



PARASITOLOGY

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New Zealand Society for Parasitology May 2022 Newsletter

President's Post

Hello NZSP members,
I hope this newsletter finds you well, and not too discombobulated with the switch to the new time schedule.

There are certainly plenty of other things to be discombobulated about – unseasonably dry weather in parts of both North and South Islands (in fact, chaotic weather all around the world!), the ongoing covid-19 situation, and more latterly the geopolitical ructions in Eastern Europe.

However, it's not all bad news. Resumption of international travel means families, colleagues, and business partners have an opportunity to reunite. Milk and meat prices are also riding high, generating good returns for farmers. Closer to home our very own Vice President Emma and her husband Chris welcomed Beau Poole to the world on January 30th. Congratulations on the new arrival, and we'll look forward to welcoming a new NZSP member in a few years.

So far this year, the committee has made good progress in organising our webpage to be rebuilt and put back online, and we've decided to press ahead with organising a society conference for later this year (more on that below). Please do consider volunteering to help with organising the conference – many hands make light work! This is also a good time to consider whether you'd like to submit an abstract. We would love to see a full programme this year – particularly as we have 2 years of information to catch up on!

Also in this newsletter we welcome Augusto to the committee in an assistant role – he's already been very helpful so far! We also introduce our two newest members, Saffron and Bridget, and share the award biographies of our two newest life members, Robert and Dave. As an FYI, at the AGM later this year we'll be asking for a vote on the updated constitution – as we have edited the text of the Student Fund Bylaw to make it more inclusive of a diverse range of students with an interest in parasitology. We're hoping this will encourage a few new

enthusiastic conference attendees!
Please feel free to get in touch with us if you would like to help with conference this year, have any news to share, or suggestions for the committee.

Until next time,
Ash Keown, NZSP President

NZSP Life Membership Award 2020

Robert Poulin

We're enormously lucky to have an international superstar within our membership ranks – Robert Poulin. Robert grew up in Canada, and began his career with a Bachelor of Science in aquatic biology at McGill University in Montreal. Following graduation, Robert went on to pursue post-graduate study at the Université Laval in Quebec. While examining the growth and mortality of young fish, he became interested in the parasites on the fish he was studying. This serendipitous moment led to Robert describing himself as an 'accidental parasitologist'. We think this was certainly a happy accident, as Robert has gone from strength to strength in the field of parasitology.

Inspired enough to change his PhD topic from fish, to fish parasites, Robert's first parasitology publication debuted in 1987. However, this was only the first of hundreds – to date we can find over 600 publications with Robert's name on them, which have received more than 40,000 citations! Our Society newsletter in May this year featured several members in the 'top 2%' science researcher database – of course Robert is among these lofty ranks.

Robert only remained in Quebec for another couple of years before moving to New Zealand with his young family in 1992. We assume Robert chose Dunedin because of the tropical weather; whatever the reason he joined the Zoology Department at Otago University, he clearly loved it because he's still part of the team all these decades later.

One of the fantastic things about Robert's work is that it reflects his desire to answer the big questions about the world of parasites. Although there's a clear aquatic theme, it's arguably Robert's work on parasite evolution, biodi-

versity, and impacts on host behaviour which has captured the hearts and minds of the scientific community the most.

Robert's huge contribution to our collective knowledge has been recognised by many others, including the Royal Society of New Zealand (several times!), the New Zealand Association of Scientists, the Canadian Society of Zoologists, and the University of Otago.

However, Robert's honours are not limited to traditional awards – they also extend into the realms of taxonomy. Robert has achieved arguably the highest honour by having a parasite named after him. The pinworm *Tachygonetria poulini* was named as a tribute to Robert's great work.

There's clearly no way we can top that, but on behalf of all members of the New Zealand Society for Parasitology, we would still like to acknowledge Robert's massive contribution to the field of parasitology by awarding him (humble) Life Membership of the Society.

NZSP Life Membership Award 2021

Dave Leathwick

It goes without saying that Dave has contributed hugely to our collective parasitology knowledge over the course of his career. Let us have a quick look back over the decades – starting in 1974 when Dave began work as a research technician within the weed control division of the Ministry of Agriculture and Fisheries.

By the end of this 5-year stint, Dave had clearly developed a passion for research; although it was zoology he majored in within his first Bachelor of Science – obtained, of course, with Honours from the University of Canterbury in 1982.

Dave immediately pursued post-graduate study, remaining at the University of Canterbury (within Lincoln College) to undertake a PhD in entomology in which he examined the ecology of the Tasmanian Lacewing, which generated interesting observations about its potential role as a biological control for aphids.

Dave took his accumulated biological modelling knowledge back to the Ministry of Agriculture and Fisheries, completing a Post-doctoral Fellowship in 1990 in which he examined the epidemiology of sheep nematodes. As far as we can tell, this resulted in publication of Dave's first parasitology paper – which of course was only the first of hundreds!

In fact, to date we can find over 125 peer-reviewed papers; 3 book chapters; and dozens of other articles, reports, and resources which Dave has authored. You might recall our Society newsletter in May this year listed Dave in our feature on members in the 'top 2%' science

researcher database.

From Post-doc Fellow, Dave became a fully-fledged parasitologist. He worked as a parasitology scientist at the Ministry of Agriculture and Fisheries' Flock House from 1990-94. During this time, it appears Dave developed a real taste for numbers. Throughout the 90s, Dave completed several supplementary mathematics papers from Massey University. Moving from calculus to algebra, he finished with data analysis, experimental design and regression modelling just in time to welcome the new millennium.

All this time at Massey must've really enamoured him to Palmerston North, because in 1994 he moved to take up a position as scientist and group leader of the parasitology team at AgResearch – and never left! Although Dave's role changed slightly in 2006 when he became Principal Scientist, Parasitology.

Despite dedicating most of his career to parasitology, Dave has remained faithful to his horticultural roots as a member of the New Zealand Plant Protection Society. Dave has also done his fair bit for veterinary science as a member of the editorial board for the New Zealand Veterinary Journal from 2002-2017.

Dave is no stranger to accolades, having received several awards including the Australian College of Veterinary Scientists Award for most commendable paper (three times!); the McMeekan Memorial Award of the NZ Society of Animal Production; Best Plenary Speaker at the 8th International Sheep Veterinary Congress; the Focus Genetics sheep industry science award; and was also awarded associate membership of the Society of Sheep and Beef Cattle Veterinarians.

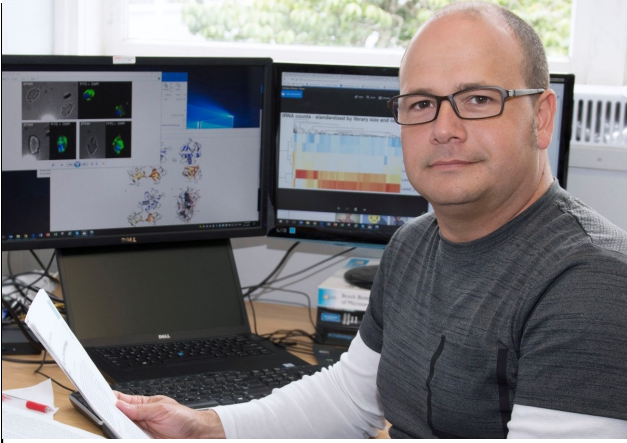
We hope Dave is prepared to accept one more award from us!

On behalf of all members of the New Zealand Society for Parasitology, we wish to acknowledge Dave's enormous contribution to the field of parasitology by awarding him Life Membership of the Society.

New Committee Member

Those of you in attendance at the AGM in November will remember that we have welcomed Augusto Barbosa onto the NZSP Committee to help us out this year while Emma is on parental leave and Ash's role takes him further from the coalface.

We asked Augusto to provide us with an introduction to share with members, and we hope you'll enjoy getting to know him a bit better. Read his story on the next page,



Dear Parasitologists,

I am a biomedical researcher on Parasitology and a senior lecturer at School of Biological Sciences, at the University of Auckland.

My path through Parasitology started from birth. No, I did not get congenital toxoplasmosis! I was born in Brazil, a tropical country with a huge burden of parasitic infections, where I got my education until PhD. Both of my parents were also Parasitologists and University professors, so I guess it runs in the family.

I joined NZ science in 2010, after a post doctorate at UCLA which Dept had six independent top-standing laboratories researching on different protozoan parasites. I did my PhD on trypanosomes but, few years before the postdoc, I became interested on the most prevalent (and most neglected!) sexually transmitted infection of non-viral cause worldwide which is caused by the protozoan *Trichomonas vaginalis*. I have two research interests:

- 1) the basic genetics of this parasite as a model for understanding the early evolution of eukaryotes and developing tools for genetic manipulation, and
- 2) the interactions of this parasite with the host and vaginal microbiome, with the latter being the differential point of my research.

I am excited to be of assistance to the NZSP committee. My aim is to disseminate and raise the interest for Parasitology in the NZ scientific community.

A very warm welcome to Augusto from the NZSP Committee – we're certainly happy to have him on board!!

Subs reminder

Just a short reminder that invoices for the 2021/22 annual membership subscription were sent in July last year, and a few remain outstanding. Saleh is about to send out a subs reminder email – so if you receive one, please help us out by paying as soon as possible. If you feel you've received the reminder in error, then do let us know!

Update on Conference 2022

With disruption still likely to be a feature of the next couple of months, the Committee felt planning an in-person conference for June was probably still a bit of a risky gamble. Things may well be more settled by the time our usual conference date in October rolls around...so we're going to aim to have an in-person event the week after Labour Weekend (25-28 October) – which is study week for most universities. At this stage, Palmerston North sounds like the preferred location, but the organising committee may have different ideas!

Conference Organising Committee

We're on the lookout for enthusiastic members to join the conference organising committee. Because everyone is busy, we're attempting to break down the organisation into smaller roles. We've already got the proceedings covered, but if you're up for organising the venue/catering, soliciting abstract submissions, scheduling the programme, liaising with sponsors, and filling delegate packs, then please [get in touch with Saleh](#) to express your interest.

Constitutional change

As agreed at the 2021 AGM, the NZSP Constitution has been amended to alter the text of the Student Fund Bylaw to widen the scope to include students with an interest in parasitology. This change will be voted on during the 2022 AGM. If you have feedback on this change prior to the AGM, please get in touch with the committee.

A preview of the new text for your consideration follows in the next column

NZ Society for Parasitology

Bylaw: Student Fund Rules

- 1) Applications for assistance to attend the next conference will be invited from students with an interest in parasitology and who are society members.
- 2) Applications shall include:
 - a) a detailed budget of conference attendance (travel, accommodation, registration etc.),
 - b) a covering letter supporting the application which includes a statement as to what assistance has been sought and what is available.
 - c) a supporting statement from the applicants chief supervisor or Head of Programme.

- 3) The applications will be considered by the executive which shall decide which, if any, of the applicants will be offered assistance and the amount (s) to be offered.
- 4) The Executives decision concerning each applicant shall be communicated to the individual applicant in question.

Welcome to New Members

The NZSP Committee would like to extend a warm welcome to our newest NZSP members!

Saffron Whitta



Saffron graduated from the University of Otago in 2020 with first class BBiomedSci Hons in the Molecular Basis of Health and Disease. Currently furthering her studies in the Parasitology Lab of the Microbiology and Immunology Department at the University of Otago. Her research compares anti-cryptosporidial drugs against the *in vitro* life cycle stages of *C. parvum*. She enjoys sharing her research and helping students as a lab demonstrator. In her spare time, her interests are reading and dabbling in different arts.

Bridget Lamont



Bridget is currently a PhD student in the Department of Microbiology and Immunology at the University of Otago. As part of the 'Crypto' team in the Parasitology Lab, Bridget's research focuses on the culture and life cycle of the intestinal parasite, *Cryptosporidium*. In addition to this, Bridget also works on novel treatment strategies to combat cryptosporidiosis in livestock and humans. When time allows, Bridget enjoys baking, gardening, and catching up with friends.

Great to have you on board Saffron and Bridget!

Do you have any colleagues or friends who could benefit from NZSP membership? If so, get in touch with our Secretary saleh.umair@agresearch.co.nz

Our Members in Action

Congratulations Ginny Dodunski – New Wormwise Programme Manager

Many of you were involved in the Wormwise strategy and action plan review undertaken during 2021. As a result of this review, Ginny Dodunski has been appointed as manager of the Wormwise programme.

We're absolutely thrilled to hear of Ginny's appointment, and know she's a perfect fit for the role – which includes ensuring the programme's activity across the industry is linked up across researchers, industry, government, vets, drench companies and farmers.

Over the next 12 months, Ginny will be kept busy laying the groundwork for the four key areas of the Wormwise action plan: education and engagement, incentivising farmer practice change, product stewardship and building data and testing.

You can read more about Ginny's new role on the B+LNZ website: <https://beeflambnz.com/news-views/ginny-dodunski-appointed-manager-wormwise-programme>

Article spotlight

We thought it would be enjoyable to dedicate part of each NZSP newsletter to highlighting new research from some of our members. This month we've got two papers to share:

Several of our AgResearch colleagues have collaborated on a paper which will appear in the May issue of ***Veterinary Parasitology: Regional Studies and Reports***. The paper is titled:-

'The production costs of *Haemonchus contortus* and other nematode parasites in pre-weaned beef calves in New Zealand'.

The study examined the impact of infection (both alone and as part of a mixed infection) on growth rates of young animals...with some possibly surprising results.

Check out the full paper online: <https://www.sciencedirect.com/science/article/abs/pii/S240593902200034X>

Meanwhile, Robert and Jean-François from Otago University have a paper in this month's ***International Journal for Parasitology***. We think they deserve an award for title creativity – **'Come with me if you want to live: sympatric parasites follow different transmission routes through aquatic host communities'**.

The study examined the distribution of encysted larval hairworms in two subalpine stream communities of New Zealand, and identified which host species most likely contributed to transmission and which species acted as population sinks (dead-end hosts). The findings have relevance to both freshwater and terrestrial environments, and the paper is well worth a read! You can find the full paper online: <https://www.sciencedirect.com/science/article/pii/S0020751921003519>

Do you have some research to share? Let us know about it – send an email to our Secretary saleh.umair@agresearch.co.nz

News and events

WeSTEM seeks local STEM experts

WeSTEM is a West Auckland based organisation whose mission is to accelerate and increase Pacific people's participation in Science, Technology, Engineering, Arts, and Maths (STEAM). They show young people the value of science skills and highlight career pathways through collaboration with local STEAM businesses, researchers and engineers. WeSTEM is always on the lookout for local STEAM experts to support projects – so if you're interested in helping out, you can read more about it here: <https://cometauckland.org.nz/our-campaigns/westem>

ICOPA 2022 – August 21-26

With international travel resuming in earnest this year, international conferences are back on the cards too. This year, the congress of the World Federation of Parasitologists is being held in Copenhagen, Denmark. The congress' theme is "Living with Parasites". This theme encompasses the numerous aspects of parasitology, includes the battles against devastating diseases caused by some parasites as well as the variety of beneficial effects of hosting parasites, and embracing the intriguing evolutionary arms

race between parasites and their host that shape both.

See the programme and register to attend by visiting: <https://icopa2022.org/>

Royal Society Te Apārangi Alert Newsletter

Alert is the weekly newsletter from Royal Society Te Apārangi – it shares events, news and opportunities for those interested in exploring and discovering knowledge.

Check out the latest issue, and find back issues on the Royal Society Te Apārangi website:

<https://www.royalsociety.org.nz/whats-happening/alert-newsletter/>

If you haven't already subscribed, you can sign up to receive it here: <https://us4.list-manage.com/subscribe?u=aeb1040afb4474ec7a22ca8da&id=76e763179d>

On A Sadder Note:-

The Society acknowledges the contribution of Colin Harvey

Earlier this month, the NZSP Committee sent a message to members to acknowledge Colin Harvey's contribution to our collective knowledge.

Many of us knew Colin Harvey well, and have worked with him over the years. His recent passing came as a shock, and we wish to extend our condolences to Mary and the family. Colin made an enormously positive impact on New Zealand's agriculture sector, and the NZSP wishes to acknowledge his contribution and legacy. Here are three articles which give an indication as to the respect Colin gained throughout his life:

[A Mighty Totara In The Agricultural Sector Has Fallen](#)

[Ag innovator and contributor leaves his mark](#)

[The legacy of a true leader](#)