



Canberra Nature Map newsletter

Volume 1 Issue 2: June 2023



Meet the mappers

Trevor Preston

Trevor has contributed over eight thousand sightings to Canberra Nature Map, making him one of our most prolific contributors! We had a chance to ask Trevor a few questions recently.



evidence that it is worth saving and lead to its entry into the ACT system of nature reserves.

I love visiting places that are not well reported on Canberra Nature Map and try to get to some of those areas each year. It leads me to places I've never been and each new place is an adventure of discovery. Monga National Park on the Southern edge of the CNM boundary has been a standout this year so far with many new invertebrates and flowers to marvel at. Another great way I use to explore places I wouldn't normally go is to pick a rare or threatened species that interests me and visit places it has been, or likely to be, in hope of a sighting and some good images.

Tell us a little about yourself and how you came to use NatureMapr?

I was born and raised near Bombala NSW and have lived in and around Canberra all of my adult life. I am a Youth Worker, Dad, Student, Homeopath, and other things besides. I have explored in nature my whole life, and walking in nature is an important part of my physical and mental self-care to this day. When I was about 17, I bought myself a good camera and loved taking photos of nature and loved getting things identified, although the opportunities and resources were a lot less back then. I discovered Canberra Nature Map back in September 2019 searching for some IDs on the Internet, and when I figured out what it did I thought it fitted in perfectly with my interests in nature and photography, and made it useful to the community as well, so I have used it enthusiastically ever since.

What photography equipment do you use?

I haven't used an SLR in years now and all my photography is using a Samsung smartphone S20fe, and previous to that a Samsung S7. It's amazing the images they can catch, although regrettably they are almost useless in capturing birds. I think the convenience of always having it in my pocket, ready to go, makes the phone a very attractive option.

What is your favourite place to explore and take photos within the Canberra Nature Map (CNM) project?

I like to report sightings where it is most useful, so my favourite place at the moment is Bluetts Block, next to Denman Prospect, which is currently at risk of being sold to developers by the ACT government. Reporting sightings of this beautiful place will hopefully contribute to



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Do you have a favourite or most memorable sighting?

My sighting of the Giant King Cricket (*Anostostoma opacum*) in Monga National Park comes to mind, such an unexpected and spectacular creature. I felt blessed to be able to meet this rare cricket.

What do you love most about Canberra Nature Map?

I love that NatureMapr is useful. It documents biodiversity in a way that scientists, governments and groups can use to help monitor and understand species, populations, and ecological communities and help us better care for and preserve these species and places. I also love that it is such a great source of public education, there is no better source of information to identify and learn about the species all around us.

If you want to see all of Trevor's CNM sightings, they can be seen here: <https://canberra.naturemapr.org/users/sightings/21332>

Michael Bedingfield

Nobody has made more of a contribution to Canberra Nature Map than Michael Bedingfield. He has been one of the driving forces behind the scenes and until recently had also contributed the most number of sightings with nine thousand individual sightings. He is also one of the top moderators, confirming the ID of close to eight thousand sightings. In addition, he is the project administrator and is responsible for user experience. It's safe to say that nobody has put more time into Canberra Nature Map than Michael, and the project is all the richer for his work. We were fortunate enough to steal a little bit of time out of his busy schedule to ask him some questions.

Tell us a little about yourself and how you got involved with Canberra Nature Map?

I've lived most of my life in Canberra and I've explored the natural areas around southern Tuggeranong since I moved there in 1992. I became interested in the local native plants when seeing the rich native floral diversity. Since then I've drawn and photographed many of the local plants and animals, contributing to Friends of Grasslands and assisting their cause.

Earlier in my life I had worked as a computer programmer and systems analyst in the Public Service. Then in 2014, Aaron Clausen and Michael Mulvaney asked me to help them in developing and administering the Canberra Nature Map website and the NatureMapr network. I became very enthused with the possibilities of what we were creating. So my photography expanded to include all manner of wildlife, large and small, fauna and flora. I am particularly interested in Tuggeranong Hill, the lower slopes of Mount Rob Roy, and the Murrumbidgee River Corridor.

You do so much work behind the scenes in keeping Canberra Nature Map running. Can you tell us what is involved with that?

When we were just beginning, my main focus was helping Aaron with the development of the software to support the platform and uploading good photos to create a photo library. Now I spend a lot of time monitoring activity on the website. I do identifications of sightings and engage with members regarding their sightings. I work with the software team to keep the platform in good shape and report software bugs. I also answer enquiries from members and the public.

I help moderators with technical issues and assist with recruiting and educating them. I help manage the field guides, species pages and the complex taxonomy category structures. I make maps of nature reserves and do lots of other things as well. There is a lot involved.

When you are out in the field, what photography equipment do you use?

I have a Nikon Coolpix P510.

You have so many more sightings, is there one that sticks out as a favourite or most memorable?

It is hard to choose just one, but a recent find I was very happy to photograph was the endangered [Key's Matchstick Grasshopper *Keyacris scurra*](#) on Tuggeranong Hill.

What do you see as the greatest value in Canberra Nature Map and NatureMapr more broadly?

CNM is the best website around for obtaining any information about the flora and fauna of the Canberra region. It has a multitude of user friendly features that benefit the amateur and professional alike, as well as being of great value to LandCare groups to create their own data map. Some of the valuable features are: Field Guides, which have excellent educational value, a community of enthusiastic like-minded people working together, 10,000's of wonderful photos and distribution maps of species. It is real citizen science with new species being added to our lists all the time. It has become an essential tool in the workplace for the ACT government and is also used by The Queanbeyan-Palerang Shire.

If you want to see all of Michael's CNM sightings, they can be seen here: <https://canberra.naturemapr.org/users/sightings/8083>
#NatureMapr #citizenscience Australian Citizen Science Association Queanbeyan-Palerang Regional Council ACT Government Landcare ACT

Ciaran (aka Tapirlord) Ernst-Russell

When young Ciaran first joined Canberra Nature Map three years ago he asked Michael Mulvaney if he could help out with reptiles. Michael persuaded him to go with plants, and the amount of knowledge Ciaran has amassed and shared in that time is incredible!

Not only has he now confirmed the 2nd highest number of identifications (>12,000), and contributed the 6th most records, he also takes the time to give tips and in-depth reasoning (1,936 comments) to help others. And now that NatureMapr has gone Australia-wide he has signed up as a Moderator for an additional 16 regions on top of the Canberra and Southern Tablelands Region.

Ciaran is more than happy he turned to plants rather than reptiles as he says they're "super interesting and there are a whole lot more of them! At the very least I'm doing more moderation now than I would've doing reptiles".

Tell us a little about yourself and how you came to use Canberra Nature Map?

I'm a full-time uni student, nature-lover and amateur horticulturist with a passion for citizen science, living on Ngannawal land in the Nation's Capital. I made a Canberra Nature Map account in late September 2020 after hearing about it from my best friend Ned Johnston. He'd heard about it from Trevor Preston who worked at my high school and had properly gotten into it after a guided walk with Michael Mulvaney.



I am very much a plant lover, so that tends to be the focus of my photography, though I try to document everything that I can when out and about. I'm pretty well versed with plants of NSW particularly along the coast and on the Southern Tablelands, though there is plenty more that I don't know — all tips are much appreciated!

I am also a Canberra orchid society member, and grow a decent variety of *Pterostylis* species.

In my other life, I am an orchestral Bass Trombonist and have played with various groups including the current Australian Youth Orchestra. You may have heard me play if you listen to Classic FM.

What is your favourite place to explore?

I have a particular fascination with the high-altitude flora in Namadgi National Park, and this passion, coupled with a love for mountaineering, has taken me to some incredible places — Mt Bimberi, Mt Namadgi and Sentry Box to name a few. My current mission is climbing and surveying every peak in the ACT over 1,700m. If this is something that you are interested in generally, or you would be interested in joining me for a rare alpine wild-flower walk to the Sentry Box later this year, please get in contact!

On CNM I look after the plant categories as a moderator and try my best to identify the thousands of sightings you all put up during the year. I also spend a good deal of my time photographing biodiversity, mostly the plants (the best kind). I'm a pretty adventurous person especially during the summer when I'm not bogged down with exams, there is always another mountain to climb as far as I'm concerned. My goal over the last couple of years has been to document the flora of the ACT's highest peaks - I'm currently at 16 peaks and counting.

Do you have a favourite or most memorable sighting?

The Namadgi Tea-tree (*Leptospermum namadgiense*) is my favourite alpine plant species.

See all of Ciaran's NatureMapr sightings here: <https://naturemapr.org/users/sightings/22727>

As for the profile name Tapirlord? Back when young Ciaran started out his parents suggested he shield his identity online, so he chose his favourite animal at the time.

As Ciaran says: "Now grab your camera and head on out there - happy nature-mapping!"

Plants of South Eastern NSW app

The latest edition of my free app Plants of South Eastern NSW is now available from [Google](#) and [Apple](#).



The area covered is slightly larger, the western boundary now being due north from Albury to the West Wyalong district.

The species list has been updated to include records uploaded to the Atlas of Living Australia since 2020. Fact Sheets have been updated to include changes to legislation. A number of errors have been corrected. Distributions have been updated. About 200 species have been added, and additional subspecies or varieties added to 8 existing species. Twenty-three species have been deleted, having previously been recorded in error, or having been recorded fewer than four times since 1983 in the area covered by the key.

Common names in the Atlas of Living Australia and in iNaturalist Australia have been added where they are in addition to common names from other sources.

Betty Wood

The Choyster!

It is with great pleasure and special thanks to the generous support of the ACT Government's Connecting Nature, Connecting People project, we introduce you to NatureMapr's new Partnerships Officer: Lewis Choy.

Lewis will be starting with NatureMapr as our Partnerships Officer on a part time basis from 24 July onwards - and we are extremely excited to have him joining the team.

Lewis is a very well rounded 3rd year Bachelor of Environment and Sustainability student at the ANU who has his sights set on honours. He has a love and appreciation for the natural world and values that resonate with NatureMapr's mission - he is a natural relationship builder.

In his role, Lewis will be responsible for supporting our team through the next phase of our growth as well as growing and strengthening NatureMapr's partnerships with both schools, community groups and local government. He will provide dedicated priority support to ACT Government and ensure we are able to continue to provide a high level of support to both the community and our customers.

Lewis will become the primary contact point between the community and the team who are building and supporting the thriving citizen science platform.

Welcome Lewis!

Aaron Clausen



Insect of Autumn: Wingless Soldier Fly: *Boreoides subulatus*



The insect class has many beautiful representatives among the butterflies and beetles and even some flies, but the wingless soldier fly is not one of these. Every autumn the females, their bodies bloated with developing eggs, emerge from the dark recesses of the soil and compost. They lumber around on the ground before climbing up tree trunks, plant stems and walls (they are positively geotropic), and wait to be mated so they can lay their eggs in the soil and continue the eternal cycle of life. These females can creep through small crevices and even end up on the carpet inside houses. Don't squash this interloper but move her outdoors as she cannot bite or sting although she does have a conspicuous pointed ovipositor at her rear.

Described by Hardy as recently as 1920, there are two other species in the genus. The name *subulatus* means long and tapering, probably referring to the shape of the female.



The males, on the other hand, look like a nondescript fly. They are much smaller than the female and have wings and buzz around looking for females, the sole object of their brief lives.

Neither females nor males feed as adults and have rudimentary mouthparts.

The larvae live in compost and mulch where they contribute, with other species of soldier fly larvae, to the eternal cycle of decomposition and recycling of nutrients and are a significant beneficial species.



Female bloated with eggs. Note how the intersegmental membranes have stretched and the ovipositor has lengthened, compared with the newly emerged female, shown in the title picture.

Photo by Linda Hoelle, Southern Highlands Nature Map



A pair mating.

Photo by Linda Hoelle, Southern Highlands Nature Map

It is not known if the females emit a pheromone to attract the males or whether the interaction is entirely visual.

Roger Farrow

Flower of Autumn: Alpine Gentian *Gentianella muelleriana*



Alpine Gentians: Mt Stilwell

In the alpine herb-fields and sub-alpine grasslands of Kosciuszko National Park, when the last of the Billy Button and Snow Daisy flowers turn to seed in autumn, another flower comes into its own, the alpine gentian, *Gentianella muelleriana*. Its clumps of white flowers contrast with the drying grasses, spent forbs and dark heaths at this time of year. These gentians occur at altitudes of between 1900 and 2100 above the tree line in the herb-fields of the Main Range as well as the treeless, frost hollow, grass/sedge heaths below the tree line at 1600–1800 m in places like Betts and Spencers Flats.



The alpine gentian of NSW is represented by two subspecies, *L. m. alpestris* in the Main Range and *L. m. jingerensis* in the Brindabella Range (Mt Gingera and elsewhere). In the Bogong



High Plains of Victoria, the subspecies *L. m. muelleriana* is present. Another subspecies *L. m. willisiana* is restricted to the summit of Mt Buller.

In older literature, *G. muelleriana* is called aff. *diamensis*, that is now restricted to the Tasmanian populations as *G. diamensis*. At least 30 species of *Gentianella* occur in alpine areas of New Zealand. The use of the genus name *Chionogentias* by some authorities causes yet more confusion.

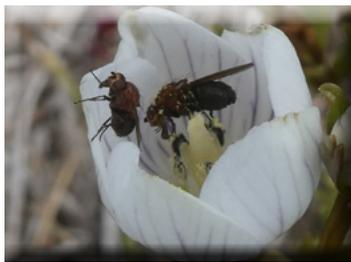
Most of you will have realised that the specific name *muelleriana* acknowledges Ferdinand von Mueller.

Species in the Australian genus *Gentianella* are distinguished from the cosmopolitan genus *Gentiana* on the basis of flower colour, blue for *Gentiana* and white with purple stripes for *Gentianella*.

My intention of visiting Mt Stilwell and Betts Flats during March was to investigate the potential pollinators of these gentians. Unfortunately, my two visits were not entirely successful due to inclement weather, cool conditions on the first and high winds on the second. The visiting insects are classified as pollinators if they are carrying pollen grains as shown in the photographs.



The dominant visitor at both Mt Stilwell and Betts Flats was a species of *Dilophus*, a March fly (Bibionidae). These flies gathered in mating clusters in the flowers, feeding on pollen at the anthers and dispersing between flower clumps, inadvertently transposing pollen between flowers. The flower shown also exhibits protandry, namely stamens maturing and opening before the central stigma opens. This promotes outcrossing and reduces possible self-pollination by visiting insects.



The second most abundant visitor was another pollen-feeding fly, a flower fly, *Sapromyza* sp. (Lauxaniidae). NB sticky pollen grains on flies.



Only one solitary bee was seen in a more sheltered site below Mt Stilwell, where a few *Gentians* were flowering. This is a sweat bee, a species of *Lasioglossum* and is shown feeding on nectar but has also collected pollen and is covered in grains. This makes it a

very effective pollinator as it flies from flower to flower.



Finally, there is a day flying moth, *Scoparia* sp. (Crambidae) visiting flowers and searching for nectar with its long proboscis. Some of these moths were seen inside the flower cup where they could pick up pollen grains.

No beetle visitors were seen on the flowers at Mt Stilwell probably because of the inclement weather at the exposed site on the saddle below the summit. Swarming scarab beetles, *Phyllotoccus* sp. were present on different flowers in a sheltered snow gully (short alpine herb-field) nearby.



Moving on to the *Gentians* at Betts Creek Flat, bees were much more abundant here at these lower elevations.

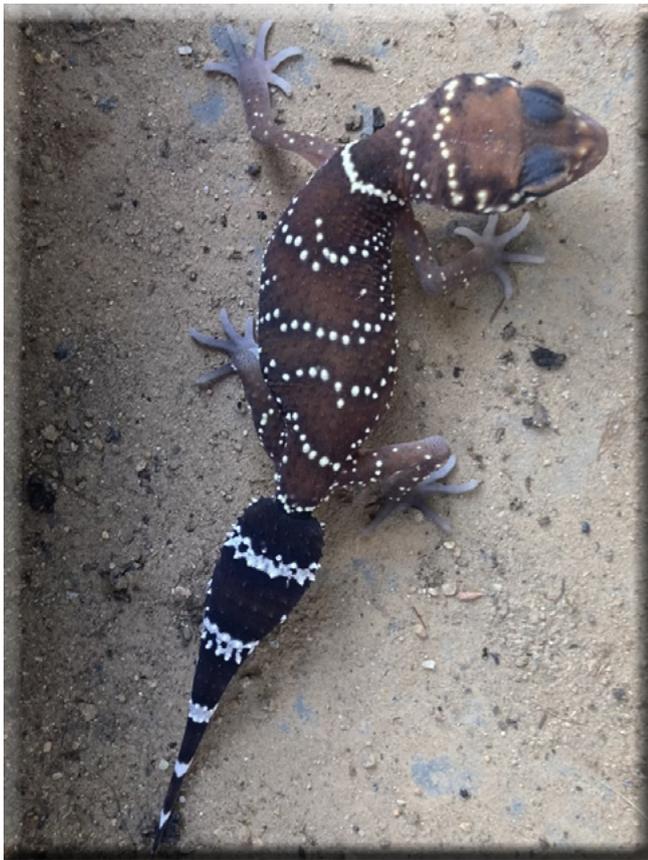
This bee is a male *Lasioglossum subrossatum* feeding on nectar. In this flower the stamens have withered and the stigma is open in the receptive stage, possibly trapping pollen seen on the abdomen of this bee.



There were large numbers of beetles on these flowers feeding on pollen and nectar. They all belong to undescribed species of *Copiacyphon* in the family Scirtidae. They were kindly identified by Dr Chris Watts from the South Australian Museum after my colleague Kim Pullen pointed out the family. Members of this family have aquatic larvae, probably living in the nearby ponds, but the adults are pollen feeders. Both sexes fly to the flowers where they feed and mate. The adults are short-lived but are effective pollinators as long as their emergence and dispersal corresponds to the flowering time of the gentians. The alpine and sub-alpine species of *Copiacyphon* are hardly known and merit more investigation. In this picture, the stigma of this flower is open and receptive whereas the anthers are withered.

Roger Farrow

Editors photo pics



This month my photo pics are this recent sighting at Cowra, NSW and submitted by brunonia via NatureMapr for our Central West Nature Map. This is our first record for that project of the Barking Gecko, Thick-tailed Gecko or *Underwoodisaurus milii*: <https://central-west-nsw.naturemapr.org/sightings/4497246>

Keep submitting your sightings and maybe the next newsletter will feature your fantastic photos.

As always, Shorty has provided fantastic photos, this time a series on three juvenile Black-shouldered Kites at Denman Prospect.



Finally, our recently relocated epic photographer Tim L has provided a great photo of a Brahminy Kite or *Haliastur indus* at Cleveland, Qld.



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