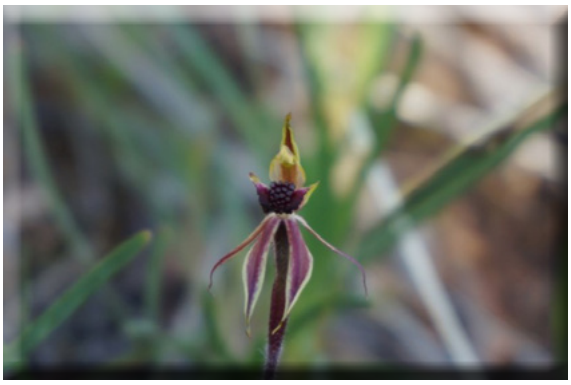
Canberra Nature Map newsletter

Volume 1 Issue 3: September 2023

The one that started it all

Bilbo Baggins and the Lord of the Rings had The One Ring that binds them all, but Canberra Nature Map, and subsequently, NatureMapr, has The One that started it all.

Yes, this is the one that started it all.



It is now 10 years (on 18 September) that Aaron's mountain bike almost ran over a rare Canberra Spider Orchid. A friend waltraud (user ID on Canberra Nature Map) put him in touch with the ACT Government's Conservation Planning and Research unit's Dr Michael Mulvaney. Being a computer wizard, this led to Aaron creating Canberra Nature Map, which at the time was the only citizen science project of its kind.

Ten years on NatureMapr now has the ability of reporting Australia-wide, though as yet, most Moderators are still Canberra-based.

Canberra Nature Map data is now used extensively by local government and many other organisations. This is an amazing achievement to come from one simple event. We are just so lucky that the person who almost ran over this orchid was a computer genius who has been able to create an amazing software package.

Congratulations Aaron on 10 years of Canberra Nature Map and hopes that it will continue well into the future.

New epic contributor

Besides Aaron and Michael Mulvany contributing to the establishment of Canberra Nature Map, there have been many more behind the scenes. None so valued as Michael Beddingfield who has done wonders with the behind the scenes administration and also contributing his many sightings. It is therefore fitting that in coinciding with the 10th anniversary of Canberra Nature Map that Michael has achieved the grand total of 10,000 sightings across the NatureMapr platform.

Michael has done amazing work in keeping the platform operational, fixing bugs and just generally dealing with all the (often inane) correspondence etc.

I believe that Michael has been one of the pivotal people that has kept Canberra Nature Map going for these past 10 years.

So congratulations also to Michael, not only for achieving an incredible 10,000 sightings, but also for all the amazing, often invisible, support you provide behind the scenes.

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Meet the Mappers

Introducing the real people making important contributions to NatureMapr

Suzi Bond

Suzi Bond has made a huge impact in Canberra in recent years, first with the publication of her field guide to the butterflies of the ACT, which has already reached two editions, and more recently co-authoring a book on the moths of the ACT. Anyone fortunate enough to join her on one of the regular spring/summer field trips to look for butterflies and to learn about their life cycles, and how they fit into our local ecosystem, will know how fantastic Suzi is as a communicator and educator. She has done so much to advance our love and knowledge of the butterflies of the ACT, so we were thrilled to interview her recently.

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

I started out as a birder. I was especially enthralled by our woodland birds and went on to study birds for my PhD, surveying birds and becoming a bird-bander. However, as an ecologist I've always been interested in nature in general, and I started to take more notice of the butterflies I was seeing during the warmer months, taking notes on when and where I was seeing them around Canberra. This new focus developed into the establishment of an ongoing butterfly monitoring project in the ACT in 2014 and the first field guide to the butterflies of the ACT, which I published in 2016. I am also interested in our local moths, and co-authored a book on the moths of the ACT in 2022 with Glenn Cocking and the late Ted Edwards. I'm not sure when I first discovered NatureMapr, but I'm proud to be involved as a moderator with such a talented community of nature photographers.

What is your favourite place to explore and take photos?

There are so many places to choose from, but if I have to choose, I'll nominate Mount Ginini and Goorooyarroo Nature Reserve. Mount Ginini in the springtime brings out delightful green Macleay's Swallowtails, Rayed Blues and Forest Browns, and exploring Goorooyarroo in the butterfly season is like discovering small unexpected treasures such as elusive Yellow Ochres and Moonlight Jewels.

Do you have a favourite, or most memorable sighting that you've moderated?

Firstly, hats off to anyone who manages to photograph a butterfly! They can be incredibly frustrating subjects to photograph when the weather is warm and they don't stop moving, and it can be even harder to obtain a photograph showing the defining features required for a successful ID. NatureMaprs have made incredible contributions to our knowledge of butterflies in the ACT, with an additional five species added to the ACT species list thanks directly to their efforts – wow! I'd like to thank and highlight the following amazing Canberra NatureMaprs for their significant records of the following breeding resident butterflies:

- Christine's photo of the Small Ant-blue, which was the second record ever for the ACT and kick-started a research project that led to vastly improved knowledge of not just the cryptic endemic butterfly, but also their attendant ant.
- Susan's photo of the Purple Copper, which was the first time this threatened species had been discovered outside of their narrow known range in NSW. Who knew we had butterflies that liked to fly in the mountains during the Canberra winter?!
- Owen's photo of the White-veined Sand-skipper, which was the first record of this little specialist skipper in the ACT and is important because it is one of only a handful of known populations in our region.
- Matthew's photo of the Spotted Trident-blue, which was initially thought to be a Copper Pencil-blue, but thanks to research prompted by Matthew's image, turned out to be an entirely new species for Australia, incredible!

What do you love most about NatureMapr, and as a moderator?

NatureMapr stands out from the other citizen science platforms due to the wonderful sense of community it has created and fostered for the butterfly group, and I love that this butterfly community of users and moderators is supportive and enquiring. NatureMapr's use of experts in verifying every record is also critically important, not just for the quality of the data but also to help new users learn how to accurately identify our butterflies. I look forward to seeing what this season brings in for the fascinating world of butterflies!

On behalf of everyone in the NatureMapr community, we offer a massive thank you to Suzi for all her work in promoting the awareness of butterflies and moths in the ACT, and also for embracing Canberra Nature Map, and NatureMapr more broadly.

You can find Suzi's field guide to the butterflies of the ACT here: https://www.npaact.org.au/.../publications/field-guides

You can find details about the Moths in the ACT book here: https://mothsintheact.org/index.html

Tim Leach

Tim Leach, or username TimL, has become one of the most popular contributors to NatureMapr, in no small part due to his incredible macro photography of insects. His attention to detail has opened up a whole new perspective on the very small creatures around us. One of the most prolific contributors to Canberra Nature Map, with over 3,500 sightings, he recently relocated to Brisbane and is now adding many valuable first sightings in the Queensland capital. We were fortunate to be able to ask him a few questions recently to learn more about him.

Tell us a little about yourself Tim?

NatureMapr's dSLR photography guide: https://naturemapr.org/content/photography-guide-dslr explains the photographic techniques and camera equipment I use, so I won't repeat that here. Instead, I'll explain the long journey to my current photography interests. At age 10 I had started photographing the world around me and by age 12 this had developed into interests in photography and astronomy. By 16 I had added rock climbing to the mix and by 18 my interests included serious rock climbing and mountaineering, subsequently all over the UK, the European Alps, Czechoslovakia, Poland and an expedition to Cilo Dağı in the Hakkâri Dağları mountain chain of SE Turkey. To record these adventures I needed a lightweight, compact dSLR camera and bought an Olympus

OM1 to which I later added a macro converter ring and telephoto lens as my interests in those directions grew. After meeting my wife (and soul mate) from the Austrian Tyrolean Alps, work and family life brought us to Australia. Here I hand-built a telescope, grinding a 250 mm diameter mirror and making everything myself except for the eyepieces. The telescope was subsequently used for many years as part of an amateur program educating Canberra school children and the wider community about the local night sky. This grew into an opportunity to use Mt Stromlo Observatory's Yale-Columbia telescope for live recording of the 1994 Shoemaker-Levi comet fragment impacts of Jupiter. Following this I joined the Reynolds Amateur Astronomy Team (RAPT) where amateur astronomers worked overnight at Mt Stromlo after their day jobs, using a variety of telescopes to gather data for the professional astronomers. This included data for the MACHO (Massive Astronomical Compact Halo Objects) project, for the search for Dark Matter, and work on Blazars and Gamma-Ray Bursts. Data was also taken on Supernova explosions in galaxies many thousands of light years away, which ultimately contributed to Professor Brian Schmidt's 2011 Nobel Prize for Physics for discovering the accelerating expansion rate of the Universe. These years demonstrated the value of citizen scientists and were a valuable introduction to digital photography (using liquid nitrogen cooled CCD cameras) and to working long hours fully exposed to Canberra winters inside an unheated telescope dome.

In 2003 the Canberra bushfires tore through Mt Stromlo destroying the observatory and ending RAPT's 5-year work. Shortly after this I retired my Olympus OM1 and bought my first digital camera. This together with focus stacking camera equipment allowed me to greatly expand my photographic interests particularly in macro photography of insects and other subjects. My experience in digital camera technology plus cold weather and night time photography opened many photographic opportunities including astrophotography. My oldest son takes stunning artistic images of the night sky and over a one-year period we frequently met after work far from Canberra's light pollution, to take digital images of the Milky Way. This resulted in him producing an incredibly detailed night sky panorama. At this time, I was also inspired by Tom Murphy's winter photography in Yellowstone National Park and by Professor Kenneth Libbrecht's work on the science and art of snowflake photography. During a subsequent winter trip through Yellowstone in conditions that were down to -35°C in parts of the park, I experienced serious sub-zero photography and used this knowledge to develop a personal area of interest I have in macro photography of ice crystals (the white frost you see in winter). Over a 5-year period of very challenging night time photography in Canberra's winter conditions I developed an understanding of the science behind ice crystal formation and used this to produce many focus-stacked macro images of tiny, ephemeral icy objects. Whilst these have never appeared on NatureMapr, some are included in this profile to demonstrate how wondrous nature and macro photography can be. Photography in general and macro photography in particular, is part of a personal drive to try and understand the world we find ourselves in, on a scale measured in thousands of light years to less than a millimetre.

How did you discover NatureMapr?

I saw a National Botanic Gardens presentation by Aaron Clausen on the NatureMapr concept and how it had come about. Aaron's ideas, enthusiasm and obvious drive would clearly produce an Australian developed, owned, operated and hosted platform where citizen scientists would benefit from a two-way process of contributing their data and receiving expert feedback on it. It had the very important potential for all involved, citizen scientists and subject matter experts alike, to learn from each other and clearly, this would make a difference. Contributors to the platform would add to the value of citizen science and have the opportunity to increase their personal knowledge and develop their skills. It was a beneficial concept for all involved rather than yet another one-way 'give us your data for us to use' platform.

You've got so many sightings on NatureMapr, is it possible for you to pick a favourite?

Not really. Each sighting has its challenges and rewards, each has a different artistic and technical component and as anyone who has photographed live, active, wary, and completely humourless insects will know, every successful outcome is a personal winner. So, I'm going to cheat here and instead of picking a favourite, include some images I've yet to upload to NatureMapr, which could turn out to be a future favourite.

With your sightings, we notice you often credit others for the initial sighting. Is it fair to say you like to spend time out in nature in the company of others rather than as a solo pursuit?

I'm very fortunate to have family and friends who share a passion for nature and spending time in their company selfishly allows me to learn from them and improve my skills and sightings. My wife and youngest son in particular, have uncanny observation skills when out in nature and they see all kinds of things that I miss. A different take on this question is my wife's astute observation "We're all collateral damage!" That aside, there are times when by necessity my photography is a solo pursuit such as during 4hr sessions in freezing overnight winter conditions, carefully adjusting camera equipment whilst taking macro focus stacking images.

You recently relocated from Canberra to Brisbane. Are there any big differences between the two cities in terms of nature and wildlife that you've noticed?

There are obvious differences due to climate, living near to the coast, and living in a subtropical environment. The wildlife I'm experiencing now is both familiar yet different, as well as completely new. I'm seeing insects I'm familiar with, but they don't necessarily behave in the way I've come to expect so I have to observe them and learn about their specific behaviours to photograph them. I'm seeing insects that are out and about at times of the year that I'm not used to. I'm also seeing totally new insects and must learn their behaviours and how best to photograph them. I'm experiencing a new world of mangrove swamps, wetlands, open ocean, and all that they bring, on a scale of tens of tonnes of amorous humpback whale to milligrams of weird insects. So, yes, it's a bit different.

What do you see as the greatest value of NatureMapr and citizen science more broadly?

The value of citizen science can be broadly seen from my work with the RAPT team where the professionals were too busy to undertake the massive data gathering required and the outcome was citizen science contributing to a Nobel Prize and to advancing human knowledge about the Universe. Closer to home, the greatest value in NatureMapr in my view is the not so obvious but very real importance of Aaron's original idea. We are privileged to live in a time where we can experience,

enjoy, and photograph many different subjects in the natural world. It's highly likely that future generations will not be as fortunate as us and will have to rely on our citizen science contributions to inform themselves. The evidence is clear that for many reasons, flora and fauna species are going extinct worldwide at a significant rate and the populations of many species are on the decline and reaching endangered levels. That nondescript beetle, butterfly, flower etc that is photographed today may seem insignificant and not worth the effort to record and contribute to NatureMapr, however, it may have far more value for current and future generations than we can possibly imagine. As such, I believe we have a personal responsibility to record, understand and pass on, data and knowledge, so that future generations can build on them. I can't stress enough that in my view, all citizen science contributors and their contributions are important.

Our thanks to Tim for taking the time to share his story with us.

You can find all his sightings at his profile page, it is well worth taking a look: https://naturemapr.org/users/sightings/19377

Michael Mulvaney

NatureMapr's first expert human moderator, Dr Michael Mulvaney, was a formally trained ecologist with decades of experience identifying and differentiating thousands of plant and animal species in the field as an ACT Government Senior Conservation Officer. Dr Mulvaney's extensive trusted professional network largely formed the basis of the original group of NatureMapr expert human moderators. We recently caught up with Michael to learn more about his involvement with NatureMapr.

You're a founding member of Canberra Nature Map, tell us how you got involved from the very start?

Ten years ago I was providing most of the advice to the Conservator of Flora and Fauna in relation to wildlife considerations within planning and development decisions. The Flora and Fauna Scientific Committee had developed a list of 318 plants considered rare in the ACT, but little work had been done as to where they occurred. As part of obtaining this information I ran two initial citizen science surveys, one as part of a Black Mountain Bioblitz and the other in conjunction with Friends of Mt Majura. Aaron Clausen was a very enthusiastic participant of both events and following these he inundated me with images and reports of rare plants he was finding. I said to him I couldn't cope with the one by one email reporting and Aaron's answer was NatureMapr.

Originally it was just him and I, but then I asked if Aaron could tweak it so that other finders of rare plants could also report by his method. Thus NatureMapr became public and pretty soon people wanted to report more than just rare plants, and we got sightings from as far away as Cape York. Aaron put a filter on records so that they had to be recorded within, I think, 150 km of Canberra. I told those who were reporting more than just rare plants to go away, but fortunately nobody listened to me.

In the 10 years since, twice as many rare plant locations have been reported on NatureMapr, than had been reported by all other means over the preceding 110 years, and over 250,000 wildlife image sightings have been made.

You are NatureMapr's top moderator with close to 35 thousand confirmations, how do you find the time to identify so many sightings?

I have been moderating for a longer time than anybody else, so that's why it seems I have done so many. A lot of people have also provided identifications, but because they are one-offs, or they don't want to be formal moderators, I add these identifications under my username, so my confirmation figures are inflated. Nevertheless, I do try to do a few tens of IDs each day as a great way of learning about the Canberra area wildlife. My knowledge has grown exponentially from a very low base re invertebrates. I encourage all users to consider beginning the task of moderation, focusing on a few species and then expanding as expertise is gained from experience.

Tell us more about the 'Gang-gang movement study – sightings of identifiable birds' and how Canberra Nature Map has played a role?

Gang Gangs are very dexterous, and putting trackers or leg bands on them is not easily done. Thus, virtually nothing is known about Gang Gang movements other than unfounded speculation. However, some Gang Gangs have distinctive features that make them individually recognisable. These form a gallery of recognisable Gang Gangs on Canberra Nature Map. We are asking everybody to keep an eye out for these birds and report any sightings. Baldy, who is missing a crest, is the star performer, being seen four years in a row in the Aranda Bushland vicinity, where he has successfully bred once (that we know of).

When feeding chicks he is known to forage up to 4 km away from the nest. He returned at least once to the Aranda area outside of the breeding season but we don't know where he goes. So please keep an eye out for him.

Similarly two females who return to the Hughes area and have pink beauty spots on different parts of their faces also suggest that birds return each year to breed in the same vicinity, but we don't know where they are going outside of the breeding season – so please keep an eye out and we may be able to tease out some further important aspects of their movements.

What do you see as the greatest value in NatureMapr and citizen science more broadly?

Even an ecologist of world renown can only do so much and observe a fraction of the wildlife interactions going on out there. NatureMapr and the army of wildlife observers it empowers make hundreds of observations each day, right across our region. It considerably magnifies what is observed and reported, so that it is not surprising that NatureMapr has revolutionised both our knowledge of our local wildlife and also how it is best managed.

We thank Michael for taking the time to share his story with us. We can safely say that Canberra Nature Map wouldn't be here today if it wasn't for his considerable efforts in the early days to help get it off the ground.

The Gang-gang movement study - sightings of identifiable birds collection is available here: https://canberra.naturemapr.org/collections/sightings/658

You can find all Michael's sightings here: https://naturemapr.org/users/sightings/4030

Kylie Waldron

Kylie Waldon is the powerhouse of Albur—Wodonga Nature Map, with over 2,800 records! She has also contributed to the NSW's South Coast and Riverina Murray, and Victoria's Hume and Gippsland Nature Map pages.

Kylie would love to have a NatureMapr weekend or day every year "where we could all go nuts and go to as many sites as possible and upload on that day/weekend every year no matter what our interests are. Who got the rarest? Who got the most species? Who fell in a ditch?" So, if you like the sound of that and you're from the Albury—Wodonga area get in touch with Kylie!

Tell us about yourself and how you got involved with NatureMapr?

I've been a birdwatcher for almost all my life, though more seriously in the last 20 years. My favourite birds are ducks and raptors. I work full time in finance administration, but also love painting and I live in Wodonga, Victoria.

I drew up a list of resolutions when COVID began on how I was going to get through it; and one of those was to explore my local reserves and parks more, especially during the many lockdowns where I could only travel 5 kms from home.

My doctor told me about NatureMapr in mid-2020 as she was also passionate about nature. I investigated and joined in September 2020. For years I've stopped short in 'nature other than birds' because I didn't have access to learn more or specific info to my region..

What's your favourite place to explore/take photos?

I don't know if I have a favourite. I am always on the lookout through NatureMapr (mainly Albury/Wodonga and Hume) and Google Earth to discover new reserves or parks in the Albury/Wodonga area I haven't been to before and see what I can discover. My favourite all-round site is probably Castle Creek Bushland Reserve on Castle Creek Road, Wodonga, even though I did get lost there in 2021 and hiked an extra 5 kms to a farm in the distance to get assistance. The farmer kindly helped me over his barbed wire fence and onto a dirt road so I could get back to my car!

I have a set 'round' of sites that I like to visit once a month if I can, and anything extra is a bonus.

What photography equipment do you use?

Currently I have a Canon EOS R7 with a 100-400 mm lens, a macro lens, and two older lens – a wide angle and 400 mm lens. I use the macro mostly in spring and summer for insects, which I love. The 100-400mm lens is my go-to lens and I rarely have to change lens when at a site between flowers, insects, birds etc. My backpack holds all the lens, the camera, my almonds for sustenance, a little water, my asthma medication, and in winter, my beanie and gloves and in summer my hat and insect repellent. It also keeps my shoulders back for better posture! Win win.

Do you have a favourite/most memorable sighting?

I think my most memorable sightings over the past 12 months (the ones that give me heart palpitations) have been mostly true flies and butterflies. I've seen Chequered Coppers, Ringed Xenicas, Marbled Xenicas, Tailed Emperors, Imperial Hairstreaks and some amazingly coloured pollen flies and long-legged flies all for the first time. I really have no idea what is native to my local area so everything I see is special to me.

My first native bee was special, though I've seen lots more since then (didn't know they existed before). Frogs are my nemesis – I've seen two of the same species since 2020 and no snakes even though I'm often at waterways and up to my neck in long grass!

What do you love most about NatureMapr?

I love that it encompasses all plants and animals. I don't have to upload birds here, or reptiles there or plants here. I also love seeing other people's photos and thoughts and sharing the love of nature. I think it's amazing that so many different experts and enthusiasts can come together in 'one' place. I use the site to ID my photographs and learn more as I go along. And I do like it when others tell me something I've taken is unusual, because frankly, I really wouldn't know as I have only been taking all plants and animals since 2020.

I have bought some supporting books from the CSIRO and other places – often advertised on NatureMapr. Dragonflies, Native Bees, Butterflies, Moths, more localised Fungi, and my favourite – Insects of South-Eastern Australia by Roger Farrow.

Some of you may remember we shared the Albury Conservation Company's post on Kylie in October 2021.

Our thanks to Kylie for sharing her journey with NatureMapr – we hope it inspires other citizen scientists from the Albury-Wodonga community to jump on board! https://albury-wodonga.naturemapr.org/

You can see all of Kylie's NatureMapr sightings at her profile page: https://naturemapr.org/users/sightings/22682

Some huge news for our Canberra Nature Mappers!

For the first time ever, Canberra Nature Map is hosting a program of field trips over spring and summer this year.

All walks will be available to Canberra Nature Map members and will be guided by a selection of our expert moderators. A variety of trips are being offered at all difficulty levels across the ACT: from critically endangered box-gum woodlands, to impossibly tall montane forests and majestic granite peaks. This program has something for everyone, no matter where your love of nature lies!

Visit our events page to see details and dates of all the walks and how you can register to attend: https://canberra.naturemapr.org/collections/10726

The Grass-carrying Wasp, an *Isodontia sp.* (genus), making nests lined with grass

Michael Bedingfield

In December last year while walking on the Urambi Hills, I came across an ancient fallen tree trunk that had hundreds of small borer holes in it. I noticed a few of them had the seed-head tips of grass stems poking out of them. While checking out these interesting holes a black wasp landed close to one of the holes carrying a short section of a grass blade. It crawled into the hole, dragging the grass with it. After some time it emerged and flew off. The large tree trunk, formerly a Red Box, *Eucalyptus polyanthemos,* was survived by regrowth from the roots that had supported it in younger days. I walked around it, and counted at least 60 holes with bits of grass stuffed into them. The chosen grass was *Bothriochloa macra,* Red Grass, which grows abundantly on the Urambi Hills. I watched and waited and after I while I saw another wasp carrying a piece of grass to a different hole. There were several wasps flying around this tree trunk with its generous supply of cavities, investigating them or carrying pieces of grass to one of them.

The industrious insects were native Grass-carrying Wasps, with the scientific name of *Isodontia*. Only a little is known about this genus of wasp in Australia. When a sighting of one of these wasps was first reported on Canberra Nature Map in 2017 there was great interest as the name *Isodontia* was not familiar to the Friends of Grassland's (FOG) experienced entomologists Kim Pullen and Roger Farrow. The Canberra Nature Map's page on these wasps includes a conversation about these wasps and photos clearly showing the busy wasp at work.[1] My sighting and photos are also on Canberra Nature Map.[2] The Atlas of Living Australia (reference (c)) lists 8 species[3] of *Isodontia* and they all have similar habits.

There is hardly any literature available on the Internet about the *Isodontia* genus in Australia. However, it does occur in other countries and there are more than 60 species worldwide. There is some information about species from the USA. The female

wasps use pre-existing holes as nests for their young. At first they line the cavities with blades of grass or grass stems. After the nursery is prepared they hunt for small tree crickets or less often, grasshoppers, locusts or other crickets. They capture and paralyse the prey with their sting then carry the immobile insects through the air to the nest. Eggs are laid on the prey. There may be several eggs laid in a communal or partitioned nest. The entrance to the hole is sealed by packing it tightly with more grass stems. This protects the young from predators and parasitic wasps. The grass stems protrude from the hole making a very visible statement. When the eggs have hatched the larvae feed on the inert but alive crickets. When they have finished the provisioned food they spin a papery cocoon inside the chamber where they undergo metamorphosis and later emerge as adults. More than one generation may occur in a given year. During the difficult cold winters the juveniles survive protected in their chambers. They remain dormant as pupae in their cocoons and complete the transformation to adults when the weather is warm enough.

The adults feed on nectar and have a role as pollinators. Social wasps, such as the European Wasp, *Vespula germanica,* are quite aggressive and will defend their nests vigorously. However, the Grass-carrying Wasps are solitary and not aggressive and don't defend their nests. They will sting only if seriously threatened. This genus belongs to the family Sphecidae, which are known as Thread-waisted Wasps. Their abdomen is connected to the thorax by a very narrow 'waist' known as a petiole. The ones I saw were 18 to 20 mm in body length. Species in the genus are hard to distinguish from one another and generally have mostly black colouring.

Old dead trees with hollows often provide dwellings for nesting birds and arboreal mammals and are recognised as an important part of the ecology. Similarly, a large hardwood fallen tree will take decades to rot away completely and during that time it can provide refuge for a multitude of insects, such as beetles, cockroaches, termites and ants. The fallen remains of the ancient Red Box on Urambi Hills provides the Grass-carrying Wasps with many hollows for nesting. They should enjoy its protection for many generations to come.

(Reprinted from News of Friends of Grasslands, May–June 2019)

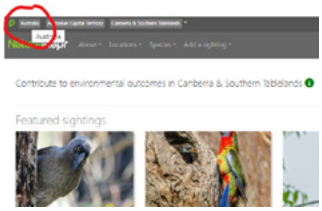
1 https://canberra.naturemapr.org/Sightings/3387169
2 https://canberra.naturemapr.org/Sightings/4086602
3 https://bie.ala.org.au/species/urn:lsid:biodiversity.org.au:afd.taxon:a4edddc8-c513-4265-b69b-afc5fcbb99b66#classification
https://www.canr.msu.edu/news/the_grass_carrying_wasp_a_solitary_wasp_that_builds_nests_in_unusual_places
https://www.houzz.com/ideabooks/58817932/list/meet-the-grass-carrying-wasp-a-gentle-pollinator-of-summer-flowers

Did you know?

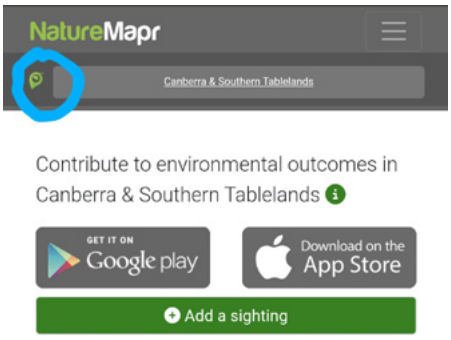
While this newsletter is Canberra-based and relates mostly to Canberra Nature Map (CNM), many members travel Australia-wide. Some may be aware that CNM partnered with a small number of other areas such as the south coast, Albury-Wodonga and Noosa, but did you know that you can now report sightings from anywhere within Australia to sister platforms. They are all based on the original CNM software and can be accessed from this site.

Below are the basic steps that allow you to access these other areas from CNM.

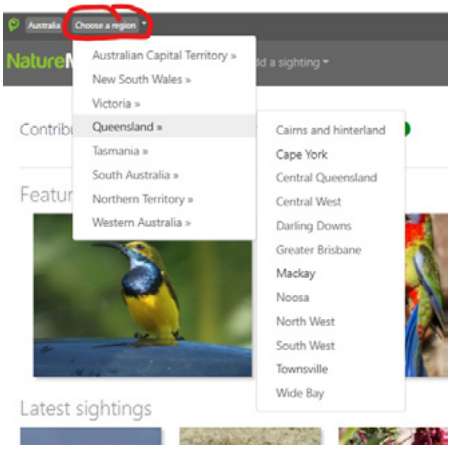
From your desktop computer:



From your phone:



How to choose a region.



Or you can scroll to the bottom of the CNM Home page and access the links to each of the other regions from there.

Happy reporting.

New categories

NatureMapr has quietly gone national, but there have been other changes such as new categories. One such is a new category for Slime Moulds (Myxomycetes).

Slime moulds are classified as Protista (or Protocista). They are neither plants, animals nor fungi. Slime moulds are peculiar protists that normally take the form of amoeba but also develop fruit bodies that release spores, and are superficially similar to the sporangia of fungi.

There are 2 types of Slime Moulds: Cellular Slime Moulds, which are rarely seen because of their small size, and Plasmodial Slime Moulds, which are larger, making them easier to observe. Read more about them on the Fungimap page.

Another change has been to create two new categories for Other beetles. Chequered beetles and Rove beetles now have their own separate category to make it easier to make an ID without having to scroll through numerous pages of other beetles.

Field day and tour of Southern Tablelands Ecosystem Park

Michael Bedingfield

On a bright and sunny Sunday afternoon on 23 July, members of CNM visited the Southern Tablelands Ecosystem Park (STEP) gardens. There were 27–30 people in attendance, and we were shown around by tour guide Jennie Widdowson, with assistance from Andy Russell and Georgie Till. STEP is a regional botanic garden, education and conservation centre demonstrating southern tablelands species within the National Arboretum Canberra. The STEP community group works in partnership with the Arboretum to create and sustain this garden. The garden is in Forest 20 of the Arboretum and you can find out more about it on their website: https://step.asn.au/

The tour was very informal and we were taken along the gravel paths to see the variety of garden sections, which featured plants from different habitats that occur on the southern tablelands. There was plenty of knowledge exchanged as we moved along.

Everyone had a very pleasant time with the weather being so favourable and it was a treat to meet people we had only previously talked to online. We were impressed by the quality of the work done by the volunteers who have created this marvellous space so close to the city. The photos show some of the people chatting amicably along the way.

The Friends of Mount Majura

Margy Burn

This year marks a landmark for the Friends of Mount Majura (FoMM), namely our 20th anniversary.

FoMM is a volunteer Park Care Group working to protect and enhance the natural environment of Mount Majura and its surroundings. We care for a highly biodiverse patch of remnant grassy woodland, which we now know features more than 500 species of plants, including rare and endangered species like the Canberra Spider Orchid (*Caladenia actensis*). It is home to a rich variety of bird life, including nesting sites for Gang-gang Cockatoos (*Callocephalon fimbriatum*) and the annual migrations of Swift Parrots (*Lathamus discolour*). A small population of endangered Rosenberg's Goanna (*Varanus rosenbergi*) also makes its home there.

Twilight weeding Ernestine

Since FoMM's foundation by Waltraud Pix in 2003, volunteers have worked on six project sites across our portion of the Canberra Nature Park in Hackett and North Watson. One of these sites, The Fair at North Watson, is where we now expend most of our energy, with a regular group of committed volunteers working there every Monday morning. We move around the other sites at our monthly Sunday working bees. Some 100 people volunteer their time for FoMM's weeding and planting activities each year, including a core group of about 15 people who work most weeks. The total volunteer contribution to these activities amounts to 4000 hours per annum. Our summer twilight weeding sessions on weekday evenings at The Fair during January and February are particularly enjoyable, as volunteers work in dense patches of wildflowers, including Sticky (*Xerochrysum viscosum*) and Clustered Everlastings (*Chrysocephalum semipapposum*).

FoMM has been working at the 10 hectare Fair site (accessed from the park entrance at Tay and Ian Nicol Streets, North Watson) for 11 years and in this time it has been transformed. Prior to the construction of The Fair housing estate in 2010, the land had been used for farming, riding horses, racing cars and the Canberry Fair theme park. The soil was eroded, compacted and denuded, except where it supported a carpet of weeds such as Paterson's Curse. There was a huge effort to remove significant woody weeds including Blackberry and African Boxthorn. Soil was manually loosened and mulched; large logs and woody debris placed to provide habitat and control erosion. Many hundreds of local trees, shrubs and forbs were planted, including at eight National Tree Day events; many more shrubs and forbs were planted, and native grasses sown.

National Tree Day

Most of our activities are now directed at weed control. St John's Wort, Serrated Tussock and Chilean Needle Grass are the most serious invasive weeds, but we continue to tackle Briar Roses, Hawthorn, thistles and other woody and herbaceous weeds. We have also removed coloniser non-local native species such as Blue Gum seedlings, Cootamundra Wattle and Grevillea species, which have jumped the fence from plantings along the Federal Highway. Most weed control is done by hand-pulling, chipping, cut and dab and frilling, and FoMM volunteers with Chemcert accreditation also use knapsack sprayers to control larger outbreaks of weeds such as Cleavers (Sticky weed) and St John's Wort.

FoMM members are active in mapping and monitoring weeds and animal pests. We encourage people to contribute photographs to the Canberra Nature Map of both desirable and unwelcome species; the CNM records are now the main source of FoMM's annual update of the Mount Majura flora list.

FoMM also provides guided nature walks for local residents to see and learn more about the trees, wildflowers, birds and nocturnal creatures that live and grow on Mount Majura. The monthly e-newsletter is distributed to about 300 people. You can sign up to join our email list to receive the newsletter from our website. And needless to say, we always welcome new participants.

Editor's photo pics

I have been impressed by a number of photos in the past months.
These are my pics for this newsletter.

An amazing close-up of our glorious Gang gang by Shorty.

While Tim is now out of area, he always impresses with his magic macro photography.

Trevor Preston took this photo of a startlingly, interesting centipede in West MacGregor, very close to the NSW border.

It's not often that you observe a Rakali fully out of the water, but here John Bundock has managed a very good photo of one.

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