and played in the Wellington Chamber Orchestra for many years. He also had a good tenor voice and was a strong sight-reader, so, always a starter, he formed a madrigal group from his fellow applied mathematicians. This group met in Stan's office every Monday and sang lustily with no more musical aid than a tuning fork. Stan produced mountains of suitable music which he kept carefully catalogued in one of his grey filing cabinets. When I joined the Applied Mathematics Division in 1962 I was immediately asked what part I sang (not if I sang!), and, the day being a Monday, invited to the lunch-time sing-in. When Stan retired I took over the maintenance of this tradition and I am glad to say it lasted, as Musica Statistica, right to the very end of AMD in 1992.

Of course retirement for Stan did not mean stopping work. After leaving AMD he went back to secondary-school teaching, his first career. As a teacher he provided very valuable practical insight into the relevance of mathematics in the real world and particularly what statistics, a relatively new school subject at the time, was really about.

Another life-long interest of his has been in history. Aware that history depends on some-one maintaining relevant information (data!), Stan has always kept notes on events in his numerous filing cabinets. These, a good memory, his numerous contacts and other sources have provided the basis for his upcoming book "A History of Statistics in New Zealand" soon to be published by the NZSA. Well-done Stan. You are indeed a most fitting recipient for the first Campbell Award.

Jean Thompson

## From the Education Committee

The sixth conference of the NZ Association of Maths Teachers was held in Dunedin recently. It included the first ever statistical address at an NZAMT Conference. Dr Jane Watson, University of Tasmania, was sponsored by NZSA and spoke about "Statistical Literacy for the Next Century". Jane's address appeared to be very well received by the four hundred plus maths teachers.

Since statistics is a strand of maths throughout the NZ School Curriculum, all maths school teachers are in fact statistics teachers as well.

Jane also contributed two workshops on statistics education, and spoke at the NZSA conference.

A task for the committee is to arrange a similar statistics speaker for NZAMT 7, "2001: A Maths Odyssey", in Wellington.

Another task for the committee is to assess and respond to the way the statistics strand of maths is faring in the Achievement 2001 Project. This involves a translation of the Maths curriculum for what you could call Forms 5, 6 and 7 into about eight "achievement standards" per subject, and decisions on whether these standards will be assessed internally or externally (ie. by exam).

Information is available from geoff.gibbs or linde.glogau orbronwyn.stuart, all@minedu.govt.nz, or www.minedu.govt.nz/schools/quals/ncea.html.

Mike Camden: ex-convenor.

## Obituary: Ian Dick

Ian Dick, an applied mathematician who died in Auckland on July 28 at the age of 81, was a remarkable man who had a very large impact on the quality of science in New Zealand. Immediately post-war there were a number of visionaries who recognised that science was important to New



Zealand and that especially experimental science would benefit enormously from the involvement of applied mathematics. So it was that in 1946 the Biometrics Section of the DSIR was established with Ian at the helm. In extremely stringent times Ian was innovative in ensuring he had the best people and at least adequate facilities for them to start to tackle the problems that could be seen in all directions. To get the required output, Ian's philosophy was to get the very best people and support them as much as he could. It worked.

In 1949 the DSIR Council asked Ian to take charge of all geothermal investigations in New Zealand. This meant the work of the Biometrics Section had to be widened to include a mathematical physics group and so the name was changed to the Applied Mathematics Laboratory, still with Ian at the helm. Further information about these beginnings, including a report of a taped interview with Ian will be included in *A History of Statistics in New Zealand* by H S Roberts, due to be published by the New Zealand Statistical Association later this year.

The Applied Mathematics Laboratory was to become the Applied Mathematics Division of the DSIR in 1964 which, until its closure in 1992, carried at its core Ian's ideas about how good science works. Ian was to go on to greater things, but he never forgot his early links with the founding applied mathematicians of New Zealand and their contributions to New Zealand science. Until his death he stayed a champion of innovative and co-operative science being allowed to flourish in an atmosphere of trust and support.

Jean Thompson

### **Editor's Bit**

Wow, the four months between newsletters certainly



rolls around quickly. This time I tried to get the jump on PageMaker by reading the manual first, but alas, that only revealed that I was (more or less) already using it correctly and shouldn't expect greater things from it.

Thanks to all those who contributed to this newsletter. Lisa Jones wrote a Slice of

Statistics for us and Jean Thompson willingly provided two vital articles for this issue.

The Local Scene is very extensive this issue. (Thanks contributors.) No word yet from UVic statisticians who may still be recovering from the hard work put into hosting the 50th Anniversary NZSA conference in July. There are a handful of photos from the conference to be found splattered around these pages.



Tony Aldridge, Tim Ball, Jean Thompson and Robert Davies at the 50th Anniversary NZSA conference at Victoria University.

It must be just a coincidence, but the NZSA Newsletter is also having its 50th Anniversary, this being the 50th issue. I'll have to celebrate by having a beer tonight!

Russell Millar

## The humorous side

There is a group of five statisticians on a train. At the next stop, five epidemiologists get on. They all seem to know each other and start chatting. It transpires that each of the epidemiologists has bought a ticket, but the statisticians have only bought one between the five of them. "Why did you do that?" asks one of the epidemiologists. "Surely you're going to get caught and thrown off the train". "Just wait and see!", smiles one of the statisticians.

As the ticket inspector is approaching to check everyone's tickets, the statisticians all go off to the nearest toilet-the inspector passes the epidemiologists and inspects all their tickets then moves on and notices that the toilet is locked. "Tickets please!" shouts the inspector. One of the statisticians pushes their ticket under the toilet door, which the inspector checks and returns under the door. Once the inspector has gone, all the statisticians return to their seats to the awe and amazement of the epidemiologists. "That's incredibly clever!" says one of the epidemiologists.

A few weeks later they all find themselves on the same train again. They sit together and start chatting once more. "We've done what you suggested", says one of the epidemiologists, "and just bought one ticket between the five of us!". "Oh really", says one of the statisticians, "we haven't bought ANY tickets this time!". The epidemiologists look at each other in amazement. "OK, one ticket between you is fine but not buying any at all is ludicrous!"

As the ticket inspector approaches the epidemiologists hurry off to the toilet. Once they're inside the statisticians follow them. "Tickets please!" shouts one of the statisticians. The ticket appears under the door and they take it away and all bundle into a different toilet. The inspector gets to the toilet with the epidemiologists in it. "Tickets please!" he shouts. No reply. "Tickets please!". The epidemiologists admit defeat and come out of the toilet only to be thown off at the next station.

**The moral of this story:** Epidemiologists should not attempt to use statistical methods without fully understanding the theory behind them.

#### **NZSA** crew list

President: David Scott
Secretary: Arden Miller
Treasurer: Philippa Graham
Corporate Rep: James Reilly
Membership: Harold Henderson
A&NZ J. Stat editor: Murray Jorgensen
Newsletter editor: Russell Millar

**Committee:** Jeff Hunter, Jennifer Brown,

David Harte, Rod Ball, Judi McWhirter, Mike Doherty

#### Sub-committee convenors:

Education: vacant
SAPQC: Steve Haslett
Publications: Denny Meyer
Science Fairs: Jenny Mason
Standards: Jeff Hunter
Young Statisticians: Jonathan Briggs



David Scott and Alan Agresti at the NZSA annual conference

## International Association of Survey Statisticians

If you thought working as a sample designer on surveys meant you were virtually alone in this world, think again! Most countries have statisticians working on survey design issues. The International Association of Survey Statisticians is a way of building links with many foreign sample designers and to be written in the IASS Membership Directory is a good way to start building those contacts.

Membership also means you will get the 4-monthly ISI newsletter, which keeps you informed of statistical conferences around the world and other activities of the ISI/IASS and IAOS. It enables you to get cheaper registration to some conferences, and a cheap deal for subscription to Survey Methodology (probably the leading journal for sample designers of official surveys).

The IASS Secretariat is just updating the biennial membership directory before printing it - the deadline was June 17th 1999. However, if you missed this date

you can still join (and will be on their electronic membership list).

If you wish to join, please inform Claude Olivier at the secretariat:

claude.olivier@insee.fr Fax: +33 5 57 55 56 20

Fee:130 FF (French Francs, about \$60 NZ dollars)
Contact Robert\_Templeton@stats.govt.nz for further details

#### Women in Statistics

The ISI Committee on Women in Statistics was set up in 1995 upon the realization that women were poorly represented in the ranks of the ISI family. As this low representation tends to reflect women's overall role in the profession, the committee has been concerned with the wider picture as well. Among the recent activities:

Our survey-type "characterizations" project has been running for well over a year. In this project, volunteer teams were set up locally in about 50 countries in order to arrive at relative characterizations of men and women statisticians, using a set of welldefined variables. A general report on the project, entitled "A Characterization of Statisticians by Gender in Several Countries", is currently in preparation and will be presented and discussed at an open meeting of the committee during the 52nd Session of the ISI in Helsinki in August. Copies of the report will be available at the meeting and by mail. Interested individuals can address their inquiries to the head of the coordinating team, committee member Ms Lelia Boeri de Cervetto, by e-mail at:notas@indec.mecon.ar, or by regular mail at: Santa Fe 4452 7B0 67, 1425 Buenos Aires, Argentina. The project has been running under the sponsorship of Argentina's Instituto Nacional de Estadistica y Censos (INDEC).

Four prominent statisticians were panelists at a meeting on The Role of Women in Statistics organized by the committee at an international conference in Mexico in September 1998. Summaries of the four presentations are posted on the committee's web site, whose URL is given below, and the full texts are included in a monograph prepared by committee member Beverley Carlson and entitled "Women in Statistics: the Profession Speaks". The monograph, which also contains related material, is being published by the UN Economic Commission for Latin America and the Caribbean (ECLAC). Copies are available upon request. Please address your request to Ms Beverley Carlson, either by e-mail at: bcarlson@eclac.cl, or by regular mail at: Division of

Production, Productivity and Management, ECLAC, Box 179D, Santiago, Chile.

The Role of Women in Statistics in the New Millennium will be the topic of an Invited Paper meeting at the 52nd Session of the ISI in Helsinki in August. One of the papers, which gives a historical perspective, is jointly authored by Susan Wilson of the Australian National University and Lynne Billard of the University of Georgia. In the other paper, Dennis Trewin of the Australian Bureau of Statistics will address the question of increasing women's participation in Statistics, the barriers that exist and how to overcome them. The discussants will be: Barbara Bailar of the University of Chicago, Ivan Fellegi of Statistics Canada, and Pilar Martin-Guzman of the Statistical Office of Spain.

The committee has assisted in facilitating the attendance of some women statisticians from developing countries at short courses offered in conjunction with the ISI 52nd Session in Helsinki. Efforts to seek funding for similar opportunities in the future will continue.

Within the ISI, the committee has nominated women to membership in several committees and supported the election of several qualified women to ISI membership. Women are also encouraged to join one of the five Sections of the ISI: Bernoulli Society, the International Associations of Survey Sampling, of Official Statistics, Statistical Computing, and Statistical Education.

The committee maintains a web site (http://sun.cwru.edu/isi) which is updated periodically and which carries details of its activities as well as reports about the activities of other groups or individuals that come to our notice. We welcome both letters and email messages. Please contact:-

Mary H. Regier, Chair, ISI Committee on Women in Statistics Statistics Department, Case Western Reserve University, Cleveland, Ohio 44106, USA. Email:mhr@po.cwru.edu; Fax: 216-368-0252.

## **Local Scene**

## Massey University, Albany

Statisticians at Massey Uni, Albany, have been working full on.

Paul Bracewell presented some of his masters work at the Stats conference in Wellington. His work involves investigating the performance of Cricket Bowlers using statistical methods. In Cricket several performance variables are used to describe a bowlers performance. His paper used the already accepted cricket statistics, Strike Rate and Economy Rate, to develop a pair of independent indices that consider an individuals contribution to the team. The statistical properties of these indices are assessed at an individual level. Finally, the indices are used in conjunction with quality control tools and ranking for the purpose of monitoring and selection of an individual.



Massey Students (L to R): Rachel Miller, Jonathan Godfrey, Michelle Gosse, Paul Bracewell and Judi Scheffer

Barry McDonald and Patsy Watson (IFNHH, project leader) have completed their report to the Ministry of Health on Nutrition During Pregnancy. The report has been accepted and will be published by the MOH. The report covers demographics of the 504 women volunteers, their economic and social background, nutrient intake, use of dietary supplements, blood biochemistry, health and wellbeing, activity levels, and alcohol intake and smoking. A follow-on study funded by the Health Research Council is now in progress, looking at the effect of these factors on the infants at birth and 12 months. They are also part of a team (including other researchers from Massey, the University of Auckland, and AIT) that was recently awarded a grant to conduct a pilot study of nutrition in school children.

Earlier in the year, Paul Cowpertwait was a visiting researcher to the Water Resources Section of Newcastle University (UK). There he spent time working on software for simulating rainfall data. The software is currently being used for urban drainage studies throughout the UK, and also for climate change studies.

Paul Cowpertwait

## **Lincoln University**

Writing this hasn't been easy. It's hard to catch up with people when they and you keep hopping about all over the place.

I saw Richard Sedcole briefly on his return from Europe, in between my trips away to the NZSA conference and to Malaysia. Richard's been away for a month looking at organs (the sort you play) in the UK, Germany and Switzerland. On a more statistical note, he and co-supervisor Don Kularsiri have just successfully guided Peter Johnson through to a Master of Applied Science degree with first class honours. Peter has since left us to join the suits in Wellington. He now works at Telecom under the eagle eye of Sarah Crighton.

After an epic 'Heart of Darkness' search, I finally tracked Chris Frampton down to a small Indian restaurant in Serdang, near Kuala Lumpur. He'd gone native and was eating chicken rendang off a banana leaf. Over a glass of something close to sago and split peas in coconut milk, he told me his story. He'd been to a New Zealand Ecological Society conference in Blenheim. Given a paper on monitoring tussock grasslands. Then two weeks in Malaysia teaching an honours paper, with only a weekend's rest and recreation leave in Singapore. He looked a broken man. Before he left, we made plans to organise a soccer match between our respective classes when we next return to Malaysia in August.

As I write this on the plane, the sun crawls out of the sea to light up Australia below. I just wish I could sleep. The heat and humidity leave me exhausted each day and after a week I've completely lost it. I fly in Saturday, teach a third of my paper in a week, and then fly home again. The students are very motivated and that makes it fun. In groups of three to five, they have to run a small survey on any topic they like. This gives me fascinating insights into Malaysian culture, from attitudes to sex education and censorship to where they make the best nasi lemak in Serdang.

Jim Young

## **University of Otago**

David Fletcher recently ran a workshop for maths teachers on Statistics in Conservation Biology, as part of the New Zealand Association of Maths Teachers conference held in Dunedin at the end of June. This provided an introduction to two projects on Hooker's sea lions: one on fisheries bycatch and one on mark-recapture to estimate abundance of pups. Both involved simulation, first using suitably illustrated cards, and then with an Excel spreadsheet. The teachers involved showed considerable thirst for this kind of resource, especially as some of the issues arising are topical and controversial. The classroom session was followed by a visit to the local Royal Albatross Centre at Taiaroa Head. Great fun was had by all.

Richard Barker found time during the between-

semesters break to take a quick trip to Hungary. Besides enjoying some fine Hungarian wines, warm weather and bird-watching he also attended the 2nd International Wildlife Management Congress, helping run a workshop on using the computer program MARK to analyse mark-recapture data. [Note from me - I believe the 'birds' in that area are quite stunning!]

Ken Dodds attended the Association for the Advancement of Animal Breeding and Genetics conference in Mandurah, WA in July.

Irene Goodwin

## Univ of Otago, Med School

There have been a few changes in the Department of Preventive and Social Medicine recently. Jonathan Alsop has completed his PhD, and departed to experience the fine life in France, with a job in Geneva initially. His position in the Injury Prevention Research Unit has been filled by Shaun Stephenson, a recent graduate from the statistics department. Our second new arrival is Joanne McKenzie, who has come from the Life in New Zealand project to join the Health Research Council statistics team. This department has benefited greatly from Gary Zerbe's visit to the statistics department. Sheila Williams has been working with him on relationships between growth curves using random effects models, and John Kittelson will visit him in Colorado while over for the Joint Statistical Meetings in Baltimore in August. Peter Herbison is also heading off for sunnier climes in August, with a trip to Denver for a meeting of the Cochrane Collaboration incontinence group.Before they head away, Peter and Sheila will be speaking at the Australasian Epidemiological Association conference in Wellington on recent statistical methods in epidemiology.

Katrina Sharples

#### Statistics New Zealand

#### Wellington

Frances Krsinich has had a baby girl, Kata, who has started on the road to statistics by visiting a couple of times already. Recent departures are Vic Duoba (Dept of Labour), Pradeep Silva (State Insurance) and Alister Wilson (OE), but these were balanced by the arrivals of Theva Thevathasan, Valeria Kazakova and Soon Song. We've also been visiting various universities in NZ speaking to students, and providing details on how to apply to join SMASH.

Soon to leave for two years at the Australian Bureau of Statistics is Mathew Cronin. We're tempted to provide a hat with corks attached to protect him from the omnipresent flies, but perhaps a course in Strine would be more useful. Absent for four months at WestStat in Washington D.C. is Steve Johnston. He's there to get some insight into the way WestStat does surveys for the American government, plus the latest on estimation from complex survey data. And Sharleen Forbes still toils away on her PhD in the wilds of Perth.

Other travellers are Len Cook, John Cornish and Robert Templeton, who have been to the International Statistics Institute conference in Helsinki. John also went to Norway and France as well, whilst Robert has gone to another conference, this one on small domain estimation, in Latvia. Not sure where Len went to after Helsinki.

Recently published are two SNZ Research Reports, #5 *Standardisation* and #6 *Exploring the Gap* which can obtained by contacting any SNZ office or me. They are all going to end up on the SNZ Web page.

A large contingent from Wellington attended the NZSA conference. Six presented papers, with Len doing the official opening. Geoff Kuzmicich and Max Wigbout went to Alan Agresti's tutorial in Hamilton and found it very interesting and challenging.

#### Christchurch

Kaylene Murdoch had a baby boy, Rewi, and he too has had his first statistical experience, sitting in on Christine Bycroft's seminar "Imputation for the 2001 Census". A recent arrival has been Allyson Seyb fresh from completion of her MSc at Otago. I didn't mention in my last note from SNZ that Gary Dunnet, the previous treasurer of the NZSA, has departed for a couple of years working at the Irish statistical office (thank you Gary for reminding me). The current treasurer, Philippa Graham, is soon to return from a seven week holiday in Great Britain. We've had a postcard in which she commented she had successfully fought the desire to think about work.

Four of us from Christchurch went to the NZSA conference, with three papers being presented. Pat Coope went to Alan Agresti's tutorial in Hamilton, and is working with her colleagues in Wellington on presenting the bits applicable to SNZ to the rest of us. In addition to the seminar mentioned above we have had Allyson talking on "Bootstrap Tests of Equality of Variances", and Richard Penny with a series on various aspects of editing and imputation.

Richard Penny

## **University Of Waikato**

The Department of Statistics and The Waikato Centre for Applied Statistics recently hosted a one-day workshop on Categorical Data Analysis, given by Professor Alan Agresti, from the University of Florida. Approximately 80 people attended the workshop. The workshop was held immediately following the NZSA 50th Anniversary Conference in Wellington. Murray Jorgensen (recently back from sabbatical), Judi McWhirter and I-Ming Liu, Harold henderson and Neil Cox attended the NZSA conference.



Alan Agresti, Russell Millar, and I-Ming Liu at the categorical data analysis workshop

Lyn Hunt recently attended the Classification Society of North America Conference at the University of Pittsburgh in Pennsylvania and Sharon Gunn presented a paper at MERGA 22 at the University of Adelaide.

Nye John is on sabbatical and is currently overseas, and will attend the 8th International Workshop on Matrices & Statistics, being held at the University of Tampere, Finland. Later in August, David Whitaker will be attending the First International Symposium of Industrial Statistics in Sweden.

The department is also looking forward to the arrival of James Curran, who is due to take up his position as Lecturer, commencing 1 September.

Congratulations go to Samuel Manda, who has successfully defended his PhD thesis entitled, "A Nested Random Effects Model Analysis of Child Survival in Malawi". He is currently working on a short-term contract as a Biostatistician at the Cardiovascular Research Unit of Auckland Healthcare and is looking to obtain a post-doctoral fellowship. We wish him well in the future.

#### RECENT 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."

Simo Puntanen (University of Tampere, Finland) "Some properties of a partitioned linear model."

Doug Stirling (Massey University) "Java, Web Browsers and the Teaching of Statistics."

Nye John (University of Waikato) "Recursive formulae for the average efficiency factor."

Alastair Scott (University of Auckland) "Analyzing data from complex sample surveys by repeated subsampling." Matthew Dalgety (BCMS(Hons) Student, University of Waikato) "Establishing a most probable range using existing Most Probable Number estimation techniques."

Judi McWhirter

## **University of Canterbury**

This year there was a large number of Canterbury staff and postgraduate students attending the New Zealand Statistics Conference, Wellington. These were Easaw Chacko, Marco Reale, Julian Visch, Kirsten Harrild, Andy McKenzie, James O'Malley, James McGowan and Taweesak Siripornpibul. The last five postgraduates gave presentations.

The Cantabrian group (UC) arrived on the Sunday night, so conveniently avoiding the airline strike on Monday. The postgrads nominated Kirsten as being their leader, as she knew her way around, while the rest didn't! Marco showed the rest of the party up at the dinner by his flash tuxedo. A number mingled a bit and got to know better those in the statistical community- surprised by how many come from the Canterbury region.

Parallel sessions allowed coverage for participants with a variety of interests. Socialising happened over morning and afternoon teas and lunches (in the writer's younger days it was over red vino - but that was in Oz!). Shall test this observation when we, here at Canterbury, do our darndest and host the NZ statistics conference 2000! The new millennium means a new tux, Marco! Actually for Marco and Brunella Reale, 2000 means a new addition to their family - congratulations!

As a result of the conference we hope to include various statistical software packages onto our department's network - such as R (a clone to S+). The conference was felt by all to be rewarding.

In July Jennifer Brown returned after 1 month's Erskine leave. She was invited to a conference called

"The applications of mathematics to the sciences of nature: critical moments and aspects" held in Arcidosso, Italy. The conference was held in a castle in a small Tuscan hill town with plenty of good Italian wine and food. She also attended the Italian Biometrics Conference in Rome, and visited various statisticians. We seem to have a recurring Italian theme here! On 10-11th June Jennifer jointly presented with Brian Manly (Otago) material for a successful, 2 day Environmental Statistics Workshop at Canterbury (see below.)

In July, Mike Steel won the NZ Mathematical Society's premier research award for "his fundamental contributions to the mathematical understanding of phylogeny, demonstrating a capacity for hard creative work in combinatorics and statistics and an excellent understanding of the biological implications of his results" (UC Chronicle article 22/ 7/99) - well deserved! In July Irene was offered an Adjunct Fellow's post with the University of Melbourne; part of an Australian and NZ push for adjunct and cross-institutional collaboration. Irene continues collaborative work with Melbourne and has formalised research links with the Forest Research Institute (FRI) Rotorua. Any budding stats-forestry postgraduates out there are welcome to ask the author about projects, themes and monies!

Easaw and Marco recently attended an econometric time-series conference in Auckland. Marco chaired a session on methods which cover applications in econometrics, engineering and dendroclimatology. Recently Irene and Marco have been successful in being awarded 2 joint UC research grants to pursue structural and/or spatial methods with particular application to economics and spatial temporal methods for wood anatomy. We are keen to talk to potential students, interested in these areas and also health.

Health studies and a health presence will be evident at the University of Canterbury; with formalised courses in across-institution collaboration in 2000-2001. Talking health - in early 1999, Irene took up the post of Chair-person of a health related Research Centre named CHCTnz - Christchurch Centre for Health Care Technology, NZ. We are currently fathoming SPO's, portfolios etc! The CHCTnz Research Centre is a multi-disciplinary, multi-institutional collaboration of researchers with interests in Health Care technology in NZ. Centre has a role in supervising postgraduate students working in applications of physics, engineering, mathematics and/or statistics in health. Members of the CHCTnz committee committime to the promotion of the Research Centre as well as undertaking relevant

research, student supervision and research publications. CHCTnz is keen to dialogue with potential students - particularly in modelling disease states, psychometrics and continuous stochastic monitoring (eg. SIDS).

We have 13 research Centres at UC. Mike Steel chairs the Biomathematics Research Centre (BRC); a sub-list of members are Malcolm Faddy, Irene Hudson, and Jennifer Brown (Stats, UC), Graeme Wake & David Wall (Applied Maths, UC) and Charles Semple (BRC).

On 23-25 September 1999, Malcolm Faddy, Irene Hudson (Stats, UC); Rayner Winkelman (Econometrics, UC) and Graeme Wake (Applied Maths, UC) all present research papers at the forthcoming Christchurch workshop. This is a collaborative effort by Malcolm Faddy-joining forces of the Universities of Canterbury, Queensland, Hiroshima and Wellington in the first Western Pacific and third Australia-Japan Workshop on stochastic models. It is anticipated that papers, post refereeing, will appear in a special issue of Mathematical and Computer modelling. The Parkroyal Hotel is the venue, located in Christchurch's Centre and Court Theatre.

Irene Hudson

Last month a two-day workshop on environmental statistics was held at University of Canterbury, presented by Jennifer Brown (Canterbury) and Bryan Manly (Otago). The workshop attracted over 40 people, and there is a growing waiting list for a repeat performance. Most of the participants were from Regional and District Councils and private consultant companies. Topics covered included how to design an environmental monitoring programme, how to analysis monitoring data and detection of trends and change points. From the feedback from the workshop, discussion on environmental monitoring is very timely given councils responsibilities for monitoring under the Resource Management Act.

Jennifer Brown

## **University of Auckland**

### Arrivals and departures

Several recent and pending arrivals in the department: Jolie Hutchinson is working with Chris Wild as a research assistant, Emily Woodson (from Arkansas, USA) has begun PhD studies in our department, Dr Mark Rizzardi from Humbolt State University is here for a year-long appointment as a temporary lecturer,

teaching 2nd year statistical theory with Renate. Dr Henri Moolman of the University of Zululand is teaching a graduate level time series class. Dr Marl van der Laan from the Berkeley biostatistics department will visit for six weeks beginning October. Professors Don McLeish and Cyntha Struthers from Waterloo will arrive in September for a 2-semester sabbatical. Don will teach a masters course for us in 2000. James Curran is teaching graduate level statistical computing for us before heading down SH1 next month to take up his appointment at Waikato.

Simo Putanen left us on Tuesday 29th June, after a visit punctuated by wild hilarity (he has since been visited in Helsinki by Alan and Alastair who inform us that Simo is even crazier at home). Ilze left us for a one-semester sabbatical on July 2. John Pemberton left us in June after almost 25 years of providing technical support for the School of Math and Info Science.

#### Other stuff

We enjoyed a recruiting visit from Jonathan Briggs (Stats NZ) last month. He visited some 3rd year classes to tell of the rewards and training of a career at Stats NZ. (He neglected to mention training in covert operations, giving him the ability to slink back into the lecture room to retrieve his briefcase - entirely unnoticed by me, which was to the great amusement of 100 students - Ed)

Sixteen members of the department enjoyed Alan Agresti's categorical data workshop at Waikato in July.

We have made offers of two lecturing positions and are keeping our fingers crossed that they will be accepted.

APEC looms large on the horizon and is the reason that our mid-semester break has been delayed by one week. This puts the departure day of the delegates, Monday 13 Sept, in the second week of the break.

Russell Millar

#### Deadline for next Issue

All submissions for the next *Newsletter* to Russell Millar by 30 November please.

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