



The New Zealand Statistical Association Newsletter

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Welcomes

- [Welcome from the President](#)
- [Editorial](#)

Obituaries

- [Tim Holt](#)

Conferences

- [Australasian Applied Statistics Conference 2022](#)
- [UnConference Report: Perspectives of an NZSA veteran](#)
- [UnConference report: Perspectives of a PhD student](#)
- [Statistical Society of Australia and NZSA Early Career and Student Events](#)
- [Save the date: NZSA Conference 2023](#)

Stories of Interest

- [NZSA Awards](#)
- [NZSA UnConference Student Prizes](#)
- [Meet the NZSA Executive](#)

Updates

- [NZSA Mentoring Program](#)
- [SECS Network](#)
- [R Users' Groups](#)

Statistics Education Teams

- [Statistics Education News](#)
- [NZSA Education Committee](#)

Local News

Statistics at:

- [AgResearch](#)
 - [Luma Analytics](#)
 - [Fonterra](#)
 - [Nicholson Consulting](#)
 - [Plant & Food Research](#)
 - [Foodstuffs](#)
 - [Department of Statistics, University of Auckland](#)
 - [University of Otago, The Biostatistics Centre](#)
 - [Te Papa Atawhai, Department of Conservation](#)
-

President's Welcome

by BEATRIX JONES



Kia ora koutou,

I am delighted to be your new NZSA president! I've written a little bit about myself in the "Meet the NZSA exec" section, but here let me relay my thanks

to past president Matt Parry, both for his stellar work during his term in office and his efforts to ensure a smooth transition.

I've just come from the first meeting of the year for the NZSA exec committee, and it was really energising to hear about all the good work going on in the NZSA. I would like to highlight the mentoring programme headed by Lisa Thomasen, which has just completed a successful first year. As well as putting on the inaugural programme, like a good quality control engineer Lisa has put a lot of work in to gathering information about mentors' and mentees' experiences, so 2023's programme can be even better. Check out her section of the newsletter to find out more.

Our statistics education committee is also in great form, staying on top of the proposed changes to the school curriculum and NCEA standards (again, you can read more about it later in this newsletter). I enjoyed hearing Rob Gould from UCLA speak on K-12 statistics education during his visit to the University of Auckland earlier this month; he emphasized how fortunate we are to have statistics in our national curriculum (it is just now sneaking into many US state curricula as "Data Science"), and how key professional development for teachers is if this material is to be delivered effectively. We can be proud that the

NZSA have had a national impact in this area.

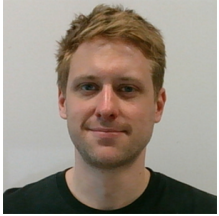
It was great to see so many of you at the NZSA UnConference, including some fantastic scientific talks and some excellent efforts to embody the "terrible tartan" theme at the conference dinner. We even got to hear a little about the chicken empire overseen by our newsletter editor Ben Stevenson. The conference dinner was also the occasion of my first (very enjoyable) duty as NZSA president: to present the NZSA awards to Matt Edwards (Worsley Early Career Award), Ting Wang (Littlejohn Research Award), Ian Westbrooke (the inaugural Jean Thompson Award for excellence in the application of statistics in New Zealand industry), and Len Cook (Campbell Award). Congratulations to all the winners—you can read their citations later in this newsletter, and also read about our student award winners. Thanks to Matt Schofield, the outgoing awards convenor, for chairing the awards committee over the past few years.

There was also some energetic discussion at our AGM, particularly around our "corporate membership" category. In the coming year we will be looking to update this type of membership to better partner with non-academic organizations that employ a lot of statisticians. It's clear there are many active members of NZSA that work for these organizations—you can read about many of them in the "Local News" section of this newsletter. Save the dates 4-6 December for another catch-up with your colleagues at the 2023 conference.

Until next time, Beatrix

Editorial

by BEN STEVENSON



Kia ora koutou,

Happy new year, and welcome to our first issue of 2023. I hope you all had a wonderful break over the summer holidays, and that nobody was too badly affected by the chaotic weather.

The NZSA had a busy time in December. We held the 2022 NZSA UnConference in Auckland, and Beatrix Jones was elected as our new president at the AGM. I am sure you will join me in thanking Matt Parry for his years of service to our association, and I bet he welcomes the break! If you are interested in getting to know Beatrix a little better, then keep on reading: she features in our “Meet the Executive” column in this issue. She has already mentioned my beloved flock of chickens in her President’s Welcome for this newsletter issue, so I am a big fan already.

As the NZSA enters a new chapter under new leadership, you might be interested in taking a look back at the history of our association. Did you know that an archive of our newsletter issues is available online at <https://www.stats.org.nz/newsletter/>? We have records extending all the way back to the very first issue, published in 1984. I discovered this treasure trove while writing my first editorial. I wasn’t quite sure what I ought to say. My first instinct was to Google “How to write an editorial”, which didn’t turn out to be very useful. Reading the words of past editors was a lot more helpful, and I found myself procrastinating away about half a day catching up on news from decades past. I was a little disappointed that a number of issues were missing from the archive. However, shortly after our last issue was published, NZSA member Associate Professor Alice Richardson at Australian National University messaged me to say that she

had discovered a stack of old newsletters while she was moving offices, and kindly offered to scan those missing from our archive. Now we were only a single issue away from having a complete set: Issue 19, published in 1988. My first draft of this editorial called for NZSA veterans to search through their paperwork to see if they could find a copy. I am thrilled to report that Harold Henderson unearthed the elusive issue from his own archives after proofreading this newsletter, so our collection is now complete!

Much of the space in this issue is dedicated to reporting on the events of our UnConference. Although I have attended my fair share of conventional NZSA conferences, this was my very first “UnConference”. For me, it was a real breath of fresh air, as it was the first in-person conference I have attended in quite some time. A big thanks to the local organising committee, and I am already looking forward to our next meeting—provisional dates are announced in this very newsletter.

I spent the UnConference hunting out new regular contributors for this newsletter; there are a number of institutions that previously featured in our local news section, but no longer have an active newsletter correspondent. Although I was unsuccessful in finding replacements from these institutions, I did recruit a correspondent from a new workplace: a warm welcome to Luma Analytics to our regular Local News section.

If you’d like to become a regular contributor for news related to your workplace, or if you just have a one-off news item you’d like to include, please do feel free to get in touch at newsletter@stats.org.nz.

Hei konā mai,

Ben

Obituaries

Personal reflections on Tim Holt, Professor of Statistics and UK Chief Statistician

by LEN COOK



It was 1981 that I met Tim, while Professor of Statistics at Southampton, when he visited Statistics New Zealand for about three weeks while he was on a longer visit to Alistair Scott at the University of Auckland. It was an inspirational visit for us, for several reasons. The first ever paper that I gave to a statistics conference was on the application of the Fellegi-Holt method of imputation to the New Zealand population census, making this visit a personal bonus. Tim was extraordinarily wise about official statistics and how methodological practices were being challenged in many areas, in survey design and quality assurance data analysis in particular. Being in a relatively new methodology group, about ten years old, it was exciting for us Kiwis

to learn of the place of methodology in Statistics Canada from Tim, and comparisons with the very devolved UK system. We were not strong enough to reciprocate with our statistical expertise, but we certainly always had someone joining Tim on his regular daily run around Wellington. I remember even when later in other countries, if at a conference it was not unusual for Tim to take off in his running gear.

In my visits to the UK and Europe during the next two decades, I invariably visited Tim and Jill in Southampton, often also enjoying the company of Tim's near neighbours Fred and Ruth Smith. Most other contact was at international statistical conferences after Tim became Director of the Office for National Statistics, where Tim's insightfulness not only on methodological matters but on constitutional dimensions of official

statistics often added interest and insights on such critical matters. I was fortunate to have Tim push me into applying for the job he was retiring from, and was lucky not only to be appointed, but to have the benefit of Tim's generosity in supporting me when that was inevitably necessary. Shirley and I enjoyed a good number of visits down to the New Forest, and the inevitable welcome from Jill and Tim. I doubt that I was the only one whom Jill kindly tolerated for shifting the conversation from social or national issues to some methodological or statistical matters, when seeking advice or solace about these from Tim.

When Shirley and I returned to New Zealand, I continued to visit Tim and Jill when in the UK, the last time was in 2018. Tim was then engaged in the justice sector. Dennis Trewin and I had occasional zoom calls with Tim after Jill

died. This very special man, with the support of his caring family, played a leading role in official statistics for half a century, in the United Kingdom, Canada, the Antipodes and Europe. His contributions will benefit future generations of statisticians. It has been a tremendous privilege to have belonged to those generations who got to know Tim not only from his written work, but through the kindness of him and his family, and through his acquaintance, and getting to know those who held him in the greatest regard professionally and as a colleague. His partnership over several decades with Fred Smith, Alistair Scott, John Rao and Gad Nathan led to some of the most significant developments in survey methodology since 1945. We can only grieve with Tim and Jill's daughter Sarah and her family, as we learn of Tim's death that has been so soon after the death of Jill and then their son Dickon.

Conferences

Australasian Applied Statistics Conference 2022

by VANESSA CAVE



The Australasian Applied Statistics Conference (**AASC2022**) was held at the beautiful RACV Inverloch Resort in Victoria, Australia, from November 28 to December 2, 2022. The resort, complete with an abundance of Australian wildlife, including kangaroos, echidnas, wombats and galahs, provided a fantastic backdrop to connect with fellow statisticians within the agricultural, biological, and environmental sciences. In addition, I thoroughly enjoyed the rich array of presentations showcasing the creation, implementation, and application of statistical methods to address real-world practical problems.

The main themes of AASC2022 were

- data visualisation,
- data mining,
- deep learning for prediction and forecasting,
- ASReml in practice,
- model selection for practitioners, and
- new developments in Genstat.

The organisers would like to record their immense thanks to the invited speakers and workshop presenters for exploring these topics: Patricia Menendez, Carolyn Huston, Francis Hui, Edward Cripps, Emi Tanaka, Vanessa Cave, David Baird, Emlyn Williams, and Arthur Gilmour.

And... congratulations to NZSA member, Luke Boyle, from the University of Auckland, for winning the best student presentation prize!

The slides from the conference presentations can be found on the [conference website](#).

Being one of the many events delayed and impacted by the global pandemic, organisation of AASC2022 was not without its anxious moments. In [Murray Hannah's report to the AGM](#) he writes



NZSA member, Luke Boyle, receiving the Best Student Presentation award from the Chair of the Judging Panel (and 2020 NZSA Campbell Award winner), Chris Triggs.

The Covid years, 2020–2022, have been anxious years for the conference committee. Who will come? Will it be economically viable? Can we manage Covid? While Covid is still about and causing trouble, wider society has almost returned to normal. Meeting together in person is feasible. Earlier in the year I was bracing myself for a small conference attendance, run at a big financial loss. It remains to be seen how the budget turns out, but

the attendance has by far exceeded my expectations. The problems switched from having too few to having too many with insufficient accommodation, transportation, and a programme that may be too intense in its attempt to cram in as many presentations as possible, whilst adhering to the AASC tradition of no parallel sessions.

However, despite the challenges of Covid, the 2022 event certainly delivered on this conference series' custom of attractive venues, very interesting talks, posters, and demos, rich social programmes and excellent opportunities to meet statisticians with very similar interests.

The next AASC is planned for 2024 in Western Australia. I hope to see you there!

UnConference Report: Perspectives of an NZSA veteran

by JOHN HAYWOOD



Perspectives on the 2022 NZSA UnConference—from an NZSA veteran (apparently)... Despite my advancing NZSA years, I can still remember plenty about the UnConference held on 22 and 23 November last year. Brief descriptions that all start with the letter “f” (for no good reason) include “fun”, “fabulous talks”, “free for members”, and “fantastically organised”. I happened to contract COVID-19 for the first time while I was away from Wellington at the UnConference—and that generated one or two other “f-words” too, but there I digress. Fortunately COVID didn’t affect me too badly.

2014. I know quite a bit about how much work goes into organising conferences somewhat like the UnConference—and I think we should all thank James Curran and his Auckland team (plus Vanessa Cave) for a resoundingly successful 2022 event. Last year’s UnConference was a follow-up to the first UnConference held in 2020, which was also hosted/organised by James and team—and which was also excellent!



A chat with Charlotte after her plenary.

Part of my ‘veteran’ status is reflected by the fact that I was chair of the organising committees for the NZSA Conferences in 2004, 2009 and



Some sartorial flair from James, Vanessa, and Matt, in line with the dress code: “Terrifically Terrible Tartan”.

From a 2022 attendee’s perspective, at an event that was free for all NZSA members, there was nothing to dislike. Plenty of food and time to network, a themed conference-dinner (with James and Vanessa both displaying their usual sartorial flair), plus awards to celebrate excellent student talks and the achievements of more-established NZSA members. The UnConference started in a fabulous new way too, with great plenary talks from two of the 2021 NZSA all-stars: Charlotte Jones-Todd, owner of high-fashion red band gumboots—as displayed proudly at the conference dinner along with a red and black tartan Swandri—and winner of the 2021 NZSA Worsley Award. In addition, Russell Millar—winner of the 2021 NZSA Littlejohn Award. Hopefully we can keep the idea going of plenary talks each year from some of our previous-year award winners.

There is such a great variety of statistical work done every year throughout New Zealand. A (non-random, but highly informative) sample

of presentations on some of that work was presented for us over two lively days at the 2022 UnConference. Ben, our wonderfully patient newsletter editor, caught me on day 2 while I was struggling to manage a muffin and a cup of coffee simultaneously. He suggested I might like to contribute a reflection on the conference for this issue of the newsletter. I think that the chance to get together, as we did in Auckland, is really important—and, as usual, Harold captured lots of great photos during the conference, which can be browsed [here](#).

Our association is so much more than the sum of the excellent work that our members do—it is also a supportive, friendly and affirming celebration of the importance of statistics and the insights that good statistical practices can bring. We have many ‘well known’ members and it is always a pleasure to find out what they have been up to—our annual (Un)Conferences are a great way to do that. Future events are highly recommended!

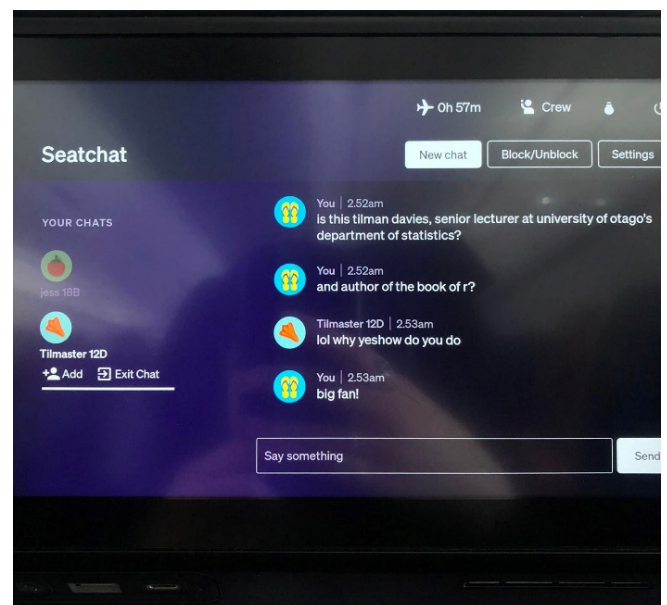
UnConference report: Perspectives of a PhD student

by ANNA REDMOND

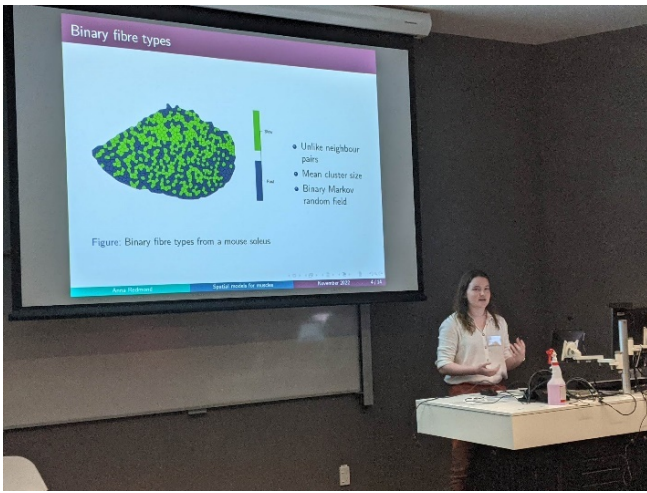
It was great to be able to attend the Unconference as one of several Otago students. The excitement started early as Lara spotted a celebrity on the plane to Auckland.

When we arrived in Auckland, we headed to the meetup for Student and Early Career Statisticians—thanks NZSA and Stats NZ for sponsoring! It was great to meet some new people studying at other universities and working around the country, and hear from the representatives from NZSA and Stats NZ.

The next two days were pretty hectic, listening to lots of talks and (stressing about then) presenting my own. One of my favourite things about statistics is that we can apply our skills to a wide range of data, and it was apparent from the range of talks that NZ statisticians are contributing to some really cool and important research.



An exciting moment: seat chat with NZ’s most famous Australian-born spatial statistician based in Otago.



The award-winning presentation!



At the prizegiving, alongside supervisors Tillman Davies (a.k.a. ‘Tillmaster 12D’) and Matthew Schofield.

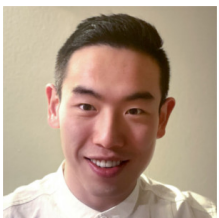
The ‘Terrifically Terrible Tartan’ conference dinner was much anticipated after the cancellation in 2021, and some people really committed to the theme. The Otago contingent were excited to celebrate Ting Wang winning the Littlejohn award. The evening was a success for me because not only did I win a highly commended award for my talk, I also got to catch up with University of Auckland celebrity, Governor Grey.



Governor Grey, the most famous resident of Old Government House, enjoying the UnConference dinner.

Statistical Society of Australia and NZSA Early Career and Student Events

by JIE KANG



The Student and Early Career Statisticians’ (SECS) Network of the NZSA and the Early Career & Student Statisticians’ Network (ECSSN) of the Statistical Society of Australia (SSA) have come together to host three online events, leading up to a conference in November.

The first event was “Meet Our Reps” on 18 August 2022. There were 30 people in attendance at this online event. Its goal was to introduce an incredible group of ECSS representatives from the SSA and the NZSA who are excited to serve this

community and assist the journey as a student and early career statistician.

The NSZA SECS representatives are

- Jie Kang, Chair (National Representative)
- Rory Ellis, Chair (National Representative)
- Devendra Oak, Auckland representative
- Louise McMillan, Wellington Representative
- Anna Redmond, Otago Representative

The SSA ECSSN representatives are

- Daniela Vasco, Chair (National Representative)
- Luca Maestrini, ACT Representative
- Yidi Yan and Kevin Wang, NSW

Representatives

- Rex Parsons, QLD Representative
- Melissa Middleton, VIC Representative
- Lucy Conran, WA Representative

The second event was a webinar presented by Dr Timothy Bilton of AgResearch, NZ, on *The Academia-Industry War: Surviving the conflict between two opposing ideals as a graduate student*. There were 73 people registered for this event.

The third event was a webinar presented by Dr Rheanna Mainzer, on *From PhD to post-doc: navigating life as an early-career researcher*. There were 63 people registered for this event.

These events led up to a joint conference in November: the SSA and NZSA ECSS Miniconference 2022, held 15–17 November, 2022. This event was a “hybrid” event that included two days of online-only presentations,

followed by one day of in-person presentations in Western Australia. The latter was also streamed online. In total, 97 People registered for the conference, with 34 of them being in person in Perth on the last day.

There was a workshop for the start of the conference run by Sama Low-Choy called *Risky Statistical Business: Asking questions upfront to bypass risks of statistical advising*. Day one also had a panel discussion with sessions and networks from the SSA. They were Sue Finch, Mark Griffin, Kylie-Ann Mallitt, Soraya McPhail, and River Paul. The keynotes throughout the conference were NZSA member Lisa Thomasen, Sama Low-Choy, James Goldie, and Keegan Smith. We also had 44 people submit abstracts for this conference.

Many thanks to the sponsors, ABS, SDAS, SSA, NZSA, Curtin University, and AMSI.

Save the date: NZSA Conference 2023

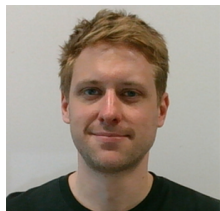
Save the date! We are finally returning to a “conventional” NZSA conference this year, with provisional dates of 4–6 December 2023. The

venue is a yet-to-be-disclosed location. Look out for further details in our next newsletter!

Stories of Interest

NZSA Awards

by BEN STEVENSON



Four New Zealand statisticians were recognised with NZSA awards at the UnConference dinner in December 2022, with winners in all four categories. The Jean Thompson Award was presented for the first time, which recognises

excellence in the application of statistics in New Zealand industry, including business, Crown Research Institutes, government agencies and departments, and the media. Award winners and their citations are listed below. A big congratulations to these recipients.

Campbell Award

The Campbell Award is the premier honour bestowed by the NZSA, and is awarded in recognition of an individual's contribution to the promotion and development of statistics in New Zealand.

Len Cook, Victoria University of Wellington

Len has a long career in public service, both in New Zealand and abroad. His roles have included Government Statistician of New Zealand, National Statistician and Director of the Office for National Statistics, United Kingdom, Registrar General for England and Wales, and Families Commissioner in New Zealand. He was elected as a Companion of the Royal Society of New Zealand in 2005, and was made a Commander of the Most Excellent Order of the British Empire (CBE) in 2005.

Len's interests include social policy, demography, statistical methodology and the application of information technology in statistical systems. He is interested in the promotion of research

methodology in public policy analysis and decision-making with past interests particularly in retirement provision and taxation policies. Len has been influential in advocating for the use of data in a wide range of policy contexts. From his days as a senior executive at Statistics New Zealand to his active contributions, he is one of New Zealand's most visible and respected statisticians.



Littlejohn Award

The Littlejohn Award is the Association's premier research award, recognising excellence based on publications during the five calendar years preceding the date of the award.

Ting Wang, University of Otago

Associate Professor Ting Wang's research is multidisciplinary, centering on the interface of statistics and geophysics. She has a burgeoning international profile, developing novel statistical models and methods for application to real-world geoscientific problems like earthquake occurrence modelling and volcanic eruption forecasting.



Jean Thompson Award

The Jean Thompson Award celebrates statistical excellence by practitioners in New Zealand industry. It recognises outstanding levels of impact in the application of existing or new statistical methods to New Zealand industry, and the exemplification of good statistical practice.

Ian Westbrooke, Department of Conservation

Ian has worked with MBIE, in health, and with Statistics NZ. He has been the statistician with DoC and was the first in this role. Ian has been very active in statistics education. His own research includes high impact publications in ecology.



Worsley Award

The Worsley Research Award recognises outstanding recent published research from a New Zealand statistician in the early stages of their career. In particular, applicants must be within seven years of confirmation of their PhD, or their highest completed degree.

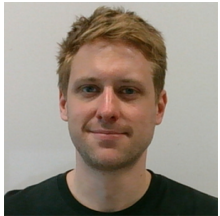
Matt Edwards, University of Auckland

Gravitational wave observations are transforming our understanding of the universe. This has been made possible through the advancement of state-of-the-art statistical methods. Matt develops novel Bayesian methods and deep neural networks to uncover the mysteries of the universe.



NZSA UnConference Student Prizes

by BEN STEVENSON



The standard of the student presentations at the 2022 NZSA UnConference was exceptional. I saw a number of thoroughly impressive presentations, and by a stroke of bad luck I missed seeing the three winners, whose talks must have been even more impressive!

Many thanks to Harmonic Analytics for

sponsoring the competition, and congratulations to the following students:

- Adam Bartonicek, *Interactive Data Visualization with Plotscape*
- Anna Redmond, *Spatially smooth mixtures for modelling of muscle fibres*
- Bradley Drayton, *Mixed Proportional Hazard Model for Complex Samples*



The winners of the NZSA UnConference Student Presentation Prizes. From left to right: prizewinners Adam Bartonicek, Anna Redmond, and Bradley Drayton, alongside Emma Doolin, Data Science Team Manager, Harmonic Analytics.

Meet the NZSA Executive

by BEN STEVENSON

Each newsletter, member(s) of the current NZSA executive introduce themselves. The brief they have been given is to provide a photograph and a paragraph answering some or all of the following three questions:

- What is your current role on the NZSA executive?
- How long have you been doing it?
- What (if any) other roles have you had?
- What is your job/connection to the NZ statistics community?
- What do you enjoy doing outside of work?

In this issue, we meet our new NZSA President.

Beatrix Jones

I'm Beatrix Jones, and I've been the NZSA president for almost four months. I was previously on the exec committee as the secretary (2011–2014), and as the NZSA programme chair for the 2020 joint conference with the Statistical Society of Australia (eventually held as an online conference in 2021). I've also been on the Board of Directors for the International Society for Bayesian Analysis, and before that was the editor of the ISBA Bulletin, an analogous publication to this one. I used to have to harass the society president for their newsletter contribution—and now the shoe is on the other foot!

I came to New Zealand in 2004 to lecture at Massey University's Albany campus, and I'm now an associate professor at the University of Auckland. My research is in multivariate statistics, particularly applications to nutrition and the metabolome. I have three children—now all out of primary school after 11 gruelling years of pick-ups and drop-offs. I have the complementary hobbies of baking and going to the gym.



Updates

NZSA Mentoring Program

by LISA THOMASEN



The first cohort of the NZSA Mentoring Program ran from May–October 2022 with 14 mentoring pairs. The successes and highlights from this cohort suggest that there is demand

from our members for this program to continue and that the program is providing tangible value to members.

Close-out sessions for the program were held in November and followed up with a survey. The majority of participants enjoyed participating in the program and would recommend it to others in the NZSA. Participants experienced multiple benefits from being involved. Eight of the mentors felt that they gained confidence in their abilities to add value as mentors. For the mentees, ten of them benefited from career advice. Over half of the mentees also benefitted by developing their professional network, receiving CV and job advice, and/or support with soft skills. One of the mentees was even successful in getting a new job after taking their mentor’s job interview advice! The close-out sessions were also an opportunity for participants to share feedback on their experiences of the program and I have multiple ideas to help me improve the program for this year and beyond.

Read the testimonials below to see what Cohort 1 participants are saying about the program:

I didn’t really know what my strengths would be in mentoring as it was my first time being a mentor formally. The program built my confidence in mentoring.

—Mentor Cohort 1

Found it to be extremely rewarding. Very interesting chats with my

mentee—and despite the different stages in our careers/lives, there was a lot of overlap in the challenges, opportunities, etc we face.

—Mentor Cohort 1

I would have really appreciated such a programme when I was a young statistician.

—Mentor Cohort 1

My mentor also gave me advice throughout the interview process for a job I applied for during the program. I got the job!

—Mentee Cohort 1

The mentoring programme is an excellent opportunity for me to build connections with and learn from more experienced statisticians.

—Mentee Cohort 1

I am the only statistician at my workplace, so having another statistician to talk to was reassuring and helpful.

—Mentee Cohort 1

Cohort 2 coming soon!

The Mentoring Program is continuing with Cohort 2 being offered in 2023.

The plan for Cohort 2 is currently as follows:

- Cohort 2 launch webinar at 1 pm on Friday 3 March
- Survey for expressions of interest open for 2 weeks in early March

- Pairings communicated throughout April and initial meet and greet sessions held
- Program running from May–October
- Program close-out and overview in November

The Mentoring Program will also be facilitating a selection of lunch ‘n’ learn sessions throughout the year. The timing and topics for these will

be confirmed closer to the time, but the current plan is to offer sessions in March, May, July and September.

Keep an eye on your inbox for the relevant appointments and survey link.

If you’ve got any questions, ideas, suggestions, or would like to register your interest early, please email me: lisa.thomasen@fonterra.com.

Student and Early Career Statisticians’ Network

by JIE KANG AND RORY ELLIS



In the last six months, we have been working closely with the Statistical Society of Australia (SSA). You can read all about the events we’ve jointly hosted in the Conference Reports section of this newsletter.

Additionally, prior to our NZSA UnConference, we organised the NZSA Student and Early Career

Statisticians’ social event, jointly sponsored by Stats NZ and NZSA. Over twenty students and early career statisticians joined this event, celebrating this opportunity to network with their peers and learn from senior colleagues. Vince Galvin (Chief methodologist at Stats NZ) and Matt Parry (at the time, President of NZSA) kindly delivered the opening address.

Finally, we are pleased to have Tiana Whitehead become the Christchurch Representative for the Student and Early Career Statisticians’ network. She has already shown great passion in engaging with the statistics community in Christchurch.

R Users’ Groups

by SHIRLEY WU

Dr Uli Muellner from [Epi-interactive](#) had put in an amazing effort in organising meetings in the past 12 months for the Wellington R users group.

In May 2022, Dr Muellner hosted an R exchange meeting to facilitate discussions and learnings on how to make the most out of R in the community. For example, how we are creating insights into data, visualise information and optimise workflows. The invited speakers showcased real-world examples and experiences in these areas:

- Dr Stefan Schliebs, Air New Zealand, *Self-service data science with R*.
- Dr Uli Muellner (Epi-interactive), *R in*

action—why we are using it!

- Matthew Spencer (Department of Corrections), *Kick-starting data science teams*.
- Jeremy Allen (RStudio), *Be an R champion*.
- Logan Ashmore (Ministry for the Environment), *Decoding the Ancients*.

They also discussed effective organisational structures that help people to succeed with R in their organisations.

In November 2022, Asheel Ramanlal from the Department of Corrections presented to the group about human centred data science and Nick Snellgrove from Epi-Interactive talked about

pushing the boundaries in the cloud with R and Python.

Asheel talked about the effort the Data Science Team for Health Services was putting in to find new ways to measure the impacts of their programmes from an oranga and hauora perspective. He provided some examples of the machine learning projects the team was undertaking. Asheel also described the environment they had to navigate to entertain the idea of health data science with their internal customers, and the ideal future of health data science at Ara Poutama Department of Corrections.

The AIS Explorer is an application that Epi-Interactive built in collaboration with the University of Minnesota to prevent the spread of aquatic invasive species. With frequent and complex R and Python models running behind the scenes to produce the data, ensuring this

application stays up-to-date and performs well poses a unique challenge. Nick presented to the group about how they use concepts like infrastructure-as-code and on-demand computing alongside services such as auto-scaling, load balancers, event-driven code and cloud storage to keep the AIS Explorer running in top condition.

Looking for presenters!

We are constantly looking for presenters for talks and interesting R or statistics related topics to share with the R community. Please contact your local R user group organisers if you are keen to present!

- Auckland R users group meetup page: <https://www.meetup.com/Auckland-R-Users-Group-AKLRUG/>.
- Wellington R users group meetup page: <https://www.meetup.com/Wellington-R-Users-Group-WRUG/>.

Statistics Education Teams

Statistics Education Research

by MAXINE PFANNKUCH



People in Statistics Education Research

Anna Fergusson submitted her PhD in December, *Towards an integration of statistical and computational thinking: Development of a task design framework for introducing code-driven tools through statistical modelling*, and in January 2023 took up her new appointment as a lecturer in the Department of Statistics at the University of Auckland. Another new appointment to the department is Pip Arnold as an Honorary Academic.

Pip Arnold, Karekare Education, launched her handbook for Years 1 to 11 teachers on the teaching of statistics, *Statistical investigations | Te tūhuratanga tauanga: Understanding progressions in The New Zealand Curriculum and Te Marautanga o Aotearoa* at Statistics Teachers' Day in December. Pip is on the right of the picture below. See [this link](#) for further details.



Education researchers at Statistics Teachers' Day.

Tim Erickson, second from right, visited NZ for three weeks, giving talks and workshops to teachers across the country. Tim was involved in the development and creation of resources for Fathom, which he continues to do with CODAP, <https://codap.concord.org/>, free data analysis software for Year 5 to 13 students, which is readily being adopted by NZ schools.

Rob Gould, UCLA, USA, is currently visiting the Department of Statistics, University of Auckland, for two months. He is the vice-chair, Undergraduate Studies, Department of Statistics at UCLA. Internationally renowned, Rob is regarded as a leader in data science and statistics education. He is vice-president, International Association of Statistics Education (IASE). Rob was the Founder of DataFest in 2011. Now sponsored by the American Statistical Association (ASA), DataFest is a celebration of data involving more than 2000 undergraduates in teams of 4 to 5 working around the clock at different locations to find and share meaning in a large, rich, and complex data set. Rob is still involved in Datafest, finding the data set for the competition and overseeing participants at UCLA. At each Datafest location prizes are awarded for best insight, best visualisation and best use of related data sourced by the students. Research has shown multi-disciplinary teams do best. The 2022 data set was about student engagement in video games designed to assist students to make decisions about risky activities.

Chris Wild, University of Auckland, presented a question and answer session in November 2023 for an IASE webinar based on his NZAMT keynote. See <https://youtu.be/h5p1462Y-YU> and https://iase-web.org/Webinars.php?p=221129_2100.



Rob Gould, currently visiting the University of Auckland.

CensusAtSchool Project

The CensusAtSchool project, under the co-direction of Rachel Cunliffe and Anne Patel, is getting ready to launch its eleventh biennial online census for Years 3-13 students on February 13 2023. Pip Arnold is the resource developer. See <https://new.censusatschool.org.nz/>.

Teacher Professional Development

Statistics Teachers' Day

The Department of Statistics, University of Auckland, and the Auckland Mathematics Association (AMA) organised and ran a successful in-person Statistics Teachers' Day in December 2022 under the direction of Emma Lehrke, Anne Patel and Pip Arnold. Charlotte Jones-Todd, University of Auckland, gave the first keynote talk, *Where the whales sing*, with Tim Erickson, USA, giving the second keynote talk *Using the power of CODAP to explore data*. Anne Patel, Stephanie Budgett, Emma Lehrke, and Pip Arnold, University of Auckland, presented workshops. NZSA education committee members Michelle Dalrymple, Mark Hooper, Marion Steele and Neil Marshall also presented workshops. Teachers from across NZ attended the day. See <https://sites.google.com/aucklanduni.ac.nz/statisticsteachersday/home>.

AMA Saturday morning workshops

The AMA has continued with its online Saturday Morning workshops, resulting in teachers from across New Zealand registering. William Finzer, USA, shared the use of CODAP in the August workshops. See <https://www.aucklandmaths.org.nz/amaonline-2022-august-6/>. In the November workshops Pip gave a presentation on her book and Sara Stoudt, USA, presented about storyboarding in CODAP. See <https://www.aucklandmaths.org.nz/amaonline-term-4-november-5th/>.

Statistics Education Conference Involvement

ICOTS-11 was held as a hybrid conference, online and in Rosario, Argentina in September 2022. Unfortunately the conference dates clashed with NZ teaching time, so many New Zealanders presented their papers online such as Anne Patel, Rachel Passmore, Stephanie Budgett, Amy Renelle, Pip Arnold, Azam Asanjarani, and Charlotte Jones-Todd from University of Auckland. Retirees John Harraway and Sharleen Forbes presented in person. Thomas Lumley, University of Auckland, gave a plenary online. For conference proceedings see https://iase-web.org/Conference_Proceedings.php?p=ICOTS_11_2022.

NZAMT-17, the New Zealand Association of Mathematics Teachers' Conference was held in October 2022 at New Plymouth. Chris Wild, University of Auckland, and Michelle Dalrymple, Cashmere College, were statistics plenary speakers. Pip Arnold gave workshops related to her book.

NZSA UnConference was held at the University of Auckland in November 2022 at which Anna, Stephanie, Emma, Amy and Anne presented.

The following are upcoming conferences with IASE involvement: **SRTL-13** in June 2023 in Maleny, Queensland, Australia; the **IASE Satellite Conference** in Toronto and the **World Statistics Congress** in Ottawa in July 2023; **OZCOTS** in Wollongong, Australia in December 2023; and in Sydney in July 2024 the **ICME-15** and **IASE Roundtable** conferences. See <https://iase-web.org/Conferences.php?p=Upcoming>.

Statistics Education Committee

by MIKE CAMDEN



Refresh and review

Our main concerns for the last months and now are still the Ministry of Education's refresh of the entire school curriculum, and the sweeping review of NCEA.

The new Curriculum will have a new structure: six strands, ending with Statistics and Probability; five 'phases' that end at years 3, 6, 8, 10, and 13; and three columns headed Understand, Know, and Do.

When the Ministry released the draft curriculum in late September, a group of us held two two-hour meetings about the Maths and Stats area of it. Then we formed three teams which looked closely at years 1–10 statistics, years 1–10 probability and years 11–13 statistics and probability. We sent in a mass of feedback on 1 December.

We see probability as an area that will need ongoing research-based work, and we think that this curriculum needs to allow for emergent trends, like data sovereignty, ethical issues, citizenship issues, social justice, computational thinking, and data science.

At mid-year, the Ministry released their complete draft on NCEA Level 2: the four new Achievement Standards in Statistics, and the supporting papers. In August we sent them a substantial feedback document on all that.

The four Standards all have the same size (five credits each), and are titled:

- Statistics 2.1: Use statistical enquiry for data exploration
- Statistics 2.2: Demonstrate understanding of statistical claims
- Statistics 2.3: Use probability models and

representations to investigate situations

- Statistics 2.4: Demonstrate understanding of the design of statistical investigations

The whole draft is available at [this link](#), and it starts like this:

People are at the heart of Statistics: the people who have collected information to study, the people who have gifted information about themselves or about places and objects important to them, and the people who use data to make decisions and communicate what they have found. Seeing Statistics as a whole, continuous process, starting from thinking about why data is being collected, through data gathering, to using the results, will help ākongā to think about how to uphold the mana of all of the people involved.

We are also watching the Ministry's other two large projects involving statistics: the Numeracy Standard (piloted this year and next), and the Literacy & Communication and Maths Strategy, which aims to make sure that learning happens equitably and effectively for all ākongā students.

We acknowledge the massive amount of work done by a small number of members, using their wide expertise and experience in statistics and its pedagogy, and often done under difficult time pressure.

We also acknowledge that Covid is still making work difficult for our teaching colleagues throughout the country.

Further interests

We're keeping in contact with member Christine Franklin of the American Statistical Association. Christine and colleagues released *GAISE II, Guidelines for Assessment and Instruction in Statistics Education*, in late 2020. Since then, they

have released articles and run workshops, several involving committee members Pip Arnold, Chris Wild, Anna Fergusson, and of course our USA member Chris Franklin. We forwarded GAISE II to the Ministry, as a guide to best practice.

We've improved contact with the Royal Statistical Society by exporting Rhys Jones from Auckland to Surrey, and acquiring new member Sophie Carr (UK). Both are involved in the Royal Statistical Society's team on statistical education, which is concerned with reviewing the national curriculum and increasing exposure to statistical literacy in the adult workforce.

Pip Arnold continues as vice-president on the executive committee of the IASE, organises the seminar programme, and keeps us informed about it. The November IASE seminar featured Chris Wild. This session was a question-and-answer session based on Chris's recent presentation *Through a glass darkly: Statistics education, society and the future* at the New Zealand Association of Mathematics Teachers Conference.

ICOTS11 took place in Argentina in September. Some committee members and others based in New Zealand attended and presented, either in person or digitally. Thomas Lumley was a keynote speaker. Anne Patel won the Best ICOTS Paper by Early Career Researchers award.

Our New Zealand online statistics teaching journal, *Statistics and Data Science Educator* (<https://sdse.online/>), continues to provide ideas for teachers.

The Auckland Statistics Teachers' Day was back in person last year on December 2. Pip Arnold launched her Beeby Award book, *Statistical Investigations: Te Tūhuratanga Tauanga*, there. Pip acknowledges the support from Maxine Pfannkuch (statistics editing and mentoring) and Tony Trinick (te reo Māori). It will be extremely valuable as a resource for teachers. It contains a breadth of statistical education issues, including the less obvious ones like: ethical matters, cleaning, editing, imputation, etc. We hope teachers get their teeth into this book. See [this link](#).

Local News

AgResearch

by MARYANN STAINCLIFFE



Ken Dodds was awarded the Jones Medal, for a lifetime achievement in pure or applied mathematics or statistics, by Royal Society Te Apārangi for his work developing and applying statistical methods for genetic data analysis that enable the use of low-cost genotyping in primary industries and ecology. Ken has worked for AgResearch (and predecessor organisations) since 1986 after completing his PhD in statistical genetics with Bruce Weir at North Carolina State University. During his career, Ken has been the author or co-author of some 318 publications, 10884 citations, with a H-index of 47 according to Google Scholar. Furthermore, Ken has the highest Researchgate score in AgResearch: at 48.31. His contribution has covered advances in the genetics of wool, meat, meat quality, reproduction, and disease resistance. The results of his work have subsequently been implemented into the routine industry genetic evaluation in a wide variety of ruminant, aquaculture and plant species and has specifically underpinned improvement in the New Zealand sheep and deer industry for over 25 years. For more information, follow [this link](#).

Late last year, we had a new PhD student, Mario Prado, join the Stats group at Lincoln. Originally from Mexico, Mario studied at the University of Neuchâtel in Switzerland where he recently completed a Master of Science in Statistics. His PhD project is focused on analysis methods for systems biology applications. He is supervised by

Timothy Bilton along with Matthieu Vignes and Jonathan Marshall from Massey University. In his free time Mario enjoys traveling, baseball and movies.

Finally, Jay Patrick joined AgResearch, based at Lincoln, as the new Team Leader for the Statistics team. He is a Statistics enthusiast, and completed his PhD in vision science and human behaviour, and has taught statistics at the University of Nottingham. He then joined Stats NZ to work on the census coverage project.



Ken Dodds with the Jones Medal.

Luma Analytics

by OLIVER STEVENSON



After attending the 2022 NZSA UnConference in November last year, it's a real pleasure to be invited to contribute to the NZSA newsletter on behalf of Luma Analytics, a data and analytics consultancy based in Auckland. As a company, we provide consulting services to a range of businesses and organizations across Australasia on all things data, be it problems grounded in data science, data engineering, machine learning, business intelligence; or as we often like to think of it, statistics, in its many different shapes and sizes.

In team news...

Luma Analytics finished off a successful 2022 by welcoming a number of fresh-faced data scientists and engineers to the team. Recent starters Brett Mainwairing, Ray Laxmidas, and Rohit Rajagopal bring with them experience in industries including actuarial science and engineering consulting, continuing to build upon Luma's diverse range of academic backgrounds and skillsets. University of Auckland Engineering Science student Charlie Williams has also joined the team for the summer as a Data Science Intern, while University of Waikato graduate, Connor Welham, will be joining us as a Graduate Data Scientist in late-February, after completing his honours degree last year. With the recent personnel changes, a larger office space in 2023 beckons!

In work news...

Project-wise, we've continued to enjoy success in delivering cutting-edge and insightful analytical solutions for our clients. Our financial data gurus have been kept busy on banking projects including assisting a large New Zealand bank with their customer remediation program throughout the year, while the team working with a major NZ media provider has been keeping their eyes on all things data in the online streaming space—and

yes, reality TV is still very popular!

Housing and property data was also a core theme of Luma's programme of work throughout 2022 with projects across Government, infrastructure and development, and real estate. Working closely with a key Government agency we've helped facilitate the team's digital transformation in how data is analyzed, visualized, reported, and ultimately harnessed to make strategic decisions. By having key data and metrics more readily available at their fingertips, leadership is in a better place to make informed decisions around housing supply and demand to help get more Kiwis into homes across the country.

On the modelling front, several of our MLEs (Machine Learning Engineers, not Maximum Likelihood Estimates) have been working with a client to develop an automated valuation model for the New Zealand property market. Given the volatile and uncertain state of the housing market over the last 24 months, this has been both a fascinating and challenging project to work on, particularly as we don't have a crystal ball at hand in the office. However, the team has thoroughly enjoyed the opportunity to apply modern statistical modelling and machine learning techniques to a topical problem and we're incredibly pleased with the results we've been able to produce.

In the community...

A few members of the team were fortunate enough to attend the 2022 NZSA UnConference held at the University of Auckland. The event was incredibly well run and following a two-year hiatus from the conference scene, it was a welcome reminder of the value to be gained by maintaining a strong relationship between statistical practitioners in both academia and industry. A big thanks to the University of Auckland and the NZSA organizing committee for putting on such a fantastic event. Luma Analytics will certainly be looking to attend

the next NZSA conference—either official, or unofficial—wherever in the country it may be.

Finally, 2022 was rounded out with a highly enjoyable Christmas function on Waiheke Island at Te Motu vineyard. Despite the less than

compliant Auckland summer weather, the team had a great day celebrating the success of 2022 and toasting to what is hopefully a bright and sunny 2023, both at and away from the Luma office.

Fonterra

by LISA THOMASEN



The Fonterra R&D stats team were recently part of a restructure which resulted in our wider team's name being changed to "Data and Analytics". We are currently doing an overview of our team strategy as we evaluate the key areas where we can add value.

We are also working through what part we want (and need!) to play in the *insert data buzzword here* space as we experience pressure from all sides to move more towards analytics.

With Lisa Thomassen returning from leave, Em Rushworth's contract with our team has come to an end. They relocated to Auckland to start a position as data scientist for solarZero.

Nicholson Consulting

by VINAY BENNY



Happy March—we hope all your new year resolutions are still holding strong!

Since our last update in 2022 we've had an eventful half-year, with conferences, research reports, new staff, and Christmas parties. We're looking forward to welcoming four new starters over the next few months into data scientist and senior data scientist roles. We also have a new job title for one of our new starters: Kaiatawhai Raraunga. This translates as 'someone who cares about Māori data'. Their skillset and passion will add even more to the mahi we do in the Maori data space. Keep an eye on our [LinkedIn profile](#) and [people page](#) for more on our new team members soon.

As a business we have had a diverse selection of impactful work over the last few months. We have done a lot more work in the Health space and are currently finishing a project with Ministry of Health to help formulate the Pae Ora Pacific health strategy. The

project involves creating a set of socio-economic and health indicator variables for individual Pasifika ethnicities, flagging potentially significant differences in health outcomes and deriving insights to help formulate a strategy. Our previous work with University of Otago has culminated in a research [paper](#) that explores the justice system interactions for young adults with autism. Other projects include ongoing work with the Mental Health and Wellbeing Commission, and in COVID-19 modelling.

We have also been working with the Ministry of Business, Innovation and Employment to produce employment sector reports, to enable them and the Employment Relations Authority to make decisions on Fair Pay Agreement applications for unions to negotiate better pay agreements with employers. The reports will also give employers and unions a greater understanding of the information necessary to make decisions for the benefit of themselves, their businesses, and their employees.

Over the last 6 months we have also done a

lot more work in the Maori Data space. Some highlights include the following:

- The **Te Matapaeroa 2020** report regarding the state of Maori businesses was published in 2022. This report was commissioned by Te Puni Kokiri and developed by Nicholson Consulting, and focuses on the topics of Maori economic resilience, the successes, and challenges for Maori businesses in Aotearoa. The report aims to improve understanding on how to support Maori businesses as they continue to grow, thrive, and champion a Maori vision of success.
- Nicholson Consulting was engaged by Stats NZ to provide Maori Data Expertise to the

redesign of their data system architecture, which involved providing advice regarding the basic design principles, creating case studies involving tangible examples, aiding the design of the operating model, and setting up the roadmap to achieving a more equitable data system for Aotearoa. The final report will be soon published by Stats NZ.

For more details on our awesome 2022, [check out this post on our blog](#). Overall, there is plenty to be excited for in 2023! Reach out if you'd like to learn more about any of our past, present, or future projects.

Plant & Food Research

by DUNCAN HEDDERLEY



There have been quite a lot of comings and goings at Plant and Food over the last six months; fortunately, more 'comings' than 'goings'.

Sean Husheer joined the Statistical Science team from Scion. He is based at our Havelock North site. Amit Philip, Bryn Gibson, Hana Liang, Jane Tang and Jingjing Zhang have joined our Data Applications team. Bryn is based in Christchurch, the others in Auckland. Amit was previously at Crown (the forklifts people). Bryn was at the Human Affect and Motivation Neuroscience lab at Otago University. Hana and Jane join us from University of Auckland, Jingjing from completing her PhD at AUT.

Linley Jesson stepped down as group leader in October. She is still with PFR, and is hoping to get more work done on statistical genetics, and protocol for taonga data, now she doesn't have to go to as many meetings. Maryam Alavi has been acting group leader since then. Mark Wohlers has been appointed group leader from January 2023.



Olivia Angelin-Bonnet on graduation day.

The group were able to meet face to face in November in Auckland. It was good to meet people I had previously only encountered on video conferences. I felt most people had an opportunity to say their bit, and we had a useful session talking with the Bioinformatics group about common interests such as training and data management.

Several Auckland based people met with data scientists from AgResearch in Hamilton in December. The two groups shared experiences in computer vision, 'omics data analysis, and machine learning.

Poppy Miller's son Harald was born in August. Olivia Angelin-Bonnet graduated with her PhD in November, after a couple of years of COVID delays.



Poppy Miller and son, Harald.

Foodstuffs

by MAZEN KASSIS



Happy New Year, people! As we hop into 2023, the Year of the Water Rabbit, I've found myself reflecting on the auspiciousness of the occasion as a symbol of longevity and prosperity.

At Foodstuffs North Island, we aspire to be one of the most customer driven retailers in the world by 2030. From a data and analytics perspective, the mission is to ensure that anyone making a decision or taking an action, anywhere in our co-op, does so after considering all the available (and relevant) evidence. In other words, the challenge is how to make readily accessible the abundance of data we are custodians of that has been historically siloed and not as connected as it ought to be to people. Not only is my aim to ensure people have appropriate access to the data but that good practice is sufficiently embedded such that people know how to use it and, when they do, to feed back all the enrichments and insights they derive so that others can take advantage of them. In an organisation of about 24,000 people operating around 350 stores and servicing almost 3 million customers a week, it's

clear that such a thing is easier said than done!

However, one must start somewhere and this year, or more precisely the first half of the year, we're focussing on bringing to life this infrastructure. Specifically, building a cloud-based ecosystem that does 4 things really well:

1. Ingest data from any source
2. Store the data economically and efficiently
3. Enable ready and governed access to the data contained therein
4. Share the data with appropriate external partners.

While these things sound simple, developing the foundations of an ecosystem to enable the sustainable development of data products and services at scale, is anything but.

But this is what makes it exciting. I envisage the plans we're bringing to life—which have been over a year in the making—will truly revolutionise the way we “do data and analytics” at Foodies in the near term and lay the foundations that will be built on for decades to come. There could hardly be a clearer example of the prosperity and longevity the Rabbit has ushered in.

P.S. Our team is growing, so keep your eyes out for opportunities to join what I reckon is one of

the best data and analytics teams in one of the best organisations in the land.

Department of Statistics, University of Auckland

by PRIYA PARMAR



The University of Auckland has welcomed 2023 with a series of new records. Well, technically we share those records with Auckland per se, with those records being broken by a series of “rain-makers”. Statistically speaking it was quite exciting – highest rainfall in one day (245mm deluge causing widespread flooding), 769% of January monthly normal rainfall, equating to 38% of the city’s annual rainfall and just 65% of sunshine normally experienced for January. Is this La Nina or the delayed response to all the rain dance pleas of yesteryears 41 rainless summer days which caused drought for Aucklanders? Analyses and results pending...

Congratulations to Simon Harris for his successful Marsden Proposal worth \$713 000 over the next 3 years assessing genealogies of samples of individuals selected at random from stochastic populations: probabilistic structure and applications. Simon shares this grant with fellow department member Jesse Goodman as well as international collaborators Juan Carlos Pardo (CIMAT, Mexico), Sandra Palau (UNAM, Mexico) and Samuel Johnston (Kings College, UK).

Stephanie Budgett rallied together Thomas Lumley, Anne Patel, Priya Parmar, David Chen, Lars Thomsen, Kate Less and Heti Afimeimounga to showcase their skills at a drenched MOTAT’s STEM Fair held at the end of October (perhaps this was forecasting Auckland’s more recent weather?). The rain impacted the number of visitors attending so the team focussed on one-on-one interactions – aided by the ever-popular Galton board.

Congratulations to Matt Edwards who received the NZSA Worsley Early Career Award and Adam Bartonicek and Brad Drayton for winning student presentations at the NZSA UnConference

hosted by the University of Auckland. Charlotte Jones-Todd and Russell Millar represented the department with their plenary presentations. Rishika Chopara won best student presentation prize, with Godrick Oketch receiving an honourable mention at the NZ Mathematics and Statistics Postgraduate Conference held in Wanaka.

The department, in conjunction with the Auckland Mathematical Association, hosted the annual Statistics Day attended by 200+ teachers with speakers paying homage to statistics education leaders including our own Maxine Pfannkuch, Chris Wild and Anna Fergusson. Anne Patel, carrying the educational torch, was awarded overall winner for the Best paper by early career researchers at the International Conference on Teaching Statistics.

Our students have performed remarkably well with Danli (Lois) Xu completing her PhD on *Nonparametric modelling for directional data*, which placed her on the Dean’s List of Excellence! Craig Marsh successfully defended his PhD with both examiners recommending his thesis on *Spatial methods for improved estimates of abundance indices from preferentially or systematically sampled data* for the Dean’s List of Excellence. Xiaqiong Wang was another successful PhD completion looking at *Penalised linear mixed models with generalised method of moments estimator for the prediction analysis*. Finally, David Chan passed his PhD examination very recently, with a thesis on *Spatial capture-recapture for acoustic surveys*.

Our September graduation featured 131 statistics grads; congratulations to our PhD graduands—Mugdha Chauhan and Christopher Nottingham. Here is a summary of the remaining degrees awarded: 7 MSc, 3 Master of Data Science, 11 Master of Professional Studies, 1 MA,

4 PGDip, 6 BSc(Hons), and the remaining BSc (71)/BSc conjoint (19) and BA(3)/BA conjoint (3) programmes.

The main event of 2022 was the Christmas

function held at Auckland Domain. Organised by Joei Mudaliar and Charlotte Jones-Todd the afternoon was an outdoor success with beautiful sunny weather and food trucks to keep everyone happy.

University of Otago: The Biostatistics Centre on Dunedin Campus

by ANDREW GRAY



It has been a busy six months or so since the last of these columns. After a well-deserved break, which followed our 5th birthday and Christmas celebrations, we're now all back and hard at work promoting good biostatistics, particularly through our collaborations at the University of Otago and elsewhere.

We were all thrilled for Dr Jill Haszard being promoted to Research Associate Professor, with this becoming official at the start of February. This is a very well-deserved promotion for Jill who has been extraordinarily productive throughout her research career and a strong advocate for biostatistics. She demonstrated some of that advocacy with a well-received plenary talk at the New Zealand Nutrition Society Conference in December. Well done, Jill.

We've continued our popular series of biostatistics workshops, which includes workshops on introductory biostatistics (led by Prof Robin Turner), using Stata (led by Dr Ari Samaranayaka), and longitudinal data analysis (led by Dr Jimmy Zeng from Preventive and Social Medicine), with workshops on regression methods and survival analysis led by Research Associate Professor James Stanley in Wellington. While we have enjoyed the opportunities (and, most of the time, the challenges) of running workshops using Zoom over the past couple of years, we are enjoying now having a choice of in-person and online workshops.

There were several contributions from members of the Centre to the International Day of Women

in Statistics and Data Science 2022 virtual conference, with Robin, Research Associate Professor Claire Cameron, Jill, and Dr Ella Iosua, along with Research Associate Professor Gabrielle Davie (Preventive and Social Medicine), Dr Alice Kim (Wellington) and Dr Nokuthaba Sibanda (Victoria University of Wellington) presenting a session on "Career Journey, Perspectives and Opportunities in New Zealand".

We greatly enjoyed a visit from Prof Jaroslaw Harezlak (Department of Epidemiology and Biostatistics at the Indiana University School of Public Health in Bloomington) who gave a thought-provoking seminar on wearable devices and health outcomes.

There have been too many accomplishments from our research students to list all of them here, but as a selection, we were delighted for Nisa Widyastuti (supervised by Robin), Lou Fangupo (supervised by Jill), and Nan Xin Wang (supervised by Claire), who all submitted their PhD theses, and Beatrice Ng (supervised by Ari) who submitted her DClinDent thesis. We are also delighted to have Sajeeka Nanayakkara here working on her PhD (supervised by Robin, Jimmy, and Dr Matt Parry from Mathematics and Statistics).

We have been very lucky with fantastic administrative support in the Centre, which is now being provided by the amazing Rashmi Kumar.

There are many other things that could be listed here, but, as usual, I'll suggest that you look at our Twitter page [@biostatsotago](https://twitter.com/biostatsotago) to see the rest (and perhaps follow us at the same time)!

Te Papa Atawhai, Department of Conservation

by ELLEN CIERAAD



Kia ora koutou,

Having joined Te Papa Atawhai late last year as Principal Science Analyst/Statistician, I'll take this opportunity to introduce myself—particularly

for the benefit of those of you I didn't already meet at the NZSA UnConference in November. The UnConference was a great introduction into the statistical community in New Zealand, and I really enjoyed the welcoming feeling and great conversations and informative talks I had with many of you. I look forward to getting to know you better in the future.

From a young age I've been very interested in patterns and trends we observe in nature, and through my training in conservation biology and plant ecology, I realised that developing quantitative skills was a great way to gain such understanding. Developing as a quantitative ecologist, I have enjoyed contributing my analytical skills to help answer society-relevant environmental questions based at Manaaki Whenua-Landcare Research, the Institute of Environmental Sciences at Leiden University (the Netherlands) and Nelson Marlborough Institute of Technology (now Te Pukenga). My contributions to study design, analysis and data communication on a wide range of topics have led to national and international collaborations, novel approaches and publications on biodiversity indicators, bird

population trends, toxin accumulation in fish, environmental DNA and more. Over the years, I have tutored many students and colleagues in statistics and the use of R. I'm glad to be able to bring this experience to my role at Te Papa Atawhai, where I will provide statistical advice, help solve quantitative queries across the organisation and lead the statistical capability development programme, which has been set up by Ian Westbrooke over the years.

As for activities at DOC, our Stats Café continues to be popular, attended by 30–40 staff each month. In November, I shared some of my previous work on a novel way to investigate effects of stressors at community and ecosystem levels, applying a community null modelling approach combined with structural equation modelling to assess ecosystem functioning. In December, people shared various ways to visualise data, including adding icons, and using PowerBI to show results from a survey. In our first Stats Café in 2023 in Feb, Anni Brumby presented draft assessments of Climate Change Vulnerability for groups of threatened native species. Our Data Science courses are on the horizon, which will be delivered online (consisting of a combination of Harvard Edx Massive Open Online Courses and DOC support sessions led by Ian and myself), as these were very successful and accessible to our dispersed science and technical staff. We will also be redeveloping previously face-to-face taught workshops for online delivery.