



ENTOMOLOGICAL SOCIETY NEWSLETTER



January 2023

**FROM THE PRESIDENT,
Phil Sirvid**



Dear members,

Happy New Year and welcome to the first newsletter of 2023.

I hope everyone has been able to make good use of the summer so far, whether it's spending time with family or working out in the field. I'm sure some of you managed to combine both!

While there's much to look forward to this year, I'd like to take a brief look at the year just gone. We had COVID to thank for disrupting our joint conference plans with the Australian Entomological Society. However we were able to press on with a local in-person conference in Rotorua thanks to a lot of hard work from a small team. I'd particularly like to thank Julia Kasper and Steph Sopow for their efforts in organizing what was a very enjoyable and informative event.

We also launched Bug of The Year. It's our chance to put the insects, arachnids and their allies in the public spotlight. As of the time of writing (just before Christmas 2022) we have had more than 10000 votes. The bug most beloved by the public will be announced on Valentine's Day. This event owes its existence to the efforts of a dedicated and enthusiastic group, and I'm proud to be one of their number. I'd like to acknowledge Lily Duvall, Tara Murray, Morgane Merien, Julia Kasper and most especially Jenny Jandt for their commitment in bringing this project to life.

As this piece seems to be about acknowledgements, I'll continue. Steve Pawson, and Olwyn and Chris Green have supported the Society for many years and it was a pleasure to induct them as Honorary Members in recognition of their service. There are many other deserving individuals who have made worthwhile contributions, so if anyone would like to





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FROM THE PRESIDENT, Phil Sirvid (continued)

nominate someone for Honorary Membership or as a Fellow of the Entomological Society, instructions can be found on the Society website here: <https://ento.org.nz/awards-and-grants/>

My last acknowledgement is for David Court, a New Zealander now living in Singapore. David works on spiders and learned a lot from the late Ray and Lyn Forster. To honour their legacy, David has donated \$200,000 to the Society to be used to fund a new award called the Forster Prize for student and amateur work on New Zealand arachnids. Details of how this will operate should be available early in 2023 and will be posted in the Awards and Grants section of the website. This is an incredible act of generosity that will have a positive impact for years to come. Thank you, David!

Phil Sirvid
President

Plant-Synz:

By Dr Nicholas Martin

In 1997, I realised that I could identify known and previously unknown invertebrates on native plants by the appearance of plant damage like 'leaf mines'. Hence my name for the technique, Plant-SyNZtm, which can be found on the internet ([Plant-SyNZ - Landcare Research](#)).

From the list on the left select 'search'. This allows you to see what is known to live on a host plant or what plants are associated with a species of herbivore.

Near the bottom of the Home Page is a link to the '[Demonstration identification charts and recording sheets](#)' which are available for testing. I hope more plants will be added soon.

Nicholas Martin, (Dr), retired, Landcare Research, Auckland



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70th Entomological Society of New Zealand Conference: Prize winners

Congratulations to all the prize winners at the conference!

21st Anniversary Awards:

Kate Curtis

Mari Nakano

Zondag Trust Award:

Emily Weser

KJ Fox Award:

Mari Nakano

Lily Duvall

Marius van Staden

Connal McLean

Shaun Thompson

James Roberts

Gracie Kroos

Bruce Given Awards:

Best Student Presentation

1st Place: Simon Connelly

2nd Place: Morgane Merien

3rd Place: Gracie Kroos

1st Place Poster: Samantha McAulay

2nd Place Poster: James Roberts



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Student profile:

Sharn Milliken

Primary supervisor: Sheri Johnson
University of Otago

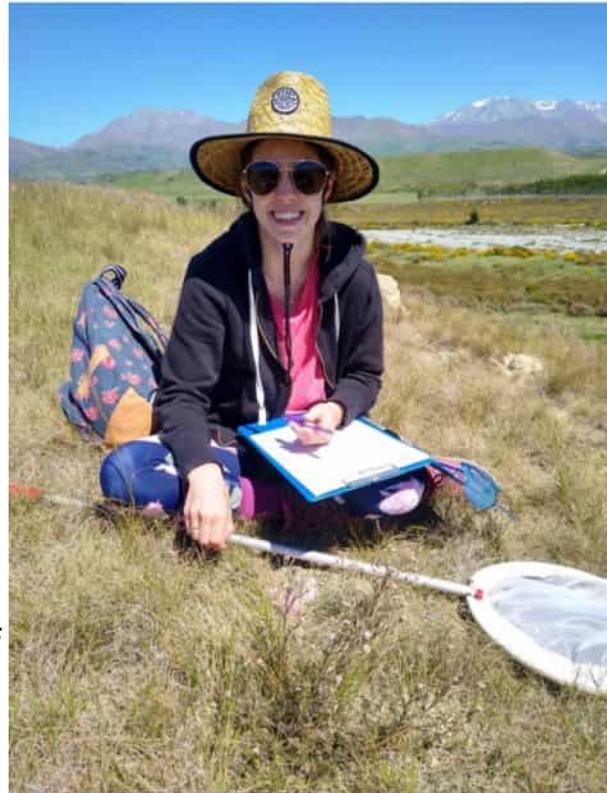
1. What was your Master's research about?

My thesis focuses on rare limestone plants growing in Waitaki Valley. The plants are *Carmichaelia hollowayi*, *Lepidium sisymbrioides*, and *Gentianella calcis. subsp calcis*, which all have a conservation status of nationally critical. The pollinators of these plants are unknown. My primary goal is to identify the main pollinators for all three plants. To

achieve this goal I used observational methods as well as single-visit pollinator experiments. My work spans two sites: Wai O Toura Scenic Reserve (formerly Gards Road Scenic Reserve) and Waipata Scientific Reserve (also known as Earthquakes Scientific Reserve). Both are relatively new reserves managed by a team of scientists, rangers and locals who work together to care for the reserves and the threatened plants growing in them. My work will help DOC form conservation management plans for all three plants. Conserving the pollinators is important for keeping a stable ecosystem at the sites.

2. What do you like most about your Master's research?

I loved the opportunities my research brought me. I got to travel with my lab group to new places, such as Stewart Island, and meet interesting people. I enjoyed knowing my research would help conserve these small, endemic plants. Making the long drive out to my sites a couple of days a week was tedious at first, but then I came to enjoy the chance to listen to podcasts while driving and North Otago was always a couple of degrees warmer than Dunedin. My sites are mainly covered in long grass and sitting in the sunny fields wearing my large straw hat was very peaceful. However, I do suffer from hayfever so when the plants dropped their pollen I would return with puffy red eyes.



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Student profile (continued):
Sharn Milliken

3. What was a challenge you faced during your research?

When I started this project my main interest was in the ecology of pollination. But, when I realised I would have to identify insect species, that idea was intimidating, especially when I caught a lot of flies and then was told that identifying flies down to species level is very difficult. As I had not identified insects before I had to contact entomologists to learn a lot, and fast. I also disliked capturing native bees; they were cute and busy and I felt bad taking them. There are a lot of people I need to thank in my acknowledgments because I genuinely couldn't have done it without them. Some people think that a master's is about doing all the work yourself, but what I've learned is that working with the people around you - learning from and helping each other - is a big part of postgraduate study.



Graduate profile:

Mateus Detoni

Primary supervisor: Jenny Jandt
University of Otago

1. What was your PhD research about?

My thesis focused on exploring the ontogeny of collective anti-predator defences in *Vespula vulgaris* social wasp colonies around Dunedin, South Island. Aiming to understand why wasp colonies in Aotearoa have retained

strong and consistent anti-predator behaviours even many decades after their introduction – and despite having no recorded colony predators in the country – I investigated different mechanisms which might play a role in the ontogeny of defensive phenotypes at the colony level. The results found showed the role of the colony cycle in the defensive phenotype displayed by wasps; furthermore, the combination of a lack of experience-based behavioural shifts and some evidence of genetic factors influencing on wasp aggression suggest that highly defensive behaviours are probably a well-conserved, “hard-wired” aspect of wasp biology.



2. What did you like most about your research?

To me, the best part of behavioural research is the troubleshooting and fine-tuning of field trials. It is usually uncharted territory when one studies non-model organisms, so having to be creative and observant to the study object's responses to trial attempts, and changing things based on real-time feedback can be really rewarding when the final experimental design clicks in place. On another hand, and more specifically to this project – the sheer thrill of having dozens of (justifiably) angry wasps dive-bombing me or trying to sting through the face shield of my bee suit when I made them angry on purpose was a great experience. I don't think I ever need to swim with sharks to know what it feels like.

Graduate profile (continued):

Mateus Detoni

3. What was a challenge you faced during your research?

Studying social wasps in a field ecology setting is riddled with obstacles. Firstly, colonies are only relatively easy to locate for a few months during summer. Then there is the fact that wasps do not like flying, foraging, or doing most things when it is raining, so only good weather days work for data collection. Finding a good sample size can be hard – they need to be in accessible places, but not *too* accessible, since working with nest defence meant I tried to be away from passers-by. In 2019, *Vespula* wasps decided they had better places to be other than Dunedin; while I am sure most people were pretty happy with that, myself and a few other wasp researchers were left without much option. I remember deciding putting all my hopes in the following summer for data collection, so it was pretty funny when lockdown happened in the smack middle of wasp season in 2020...



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Who will be Bug of the Year 2023?

By Jenny Jandt



In November 2022, the [Entomological Society of New Zealand](#) launched our inaugural “NZ Bug of the Year” campaign. The [Bug of the Year website](#) showcases this year’s 24 nominees, each of which has a page with additional information and photos, posters and flyers, colouring pages, and links for readers to learn even more! We want to raise awareness and appreciation of the so often ignored invertebrates and we are also promoting the power of Citizen Science through [iNaturalist.nz](#).

The project kicked off and continues to receive a great media presence (e.g. [The Spinoff 16 Nov](#) and [RNZ interviews 14 Oct, 2 Dec and 8 Dec](#)). Bug of the Year Champions, mainly members of the Society, have been actively campaigning for their favourite nominees on social media, creating memes and promotional videos. It’s not too late to join in!

[2023 Bug of the Year](#) voting closes **13 Feb 2023**, so there is plenty of time to take advantage of the different [events](#) being hosted throughout the summer and learn more about this year’s nominees. Check out our website, follow us on [Twitter](#) and/or [Facebook](#) ([@NZEntoSoc](#); [#BugOfTheYear2023](#)), and get outside and start exploring the wonderful weird, beautifully elegant, and creepy crawly BUGS OF AOTEAROA!

The winner will be announced on 14 February 2023. Watch for announcements regarding events that are being planned around this.

A big THANK YOU to the Bug of the Year Committee for making this a reality: Lily Duval, Jenny Jandt, Julia Kasper, Morgane Merien, Tara Murray, and Phil Sirvid.

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Wellington Branch - Pepeke group:

Wellington's invertebrates group continued to be very popular. We have always new interested people joining us. However, the hardcore of people who are coming to all meetings and are paying for their membership is containing only 13 people.



Our hybrid meetings are visited by approx. 20 people and we think that the investment in a zoom membership is well justified. Would be great to liaise with the other branches, so more people can zoom in for more talks.

Our meetings 2022

- **2nd March Peter Dearden** from Otago Uni dug in the treasure box of exciting genomic studies of insects. **‘How queen bees repress their workers, and how did that evolve?’**
- **4th May 7 pm Mariana Bulgarella** from VUW, talked about **Dipteran parasites on chicks of Galapagos finches**. Gross but fascinating!
- We were back to ‘in-person-meetings’! **6th July Phil Sirvid** from Te Papa, who talked about **Harvestmen!**
- **7th September 7:30 pm Ricardo Palma’s** amazing adventures in Galapagos involving birds and their ectoparasites!
- **2nd November Halloween meeting** themed **"The beauties and the beasts"** with **Eric Edwards’** amazing discoveries of **Samoan butterflies**. Afterwards **Anna Stewart** took us on a journey into caves and introduced us to the **subterranean critters**.



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Wellington Branch - Pepeke group:

Projects

100 years moths Zealandia/Otari

We wrapped up our 3 year project with 3 moth trips at Zealandia 2022 with 11 different volunteers and we kicked off our next project in Otari with a Matariki Pepeke hikoi which was attended by about 20-30 members of the public.

We have run the first 2 Otari-Wilton's bush moth trips, the exciting next stage of the project where George Hudson was a very active collector in early 20th century. The first two trips were well attended and the waiting list for trips is growing. An iNaturalist project has been setup to harvest observations and store our species count, you can find it on the site. <https://inaturalist.nz/projects/100-year-moth-project-otari-wilton>. More trips are planned to come the new year.

Noteworthy

The Charisa Entomology and Natural History trust has donated 10 K dollars, enabling us to continue the 100 year moth project in Otari-Wilton's bush and potentially fund other work. We thank all the trustees for their generous gift and dedication to local entomology in action.

Chair and treasurer: Julia Kasper

Secretary: Shaun Thompson

Public relation: Will Brockelsby

Arch-minion: Phil Sirvid





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Christopher and Letter from Bruce Given:

By Jacqui Knight

Many people ask what fuels my passion for butterflies.

My own mother was very much a nature-lover and introduced my three brothers and I to the swan plant and monarch butterfly. Plus, of course, as it was in those days, we had a nature table at primary school where every year someone would bring along a monarch caterpillar for us to study.

When I became a mother I was determined that my own children would gain an understanding and love for nature, so we planted a swan plant. Both boys were avid readers, and when my older son was aged 9 we read a National Geographic covering the discovery of the monarchs' overwintering habitat in Mexico.

Chris, my son, asked me where the monarchs overwintered in New Zealand. This led us on all sorts of adventures: visits to various libraries, letters and phone calls to scientific institutions – for this was in 1984, five years before the internet arrived in NZ. All our inquiries led us nowhere.

I persuaded him to write letters to the editors of the NZ Herald and the Auckland Star, which prompted phone calls from reporters at each publication, asking if they could come and meet Chris and print a story about his inquiry. Which they did. And that's when the mail started pouring into our letterbox – responses from all over the country. With butterfly stamps, stickers, maps, drawings, cards, postcards and books. And seeds – some of which were for a 'larger' version of the swan plant, *Gomphocarpus physocarpus*.

There were phone calls from producers of radio and TV programs too. Jim Henderson from Radio Pacific suggested that Chris start a club for all these monarch enthusiasts. "That's a very good idea," Chris replied. I had an electric typewriter with a memory (very fancy in those days), and we wrote one letter which was sent to all of the people, with a few *G. physocarpus* seeds attached.





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Christopher and Letter from Bruce Given (continued):

By Jacqui Knight

Why am I telling you all this? One of the people who made contact was entomologist Bruce Given, who made a huge impression on me and Chris. He wrote the most delightful letters.

I unearthed his letter the other day and I hope that other members find it inspirational too! George Gibbs told me that Bruce was one of NZ's most experienced entomologists when George joined the Ent. Soc.

He was the leader of the Biological Control Group at Entomology Division, Department of Scientific and Industrial Research, then moved on to lead the Insect Control Group at the Department of Agriculture in Ruakura in the 1960's; specialising in subterranean grass grubs, the bane of our farmers and gardeners. Bruce was also a keen photographer and the author of ***Bulletin 6 of the NZ Ent Soc*** in 1982 where he made a special effort to encourage entomologists to get out and observe the living insects.

There are also the annual Bruce Given Awards that are awarded to students for the best oral and poster presentation at the Entomological Society of New Zealand conference.

Here is his letter – I do hope you enjoy it as much as we did.

Dear Christopher,

You and I are both interested in entomology. With me, it was a lifetime professional interest. With you it is, so far, a fascinating hobby which could well turn into a much more serious concern in the future. Further than this, your interest could well turn to a related natural history area.

Insects are the most diverse and successful of all life forms. To date, something under 15% of all species existing on Earth have been discovered and of the half million known species, very few are fully understood.

There are basically two types of entomologists. Those who collect, label and store the specimens as philatelists store and catalogue





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Christopher and Letter from Bruce Given (continued):
By Jacqui Knight

postage stamps and those who study their behaviour and relationships in the field. Neither one of these two types can do without the other but there is a danger in becoming a “cabinet” collector. The appetite for collection of anything in large numbers can very easily become a mania. On the other hand, large collections in the right hands are essential for the identification and classification of species, genera and broader categories.

However, what I really want to pass on to you is the importance of observation and interpretation. Nothing happens without a logical reason. The bogong moths of Australia shelter in millions in the lee of granite boulders to spend the winter, as the monarch butterflies congregate in various localities. These are facts but there is still much to be known before the questions, how? and why? can be answered. Gum emperor moths feed on gum trees, pepper trees and liquidambar trees. The moths are Australian but the pepper tree is South American and liquidambar is Central American and Asiatic. Why the selective attraction? They all contain an identical chemical.

Carpet beetle adults are attracted to parsley flowers, sarcophagid flesh flies to spindleberry flowers, grass-grub larvae are attracted or repelled by certain plant roots. There are chemical reasons for these reactions.

More obviously, you will notice particular insects in the summer showing preferences for different plants. Frequently insect parasites and predators show an attraction to plants on which their hosts feed. Some of these reactions are very complex, others very simple.

When observing behaviour, look for both specificity and broad-spectrum responses. Both are important. When observing insects, patience is of the utmost importance. It is much more important to be still than forever searching. Watch a flowering tree (tea-tree is a good one) and stay still. After a while, movements will attract your eye and become insects or spiders where some minutes before they were invisible. The entomologists’ net can readily be the flag of





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Christopher and Letter from Bruce Given (continued):

By Jacqui Knight

danger to the very specimens you wish to see. Stillness on our part will disclose behaviour on the part of the insects. They will come to accept you as part of the static environment.

By growing a number of native plants, I have encouraged a number of native insects to establish in our garden. We now have three species of native burrowing bee, a tiger beetle and four subterranean (in the larval stage) scarabs. I also have both parasites and diseases of these, as well as predators including spiders. It is possible for me to forecast the collapse of aphid populations due to fungal disease and aphid plus predator attack.

May have become a little too technical in some areas but you are intelligent, and I am sure that with your mother's help my comments will be of help to you.

Regards, Bruce B Given

PS If you would like to write to me at any time, please do so. B.

Upcoming events:

BioBlitz: Massey University Ōteha Auckland campus, 4th March, 2023.

All welcome. There will be activities for kids, food trucks and more! For more information, search for the Massey Ōteha (Albany) BioBlitz iNaturalist site currently under construction, or contact Anne Wignall (a.e.wignall@massey.ac.nz)



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From New Zealand Entomologist:
By Jenny Jandt, Editor-in-Chief

THANK YOU to those of you who are preparing a manuscript for submission to [New Zealand Entomologist](#). As you know, New Zealand Entomologist is the primary journal for the Entomological Society of New Zealand, and we want to encourage all of you, as members of the society, to try to submit at least one manuscript a year.



At the 70th Entomological Society NZ meeting in Rotorua, New Zealand Entomologist announced a few new initiatives that will go into effect starting this year. These include additional incentives for students who are preparing to publish in NZ Ento for the first time and opportunities for recent grads and early career folks to take on leadership roles with the journal. We will also begin organising and publishing article “collections”. More information on all of this will be sent in a separate email to membership later this month.

Please email editor@ento.org.nz if you have any questions about submitting your manuscript, whether it fits the [scope](#), or if you are struggling with Editorial Manager. Our Publishers (Taylor & Francis) are committed to ensuring we have as much support as we can.

The Wētā

Many thanks to Simon Hodge for all his hard work as editor of The Wētā. We welcome Rudi Schnitzler as the new editor.

Note that the Wētā is currently inviting submissions for the next issue. The new online system means that articles are now available online within 1-2 weeks of submission.

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Postgraduate submissions:

Paige Matheson, MSc (16 December 2022). How can genomic data inform biological invasions.

Eloise Lancaster, MSc Ecology (15 July 2022): Chemical and Reproductive Aspects of the Population Ecology of Native New Zealand Ant *Monomorium antarcticum* (Fr. Smith) (Hymenoptera: Formicidae).

Nicolie Hans Kelvin, PGDip Zoology (18 October 2022): New Zealand Red Admiral (*Vanessa gonerilla*) egg-laying behaviour on *Urtica ferox*.

Publications from Members:

Jenny Jandt:

Detoni M, Johnson SL, Adams CIM, Bengston S, Jandt JM. 2022. Older, but not wiser: social wasp colony defensive behavior decreases with time, not experience. *Insectes Sociaux*: 1-16.

<https://doi.org/10.1007/s00040-022-00893-1>

Chen JPL, Dickinson KJM, Barratt BIP, Jandt JM. 2022. Beetle (Coleoptera) communities inside and outside the pest-resistant fencing of a New Zealand ecosanctuary. *New Zealand Entomologist* 45: 17-34.

<https://doi.org/10.1080/00779962.2022.2120594>

Neupert S, Jandt JM, Szyszka P. 2022. Sugar alcohols have the potential as bee-safe baits for the common wasp. *Pest Management Science*: <https://doi.org/10.1002/ps.6925>

Sanger G, Jandt JM. 2022. Kahukura & Ongaonga [information poster available as pdf. Contact jenny.jandt@otago.ac.nz for a copy]





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