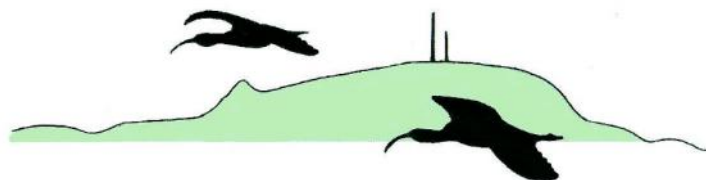


ORANGE FIELD NATURALIST AND CONSERVATION SOCIETY Inc



NEWSLETTER NOVEMBER 2023

NEXT MEETING

Thursday 9th November 7.30pm.
The Night Sky A Visual Approach
Speakers John and Tom Zimmer.

Face to face at Nguluway Ngurang Senior
Citizens Centre North Room
(Opposite side of carpark to Harris Farm)

Excursion

Sunday 12th November, 8pm.
An evening of star gazing with John at the
Mud Hut, Homestead Close, Clifton Grove.

Next Meeting

Thursday 9th November 7.30pm.
The Night Sky A Visual Approach
Speakers John and Tom Zimmer.

John, assisted by his son Tom, will tell us what there is to see in the night sky from season to season and what we can expect to see with earth-based telescopes. He will touch on various beliefs and stories, both Aboriginal legends and Western ideas. This will include a short history of Western discovery and the obsessive pursuit to discover the actual structure of the Solar System, the Milky Way, and the Universe beyond. To finish his talk John will say a few words about the Orange Planetarium.

Next Excursion – Sunday 12th November.

An evening of star gazing with John at the
Mud Hut, Homestead Close, off Banjo
Paterson Way, Clifton Grove.

Come to the excursion to share the joy of the night sky with John and experience what the pioneers of observational Astronomy saw.

Please arrive around 8pm when it will still be light enough to set up chairs and become comfortable. By 8.30, it should be getting dark enough to pick out Jupiter, Saturn, and the brighter stars. As it becomes even darker, we

may have the opportunity to see the fainter gaseous nebulae (misty patches) and wispy galaxies. As it is a New Moon, there will be no Moon visible.

John will have his telescope for us to look through and a ladder to allow children to view through it. If you have binoculars or a telescope, bring them along. He suggests you **download the free Stellarium mobile app**. It is comprehensive and easy to use. It shows all stars, planets, and interesting objects, with the possibility of Zooming in and out... and winding the time forwards and backwards.



An enhanced astrophotography image of the Milky Way. Photo Nigel Hobden.

Our eyes will need time to adjust to the dark. To protect everyone's night vision please bring a red torch. If you don't have one an ordinary torch with red cellophane over it will be suitable.

Wear sturdy footwear and warm clothing. Bring chairs, a thermos of warm drink and some snacks. The evening should finish by 9.30 pm. There are toilets at the Mud Hut.

If the weather is bad or it is cloudy, we will try again the following Sunday.

Directions - Head out of Orange on Ophir Road, past the Resource Recovery Centre and over Summer Hill Creek. Turn right onto Banjo Paterson Way then after about a km turn right onto Homestead Close. After 120m turn left to the circuit at the Mud Hut.

December Meeting - Thursday 14th, 7pm at the ELF, Orange Showground.

This will be a planning meeting to map out the 2024 OFNCS program. Suggestions welcome. There will be no speaker.

December Excursion – Sunday 17th.

Christmas Get Together with ECCO at the ELF, 5.00 - 7.00pm.

Last Meeting and Excursion

Exploring Orchid Pollination with Dr Col Bower. *Report by Dick Medd.*

If you missed one or both of the October events by Col Bower, you missed a treat that explained ‘*Seducers and Fraudsters in pollination of Central West Orchids*’.

After explaining what is unique about the 137 native terrestrial orchids in the region Col then delved headlong into their pollination strategies and the behaviour of their pollinators. Unlike most other plants, orchids are *masters of deception, or the con artists of the plant world*. Only 23 of the local species reward the mainly fly, bee or wasp pollinators with nectar. The rest are lured deceptively for either food or sex, without any reward. Col considers the aggregation of pollen into pollinia, an adaptation unique to orchids, facilitates the removal of the entire load of pollen by a single insect visit.

All of this is described in much greater detail (than is possible here) in the just released book, “*Orchids of Central Western NSW*” – see details elsewhere in newsletter.



Col Bower, back in about 2001, waiting to catch a pollinator that has been lured to his test flowers. Photo Jillian Trudgen.

Col then went on to give an overview of his fascinating research into sexually deceptive orchids to determine if pollinator behaviour might contribute to orchid taxonomy. He

developed ‘pollinator choice tests’ based on the contemporary work of others. This entails ‘baiting’ whereby the pheromones emitted by flowers put on offer, lure pollinators within seconds.

The excursion into the Calula Range involved demonstrating this technique to the 19 people whom he lured, without deception!

Long story shortened, Col’s dedicated pollinator research has conclusively shown that pollinators can be taxon specific in some cases. He gave examples of his alluring sex pheromones evidence, vindicating its scientific robustness of insect behaviour to discriminate between morphologically cryptic entities; either allowing the ‘splitting’ of new species, or in other cases the ‘lumping’ of two or more species into one.

On a balmy bright spring Sunday, while waiting for the day to warm and the wasps to become active for Col to demonstrate the baiting technique, participants enjoyed a meander through the rather dry woodland.



Col Bower setting out flowers as part of his ‘baiting’ demonstration at Calula. Photo Helmut Berndt.



Awaiting wasps to descend on ‘bait’, placed in field at Calula. Photo Dick Medd.

Half a dozen or so species of orchid and numerous other wildflowers on offer made for an enjoyable and pleasant morning. A leisurely lunch gathering around the now defunct Calula marble quarry proved entertaining for both birdwatchers, fossil hunters and for keeping

young Oscar amused. Denis Marsh contributed an historical story of the “Calula Man” (more on that at another time).



A ‘baiting’ test using Caladenia atrovessa from Lees Mt which quickly attracted a male wasp (Thynnoides gracilis) when presented in the field at Calula but ignored adjacent C. parva flowers. Photo Helmut Berndt.

Alison and Kevin Downing, members from Sydney, came on the excursion. Alison, one of the bryophyte scientists who visited Mt Canobolas in 2022, gave some feedback. ‘We had a wonderful day out on Sunday, and even though Col was a little bit frustrated that the wasps were relatively few, we were amazed to see them fly in, circle the orchids, land on them, and then try and mate with them. I’ve read about it, a little bit, but it was fascinating to watch. Makes me all the more appreciative of his photographs – how much patience and skill to get such results!’

We thought the Mullion Range woodland was beautiful. We loved the trees, but I was also fascinated by the abundance of small flowering plants. It was so refreshing to be out with a group who are so interested and so knowledgeable about their local environment. We’re hoping we might be able to join you from time to time for future outings.’

At Calula Quarry Cilla did a 20 min 2 ha bird survey over lunch. Species seen were Laughing Kookaburra, Crimson Rosella, Noisy Friarbird, White-naped Honeyeater, Yellow-faced Honeyeater, Spotted Pardalote, White-throated Gerygone, Rufous Whistler, Grey Shrike-thrush, and Grey Fantail.

Dick has passed on a YouTube production out of Western Australia, that you might like to watch called “Orchids the Masters of Lying, Cheating and Stealing”:
<https://youtu.be/D94Oe0Vuh9U?si=WtyCOLft2LkKjzyj>

OFNCS Committee News

The week of 15th November was a busy one. Several committee members were involved in the launch of the book *Orchids of Central Western NSW* on the 17th. Others, along with some regular members, joined ECCO and CCA to host a Picnic for Nature on 21st. See reports on these later in the newsletter.

Nigel and Rosemary also provided feedback to Viv Howard, from the LLS, on the activities during the LLS Biodiversity Month. This included positive feedback on the ‘hands on’ activities, such as the spotlighting and tree planting, and suggestions for how other activities could be improved. It seems as if the LLS is likely to hold similar events in 2024.

This month we welcome new members Bonny Campbell and Russell Culverson.

Orchid Book Launch, 17th October 2023

Report by Jenny Medd, with extras by Rosemary and Jenny P. Photos by Helmut.

What a special evening Tuesday 17th October turned out to be as Orange Library hosted the launch of “Orchids of Central Western NSW”. An audience of some 80 guests heard from our current President Geoff Selwood, who spoke briefly about the Society, then from both Col talking about his own background and his association with the orchid world, and Dick who also provided some background before going on to introduce our special guest, founding OFNCS President, Chris Pratten.



Dick Medd addressing the large audience at the orchid book launch.

Nigel Hobden, having acknowledged that the gathering was on Wiradjuri Country, was

tasked with keeping the speeches flowing, while Helmut Berndt was busy recording the evening in photographs.

At 89 years of age, Chris Pratten demonstrated that he has maintained his interest, enthusiasm and determination for conservation and the environment and provided a highly entertaining speech. Chris had travelled from Sydney especially for the occasion and brought with him (from the "C.H. Pratten Library") three of the original publications that he'd found mentioned in the new book (all signed first editions I do believe), for the audience to admire. The most precious of these was the first volume of R.D. Fitzgerald's "Australian Orchids" (published in 1882) - a nod to Col receiving the RD Fitzgerald trophy in 2011.



Chris Pratten launching the book with an enthusiastic three cheers.

Chris's praise for our latest publication was generous and has been supported by numerous comments received from a host of others. He said 'I can't fault the book or find anything to criticise'. Chris finally launched "The Blue Book", calling for a rousing three cheers from the audience (something you don't often hear in the Library!). Thank you so very much Chris!

Jenny Medd and Suzanne Bower were presented with beautiful bouquets of flowers by Dick and Col in appreciation of all the behind the scenes work and support they had given to the authors. Suzanne for her artistic flare and Jenny for her librarian skills and proof reading.

Thanks also go to the Orange Library staff, especially Jasmine Vidler (the Reading and Writing Coordinator), who facilitated the event and helped make it such a success. The library is getting lots of enquiries for the "blue book".

A very enjoyable and fitting celebration for the many years of work that has resulted in a

publication for Col and Dick to be very proud of.



Smiles of delight from the authors and their wives. L to R – Suzanne Bower, Col Bower, Dick Medd and Jenny Medd.

For OFNCS members it would be best to purchase a book from <https://centralwestorchids.wordpress.com/> noting you are a financial Field Nats member to obtain one copy for \$20. The website lists other booksellers including [Collins Booksellers Orange](#).

Picnic for Nature - Saturday 21st October

Picnics for Nature were started last year by the NSW Nature Conservation Council as a way to celebrate nature, the creatures that call it home, and everyone who works to protect and help it. This year Orange Field Nats joined with ECCO, CCA and Central West Landcare to host the Orange Picnic at Federal Falls Picnic Area on Gaanha bula Mt Canobolas. About 40 adults and seven children came together to connect with the natural beauty and biodiversity of the mountain.

Uncle Neil Ingram welcomed all to his Country, and this special place for him. He told us to be careful as a Kookaburra was there in a tall tree possibly warning us that a snake was nearby. Dr Col Bower discussed the volcanic origins of the mountain and why this tiny area is special, outlining the many threatened and endemic species that call it home. He also said how being in nature is good for our wellbeing - the picnic aimed to remind people of this. Uncle Neil was delighted with his thank you gift of the orchid book and Col had copies for sale.



Relaxing at the Orange Picnic for Nature. Photo Jenny Pratten.

To add to the relaxed atmosphere the picnickers were entertained with acoustic music provided by the Autumn Leaves quartet, that includes Nick and Cilla, Jack on ukulele and several other performers. Later a curious Eastern Grey Kangaroo, with joey, wanted to join in. The kids spent considerable time painting pet rocks and colouring *Caladenia boweri*, *Eucalyptus canobolensis* & Scarlet Robin information sheets; all threatened species found on the mountain.



An inquisitive kangaroo at the picnic noticed by Tony Caine, Penny Todman and Sandra Chrystall. Photo Stephen Nugent.

The feedback has been positive with people commenting that it was a relaxed and enjoyable afternoon in a special place. Thanks to Nick King for making the picnic happen, coordinating the organising group and for being MC on the day. Thanks also to Jenny P, Sandra and Glen, Helen, Rob, and Rosemary.

Gaanha bula Mt Canobolas Update

In the last few weeks the plants on Gaanha bula have been putting on a show. The orange and yellow of the pea flowers were stunning at Orange View and along the track to the platform at The Walls. This was mainly *Mirbelia oxylobioides* and *Pultenaea spinosa*. They seemed to have recovered much more quickly than the *Calytrix* and *Kunzea* that are now just scattered patches in the heath areas. Occasional highlights were the yellow flowers of Bulbine lilies and *Hibbertia*. White was added by the daisy flowers of *Olearia* and the 'balls' of *Pimelea* which will soon be out.

The hot and windy days have dried the ground and bryophytes out, with the moss being very desiccated. Thank goodness the scientists came to study them in October last year.

Some embankments along the start of Mt Canobolas Road have small flowers of *Chiloglottis valida*, some of which have been pollinated. I have only seen three tiny *Diuris* at Orange View and a few Yam Daises, unlike other years since the fire when there have been many strong flowers.

Col Bower continues to monitor the *Caladenia fitzgeraldi* on the mountain and finds that the results this year have been interesting. He said 'Compared to other years there was a relatively large flowering, 24 plants, this year. The flowering was spread out from late September to late October. Most of the flowers (19) were lost to predation or mechanical damage and one desiccated. Five developed seed pods and one of these has been predated, leaving four at this stage. The question is, how many will make it through to seed dispersal? As in every year, I keep finding previously undetected plants. They show themselves by flowering or the leaves poking out of the grass or shrubbery a bit.' He will be starting on the *Parapasphyllums* in the next week as they flower later. Thanks, Col, for undertaking this post fire orchid monitoring, which is becoming quite a big job. We look forward to your conclusions.

Dates for your Diary

2024 Cowra Woodland Bird Survey dates are February 17/18, April 6/7, July 27/28, and October 19/20. Contact Sue Proust for more information or to register for surveying at sueproust@bigpond.com

October Newsletter Correction – In the report of Tiffany Mason’s talk the name of the photographer of the rare community dominated by Lancewood, *Acacia petrea*, was incorrect. The photographer was Colleen O’Malley, not Tiffany Mason. If you wish to download a corrected newsletter it is available at www.orangefieldnats.com

Sightings around Orange

If you see anything interesting, please email orangefieldnats@gmail.com or post it on Facebook.

Things with Wings

A **Lathams Snipe** was flushed by Rosemary from reeds at Ploughmans Wetland on 11th October. There have also been glimpses of a small bird, possibly a crake, creeping within the reeds on the muddy edges that are now appearing as the water level drops.

Rainbow Bee-eaters were seen by Cilla on a walk at her place on Ophir Road on 14th October.

Col also reports on what he has seen on his walks in Somerset Park. *‘The birding in Somerset Park is quite exciting at the moment. I recorded 34 species one morning and 32 the day before. Interesting things for an urban park include **White-winged Trillers** (these have been around for the last two days – several today), **Sacred Kingfisher** (this is occasionally around in spring, but one seems to have taken up residence this year), **White-plumed Honeyeater** (usually seen in autumn/winter, but a couple today), **Rufous Whistler females** (regularly seen this year). The **Common Koel** hasn’t been back after that first hearing on 22/10. **Little Grassbirds** have settled at the main dam in Somerset Park.*

A light phase **Little Eagle** was spotted by Col in the Black Sally Reserve on 24th October. He said *‘there are some rabbits in the reserve at the moment, which is no doubt what it is interested in.’*

Nick had a rare sighting of a **Black-tailed Nativehen** at Ploughmans Wetland on 30th October. A check on Birdata shows they have only been recorded in the Orange area before at Spring Creek Reservoir and once in north Orange, between November and January 2012-2014.

Nigel Sethack had some identification challenges in the last few weeks with female White-winged Trillers and Rufous Songlarks. No challenge though with the **Sacred Kingfisher** (below) at Spring Creek Reservoir on 27th October. He also saw a male **Red-capped Robin** there that day and the day before a female, but this time at Gosling Creek Reserve.



CONGRATULATIONS to Nigel (Sethack) who has also had some great success in recent photography competitions. In the Cowra Archibird Competition, he was awarded 1st prize in the Open Section with his photo of a Whistling Kite, which was in the April Newsletter. He was also 2nd place in the Woodland Birds Section and 3rd in the Endangered Species Section.

Nigel also entered some images in the Bird Life Australia Bird Photography Competition. His photo below of a Royal Spoonbill reached the finals of the "Birds in Landscape" Section. The winners will be announced in November. This is a great achievement given that this is a national competition.



Royal Reflections. Photo Nigel Sethack.

Fauna

On her walk on 14th October Cilla also spotted an **Eastern Water Dragon**.

Also, on 14th October Hai saw a **very small Shingleback**, less than 15cm long, at The

Falls. As the Australian Museum website says that female Shinglebacks give birth three to five months after mating this may not be the young of the pair Hai saw together on 9th September at the same location.



Rosemary found the small skink below under a burnt and hollowed out branch near the start of the Fern Gully Track in the SCA on 29th September. Ross Sadlier identified the skink from photos as *Hemiergis talbingoensis* (previously known as *Hemiergis decrensiensis*). He said its common name is Earless Eastern Skink in Wilson and as Hemiergis in Sadlier and Shea. Within the SCA there are Bionet records from near the Summit and In-holding.



Plants

Dodonaeas.

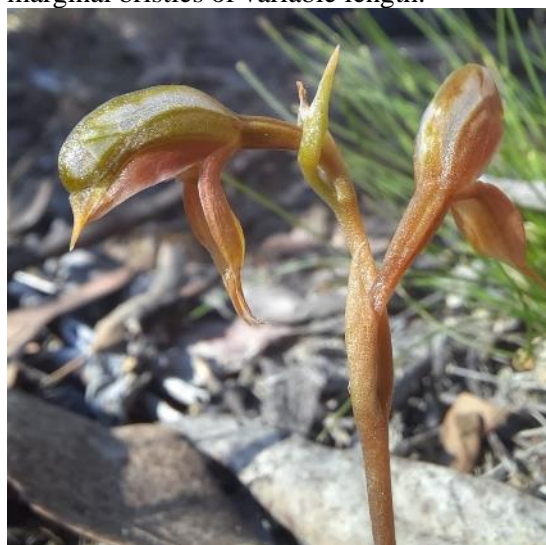
In response to the article on Dodonaeas Lisa McCann, from 'Mirrambeena' commented that she *'has watched the Swamp Wallabies and noticed since then how particularly they seek and trim off the lower leaves on the younger plants of Dodonaea. Since it had dried off, I've also noticed they're only taking about half of an entire leaf....'*

Tiffany replied and said *'Nice observation, Lisa, about the wallabies. I've heard similar from another landholder south of Dubbo, who*

hypothesised that there must be particular minerals available in those leaves not so easily acquired elsewhere.'

Flowers of *Calochilus platytilus*, the Purplish Beard Orchid (previously *Calochilus robertsoni*) by Nigel at The Falls, Hai on the excursion to Calula and a large population on his block at Vittoria by Brian. Brian also commented that *'there seemed to be a large population of Caladenia dimorpha this year and that the Tigers (Diuris sulphurea) were out and some sun orchid spikes which hopefully our busy wombats won't eat this time'*.

On 23rd October Nigel H found a **Red Rusty, *Oligochaetochilus rufus***, in the Mullion SCA near the Falls. Unfortunately, the labellum had been triggered and so cannot be seen in his photo below. The labellum has numerous marginal bristles of variable length.



Creature of the Month

Bee amazed by the following buzz.

Text and photos by Nigel Hobden.

European honeybees were introduced to Australia in the 1820s but before that Australian native bees were the ones doing all the pollinating work for this country's native plants. Feral populations of European honeybees (*Apis mellifera*) are established in all Australian landscapes and may be doing harm to our native bees and competing with other wildlife for natural hollows.

There are both solitary and hive Native bees. Solitary bees generally do not produce honey, while native hive bees produce a very low quantity of honey each year. Furthermore,

many of our native bees do not sting. The domesticated western honeybee (European) is just one of over 20,400 described bee species, of which over 1,650 are found in Australia.



*A native bee on a *Leptospermum* flower in Nigel's garden. Photo Nigel Hobden.*

In Australia, our native blue-banded bees, teddy bear bees, great carpenter bees and metallic carpenter bees perform a special type of pollination called Buzz Pollination or Sonication. This is a technique to release pollen which is more or less firmly held by the anthers. The anthers of buzz-pollinated plant species are typically tubular, with an opening at only one end, and the pollen inside is smooth-grained and firmly attached. In order to release the pollen, solitary bees are able to grab onto the flower and move their flight muscles rapidly, causing the flower and anthers to vibrate, making the pollen shoot out of little capsules. Pollination involving vibrations is called buzz pollination or sonication. Quite a few of our native Australian flowers require buzz pollination e.g. *Hibbertia* and *Senna*. (aussiebee.com.au)



*A blue-banded bee at a *Dianella* flower in Nigel's garden. Photo Nigel Hobden.*

The blue-banded bee (*Amegilla*) is capable of 'buzz pollination'. As the bee collects pollen

and flies from flower to flower some of the pollen is transferred to other flowers, successfully pollinating the flowers. Blue-banded bees are solitary bees. Many blue-banded bees may build their nest in burrows in the same spot, close to one another, like neighbouring houses in a village.

With self-fertile plants such as those in the Solanaceae family for example tomatoes, wind may be sufficient to shake loose the pollen through pores in the anther and accomplish [pollination](#). Visits by bees may also shake loose some pollen, but more efficient pollination of those plants is accomplished by bees that specialize in [sonication](#) or buzz pollination.

The European honeybees (*Apis mellifera*) (below) are not able to buzz pollinate flowers.



In many overseas countries, bumble bees are used to buzz pollinate crops. Applications to import European bumble bees to Australia have been refused due to the significant harm these bees would cause to the Australian environment if they became feral.

Research has been conducted at the University of Adelaide on the use of Australian native blue-banded bees to buzz pollinate our crops. The project made substantial progress in finding ways to use blue-banded bees for commercial greenhouse tomato pollination. The researchers discovered how to breed these native bees year-round in large numbers and demonstrated their effectiveness as greenhouse tomato pollinators.

This could make these bees ideal pollinators of crops which require this special kind of pollination, such as tomatoes, kiwi fruit, eggplants, blueberries, cranberries, and chilli peppers.

Native Bee Gardens

Many native bees need nectar and pollen throughout the year. Although many of the solitary species, such as blue-banded bees and resin bees, only fly in the warm months, others, such as stingless bees, reed bees and carpenter bees, fly on warm days all year round. So, choose plants with a long flowering period, or choose a selection of plants that will flower in sequence in each season of the year. Select flowers with a variety of colours and shapes.

Different kinds of native bees like different kinds of flowers:

- Some have short tongues and like shallow flowers such as daisies, tea tree (*Leptospermum*) and Eucalypt blossom. Others have long tongues and like tubular flowers such as Coastal native rosemary (*Westringia*), lavender and salvia.
- Some prefer blue or purple flowers. However, mauve, pink, yellow, and white flowers are also popular.
- Some native bees have strong preferences for a particular native flower. However, many will happily visit a wide range of both exotic and native flowers.

Select plants that provide nesting materials for the bees too. In addition to nectar and pollen, some bees need to collect materials to build

their nests. Leafcutter bees cut small circular or oval-shaped pieces of soft leaf to construct nest cells for their young. They particularly like the leaves of rose bushes, *Buddleia*, and wisteria. Resin bees need to collect resin from trees to construct their nests. You can also put a bee house in your garden, such as the one below.



<https://www.ps.org.au/content/articles/2019/12/11/pollen-nation-the-buzz-from-the-australian-native-bee-conference>

<https://www.wheenbeefoundation.org.au/about-bees-pollination/australian-native-bees/>

<https://www.aussiebee.com.au/croppollination.html>



The excursion group in the Calula Range, an offshoot of the northern Mullion Range. Col Bower, second from the left at the front is near his baiting equipment and an esky which contained the orchid flowers he would use for the baiting experiment. Photo Dick Medd.

More photos, by Helmut Berndt, from the Orchid Book Launch



To join please send your cheque or money order made out to "OFNCS" to the Hon. Treasurer, Dr Dick Medd, OFNCS, PO Box 369 Orange NSW 2800.

EFT payments to: BSB 802 129: Account 100014678: O F N & Cons Soc Inc.

Please be sure to identify payments with your name and send confirmation to orangefieldnats@gmail.com

Subscription rates:

Single member – \$25

Each additional family member – \$5

Concession rate (emailed newsletters) – \$12.50

Concession rate (printed newsletters) – \$25

Note: concession rate is for *bona fide* pensioners and students only

This Newsletter is produced for OFNCS by the Editor, Rosemary Stapleton. Views expressed herein are not necessarily those of the Society. Items should not be reproduced without permission of the Editor.

Orange Field Naturalist & Conservation Society acknowledges the traditional custodians of the land, including the people of the Wiradjuri Nation, and we pay our respects to Elders past, present and future.

Orange Field Naturalist & Conservation Society, PO Box 369, Orange, 2800

orangefieldnats@gmail.com

www.orangefieldnats.com

www.facebook.com/ofnats/